5267

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ..... Office No. 5267

LOCALITY

State Alaska

General locality Revillagedo

Locality Channel

1932

CHIEF OF PARTY

G. C. Jones

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DATE .....

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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, *Director*

State: Alaska

DESCRIPTIVE REPORT

~~*Topographic*~~
Hydrographic } *Sheet No.* 3. 5267

LOCALITY

Revillagigedo Channel

N. E.,
East, and Southeast Side Duke Island

S. E. Alaska.

19 32.

CHIEF OF PARTY

G. C. Jones.

U. S. GOVERNMENT PRINTING OFFICE: 1930

Form 537
11—5812

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO. 5267

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. 3

REGISTER NO. 5267

State ~~XXXX~~ Alaska.

General locality Revillagigedo Channel

Locality Sisters Is., to Danger Passage

Scale 1:20,000 (Insert) 1:10,000 Date of survey April 18-23, 1933 August & October, 19~~2~~ 32.

Vessel U.S.C. & G.S.S. EXPLORER

Chief of Party G. C. Jones, J. Senior

Surveyed by H.E. Finnegan, W. Weidlich, H.O. Fortin, E.B. Lewey, and G. C. Mast.

Protracted by E. B. Lewey and H. O. Fortin. W.Weidlich

Soundings penciled by E. B. Lewey and H. O. Fortin. W. W.

Soundings in fathoms ~~feet~~ and fractions thereof.

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by Warren W Bamford

Verified by WWB.

Instructions dated [illegible] & March 16, 1933 March 24, 19~~2~~ 32.

Remarks: Mr. Fortin protracted and penciled soundings on that portion of the sheet which he surveyed.

GPO

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SHEET NO. 3,

EAST AND SOUTHEAST SIDES DUKE ISLAND

REVILLAGIGEDO CHANNEL, S. E. ALASKA.

- o -

G. C. JONES, CHIEF OF PARTY, C. & G. SURVEY.

SEASON OF 1932.

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SHEET NO. 3,

REVILLAGIGEDO CHANNEL, S. E. ALASKA.

AUTHORITY:

Director's Instructions dated March 24, 1932, Project No. HT-99.

SCALE:

The scale of the main sheet is 1:20,000. The insert of Ray Anchorage and Morse Cove is on a 1:10,000 scale.

LIMITS AND GENERAL DESCRIPTION:

This sheet covers approximately the area between Latitudes 54°50.0' North and 55°03.3' North and Longitudes 131°10.0' West and 131°18.0' West. Junctions are made with sheet No. 2, H-5236 on the Northern limit; Photostat No. 3814, on the Northwestern limit; Sheet No. 4, on the Southwestern limit; and Sheet No. 1, "SURVEYOR" and "DISCOVERER", scale 1:40,000, on the East and South. H-5263

Ray Anchorage, Latitude 54°56.1' North, Longitude 131°14.3' West, is approximately one mile in width and opens to the Northeast. The entrance to Morse Cove, is on the Southwest side of Ray Anchorage.

Morse Cove, is long and narrow, about two miles in length and 0.15 miles in width. It extends to the Southwest from Ray Anchorage.

CONTROL:

Triangulation and topography provided the necessary control.

METHODS:

The approved methods of the Service were used. All soundings taken in that portion of the sheet which was surveyed by Tender No. 2, were taken with the handlead, since the Tender had no sounding machine. Elsewhere, sounding machines, with 18 pound leads and stranded wire, were used in depths greater than fifteen fathoms. Ten pound handleads were used everywhere in depths less than fifteen fathoms.

The chartered launch "CAPON", Tender No. 2, launch No. 69, and the "Delta" were used on this sheet. The work done by the "CAPON", Mr. Finnegan in charge, is in capital letters and red. The work done

by Tender No. 2, Mr. Fortin, in charge, is in small case letters and green. The work done by launch No. 69, Mr. Weidlich and Mr. Mast in charge, is in small case letters and blue. The Delta's work, Mr. Lewey in charge, is in small case letters and red.

The "CAPON", used a hand sound machine. The Delta and launch No. 69, used power driven sounding machines. All sounding machines were located aft.

Vital shoals were developed by drifting over them and sounding with hand leads forward and aft. machine

All sounding lines were run by ranges, no compass courses were used. In general, sounding lines were run normal to the shoreline. The lines were spaced 150 meters apart, except off points, over shoals, and in critical areas where the spacing was approximately 75 meters.

Sounding lines in Ray Anchorage and Morse Cove, were spaced 50 meters apart and 100 meters apart in the approach to Ray Anchorage.

CHARACTERISTICS OF THE SHORELINE AND BOTTOM:

In general, the shoreline is low and heavily wooded. In Reef Harbor, the shoreline is fairly flat and rocky. In Ray Anchorage and Morse Cove, the shoreline is in general fairly abrupt and quite rocky; except, at the heads of the small bights, where it is fairly flat. The head of Morse Cove, is quite flat, grassy, and muddy. Around Duke Point, the shoreline is abrupt and rocky. In Duke Bay and South of Kelp Island, the shoreline is irregular and has numerous small islands and rocks off-shore.

Close inshore the bottom, is, for the most part, rocky. A few of the small bights have sand bottom. The bottom is rocky near the islands, reefs and shoals throughout the sheet. In Reef Harbor the bottom is muddy in the deeper water to rocky close inshore, with sand in the small bights and in the passage between the two islands. At the Northeast entrance to Ray Anchorage the bottom is rocky and sandy. Along the 131°13.0' West meridian the bottom is sandy, becoming muddy closer to the Southern shore. In the greater depths to the Eastward the bottom is muddy. In general, the bottom in Ray Anchorage proper is muddy, becoming rocky close inshore. Morse Cove, and the small coves in this vicinity, show a muddy bottom in the greater depths and rocky close in-shore. North of Duke Point, and offshore the bottom is hard sand with occasional patches of mud and a few rocky spots, particularly on the shoal two miles East of the Duck Islands. Also, some rocky spots were noted about one half mile East of triangulation station "CLAY". The predominating color of the sand is light grey.

In the deeper water South of Duke Point, mud is the predominating bottom characteristic. In Duke Bay, the bottom is sandy becoming rocky close inshore. South of Kelp Island, the bottom is mostly hard light grey sand.

CURRENTS:

No current observations were taken in this locality. However, from observations while sounding, a two to two and one half knot current exists at the strength of the tide in the vicinity of Duke Point, and Kelp Island. The current at Duke Point is North or South depending on the tide. Around East Island and the reef 0.7 mile N. by E. of triangulation station "SON", the current is more or less circular.

South of Kelp Island the prevailing set is to the Westward.

TIDES:

Two portable automatic tide gauges were used to determine the tide reducers for this sheet. One was established in Morse Cove, the other behind Kelp Island. North of Latitude 54°54.7' North the tide gauge at Morse Cove, was used. South of this Latitude the gauge back of Kelp Island was used.

ANCHORAGES:

Reef Harbor is a name given to the indentation lying between the Duck Islands, and associated reefs on the East, and Duke Island, (Grave Point) on the West. It is one mile long and about 1/3 of a mile wide, has prevailing depths of 23 to 25 fathoms, muddy bottom. The North end of this harbor is not protected from the Eastward. Small craft can obtain good protection from a Northerly wind in 3 to 4 fathoms of water, sandy bottom, between the two Duck Islands.

A temporary anchorage may be had in 7 to 14 fathoms of water, muddy bottom, 330 meters Southwest from the Southwest point of the more Southerly of the Duck Islands. The reef which lies 600 meters to the South of the more Southerly island should be given a wide berth.

Ray Anchorage, affords good anchorage for any sized vessel in 11 to 15 fathoms of water, mud and sand bottom, except for the crest of the shoal area which is rocky.

Small craft can obtain temporary anchorage in the small bight just southwest of the above named anchorage in 8 fathoms of water, mud and sticky bottom. These anchorages do not afford shelter from the North or Northeast.

Morse Cove affords good anchorage for small craft in the head

of the Cove in six fathoms of water, mud and sticky bottom. The Coast Pilot description of the Cove is very complete.

Duke Bay. Small craft may obtain fair protection from any direction, except the East, in 2 to 3 fathoms of water, sandy bottom, just Northeast of the most Southwesterly prominent bight. Latitude 54°53.4' North, Longitude 131°14.1' West.

Between Kelp Island and the Sister Islands: Anchorage may be had about midway between Kelp Island and Sister Islands for small craft in good weather. Depth is about 6 fathoms with sand bottom. However, caution must be used entering this area as there are several kelp patches and shoals between the islands. This anchorage is not recommended for strangers or for heavy weather.

COMPARISON WITH PREVIOUS SURVEYS:

Photostat No. 3814

A 2-~~4~~/6 fathom sounding Latitude 55°02.4' North and Longitude 131°11.1' West. This sounding is decidely shoaler than the surrounding sounding which were transferred from 3814. Since No. 3814 was to a different scale and on a different datum than this sheet, it is thought that probably there was some discrepancy in transferring the sounding from 3814. A comparison of other soundings in this vicinity seems to justify this conclusion. Also, it is possible that a small ledge extends from the rock which is shown 100 meters West of the 2-5/6 fathom sounding. See remarks by a.L.S.

awash at M.L.L.W. per 10 A Blue
-4ft on H 2144

Registered Sheet No. 2143, 1892;

In Latitude 54°56.~~71~~66 North and Longitude 131°~~12.9~~13.0' West a 16 fathom sounding transferred from sheet No. 2143, is considerably shoaler than the surrounding soundings on this sheet. Here, too, it is thought that probably there was some slight error made in transferring the soundings from No. 2143 which is on a different datum than this sheet. It is difficult to accurately transfer soundings from photostats in the field where the datums are different. Unfavorable weather at the close of the season prevented an investigation of this sounding. See remarks by a.L.S.

REMARKS:

Due to unfavorable weather at the end of the season, the portion of the sheet between Latitudes 54°59.4' North and 55°01.0' North, was unsurveyed.

Completed in season of 1933.

DANGERS AND OBSTRUCTIONS:

Most dangers within the area covered by the sheet are marked with kelp.

The area between triangulation station "FLAG" and triangulation station "RAY", to a distance of about 600 meters offshore is foul and full of dense kelp patches.

The area between triangulation station "DUKE" and triangulation station "GREN", and approximately 700 meters offshore has numerous rocks and kelp patches.

There are numerous rocks and reefs between East Island and Kelp Island.

1. A sunken reef in a kelp patch covered 4 feet at M.L.L.W., 270 meters 32° (true) from triangulation station "CLAY". Position 27 a, red.

awash (grs 10A blue)

2. A rock in a kelp patch baring 2 feet at M.L.L.W., 820 meters 190° (true) from triangulation station "CLAY". Topo sheet 4727 (Bares 4ft. #2144)

3. A reef baring 12 feet at M.L.L.W., 600 meters 89° true from station "GULL".

4. The highest of four rocks in a reef, 465 meters, 176° true from station "BIS", bares 14 feet at M.L.L.W., Reef is surrounded by kelp.

5. The South end of a ledge baring 7-1/2 feet at M.L.L.W., 200 meters 192° true, from station "BIS".

6. A rock surrounded by kelp baring 2 feet at M.L.L.W., 240 meters, 144° true from station "BIS". Position 15 g, green.

7. A rock baring 5 feet at M.L.L.W., 370 meters, 147° true from triangulation station "GRAVE".

8. A rock baring 4 feet at M.L.L.W., 430 meters 30° true, from triangulation station "BOR". grs 53C blue

9. Rock baring 1 foot at M.L.L.W., 400 meters, 350° true, from station "RIM". Position 18 d, red.

10. Rock baring 1 foot at M.H.W., 270 meters 0° true, from station "RIM".

11. Rock awash at M.L.L.W., 480 meters, 8° true, from station "RIM". Position 17 d, red.

12. Rock baring 1 foot at M.L.L.W., 380 meters, 11° true, from station "RIM". Position 16 d, red.

13. Sunken rock in a kelp patch covered 11 feet at M.L.L.W., 550 meters, 41° (true) from station "RIM". Position 20 d, red.

14. Sunken rock in a kelp patch covered 5 feet at M.L.L.W., 720 meters, 52° true, from station "RIM". Position 21 d, red.

15. Outer and N.E. end of reef baring 7 feet at M.L.L.W., 540 meters, 69° true, from station "RIM". Positions 11 to 15 d, red, inclusive. Reef extends 330 meters towards signal "TOE".

16. Sunken rock in a kelp patch covered 2 feet at M.L.L.W., 520 meters, 83° true from station "RIM". Position 22 d, red.

17. Sunken rock in kelp patch covered 2-1/6 fathoms at M.L.L.W., 725 meters, 25° true from station "ALLY". Position 10 d, red.

18. Sunken rock in a kelp patch covered 8 feet at M.L.L.W., 470 meters 24° true from station "ALLY". Position 9 d, red.

19. Sunken rock covered 1 foot at M.L.L.W., 300 meters, 39° true, from station "ALLY". Position 8 d, red.

20. Outer edge of small reef baring 4 feet at M.L.L.W., 285 meters 63° true, from station "ALLY". Position 7 d, red.

21. Rocky shoal in kelp patch covered 10 feet at M.L.L.W., 444 meters 85° true, from station "BAND". Position 6 d, red.

22. Rock baring 3½ feet at M.L.L.W., 300 meters 98° true, from station "BAND".

23. A sunken rock in a kelp patch covered 5 feet at M.L.L.W., 230 meters 84° true, from station "CAKE". Position 4 d, red.

24. Shoal covered 2-2/6 fathoms at M.L.L.W., 490 meters 84° true from station "CAKE". Position 87 1, green. Rocky bottom.

25. Shoal covered 2-5/6 fathoms at M.L.L.W., 575 meters, 91° true from station "CAKE". Position 66 1, green. Rocky bottom.

26. Shoal covered 2-2/6 fathoms at M.L.L.W., 535 meters, 102° true, from triangulation station "RAY". Position 11, 1, green. Rocky bottom and kelp.

27. Shoal covered 2-1/2 fathoms at M.L.L.W., 425 meters, 93° true from triangulation "RAY". Position 22 l, green. Rocky bottom and kelp.

28. A rock baring 1 foot at M.L.L.W., 190 meters 89° true from triangulation "RAY". Surrounded by kelp.

29. A rock baring 1 foot at M.L.L.W., 300 meters 218° true from triangulation "RAY". In kelp. poo 39 j green, give covered ½ foot rpb

30. Shoal covered 6 feet at M.L.L.W., 190 meters 47° true from station "HAND". Position 55 j, green. Rocky bottom and kelp.

31. Shoal covered 2-5/6 fathoms at M.L.L.W., 220 meters 157° true from station "IDEA" Position 58 m, green. Rocky bottom.

32. Shoal covered 6-1/6 fathoms at M.L.L.W., 410 meters, 40° true, from station "QUIN". Position 44 k, green. Rocky bottom.

33. Rocky shoal covered 4-1/2 fathoms at M.L.L.W., ~~200~~ 230 meters 52° true, from station "QUIN". Position 36 k, green.

34. A rock surrounded by kelp baring 6 feet at M.L.L.W., 215 meters, 75° true, from station "QUIN".

35. Rocky shoal covered 3-1/6 fathoms at M.L.L.W., 120 meters 87° true from station "QUIN". Between positions 96 and 97 d, green.

36. Rock baring 10 feet at M.L.L.W., 50 meters, 249° true, from station "LER". (Entrance to Morse Cove.) (Channel Rk)

37. Rocky shoal covered 3 fathoms at M.L.L.W., 95 meters, 52° true, from station "YEAR". Position 18 m, green.

38. Rock baring 5 feet at M.L.L.W., 325 meters, 238° true, from triangulation station "AGE".

39. Rocky shoal covered 11 fathoms at M.L.L.W., 540 meters, 287° true, from triangulation station "AGE". Positions 6 ~~to~~ and 10 m, green.

40. Rocky shoal covered 15 fathoms at M.L.L.W., 910 meters, 320° true, from triangulation station "AGE". Positions 60 e and 100 k, green.

41. Rocky shoal covered 3-2/6 fathoms at M.L.L.W., ~~730~~ 365 meters, 38° true, from triangulation station "AGE". Position 171 j', red.

42. Rock baring 6 feet at M.L.L.W., ~~530~~ 265 meters 46° true from station "RAIN" poo 34 j' red

43. Reef baring 10 feet at M.L.L.W., ~~550~~ 295 meters 61° true from station "PAIN".

44. Two rocks baring 7 feet at M.L.L.W., ~~350~~ 165 meters, 96° true from station "PAIN".

(Danger Nos. 21 to 44 on 1:10,000 scale insert of Ray Anchorage and Morse Cove.)

45. Rock baring 6 feet at M.L.L.W., 250 meters, 95° true from station "KIP". pos. 130 b' red

46. Rock baring 13 feet at M.L.L.W., 300 meters, 57° true from station "RUM". pos 90 b' red

47. Rocky shoal covered 10 feet at M.L.L.W., 300 meters 44° true from station "CUR". Between positions 22 and 23 f, green. Kelp.

48. Rocky shoal in kelp covered 6 feet at M.L.L.W., 260 meters, 28° true, from station "CUR". Position 6 g, green.

49. Rocky shoal covered ~~4~~ 5 -5/6 fathoms at M.L.L.W., 360 meters, 74° true from station "BO". Position 10 g, green.

50. Rock baring 11 feet at M.L.L.W., 740 meters 105° true from triangulation station "LAR". Pos. 59 a' red

51. Sunken rock in kelp patch covered 2-5/6 fathoms at M.L.L.W., 760 meters, 112° true, from station "NOT". Position 159 z, red.

52. Rock baring ~~5~~ 7 feet at M.L.L.W., 500 meters 164° true from station "NOT".

53. Shoal covered 8 feet at M.L.L.W., 490 meters 45° true from station "BO". Position 61 f, green.

54. Shoal covered 9 feet at M.L.L.W., 455 meters, 62° true from station "BO". Position 46 a', red.

55. Shoal covered 4-1/6 fathoms at M.L.L.W., 850 meters 73° true from station "BO". Position 171 z, red.

56. Shoal covered 6 fathoms at M.L.L.W., 960 meters 88° true from signal "BO". Position 33 a', red.

57. Shoal covered 3 fathoms at M.L.L.W., 720 meters, 96° true from station "BO". Position 25 a', red.

58. Shoal covered 7 fathoms at M.L.L.W., 850 meters, 115° true, from station "BO". Position 20 a', red.

59. Reef baring 2 feet at M.H.W., at the highest point 1270 meters 13° true from triangulation station "SON". The reef extends 360 meters from the highest point in a N.E'ly direction.

60. Shoal covered 16 fathoms at M.L.L.W., 1050 meters, 101° true from triangulation station "SON". Position 78 z, red. Rocky bottom.

61. Shoal covered 3 fathoms at M.L.L.W., 775 meters, 110° true from triangulation "FELL". Position 27 v, red. Rocky bottom.

62. Reef baring 10 feet at M.L.L.W., 1350 meters 82° true from station "SID". 20fo value

63. Rock baring 1 foot at M.H.W., 1050 meters 83° true from station "SID".

64. Rock baring 4 feet at M.L.L.W., 860 meters 84° true from station "SID".

65. Shoal covered 3-4/6 fathoms at M.L.L.W., 1390 meters, 106° true from station "SID". Position 146 w, red.

66. Shoal covered 5-4/6 fathoms at M.L.L.W., 1925 meters, 107° true from station "SID". Position 185 x, red.

67. Shoal covered 5-4/6 fathoms at M.L.L.W., 1860 meters, 118° true from station "SID". Position 196 x, red.

68. Rock awash at M.L.L.W., 1230 meters, 128° true, from station "SID".

69. Shoal covered 2-4/6 fathoms at M.L.L.W., 1605 meters, 131° true from station "SID". Position 169 w, red.

70. Reef baring 4 feet at M.L.L.W., 1210 meters 138° true from station "SID".

71. Rock baring 1 foot at M.L.L.W., 440 meters 180° true from triangulation "JOIN".

72. Shoal covered 5-1/6 fathoms at M.L.L.W., 1100 meters 188° true, from station "HAT". Position 131 x, red. Rocky bottom.

73. Shoal covered 10 fathoms at M.L.L.W., 1590 meters, 204° true from station "HAT". Position 144 y, red. Rocky bottom.

74. Shoal covered 14 fathoms at M.L.L.W., 2060 meters 228° true, from station "HAT". The sounding before position 37 k, red. Rocky bottom.

75. Reef extending 180 meters 41° true from station "EVA",

76. Shoal covered 6-2/6 fathoms at M.L.L.W., 1050 meters 143° true from triangulation station "KELP". Position 70 h, red. Rocky bottom.

77. Reef baring 11 feet at M.L.L.W., 165 meters 143° true from triangulation station "KELP". Reef is about 160 meters in a N.E. and S.W. direction and 50 meters in width. Pos 12g red

78. Sunken rock in a kelp patch covered 11 feet at M.L. L.W., 465 meters, 0° true, from station "FORD". The first sounding after position 107 u, red.

79. Shoal covered 4-4/6 fathoms at M.L.L.W., 605 meters, 62° true, from station "FORD". The first sounding after position 55 y, red.

80. Shoal covered 8-3/4 fathoms at M.L.L.W., 890 meters, 83° true from station "FORD". Position 129 y, red.

81. Shoal covered 4-5/6 fathoms at M.L.L.W., 430 meters, 84° true from station "FORD". Position 135 y, red.

82. Southern end of sunken reef covered 9 feet at M.L.L.W., 230 meters, 156° true, from signal "FORD". Position 116 u, red.

83. Shoal covered 3-4/6 fathoms at M.L.L.W., 700 meters, 3° true from triangulation station "SISTER". The sounding before position 62 u, red.

84. Shoal covered 4-2/6 fathoms at M.L.L.W., 1110 meters, 217° true, from triangulation station "SISTER". Position 32 y, red. Rocky bottom.

85. Sunken rock in a kelp patch covered 2 feet at M.L.L.W., 400 meters 247° true from triangulation "SISTER". Position 16 u, red.

86. Shoal in kelp patch covered 3-2/6 fathoms at M.L.L.W., 720 meters, 302° true from triangulation "SISTER". Position 132 u, red.

87. Rock baring 3 feet at M.L.L.W., 860 meters, 324° true from triangulation station "SISTER". shown as awash MLLW

88. Sunken rock covered 3 feet at M.L.L.W., 1040 meters 328° true from triangulation station "SISTER". Position 1 u, red.

All other ledges and rocks close inshore are properly noted on the smooth sheet.

Respectfully submitted,

Ernest B. Lewey
Ernest B. Lewey,
Jr. H. & G. Engr.,
Coast & Geodetic Survey.

APPROVED AND ~~FORWARDED.~~

G. C. Jones
G. C. Jones,
Chief of Party, C. & G. Survey,
Comdg. U.S.C. & G.S.S. EXPLORER.

The smooth sheet & this original report were retained on the vessel till completion of the sheet the following season (Director's authorization dated March 29, '33)

Forwarded May 13, 1933.
Jack Senior
Comdg "Explorer"

STATISTICS

HYDROGRAPHIC SHEET NO. 3

DATE	VOL.	DAY	BOAT	STAT. MILES	POS.	SOUNDINGS HAND	SOUNDINGS MACH	AREA	MILES TO & FROM WORK
			Tender						
Aug. 3	1	a	# 2	3.2	36	79			1.4
17	1	b	"	6.7	71	214			0.6
18	1	c	"	13.6	177	412			3.7
19	1&2	d	"	15.9	194	676			3.4
22	2	e	"	6.4	66	207			2.4
Oct. 6	2	f	"	6.7	86	245			9.5
7	2	g	"	6.1	80	196			13.1
8	2&3	h	"	9.8	149	311			8.6
9	3	j	"	11.2	180	360			4.6
10	3	k	"	5.9	103	112			3.7
12	3	l	"	5.5	100	105			5.6
13	3	m	"	3.7	62	69			2.4
17	3&4	n	"	7.2	94	247			12.8
19	4	p	"	1.3	17	38			5.0
20	4	q	"	14.7	170	486			4.2
Totals:				117.9	1585	3757			81.0
Aug. 11	1	a	DELTA	23.3	121	81	257		5.0
16	1	b	"	15.7	115	70	247		16.5
17	1	c	"	7.3	49	55	103		4.0
18	2	d	"	17.5	133	172	235		4.5
19	2	e	"	23.3	117	47	371		7.0
22	3	f	"	7.8	49	---	140		2.3
24	3	g	"	6.3	48	72	78		4.2
26	3	h	"	10.8	101	64	173		4.0
Sept. 2	3	j	"	9.1	71	33	157		3.5
7	4	k	"	22.6	139	33	344		3.6
8	4	l	"	8.5	60	32	137		4.0
15	4	m	"	3.9	31	17	68		3.0
17	4&5	n	"	17.8	138	72	263		5.5
19	5	p	"	11.4	130	4	145		9.6
20	5	q	"	16.4	201	158	233		4.1
21	6	r	"	9.2	104	87	132		6.1
23	6	s	"	15.6	191	37	287		5.1
27	6&7	t	"	18.4	200	224	222		5.1
28	7	u	"	17.5	217	403	121		5.5

STATISTICS

HYDROGRAPHIC SHEET NO. 3

(CONTINUED)

DATE	VOL.	DAY	BOAT	STAT. MILES	POS	SOUNDINGS HAND	SOUNDINGS MACH	AREA	MILES TO & FROM WORK
Oct. 1	7	v	DELTA	1.2	34	32	15		3.0
4	7&8	w	"	10.0	169	86	198		7.0
5	8	x	"	12.6	203	48	265		6.5
6	8&9	y	"	9.0	145	143	98		10.8
7	9	z	"	10.4	173	21	185		9.8
8	9	a'	"	9.6	129	116	114		5.1
9	9&10	b'	"	10.0	140	181	110		7.0
10	10	c'	"	8.0	108	---	186		6.5
12	10	d'	"	14.6	163	4	287		3.5
13	10	e'	"	1.6	27	21	32		1.4
17	11	f'	"	5.7	79	47	91		11.2
18	11	g'	"	4.2	67	35	154		5.4
19	11	h'	"	7.8	94	30	156		4.1
20	11&12	j'	"	11.5	184	153	203		14.4
Totals:				378.7	3930	2578	5807		198.3
Oct. 12	1	a'	# 69	0.3	4	5	7		7.4
Oct. 17	1	a	# 69	3.0	22	-	40		14.5
20	1	b	"	8.7	60	-	109		11.0
Totals:				12.0	86	5	156		32.9
Oct. 20	1	A	CAPON	16.0	89	--	153		16.0

1932 Grand Total 5,690 12,456

1933 " " 525 1094

6,215 13,550

SUPPLEMENTAL

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 3,

REVILLAGIGEDO CHANNEL,

S. E. ALASKA,

1933.

SUPPLEMENTAL DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SHEET NO. 3.

AUTHORITY:

The hydrography on this sheet was executed under instructions of the Director, U. S. Coast and Geodetic Survey, dated March 16, 1933.

LIMITS:

It covers an unfinished area of 1932 hydrography, between Latitudes 54°59.4' North and 55°01.0' North, in the vicinity of Whale and Little Rocks.

METHODS:

The approved methods of the service were used throughout. The work was done with the "Delta" and is shown with capital letter in blue.

TIDES:

A tide staff was maintained in Morse Cove while the survey was in progress.

DANGERS AND OBSTRUCTIONS:

plotted as bare 4ft MLLW. (see par 6 sub-par 2 Review)

1. A rock awash at M.L.L.W., lies about 830 meters 190° from triangulation station "CLAY". This position checks with the survey of 1915. Bottom was not visible at the time the soundings were taken and the sea was quite rough, and there is a possibility that the least depths were not obtained. The rock bares at M.L.L.W. This area is marked by thick kelp. (Pos. 10A, blue.)

H 2144 shows - 4ft

2. A shoal with a least depth found of 26 fathoms at M.L.L.W., lies about 1020 meters 91½° from triangulation station "CLAY". Area is well developed. Rocky bottom. (Pos. 16-28-29 A, blue.)

3. A shoal with a least depth found of 31 fathoms at M.L.L.W., lies about 1100 meters 126° from triangulation station "CLAY". (Pos. 65-66 a, red, 1932) Least depth found in 1933 was 32 fathoms. (Pos. 41A, blue.)

The bottom in the vicinity of Whale and Little Rocks is very irregular, alternating, rocky, sandy, and muddy. There are several shoals West of the rocks, but they are no menace to navigation. Foul area extends for some distance Southwest of Little Rocks. The most important shoals are enumerated below.

4. A shoal with a least depth found of 18 fathoms at M.L.L.W., lies about 725 meters 291° from triangulation station "WHALE". (Pos. 59 and 60A, blue.) Another 18 fathom spot lies about 100 meters South of the above position. Bottom is rocky.

5. A shoal with a least depth found of 12 fathoms at M.L.L.W., lies about 620 meters 234° from triangulation station "WHALE". Bottom is rocky. (Pos. 148-150 D, blue.)

6. A 10 fathom spot lies about 775 meters, ~~156~~ 215° from triangulation station "WHALE". Rocky bottom. (Pos. 125 D, blue.)

7. A rock which bares about 4½ feet at M.L.L.W., lies about 530 meters 349° from triangulation station "LITTLE". Shallow water extends for some distance with a 4½ fathom spot about 250 meters 10° from the rock.

7 ft on additional work pos 24a

8. Foul area in the nature of a group of rocks wich bare at low tides extends for about 350 meters in a Southwesterly direction from triangulation station "LITTLE".

9. A shoal with a least depth found of 15 fathoms at M.L.L.W., lies about 1270 meters 158° from triangulation station "LITTLE". Rocky bottom. (Pos. 81D, blue.)

10. A rocky patch with a least depth found of 4-4/6 fathoms at M.L.L.W., lies about 800 meters 98° from station "UP", Southwest of Duck Island. This area is well developed and launch anchored on the spot in order to obtain least depth. No indication of any kelp. The survey of 1915 shows a depth of $7\frac{1}{4}$ fathoms.

11. A few additional soundings were taken on the shoals located with the fathometer in 1932, Northeast of East Island.

The depth on the 12 fathom shoal remains the same, while the depth on the 13 fathom shoal was reduced to 9 fathoms. The 9 fathom spot lies about 2530 meters 58° from triangulation station "SON". The 12 fathom spot lies about 3040 meters 44° from triangulation station "SON". Bottom is rocky.

Respectfully submitted,

W. Weidlich

W. Weidlich,
Mate, C. & G. S.

APPROVED AND FORWARDED: 5/13/33

Jack Senior

Jack Senior,
Commanding Officer,
U.S.C. & G.S.S. EXPLORER.

STATISTICS

HYDROGRAPHIC SHEET NO. 3.

DATE	VOL.	DAY	BOAT	STA. M.	POS.	SOUNDINGS HAND	SOUNDINGS MACHINE	MILES TO AND FROM WORK.
April 18	1	A	DELTA	6.9	78	12	113	14.9
" 20	1	B	"	15.7	93	17	203	10.0
" 21	1	C	"	21.2	103	69	231	8.9
" 22	1-2	D	"	18.0	190	176	207	8.5
" 23	2	E	"	3.7	61	5	61	31.1
TOTALS:				65.5	525	279	815	73.4

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

July 28, 1933.

Notes on preliminary review of H. 5267

1. 2 4/6 fm. sounding in lat. 55° 02'.4, long. 131° 11'.1 (page 4, descriptive report). The statement in the descriptive report that the depths on H. 2814 surrounding this sounding are much deeper than shown on H. 5267 is not correct unless the wrong projection was used for transferring the soundings from the photostat of H. 2814. An accurate transfer of the 2 4/6 to H. 2814 brings it very close to a 3 5/6 on the latter sheet. In this connection attention is called to the fact that H. 2144 (surveyed in 1892) shows a 4 1/2 foot spot at the position of the 2 4/6. The field party evidently overlooked this as no mention is made in the descriptive report regarding less water here. The 4 1/2 ft. sdg should be retained. No additional work recommended.

2. Rock awash in lat. 55° 02'.4, long. 131° 11'.2 (reference paragraph 1, a of review). The present hydrographic party obtained a zero sounding on the rock and the topographer (T.4727) found it to bare 2 ft (1.34 m) feet at M.L.L.W. The survey of 1892 (H.2144) located the rock when it was exactly awash, there being a 4 foot tide at the time. It is recommended that this rock be charted as bare 4 feet at M.L.L.W. and the notation on the present chart of "Cov. at H.W." be expunged. No additional work necessary.

3. 16 fm. sounding in lat. 54° ~~56'.7~~ 55'.66, long. 131° ~~12'.8~~ 13.00 (from H. 2143) (Not shown on boat sheet) An accurate transfer places this very close to the 20 fm. curve on the new survey. It is possible that its position on H. 2143 is slightly in error. No additional work necessary. (Reference page 4, descriptive report; paragraph 1,d, review.)

4. 4 1/2 fm. shoal in lat. 55° 00'.65, long. 131° 11'.3 (H. 5267) H. 2144 (1892) shows 7 feet on this spot and also shows 7 feet about 70 meters to the northeast, the latter falling outside of the 10 fm. curve on H. 5267. The locality should be developed to determine the least water. There is some question regarding the northernmost 7 foot sounding. If this is not done, then both 7s should be carried forward to the new sheet. (Reference 1,b, review) —24"

5. Rock awash in lat. 55° 00'.5, long. 131° 11'.4 (not shown on boat sheet). Verifies rock on H. 2144 (1892), but latter shows foul area extending about 80 meters to the westward of the rock. The westernmost shoal sounding (-1 3/4) from H. 2144 should be transferred to H. 5267 as a second rock awash unless additional work is done to disprove this rock. —4a"

This minus sdg is plotted on this boat sheet as minus 2/6 fms
Investigation is desired of this western rock to determine its
existence and location in regard to the eastern rock on this reef.

6. 1 1/2 foot sounding (1/6 fm on boat sheet) (from H. 2144) (pos. 92 i, green), in lat. 54° 58' 970 m., long. 131° 14' 980 m., falls outside of 5 fm. curve on H. 5267 and southern entrance of channel leading into Reef Harbor. Additional work required here to verify the 1 1/2 foot spot as well as other shoal soundings along the ridge. The controlling depth across the bar should also be determined by a few additional lines. H. 2144 shows 5 fms. as controlling depth whereas this survey shows 5 4/6 fms. (Reference 1,c, review)

7. 3 rocks awash in lat. 54° 58' 1290 m., long. 131° 14' 860 m. (H. 2144). These rocks are not mentioned in the sounding lines on H.2144 and were probably transferred from the topo. sheet T. 2104. These rocks are not shown on H. 5257 but that may be due to there being considerable tide at the time the lines were run in this vicinity. There is a reference to kelp on one of the lines and this checks the westernmost of the 3 rocks. This area should be investigated to locate these rocks or disprove their existence.

8. The 11 3/4 foot sounding (2 fm. on boat sheet) on H. 2144 (survey of 1892) in lat. 54° 59' 1690 m., long. 131° 14' 230 m. falls in depths of 24 fms. on the new survey (H. 5267). An examination of the original records indicates a possibility of the wrong left object having been recorded (pos. 16 j, green). Inasmuch as the survey of 1915 (H. 3814) bears out the present survey (H. 5267) it seems likely that the 11 3/4 is misplaced and these soundings from the old survey should not be charted. No additional work recommended.

9. The delineation along all other points in Reef Harbor from Grave Point to Flag Point should be charted from the latest survey, H. 5267. Consider advisability of a 1:10,000 examination in Reef Harbor. This is the scale of the two previous surveys.

10. A -1 1/2 foot sounding (from H. 2144, pos. 18 g, green) in lat. 54° 59' 360 m., long. 131° 13' 1005 m. falls close to the 5 fm. curve on H. 5267. This should be examined and relocated or its non-existence noted. Plotted as minus 1/6 fm

11. The charted group of sunken rocks in approx. lat. 54° 59'.2, long. 131° 13'.7 seems to have their authority in the awash rocks shown on H. 2142. These rocks are greatly exaggerated on H. 2142, as the description of the reef in the sounding records (pos. 30 g, blue) agrees closely with the reef bare 12' at M.L.L.W. shown on H. 5267 in this vicinity. Additional work is, however, desirable, in this area to verify the non-existence of these rocks which is suspected.

12. Rock awash in lat. 54° 59' 970 m., long. 131° 13' 680 m. (H. 2144, pos. 3 g, green), bares 3 1/2 feet at M.L.L.W. This rock lies about 130 meters northeast of the outermost rock shown on H. 5267. The descriptive report of T. 4727 (1932) states rocks were seen outside of the one located and recommends that hydrographic party locate them when soundings were made in this area. Additional work is required to verify this rock and to locate any other rocks that may exist in the immediate vicinity.

13. The delineation around East Island, lat. 54° 52', long. 131° 12' as well as the reef about 3/4 mile N. by E. of East Island is considered adequate and no additional work is necessary here. The delineation on H. 1618a and H. 2142 can be superseded.

14. Charted bare rock and sunken rocks in approx. lat. 54° 51', long. 131° 15'.5 (from H. 2142, pos. 47 c, blue). These rocks fall about 340 m. to the westward of a bare rock located on the both the 1892 and 1932 surveys. There is a depth of 24 fms. shown on H. 5267. The note in the original sounding record of 1892 survey is quite clear and says "Group of rocks, 60 m. to starboard - highest point of group is about 5 feet above h.w.m. " and has been carried on the charts from this note. There is a possibility that the hydrographer on the 1892 survey used the southern rock of "Club Rocks" for signal "Club" instead of the one where △ Club was located. In that case the rocks mentioned would agree with the bare rock located on the present survey which is 6 feet above m.h.w. None of these rocks are shown on the 1863 survey (H. 1618a). (~~Reference 1, b, review.~~) Examine to locate or prove non existence these 3 rks -

15. The bare rock and rocks awash shown on H. 1618a about 1 1/4 miles southwest of East Island were not found on the present survey (H.5267). They fall in deep water on this survey, but they may be a misplacement of either the 2 4/6 fm. shoal about 500 m. to the northwest or the reef about 1000 m. to the northwest. They were not found on the 1892 survey (H. 2142). They should be disregarded in future charting. No additional work necessary.

16. Rock awash in lat. 54° 50', long. 131° [illegible] (from H. 1618a) which shows kelp also. Not found on H. 2142. Only 600 m. to the northeast there was found in the latest survey (H. 5263) 16 and 18 fms. The records for H. 5263 do not show that sufficient time was spent on these indications to disprove the existence of shoaler depths at this location. Further development should be made.

17. Rock awash off the north entrance point to Morse Cove (H. 5267) lat. 54° 55' 1680 m., long. 131° 14' 200 m. A more intensive development is required around this rock and this should extend for about 150 m. toward ⊙ Quin and for about 50 m. to the eastward of the rock to determine whether there are any additional rocks existing in this locality. H. 2143 indicates a rock bare 4 feet at M.L.L.W. (pos. 30 f, green) further to the eastward and also shows a 6 and a 15 foot sounding where much deeper water is shown on the present survey. The 6 and 15 are, however, controlled by a position (42 e, green) that is questioned in the record and may be out of position. The area should be examined. (6 & 15 fms Hodgs plotting on 1 or 2½ fms)

Notes on preliminary review of H. 5267 - 4

18. A rock awash on H. 2143 in lat. 54° 56' 300 m., long. 131° 14' 690 m. falls in depths of 8 fms. on H. 5267. The rock is referred to in the sounding records at pos. 26 c, green, as "Rocks 20 m. on stbd. beam." These rocks are also bolstered up by a -4 foot sounding on pos. 8a, green. While there are sufficient lines on H. 5267 to disprove the existence of a spit shown on H. 2143 as making out from shore at this place the actual position of the rock should be further examined. If the rock is not found, then it is recommended that H. 5267 supersede the entire delineation shown on H. 2143.

19. Rocks awash in lat. 54° 56'.8, long. 131° 14' (from H. 2143) fall in deeper water on H. 5267. The rocks are tied in to sounding lines (pos. 28-30 c, green). One is an actual sounding. It is recommended that the existence of these rocks be verified or disproved.

A. L. Shalowitz

July, 1933.

Approved
L.O.P.

Charts 1579

22-RS
1935 EX 4

August 8, 1935.

To: Commanding Officer,
Coast and Geodetic Survey,
Ship EXPLORER,
601 Federal Office Building,
Seattle, Washington.

Through: Inspector, Seattle Field Station.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Hydrographic sheet No. 5267.

There are attached notes that have been made during the preliminary review of hydrographic sheet No. 5267. As additional work is considered necessary in certain localities, a boat sheet has been prepared compiling all soundings and rocks from this and previous surveys. A number has been placed in pencil opposite each locality to agree with the numbers of the paragraphs in these notes. The boat sheet is being forwarded to you under separate cover. You will please accomplish the additional work indicated by the various notes. When the field work has been completed, the boat sheet, accompanied by the sounding records, should be forwarded to this office for smooth plotting on the original sheet.

Photostatic copies of sections of sheet H-5267 are also being forwarded for your information.

Similar notes are being prepared in connection with the review of a sheet adjacent to No. 5267 and it is hoped that they can be sent to you in the near future.

(Signed) R. S. PATTON.

Director.

Enclosures.

Preliminary report on hydrographic sheet 5267
Sisters Islands to Danger Passage, Revillagigedo Channel Alaska
surveyed 1932 - 1933
Instructions dated ~~March 24, 1932~~ and March 16, 1933 (Explorer)
Chief of Party G. C. Jones, ~~Jack Senior~~
Surveyed by H. E. Finnegan, W. Weidlich, H. O. Fortin, E. B. Lewey, G. C. Mast
Protracted and soundings plotted by E. B. L., H. O. F., W. W.
Characteristic soundings on shoals verified and inked by R. J. Christman.

1 An examination of the sheet was made in advance of verification to assure that shoal indications were adequately developed. The same or less water was found over previously known shoals except as follows. -

(a) The rock in lat. 55° 02.4 long. 131° 11.2, awash MLLW, - T4727 has a minus 4 foot depth and H 2144 shows it as bare 2 feet. "cov at h.w." also see Desc. Rep. The rock is charted on 8075 as ~~supplement page 2~~ which tells that possibly the least depth was not found on this survey.

page 5 (b) Shoal lat. 55° 00.6 long 131° 11.3, Depth 4½ fathoms, - charted on 8075 as 1¼ from H 2144 which gives a depth of 7 feet. No special development was made on H 5267.

(c) Reef Harbor southern entrance, - Chart 8075 from H 2144 gives 6 fathoms as the controlling depth. H 5267 gives 5 4/6 but several channel lines should have been run.

(d) The 16 mentioned on page 4 of the Descriptive Report is probably the 16½ near a 25 on H 2143 in approximately that position. This falls about 50 meters outside the similar conditions developed on H 5267, it being the outer edge of a bank extending from shore.

(e) Bank lat 54° 53.6 long 131° 09.7, least depth found 12 fathoms H 5263 (1932 survey) shows two 10 fathom soundings. Wire drag was recommended in connection with the latter sheet. Depth on the bank ½ mile south of the above was reduced to 9 fathoms.

(f) Lat. 54° 51 long. 131° 15', - Chart 8075 shows two islands and sunken rocks, apparently authority H 2142 where they are shown in red. H 5267 shows only the easterly island. As the soundings to the westward are open though deep, the discrepancy should be cleared up

by the field party.

2. Further surveys with the lead are not believed necessary. Channels and navigation lanes should be wire dragged at the earliest opportunity. The shoals and reefs are steep to; kelp marks many of them but there is little other evidence of their existence.

Submitted by

July 13, 1933

R. J. Christman

Section of Field Records

Report on Hydrographic Sheet No. H-5267

Nov. 6, 1933.

Surveyed in - 1932 & 1933.

Chief of party - G.C Jones & J. Senior.

Surveyed by - H.E. Finnegan, W. Weidlich, H.O. Fortin
E.B. Lewey, G.C. Mast.

Protracted by - E.B. Lewey, H.O. Fortin, W. Weidlich.

Sdgs plotted by - E.B.L, H.O.F, W. Weidlich.

Verified & inked by - W.H. Bamford.

1./ The sounding records were found to be neat, legible, complete and to conform to the requirements of the Hydrographic Manual.

2./ The protracting was found to be well done and the position numbers are small, neat and legible.

3./ The soundings were very well spaced and the proper fractions were used. The soundings were neatly penciled and the correct size.

4./ There were not many sounding line crossings - but those that were run were found to agree well with the regular system of lines.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

2./

5./ The development in channels and on shoals was found to be adequate except in those locations noted in the attached "Notes on preliminary review of H 5267"

6./ It was possible to draw the usual depth curves except portions of those curves less than the five fathom curve - this is due to the rapidly shelving bottom near the shore.

7./ The sheet was fairly clean and the work was found to be legible

8./ The field plotting was completed to the extent prescribed in the Hydrographic Manual except that the names of islands, points, rocks etc were not indicated in pencil on the sheet (ref. paragraph 160 j. H.M.)

9./ For the aid of the verifier - it is suggested that green position numbers not be used. The green letter days on this sheet reproduced considerably more protracting than the red and blue days - as the green numbers are quite difficult to discern.

The effective depth in the entrance to Morse Cove was found to be 1 1/6 fathoms at M.L.L.W.

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U. S. COAST AND GEODETIC SURVEY

9. cont'd.

The notes for several rocks awash and bare rocks - located on topographic surveys of this area, were found to differ from notes regarding these rocks - made by hydrographic party during the survey. The hydrographic party's notes regarding the amount these rocks bared at MLLW were used on the smooth sheet. Pencil notations were made on the topographic sheets indicating the hydrographic party's notation.

No boat sheet could be located for the area surveyed between 54°-53' and 54°-54' in Latitude and 131°-13 + 131°-15' in Longitude i.e. f and g (green) days - vol. 16. An examination of the records indicated only five boat sheets received with the "smooth sheet" - and this area is not included on the five boat sheets received.

When "misses" occurred on the sounding lines - there was a capital "M" plotted by the field party - This is the symbol for "Muddy Bottom" - and is somewhat confusing -

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U. S. COAST AND GEODETIC SURVEY

10./ In lat 54°-51' + 1260 m + long. 131°-14' + 125 m (approx) - a rock awash at MLLW is shown on this sheet. This rock is located by position 1 j (red) pg 50, vol 3. On Topographic sheet No. T-4716 there is a rock awash at M.L.L.W. - shown about ~~50~~ 40 meters southeast of the rock shown on the hydrographic sheet. Inasmuch as the hydrographic party was at this point at a minus two foot tide and located only one rock on j (red) day and also was there on w (red) day at a plus one-half foot tide and did not find the rock located by the topographic party - it is considered best to accept the hydrographic party's determination of the rock. The topographic determination should be considered the same rock but slightly out of position. It is not considered likely that two rocks exist at this spot.

11./ attention is called to the 5 1/6 fathom shoal - supported by a 6 1/6 fm sounding in lat. 54°-51' + 370 m + long 131°-12' + 370 m On this location on Chart # 8075 there is an eight fathom shoal charted.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

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U. S. COAST AND GEODETIC SURVEY

12./ The detached reefs and rocky ledges along the shore - outlined in pencil by the field party, were inked in with the appropriate symbol by the verifier.

13/ All of the soundings of "a" day (green) vol 15 were replotted due to changes made in tide reducers by Division of Tides.

14./ The shoal soundings and rocks on this sheet were verified and inked by R. J. Christman and a study made of these shoals and rocks by A. L. Shalowitz before the balance of the sheet was verified. The result of the study made by Mr Shalowitz was the preparing of a boat sheet in the office, for this area - showing several areas that required additional work - The additional work was accomplished by the field party - and received in the office before the sheet had been completed and was therefore applied directly to the smooth sheet in black ink. (See Descriptive Report for H 5267 Addl. Work)

15./ The adjoining sheets H 5263 and H-5281 had not been verified and therefore the overlap was not

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TELEGRAPH ADDRESS:

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U. S. COAST AND GEODETIC SURVEY

15 CONTD./ applied to this sheet at this time.

16./ Geographic names and the title were inked on the sheet by one of the temporary employees I.E. MR. MULLEN.

Respectfully submitted

Warren H Bamford.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
20 volumes of sounding records for

HYDROGRAPHIC SHEET 5267

Locality **Sisters Island to Danger Passage, Revillagigedo Channel, S.E. Alaska**

Chief of Party: **G. C. Jones in 1932 and Jack Senior in 1933**
Plane of reference is **mean lower low water, reading**
2.4 ft. on tide staff at **Morse Cove**
14.5 ft. below B. M. 1
3.0 **ft. on tide staff at Kelp Island Passage**
17.6 **ft. below B.M. 1**
Height of mean higher high water above plane of reference is 14.8 feet at Morse Cove and 14.6 feet at Kelp Island Passage.

Condition of records satisfactory except as noted below:

Incorrect tide reducers were used on a - day, pages 3 to 8, Vol. 15.

Paul P. Whitney

Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5267

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

Number of positions on sheet	6215
Number of positions checked	185
Number of positions revised	11
Number of soundings recorded	13,550
Number of soundings revised	271
Number of signals erroneously plotted or transferred	NONE

Date: November 6, 1933

Cartographer: Warren H Bamford

5267
(Add'l Wk)

5267 (Add'l Wk)

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton., *Director*

State: S. E. ALASKA

DESCRIPTIVE REPORT

Contains Report of H-5263 (Add'l Wk)

~~Topographic~~
Hydrographic

Sheet No. 5267 (Add'l Work)
(Field Sheet #3)

LOCALITY

EAST and SOUTH-EAST

OF

DUKE ISLAND

19 33

CHIEF OF PARTY

JACK SENIOR, H. & G. E., C. & G. S.

U. S. GOVERNMENT PRINTING OFFICE: 1930

Form 537
11—5812

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. 5267 (Additional Work)

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. .....

REGISTER NO. 5267 (Additional Work)

State Alaska

General locality Revillagigedo Channel

Locality Shoal Areas from Sisters Is., to Danger Passage

Scale 20,000 Date of survey Sept. 10 to 20, ~~1933~~ 1933

Vessel Explorer

Chief of Party Jack Senior

Surveyed by H. E. Finnegan

Protracted by

Soundings penciled by

Soundings in fathoms ~~METRIC~~

Plane of reference

Subdivision of wire dragged areas by

Inked by Warren H Bamford

Verified by WHB

Instructions dated Aug. 8, 1933 ,192

Remarks: This additional work to be plotted on the original sheet.

GPO

SUPPLEMENTAL REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 5267

(FIELD SHEET NO. 3)

EAST AND SOUTH-EAST OF DUKE ISLAND

S. E. ALASKA

- 0 -

SEPTEMBER, 1933

SUPPLEMENTAL REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 5267

(FIELD SHEET NO. 3)

EAST AND SOUTH-EAST OF DUKE ISLAND

S. E. ALASKA

SEPTEMBER, 1933

INSTRUCTIONS:

Director's letter, reference 22-RS 1995 Ex 4 dated August 8, 1933, instructed that examinations be made of such localities as are specified by the notes of the preliminary review of sheet #5267. The reference number of the review is 82-DRM, dated July 28, 1933.

BOAT SHEET:

The boat sheet for this work was prepared by the Washington Office. Instructions state that the additional records are to be forwarded to the Washington Office for smooth plotting.

TIDES:

No tide gauge was maintained in the vicinity of Duke Island while the additional work was accomplished. Soundings are referred to Ketchikan Tides, to which may be applied the factor obtained by a comparison made early this season between Ketchikan and Kelp Island records. All information is now on file at the Washington Office.

WORK ACCOMPLISHED:

The numbers used in the following paragraphs correspond to the numbers of the paragraphs of the preliminary review.

All soundings, obtained during this examination and referred to by this report, are reduced to M.L.L.W. by predicted tides.

Paragraph #1:

No additional work requested.

Paragraph #2:

No additional work requested.

Paragraph #3:

No additional work requested.

Paragraph #4:

In the vicinity of the southernmost 7 foot sounding a least depth of 6 feet was found, in a patch of growing kelp, bottom visible.

In the development of the area, where the northernmost 7 foot sounding is plotted, there was no kelp, nor was the bottom visible.

Paragraph #5:

There is a foul area, marked by growing kelp, extending to the westward of the rock awash in Latitude 55° 00'.5, Longitude 131° 11'.4. The bottom over this foul area was clearly visible during the examination, but the least depth which could be obtained was 2/6 fathoms at M.L.L.W. It is believed that there is not a second rock which bares at M.L.L.W.

Paragraph #6:

The area in which the plotted 1-1/2 foot sounding falls is marked by a heavy growth of kelp. This kelp patch was thoroughly searched but the least water obtained was 3 feet. The kelp is so thick that maneuvering and sounding in it is difficult. It is possible that a depth of 1-1/2 feet does exist, on the shoal.

The ridge was more closely developed as called for by the instructions.

Paragraph #7:

The three rocks mentioned do exist since soundings which reduced to less than zero at M.L.L.W. were obtained in the localities as shown by their plotted positions.

Paragraph #8:

No additional work requested.

Paragraph #9:

No additional work requested. The suggestion in the review regarding a 1:10,000 examination of Reef Harbor is considered advisable.

Paragraph #10:

A thorough search was made in this locality, in which there is growing kelp. The least water obtained was ~~1/6 fathom~~ ½ foot. The bottom was plainly visible, therefore it is believed that there are no rocks which bare in this area. — pos 47-48 1"

Paragraph #11:

This area was developed and it was found that a ridge of 4 to 6 fathoms extends offshore to the vicinity of the plotted position of the westernmost sunken rock in question. However, there were no visible signs of rocks awash or sunken rocks in this area. — 43-47a" 50-55a"

Paragraph #12:

The area, to which paragraph #12 refers, was searched. No rock was found in the exact position of the plotted rock, but one which ~~bares 1 foot~~ is awash at M.L.L.W. → awash at MLLW - pos 39a" was found at a distance of 20 meters south of the plotted position. - 34a"-42"

There was also found at a distance of 130 meters south and south-south-west of the above area, two rocks, one of which bares ~~8 1/2~~ 1½ feet, another which bares 7-1/2 feet. → pos 72d" — pos 37a awash at MLLW

In a kelp patch in Latitude 54° 59'.42, Longitude 131° 13'.63 a sounding of 1 fathom was found. pos 44-a"

In addition to searching for the above rocks, split lines were run from the vicinity of these rocks to the southern end of the island. - Also rks awash MLLW - pos 49a"

Paragraph #13:

No additional work requested.

Paragraph #14:

This area was closely developed. The soundings obtained do not indicate that rocks exist in this area, nor were there any visible signs of bare or sunken rocks west of the rock island as located in 1932.

Paragraph #15:

No additional work requested.

Paragraph #16:

The area in Latitude 54° 50', Longitude 131° 14' was developed. There was no kelp nor other visible indications of a sunken or awash rock.

The 16 and 18 fathom soundings in the area 600 meters to the north-east were developed. A least depth of 14 fathoms was obtained.

This work was recorded in a separate volume marked H 5263.

Paragraph #17:

This area was thoroughly developed, and at a later date inspected at a minus tide. Only the rock as located by the 1932 survey exists in this area.

Paragraph #18:

This area was developed and later inspected during a minus tide. There are no rocks awash, nor indications of sunken rocks in this area.

Paragraph #19:

This area was developed and later inspected at low water. Only one rock was found. This must be the same rock as located in 1932. But the position of this rock as determined by this examination lies ~~80~~ 49 meters north of the plotted position of the 1932 location.

Respectfully submitted,

Henry E. Finnegan

Henry E. Finnegan,
H. S. G. Engr., C. & G. S.,
U.S.C. & G.S.S. EXPLORER.

Approved & forwarded,

Jack Senior

Jack Senior,
Commanding Officer,
U.S.C. & G.S.S. EXPLORER.

SECTION OF FIELD RECORDS

NOTES RELATING TO ADDITIONAL WORK ON H-5267

NOV. 14, 1933

SURVEYED IN - SEPT. 1933
CHIEF OF PARTY - JACK SENIOR.
SURVEYED BY. - H. E. FINNEGAN.
PROTRACTED & PLOTTED BY - W. H. BAMFORD.

1./ The sounding records were found to be neat, legible, complete and to conform to the requirements of the Hydrographic Manual.

2./ This additional work was plotted only on the boat sheet, by the field party.

3./ Method of applying additional work to original smooth sheet.

The positions were all put on an overlay tracing (paper), part of them protracted and part traced from the boat sheet. (All critical edge and positions were protracted) of the 271 positions, about 124 were protracted.

Only those positions and soundings that gave additional hydrographic information or were shoaler than the original H-5267 hydrography, were plotted on the smooth sheet, so

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as to keep from crowding the work and thereby making it illegible. Day letters a" thru e" (red) were used.

4./ NOTES RELATING TO ADDITIONAL WORK CALLED FOR BY PARAGRAPHS 4 THRU 19 OF NOTES ON PRELIMINARY REVIEW. PARAGRAPHS NUMBERED TO CORRESPOND.

#4./ The 1/6 fm. sounding was obtained at pos. 24a"

#5./ The 2/6 fm sounding was obtained at pos. 4a"

#6./ The 1/2 ft. sounding from H 2144 falls at same location as the 2 ft. sounding obtained at pos 36d" on this survey. Only the 2 ft. sounding was shown on the smooth sheet.

#7./ Rock baring 1/2 ft. at MLLW. located by pos. 37d", 38d" & 39d"

Rock baring 4' at MLLW. located by pos. 41d"

Rock baring 1 ft at MLLW. located by pos. 45d"

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#10./ The least depth obtained was ½ ft. at pos. 48d" as the bottom was rocky it was deemed advisable to indicate a rock awash at MLLW.

#11./ Rocks disproved by sounding lines 43 - 47a" and 50 - 55a"

#12./ Position 39a" located rock awash twenty meters south of rock having 3½ ft at MLLW. from H 2144 pos 3g (green)

Rock having 1½ ft at MLLW located by position 37a"

Rock having 7½ ft at MLLW located by position 72 and 73d"

One fathom sounding located by pos 42a"

Rock awash at MLLW. located by pos. 48d"

#14./ Least depth obtained outside of twenty fathom curve around island was 16 fms. at pos 27b"

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#17./ Rock baring 6' at MLLW. located on 1932 survey, located on addl. work survey by pos 17c", 39c", 40c" and 41c"

#19./ Location of rock awash, determined by pos. 69c", 75c" and 94c" was used in preference to 1932 (TOPOGRAPHIC T4720) location and rock awash symbol was moved about twenty meters northward. This rock bares 3 ft at MLLW.

Respectfully submitted

Warren H Bamford

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

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U. S. COAST AND GEODETIC SURVEY

SECTION OF FIELD RECORDS
Review of Hydrographic Sheet No. 5267.
Sister Is. to Danger Passage, Revillagigedo Channel,
Alaska.
Surveyed in 1932 - 1933
Hand lead and machine soundings.
Original Instructions dated March 24, 1932. (Explorer).
Supplemental instructions dated March 16, 1933.
Also notes of preliminary review of H. 5267.

Chief of Party - G. C. Jones, J. Senior.
Original survey by - H. E. Finnegan, W. Weidlich, H. O. Fortin, E. B. Lewey, G. C. Mast.
Additional work surveyed by - H. E. Finnegan.
Original survey protracted by - E. B. Lewey, H. O. Fortin, W. Weidlick.
Soundings plotted by - E. B. L., H. O. F., W. W.
Verified and inked by - W. H. Bamford.
Additional work protracted and plotted by - W. H. B.

1. The records of both the 1932 and 1933 work are well kept and conform to the requirements of the Hydrographic Manual.

2. The character and extent of the original survey of 1932, satisfy the original instructions except as noted in the preliminary review. The additional work of 1933 fully covers the points specified in the preliminary review with the exception of that portion of par. 6 which calls for the determination of the controlling depth in the southern entrance channel leading into Reef Harbor.

3. The agreement of adjacent sounding lines and cross lines is fairly good except in the areas where the bottom is broken and irregular.

4. The information is sufficient for completely drawing the usual depth curves.

5. The junction on the north with H. 5236 is satisfactory.

The junction with the survey of 1915, H. 3814, between the northern point of Duck Islands and the southern part of Mary Island, is satisfactory.

The junction on the east with H. 5263 will be reported in the review of that sheet when it has been completed.

The junction on the west in the southern part of the sheet with H. 5281 appears satisfactory from a preliminary examination but will be discussed more fully in the review of H. 5281 when that sheet is completed.

6. The following points are noted in the preliminary review of the 1932 work. They will be taken up in the same order and the numbers of the following sub paragraphs correspond to the numbers of the paragraphs of the preliminary review and also to those in the descriptive report of the additional work of 1933.

sub par. 1. The retention of a 4½ foot sounding, shown on H. 2144, in about the same position as the 2 4/6 fathom sounding on H. 5267, in Lat. 55°-02'.4 Long. 131°-11'.1 is recommended.

No additional work was requested at this point.

sub par. 2. The rock awash in Lat. 55°-02'.4, Long. 131°-11'.2. The hydrographic party obtained a zero sounding on this rock and the topographer (H. 4727) estimated it would bare 2 feet at M.L.L.W. This rock was just awash when located on the survey of 1892, H. 2144, at a time when there was a 4 foot tide. The notation on this sheet, H. 5267, has been changed to read "Bares 4 feet at M.L.L.W." and this should be used on the chart instead of "Cov. at H. W."

No additional work was requested.

sub par. 3. The 16 fathom sounding shown on H. 2143 in Lat. 54°-56'.66, Long. 131°-13', is referred to in the 1932 descriptive report (page 4) as being deeper than surrounding depths. An accurate transfer places this sounding only slightly outside the 20 fathom curve and it may be slightly out of position. The present survey, H. 5267, should supersede H. 2143 in this area.

No additional work was requested here.

sub par. 4. 4½ fathom shoal in Lat. 55°-00'.63, Long. 131°-11'.3 (H.5267). A 7 foot sounding in growing kelp, bottom visible, was obtained on the new development in about the position of the southernmost 7 foot spot on H. 2144. The examination of the other 7 ft. spot, about 65m N.W., was not very close but no depth that shoal was found. No kelp at this point and bottom not visible. Recommend that the new work, H. 5267, now supersede the old soundings in this vicinity.

sub par. 5. A minus 2 feet sounding on H. 2144 about 80 meters west of the rock awash in Lat. 55°-00'.5, Long. 131°-11'.4. The area was examined at a time when the bottom was clearly visible and the least depth found was plus 2 feet. Recommend that this depth of 2 feet now supersede the minus 2 foot sounding from H. 2144.

sub par. 6. A 1½ foot sounding from H. 2144 in Lat. 54°-58' (970 meters), Long. 131°-14' (980 meters) at the southern entrance of the channel leading into Reef Harbor. This sounding falls within a heavy growth of kelp, which made sounding difficult. After a thorough search the shoalest sounding obtained was 2½ ft. (plotted 2 ft.). This is so close to the original sounding that the charted depth of ¼ fathom need not be changed.

A few more lines were run across the ridge but the controlling depth in the entrance to the channel proper is still 5 4/6 fathoms. There is only one line of soundings at this point and as H. 2144 shows 5 fathoms as the controlling depth, it would have been well had at least one more line been run. between the 2/6 sounding and the rock awash.

sub par. 7. The three rocks, shown as bare rocks on H. 2144 in the vicinity of Lat. 54°-58'.7, Long. 131°-14'.8 were located in almost the same position. They proved to be rocks awash and should be charted as shown on H. 5267.

sub par. 8. No additional work was requested.

The 11¾ foot sounding shown on H. 2144 in Lat. 54°-59'.9, Long. 131°-14'.23 has been proven unreliable and should not be charted. It is not shown on Chart 8075.

sub par. 9. No additional work was requested. The field party reports that the suggestion in the preliminary review regarding a 1:10,000 examination of Reef Harbor is considered advisable.

sub par. 10. A minus 1½ foot sounding shown on H. 2144 in L at. 54°-59'.2, Long. 131°-13'.95. The area was examined at a time when the bottom was plainly visible and the least depth found was a sounding of ½ ft., rocky bottom, (pos. 48d"), which has been plotted as a rock awash at M.L.L.W. This symbol, on H. 5267, should now supersede the sounding from the old survey.

sub par. 11. A group of three sunken rocks shown on Chart 8075 in approximate Lat. 54°-59'.2, Long. 131°-13'.7, apparently originate from the rock awash symbols shown on the small scale sheet, H. 2142. It is very probable that these symbols on H. 2142 were intended to represent the reef bare 12' at M.L.L.W. now shown on H. 5267. In any case the area, where the charted sunken rocks are shown, was re-examined by the field party and no indication of any rocks were found. The three sunken rocks may now be removed from the chart and the area charted as shown on H. 5267.

sub par. 12. Rock awash in Lat. 54°-59' (970m), Long. 131°-13' (680m) shown on H. 2144. The immediate vicinity of this rock was searched and several new rocks located. The position of one of these new rocks corresponds within 20 meters to the position of the rock from H. 2144, and the rocks as shown on the new work, H. 5267 should now supersede those on the older surveys.

sub par. 13. In the vicinity of East Island and the reef about ¾ of a mile N. by E. of East Island the new work on H. 5267 is adequate and should supersede all previous work.

No additional work was requested in this area.

sub par. 14. A group of rocks, 2 sunken and 1 bare, shown on Chart 8075 in approximate Lat. 54°-51', Long. 131°-15'.5, about 340 meters west of the rock island located on the surveys of both 1892 and 1932 was charted by authority of a note in the sounding record of H. 2142 (pos. 47c blue) which reads "Group of rocks, 60 meters to starboard, highest point of group is about 5 feet above H. W. M."

A search was made for these rocks and the area fairly closely developed at a time when there was about 5½ feet of tide. No indication was found of any rocks. It is not believed that these rocks would have been missed, if existent, when they were the object of such an intensive search. These rocks do not appear on the survey of 1883, H. 1618a, and there is a possibility that the original note in the sounding record of H. 2142 is in error in some respect. (see par. 14, preliminary review).

It is recommended that these rocks be removed from the chart.

sub par. 15. The bare rock and rocks awash shown on H. 1618a about 1¼ miles southwest of East Island were not found on the survey 1892, H. 2142, nor on the present survey H. 5267. They should be disregarded in future charting.

No additional work was requested at this point.

sub par. 16. Rock awash shown on H. 1618a in Lat. 54°-50', Long. 131°-14' was not found on either H. 2142, or the new survey H. 5263. From an examination of the additional work on the boatsheet this rock appears to have been proven non-existent. However the additional development falls outside the limits of this sheet, H. 5267, and has not yet been plotted on H. 5263. A definite recommendation will be made in the review of H. 5263.

sub par. 17. A more intensive development was required in the vicinity of the rock awash shown on H. 5267 off the north entrance to Morse Cove, Lat. 54°-55' 1680m., Long. 131°-14' 200m. This area was re-examined and also inspected at a minus tide. The new work on H. 5267 should now supersede all previous surveys in this area.

sub par. 18. The awash rock shown on H. 2143 in Lat. 54°-56'.15, Long. 131°-14'.65 was put on the sheet from a note in the sounding record. This area was developed and also inspected at a minus tide and no rock or spit was found. The entire delineation on H. 2143 should now be superseded by the present survey H. 5267.

sub par. 19. The rocks awash shown on H. 2143 in the vicinity of Lat. 54°-56'.6, Long. 131°-14' are located by estimated distance and direction from the sounding line. (pos. 28c to 30c green). The area was developed and also inspected at low water and only one rock was found. This rock was located in 1932 on T. 4720. The new hydrographic determination of this rock falls about 40 meters north of the topographic location, but was accepted since the position is the mean of three fixes and the rock could probably be seen more plainly by the hydrographer than by the topographer. The new survey, H. 5267, will supersede the older surveys in this area.

7. The work on this sheet is now believed to be a very complete survey of this area. The ground has been well covered and shoal development seems sufficient. The shoalings are so abrupt and numerous that it is impossible to determine if the least depth has always been found, but the examinations

of shoal spots were generally much closer than they appear on the sheet as only the shoaler soundings were recorded and only the shoalest of these were plotted on the sheet.

8. No immediate additional work is recommended but consideration should be given to the following when the work can be accomplished by a wire drag party.

(a) Make complete resurvey of Reef Harbor on a scale of 1:10,000.

(b) Cover with wire drag the outlying shoal areas, such as the 10 fathom shoal in Lat. 54°-53'.6, Long. 131°-09'.8; the 9 fathom shoal in Lat. 54°-53'.15, Long. 131°-09'.7 and the 5 1/6 fathom spot in Lat. 54°-51'.2, Long. 131°-12'.35.

9. Reviewed by - R. L. Johnston.

L. O. Colbert,
Chief, Section of Field Records.

Examined and approved:

L. O. Colbert
Chief, Division of Charts.

T S Borden
Chief, Section of Field Work.

G Rude
Chief, Division of H. & T.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5267 (ADDTL. WK.)

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

Number of positions on sheet	271
Number of positions checked	124
Number of positions revised	2
Number of soundings recorded	697
Number of soundings revised	—
Number of signals erroneously plotted or transferred	NONE

Date: Nov. 14, 1933

Cartographer: Warren H Bamford

Rae

November 6, 1933.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
1 volume/s of sounding records for

HYDROGRAPHIC SHEET 5267 (Additional Work)

Locality Shoal Areas from Sisters Island to Danger Passage, Revillagigedo Channel, Southeast Alaska
Chief of Party: Jack Senior in 1933.
Plane of reference is mean lower low water, reading
4.0 ft. on tide staff at Ketchikan
18.3 ft. below B. M. 22

Height of mean higher high water above plane of reference is 15.4 feet

Condition of records satisfactory except as noted below:

As received from field no tide reducers were entered in sounding book. However, reducers have been entered and checked in Division of Tides and Currents.

Hammond

Acting Chief, Division of Tides and Currents