

4727

U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: ALASKA

DESCRIPTIVE REPORT

Topographic

Hydrographic

Sheet No. "B" 1

4727

LOCALITY

Revillagigedo Channel

Flag Pt. to Pt. Sykes

1932

CHIEF OF PARTY

G. C. JONES

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET "B"

REVILLAGICEDO CHANNEL - EAST SIDE MARY ISLAND

MARY ISLAND ANCHORAGE

SOUTHEASTERN ALASKA

- 0 -

G. C. JONES - CHIEF OF PARTY

SEASON OF 1932

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "B"
REVILLAGIGEDO CHANNEL - EAST SHORE MARY ISLAND
MARY ISLAND ANCHORAGE
SOUTHEASTERN ALASKA

INSTRUCTIONS:

The work done on this sheet was authorized by the Director's Instructions for Project No. HT - 99, dated March 24th, 1932.

PURPOSE:

The purpose of this topographic survey was to locate and show the nature of the shoreline, islands, rocks, reefs and to check up and make a proper connection with the old surveys within the limits of this sheet and to furnish control for the hydrography done within the limits of the sheet.

LIMITS:

This sheet extends from triangulation station RED 2, 1929 Latitude $55^{\circ} 11.8'$ North, Longitude $131^{\circ} 04.9'$ West to triangulation station POINT, 1915, Latitude $55^{\circ} 05.2'$ North, Longitude $130^{\circ} 59.6'$ West. This portion of the sheet also includes Black Islet, Slate Islands, White Reef and all off-lying rocks, reefs and dangers to navigation. From triangulation station KAH, 1915, Latitude $55^{\circ} 04.2'$ North, Longitude $130^{\circ} 59.3'$ West, to triangulation station KIRK, 1932, Latitude $54^{\circ} 59.5'$ North, Longitude $131^{\circ} 00.5'$ West, all hydrographic signals were located by intersection or rod readings, and the shore line, including Bull Head Cove, Kah Shakes Cove, all islands and off-lying rocks, reefs and dangers to navigation were checked closely with topographic sheet number 3539.

The shoreline of Mary Island Anchorage is an insert and was carefully rodded in on a scale of 1:10,000, beginning at Latitude $55^{\circ} 06.7'$, Longitude $131^{\circ} 12.5'$, and extending to Latitude $55^{\circ} 06.5'$ North, Longitude $131^{\circ} 11.5'$ West, where a connection was made with hydrographic signal DIP on the scale of 1:20,000, 1932 season.

Beginning with hydrographic signal DIP, as described above, the eastern shoreline of Mary Island was run to hydrographic signal DOS, Latitude $55^{\circ} 02.7'$ North, Longitude $131^{\circ} 01.6'$ West.

The second insert on a scale of 1:20,000 begins at Latitude $55^{\circ} 03.0'$ North, Longitude $131^{\circ} 15.0'$ West, and extends southward, including Whale Rocks, Little Rock, the islands around triangulation station PURR, and all off-lying rocks and reefs therein, including dangers to navigation around Duck Islands, Reef Harbor, to triangulation station FLAG, Latitude $55^{\circ} 00.2'$ North, Longitude $131^{\circ} 14.3'$ West.

CONTROL:

The topography was controlled by second and third order triangulation of the 1915 and 1932 seasons; all triangulation being based on the North American Datum of 1927. ✓

SURVEY METHODS:

The usual plane table survey methods were used. In general the topographic signals were located by three or more cuts from triangulation stations and verified by traverse when the shore line was rodged in.

A combination traverse, resection and three point fix method was used in locating all shore line, low water line and other topographic details.

All closures were within the limits as allowed by the required standard of accuracy, and all rocks and reefs were located by rod readings, except in cases where the dangers are not encircled by a dotted circle, the location was made by intersection of three or more cuts

FOOT LINES:

There are only six elevations on this sheet; they being located on Mary Island, and by the usual plane table method. Three or more cuts were used to determine elevations; they being computed to the top of the ground. ✓

GENERAL DESCRIPTION:

The shore line and slope back of the shoreline, on both sides of Revillagigedo Channel, is heavily wooded. All islands of any size are heavily wooded.

Beginning at triangulation station RED 2, 1929, on the eastern shore of Revillagigedo Channel, and extending southward to triangulation station POINT, 1915 are several small irregular bays. They all go dry at low tide and do not afford anchorage for any size craft, except the one at Latitude $55^{\circ} 10.3'$ North, Longitude $131^{\circ} 04.8'$ West, where small craft may find temporary anchorage.

Black Islet, where triangulation station ISLE, 1895-1929, is located, is a low, oval shaped, wooded island, surrounded by ledges and dangerous reefs.

Hydrographic signals HUS and AN are small shacks built for trap watchmen, on the end pilings of the stationary fish traps which extend inshore and are made up of a series of pilings, pile-driven in the ground and firmly secured together.

Slate Islands, located just north west of the entrance to Boca de Quadra are composed of a group of four fairly low wooded islands. The center one of the most northerly group is surrounded by ledges. The other three of the group are more or less surrounded by dangers; the most southerly one being quite free from all dangers.

Due to an oversight, the names of the hydrographic signals on Slate Islands were not inked in. When the oversight was found, all hydrographic records had been mailed into the Washington Office. The proper names will be found on Hydrographic Field Sheet Number Two of the 1932 field season.

The most southerly signal on the most southerly island is a light, located on top of a white wooden house, ten feet high.

White reef lies at the south-west entrance to Boca de Quadra and is composed of a series of reefs and rocks extending southward to Latitude $55^{\circ} 03.5'$ North, on the $131^{\circ} 02.0'$ West meridian.

Snail Rock and Black Rock are located at the south-eastern end of Revillagigedo Channel, along the $131^{\circ} 03.0'$ West meridian and Latitude $55^{\circ} 01.6'$ North.

Some dangerous rocks and reefs lie some five hundred and twenty meters to the north-west of Black Rocks. ✓

Bull Head Cove and Kah Shakes Cove are two prominent coves that lie just south of the entrance to Boca de Quadra, and afford good anchorage to small and medium size craft. ✓

Mary Island Anchorage, located on the north end of Mary Island, and fully described in the Coast Pilot Notes. ✓

Whale Rocks, Latitude $55^{\circ} 01.0'$ North, Longitude $131^{\circ} 11.1'$ West is composed of a series of high water rocks lying in a north and south direction. ✓

Little Rock, Latitude $55^{\circ} 00.3'$ North, Longitude $131^{\circ} 11.3'$ West, is a small rock almost covered at high tide. A dangerous rock lies 520 meters to the north-west and a reef lies 350 meters to the south-west. ✓

All other rocks, reefs and ledges are properly inked on the sheet. Every detail that is inked on the sheet is new work; all penciled details were taken from previous surveys. ✓

In general, the slopes on the east side of Revillagigedo Channel rise gradually and steeply from the shoreline, except in the vicinity south of the entrance of Boca de Quadra and southward where the contours of the land are quite flat until about one and one-half miles inshore, where the slopes rise quite abruptly. ✓

The highest point on Mary Island was found to be 218 feet. In general, the island is cut up with knolls and a number of low ridges. ✓

Where low water is not shown, the distance between high and low water is negligible. ✓

WELL ESTABLISHED LOCAL NAMES:

The name of Bull Head Cove was the name given to the cove just north of Kah Shakes Cove, and is a name in local use. ✓

COMPARISON WITH PREVIOUS SURVEYS:

That portion of the sheet beginning at Kah Shakes Point, Latitude $55^{\circ} 04.0'$, Longitude $130^{\circ} 59.0'$ to Kirk Point, Latitude $54^{\circ} 59.7'$ North, Longitude $131^{\circ} 00.4'$ west was carefully checked with T-3539, J. A. Daniels, 1915, and found to be accurate enough not to warrant the running of the entire shoreline. Due to a few discrepancies, Kah Shakes Cove was re-run, and such portions of the remaining shoreline as marked in ink. A considerable portion of the low water line was re-run and properly inked on the sheet. Some new rocks were located and the old ones rechecked.

The signals in Mary Island Anchorage were first rodded in on the scale of 1:20,000, but since the hydrography was done on a scale of 1:10,000, and a few discrepancies were noted in the shoreline, the entire shoreline was run on the 1:10,000 scale.

In comparing the new shoreline with Chart Number 8068 it was found that the points at signals BAN, HOR and the one just west of signal FLA checked almost perfectly. The remaining shoreline, especially at Point Winslow, was found to be out several meters. The little indentation in the old shoreline just north of signal RAD was noted as a storm water bight and so was not rodded in as shown on the chart.

The east shoreline of Mary Island was re-run and several discrepancies noted in the old shoreline in comparison with photostat number 3548, especially at signal NET, and the small bight at signal SEN.

A rock bearing two feet at M.L.L.W., 830 meters, 192° true from triangulation station CLAY, not shown on photostat number 3537, was located on the insert of 1:20,000.

A rock bearing two and one-half feet at M.L.L.W., 590 meters, 235° true from triangulation station FRIP0, 1913, was also located and not shown on photostat number 3537. The same applies to a few more rocks just north of triangulation station BOR (the north end of Duck Islands) and to some rocks just south-west of triangulation station LITTLE, 1915.

The little bight due west from triangulation station FLAG, 1932, was re-run. The remaining shoreline surrounding Duck Islands and Reef Harbor was found to be accurate enough not to warrant the re-running of it.

A few cuts were taken to some rocks in the kelp patch just east of the rock marked awash at M.L.L.W., Latitude $54^{\circ} 59.5'$ North, Longitude $131^{\circ} 15.6'$ West, but not enough to definitely locate them. As the hydrography has not been done in this vicinity a good location of this shoal area should be made when the hydrography is being completed. 13.6'

DISTORTION:

No appreciable distortion was noted at any time, although a close check was kept of the measurements of the sheet. The sheet being well seasoned before the projection was made. ✓

MAGNETIC OBSERVATIONS:

An observation was made at triangulation station WHITE, 1915, with the declinoire. At the time of this writing, a list of magnetic observations taken by the declinometer is not available. However, all stations are marked on the season's progress sketch for the season of 1932. ✓

Respectfully submitted,

Henry O. Fortin
Henry O. Fortin,
Jr. Hydro. & Geod. Engineer,
U.S.C. & G.S.S. EXPLORER.

Approved and forwarded,

G. C. Jones
G. C. Jones,
Commanding Officer,
U.S.C. & G.S.S. EXPLORER.

LIST OF STATISTICS

Number of statute miles of high water line..... 40.1
 Number of statute miles of low water line..... 45.4
 Number of elevations determined..... 6

LIST OF PLANE-TABLE POSITIONS

NAME	OBJECT & DESCRIPTION	LATITUDE	D.M. Meters	LONGITUDE	D.P. Meters	HEIGHT	REMARKS
NAIS	Copper bolt set in a pat of cement	54° 59'	938	131° 15'	31	3"high	Good Condition
FOOT	"	54° 59'	575	131° 14'	15	"	"
CAL	"	54° 59'	438	131° 14'	711	"	"
SLATE ISLANDS LIGHT	White wooden house.	55° 05'	573	131° 03'	86	10 feet	Top

REVIEW OF TOPOGRAPHIC SURVEY No. 4727

Title (Par. 56) *Flag Point to Point Sykes, Revillagigedo Channel, Alaska*
 Chief of Party *G. B. Jones* Surveyed by *H. O. Fortin* Inked by *H. O. F.*
 Ship *Explorer* Instructions dated *Mar. 24, 1932* Surveyed in *June-July 1932*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) *No distortion reference points are shown on the sheet.*
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓
4. The amount of vertical control that the Manual specifies for ~~contours~~-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.) ✓
5. The delineation of ~~contours~~-formlines- is satisfactory. (Par. 49, 50.) *Formlines are shown on T 4717 except on Mary Island where one form line is shown on this sheet.*
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.)
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) *Legends of two "*" shown on the sheet show that they are bare at H.H.W. They were changed to conform to the usual representation.*
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)
*T 3539 shows * on W side of Kah Shakes Cove. T 4727 a shore reef * #5236 shows 2 fms. from water. The latter is believed the correct representation. Other features were verified and inked on this sheet. SDR Review H-5236 regarding this.*
10. ~~The span, draw and clearance of bridges are shown.~~ (Par. 16c.)
11. Locations and elevations of summits are given. (Par. 19, 51.) ✓
12. ~~The tree line was shown on mountains.~~ (Par. 18g.) *Tree line on portion of sheet shown on T-4717.*

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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* Hydro. Survey of 1932 and Add'l Work of 1933 disprove the existence of the reef extending inshore but verifies * shown on T-3539

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.
15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of IMs and DPs, 68.) ✓
16. ~~No~~ list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)
17. The magnetic meridian was shown ^{but} and declination was ^{not} checked. (Par. 17, 52.) At time of forwarding report, magnetic observations taken with declinometer were not available. ✓
18. The geographic datum of the sheet is *North American '27* and the reference station is correctly noted. (Par. 34.) ✓
19. Junctions with contemporary surveys are adequate. ✓
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
The notes mentioned in page 6 of the descriptive report should be located when the hydrography in this area is done.
23. The Chief of Party inspected and approved the sheet and the descriptive report after review by

24. Remarks: *Tab. Shaker's Dore should have been surveyed on 1:5000 scale. The instructions left certain latitude in the scale to be used in order that the Chief of Party might judge of this and provide a large scale survey where local conditions would require.*

Reviewed in office by *R. J. Christman May 29, 1938.*
Inspected by A. L. Shaker.

Examined and approved:

L. O. Volkert
Chief, Section of Field Records

W. J. Papenhausen
Chief, Division of Charts

W. J. Borden
Chief, Section of Field Work

G. H. Rude
Chief, Division of Hyd. and Top.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
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APR 5 1933

Acc. No. _____

REG. NO.

4727

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. TE

REGISTER NO. 4727

State Alaska

General locality Revillagigedo Channel

Locality Flag Pt., to Pt., Sykes

Scale 1:20,000 Date of survey JUNE & JULY, 1932
and 1:10,000

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

Chief of Party G. C. JONES

Surveyed by HENRY O. FORTIN

Inked by HENRY O. FORTIN

Heights in feet above M.H.T. to ground to tops of trees

~~Contour~~ Approximate contour, Form line interval 100 feet

Instructions dated MARCH 24th, 1932

Remarks: WORK WAS DONE FROM THE CAVE

LAUNCH NO. 67.

Applied to drawing (compilation) of reconstructed
Chart № 8075..... S.B.M. Aug 1934

Applied to drawing of chart 8102... S.B.M. Sept. 1934

" " " " " 8002.... S.B.M. " "