

4802

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. "A" 4802

LOCALITY

KIRK POINT to CAPE FOX

S. E. ALASKA

1933

CHIEF OF PARTY

JACK SENIOR

U. S. GOVERNMENT PRINTING OFFICE: 1931

4802

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET "A"

KIRK POINT TO CAPE FOX

S. E. ALASKA

- 0 -

JACK SENIOR - CHIEF OF PARTY

SEASON OF 1933

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "A"

KIRK POINT TO CAPE FOX

S. E. ALASKA

INSTRUCTIONS:

The work done on this sheet was authorized by the Director's Instructions for Project No. HT-137, dated March 16, 1933.

PURPOSE:

The purpose of the topographic survey was to locate and show the nature of the shoreline, islands, rocks and reefs within the limits of the sheet. Also to furnish control for the hydrography done in this vicinity.

LIMITS:

This sheet extends from triangulation station "KIRK", 1932, Latitude $54^{\circ} 59.4'$, Longitude $131^{\circ} 00.5'$ on the east side of Revillagigedo Channel to triangulation station "FOX", 1933, Latitude $54^{\circ} 46.3'$, Longitude $130^{\circ} 48.8'$, on the west side of Nakat Bay.

GENERAL DESCRIPTION:

Close to the shoreline for the entire length of the sheet the area is heavily wooded. Farther back the mountains are bare with muskeg, rocky slopes and patches of trees and brush. The tops of some of the mountains are wooded, other are not. Between the shoreline and the top of the mountains there are numerous knolls, some are bare, others wooded. Cape Fox when approached from the south has a saddle that shows up plainly. But the most noticeable feature is the bare rocky slope to the westward of the saddle.

Foggy Bay lies between Kirk Point and Foggy Point and is about one mile wide at the south end and three-quarters of a mile wide at the north end and four miles long. The De Long Islands are about the middle of the bay, and they are low and heavily wooded.

Foggy Bay offers three good anchorages for small craft. A small bay on the south side that has piling in it to tie up to. This is the least desirable of the three anchorages as a small swell rolls in here in rough weather.

The south-east corner of the bay is a good anchorage, but has a narrow entrance. There is a pipe line here where fresh water may be obtained.

The best anchorage is behind the large island on the east side of the bay one mile north of the south end.

The shoreline in Foggy Bay, and the south and west side of the De Long Islands is steep and rocky, and from 15 to 30 feet high.

Foggy Point is a low wooded point and has a dark rocky shoreline 25 to 30 feet high.

The shoreline from Foggy Point to Humpy Point is a black rocky cliff from 15 to 50 feet high, with large high water rocks and reefs that do not show up until approached close inshore.

The Reef is 5 miles south of Foggy Bay, and is a small bay lying behind a bunch of rocks and reefs. It is used considerably as an anchorage, by fishing boats, and is a good anchorage in fair weather, but rather uncomfortable at high water in rough weather.

Humpy Point is a bold rocky point bare on the outer side and 30 feet high. It shows as the most definite point between Cape Fox and Alva Point.

The shoreline from Humpy Point to Cape Fox is very irregular and rough with off-lying rocks and reefs. The shoreline is a gray cliff and from 20 to 60 feet in height. There are tide rips close inshore the entire distance, extending approximately $3/4$ mile off-shore.

From Cape Fox to triangulation station "FOX" the shoreline is a dark rocky cliff 20 to 50 feet in height.

CONTROL:

The topography was controlled by the second and third order schemes executed by G. C. Jones, Chief of Party, in 1932, and by additional third order triangulation executed by Jack Senior, Commanding Str. EXPLORER, in 1933.

All triangulation is based on North American Datum.

SURVEY METHODS:

The usual plane table survey methods were used throughout the sheet. The signals were located by cuts from triangulation stations where possible, but for a greater part of the sheet only one cut from a triangulation station could be obtained. The signals that were located by cuts were verified by traverse when the shoreline was run in. The others were located by rod readings as the traverse was run.

In general, the shore line was run in by traverse, whenever possible the position was checked by resection.

From triangulation station "ROCK", 1933 to triangulation station "CAPE", 1933 a traverse was run and adjusted, before any of the detail was located.

All closures were well within the limit as allowed by the required standard of accuracy and adjusted accordingly.

All rocks and reefs were located by rod readings, and checked by cuts when convenient.

FORM LINES:

Form lines for this sheet were done on Sheet "F", 1933, scale 1:40,000.

COMPARISON WITH PREVIOUS SURVEYS:

Topographic sheet No. T3539, scale, 1:20,000:-

The shoreline from triangulation station "KIRK", 1932 to triangulation station "FOCCY", 1915, differs from zero meters to eighty meters from the shoreline as shown on sheet T3539. Also there is some difference in the location of rocks and reefs within this area. The topographer had a tracing of sheet No. T3539 with him at the time he did the topography and compared the two sheets from time to time and carefully checked the differences.

There are several rocks shown on sheet No. T3539 that the topographer saw no indication of. However, the hydrographer saw indications of some of them and took soundings and positions on them. Those that neither the hydrographer or topographer saw any indications of, are:-

Rock awash, Latitude $54^{\circ} 58'$, 980 meters, Longitude $130^{\circ} 58'$, 715 meters. Two rocks awash in Latitude $54^{\circ} 58'$, 1030 meters, Longitude $130^{\circ} 59'$, 100 meters. There is a line of sunken rocks shown in Latitude $54^{\circ} 57' 40''$, Longitude $130^{\circ} 58'$, 440 meters, the hydrographer sounded across and has shoal water, but found no rocks.

The shoreline for the south-western De Long Island is noticeably different, evidently having changed from erosion.

The topography on this sheet had better control than on sheet No. T3539.

The shoreline from triangulation station "FOGGY", 1915 to triangulation station "FOX", 1933, as shown on sheet No. 1614, agrees only in general outline. The details do not check at all. Sheet No. 1614 appears to be only a reconnaissance survey.

This sheet joins topographic sheet No. "B", 1932 at triangulation station "KIRK" on the north and topographic sheet "B", 1933 at triangulation station "FOX" on the south.

DISTORTION:

There was considerable distortion on the sheet. It was tested frequently and the proper correction applied.

MAGNETIC OBSERVATIONS:

Magnetic observations were made at triangulation stations "KIRK" and "KING" in 1932 with the declinometer.

An observation was made at triangulation station "ROCK" with the declinometer.

NEW NAMES:

(1) Well Established Local Names:

- (a) The Reef
- (b) Humpy Point.

Respectfully submitted,

J. C. Mast

J. C. Mast,
Jr. Hydro. & Geod. Engineer,
U.S.C. & G.S.S. EXPLORER.

Approved and forwarded:

Jack Senior

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

STATISTICS

Statute Miles of Shoreline (Highwater) 102.5
Number of Elevations 2

POST-OFFICE ADDRESS: 601 Federal Office Bldg., Seattle, Washington.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

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

July 10, 1934.

1934 JUL - 18 - PM 12:35
80 KTA
20

To: Director, U. S. Coast & Geodetic Survey,
Washington, D. C.

From: Commanding Officer, U.S.C. & G.S.S. EXPLORER,
Seattle, Washington.

Subject: Discrepancies On Topographic Sheet 4802 And 3539.

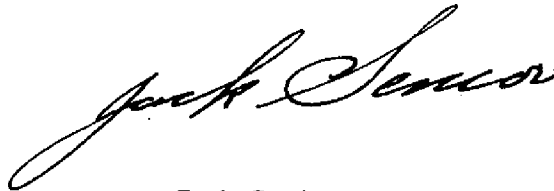
Reference: Director's Letter, Dated June 19, 1934 (80 - LE).

There is enclosed herewith a report from Mr. Mast relative to the above subject. He was particularly asked why a definite statement was not included in the descriptive report noting the discrepancy at the junction of the two sheets.

Based on the hydrographic development, I am of the opinion that Mr. Mast's topography is substantially correct. Mr. Weidlich, who made the hydrographic survey, is positive that the latter topography is correct, and that the island in question does not exist, which opinion is shared by experienced members of his party.

The topographer had a tracing of sheet 3539 with him while making the survey, and carefully checked discrepancies found. I know that Lieutenant Raynor is an excellent topographer, but am not cognizant of conditions under which he worked. He was handicapped by lack of suitable control, and possibly did some sketching of shoreline which is not permissible now. I do know that Mr. Mast worked under favorable conditions, and that his work elsewhere is correct. In his descriptive report, he calls attention to the fact that discrepancies on the older sheets were carefully noted and checked.

The three photostats are returned under
separate cover.

A handwritten signature in cursive script, reading "Jack Senior". The signature is written in dark ink and is positioned above the typed name and title.

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

POST-OFFICE ADDRESS: 510 Custom House, San Francisco, Cal.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

July 4, 1934.

To: Commanding Officer, U. S. C. & G. S. S. EXPLORER.
601 Federal Building, Seattle, Wn.

From: Lieut. (j.g.) G. C. Mast, U.S.C. & G. Survey.

Subject: Discrepancies between Topographic sheets 4802 & 3539.

The photostat of topographic sheet 3539 that I had in my possession while making the topographic survey of this territory was on a scale of 1:20,000. The part of sheet 4802 that was done on a scale of 1:20,000 had the old shoreline and rocks transferred to it. The part that was done on a scale of 1:10,000 was not transferred to the sheet, but a tracing was carried in the field, and compared to the work as it was done. However the tracing that I had with me did not go as far up Very Inlet as the island is shown on the old topographic sheet, as I had no intention of carrying the topography that far into the inlet. But setups had to be made to carry the topography around the larger island to the south of the one in question, the shoreline that could be seen was roded in. Some way in reviewing the sheet that particular spot was missed.

However the signals were built by me in the fall of 1932 and rebuilt in the spring of 1933. And when the topography was done, the shoreline was roded in and not sketched. It is possible to look again a shoreline, and not be able to see a small opening in a reef, but the rodmen always told me about them and held the rod so that I could get the limits. I also made two or three trips up Very Inlet and at no time did I see an island at this place. It does not seem possible to me that I could work over this area and miss an island.

I am positive there is no island there at present with an opening behind it as shown on the old topographic sheet, nor does the inlet run in there at present as shown on the old sheet, where it makes in behind the small island in question.

A comparison between the two sheets in the field showed many discrepancies. These were checked at the time, and special precautions taken to see that sheet 4802 was correct where they differed.

In the descriptive report (if I remember correctly) attention was called to the discrepancies in a general way, and a few of the more obvious differences were pointed out.

J. C. Mast
J. C. Mast
Lt. (j.g.) U.S.C. & G. Survey

80-LE

June 19, 1934.

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

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

Subject: Discrepancies on Topographic sheets 4802 and 3539.

There are forwarded today under separate cover, copies of topographic sheet 4802, surveyed by Lieutenant (j.g.) G. C. Mast of your party in 1933, and of topographic sheet 3539, surveyed in 1915 by Lieutenant L. P. Raynor, in the party of J. A. Daniels.

You will note that at the junction of these two topographic sheets in the area encircled on both, the topographic detail is not at all comparable. On Lieutenant Raynor's sheet an island is shown with a passage between it and the mainland, while in the same locality on the sheet of Lieutenant Mast, no passage or indicated passage is shown, although the limit of the sheet occurs at about this point.

A further examination of these two photostats will show that in a great many cases the detail of the shoreline shows a considerable difference, not at all to be accounted for by the interval of time between the two surveys.

After you have examined the two photostats you will please send them to Lieutenant (j.g.) G. C. Mast, asking him to render an explanation to you of these discrepancies in topographic detail, with particular attention paid to the area encircled in red on the photostats.

After the receipt of his report you will please advise this office as to which topography, in your opinion, is the most accurate and should be used for charting purposes.

For your information Lieutenant Mast is now on the Ship GUIDE, and may be addressed on that Ship, 510 Customhouse, San Francisco, California.

(SIGNED) J. A. DAVIS

Acting Director.

83

See that name has been printed on chart
508

T 4802

Mr Bacon

H 5388

See note line 3

Des. Report page 3, line 3
Fox Island is not named on
H 5388. It is on the Topo
sheet of this area

Dixon Entrance

KT A

This island is not named on the
Topo. sheet of this area T 4802
Page 4 line 3 of D. R. of H 5388 states
that this island is locally known
as Fox Island. This is sufficient
authority for placing the name on chart.
So far as known, this island has no
native name. H Bacon.

Not in Alaska Dict.
Name, Fox Island. Placed on T 4802 - and
H 5388 V. (Bacon)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4802

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. A

REGISTER NO. 4802

State S. E. Alaska

General locality Revillagigedo Channel

Locality Cape Fox to Kirk Point

1:10,000

Scale 1:20,000 Date of survey May - June, 1933 ~~1934~~

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

Chief of Party Jack Senior

Surveyed by G. C. Mast

Inked by G. C. Mast

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

~~Contour, Approximate contour, Topographic interval~~ ~~feet~~

Instructions dated March 16, 1933, ~~1932~~

Remarks:

REVIEW OF TOPOGRAPHIC SURVEY No. 4802

Title (Par. 56) *Revillagigedo Channel, Alaska*Chief of Party *Jack Senior* Surveyed by *G.C. Mast* Inked by *G.C. Mast*Ship *Explorer* Instructions dated *March 16, 1933* Surveyed in *May-June 1933*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
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.)
See T 4801
5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.)
See T 4801
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.) *None Submitted*
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.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) *See Reverse Side*
10. ~~The span, draw and clearance of bridges are shown.~~ (Par. 16c.)
11. Locations and elevations of summits are given. (Par. 19, 51.) *See T 4801*
12. The tree line was shown on mountains. (Par. 16g.) *See T 4801*

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.

Paragraph 9

T3539

The question of the non-existence of the island at Lat. $54^{\circ}57'9$ Long. $131^{\circ}57'6$ as shown on T3539 has been substantiated in the correspondence attached to this descriptive report and the area should be charted as shown on T4802.

The rocks mentioned in the first paragraph on page 4 of the Descriptive Report have been investigated in the field and since they were not found by either the hydrographer or topographer, they should be deleted from chart #8075.

Chart 8075

The row of Sunken Rocks at Lat. $54^{\circ}57'35$ Long. $130^{\circ}58'5$ are substantiated by shoal soundings. (See H5387)

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 core 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 DMs and DPs, 68.) *7 cards submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *No forms submitted - Descriptions of some landmarks given in the descriptive report*
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) ✓
18. The geographic datum of the sheet is *North American 1927 (Adj)* 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. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~
24. Remarks:

Reviewed in office by *Chas R. Bush Jr.* May 8 1936

Examined and approved:

C. H. Green
Chief, Section of Field Records

L. O. Robert
Chief, Division of Charts

Fred L. Peacock
Chief, Section of Field Work

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

Applied to Compilation drawings for new Chart 8147 (1936).
James W. McGuire

Applied fully to new 1/40,000 Scale Poppy Bay Inset on
Chart 8075 7/24/73 James A. Graham