

4390

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|--|------------------------------|
| Form 504                               |                              |
| DEPARTMENT OF COMMERCE                 |                              |
| U. S. COAST AND GEODETIC SURVEY        |                              |
| _____, Director                        |                              |
| <div></div>                            |                              |
| State: <u>SE. Alaska</u>               |                              |
| DESCRIPTIVE REPORT                     |                              |
| Topographic<br><del>Hydrographic</del> | Sheet No. <sup>AB</sup> 4390 |
| LOCALITY                               |                              |
| Kruzof Island                          |                              |
| Pt. of Shoals to Pt. Mary              |                              |
|  |                              |
|  |                              |
| 1920                                   |                              |
| CHIEF OF PARTY                         |                              |
| H. A. Cotton                           |                              |

GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET NO. \_\_\_\_\_

(Field Letter AB)

WEST AND SOUTH COASTS OF KRUZOF ISLAND

Point Mary

to

Lavat Island

SOUTH EASTERN ALASKA

July and August, 1928

Scale 1:20,000.

AUTHORITY:

The topography was executed in accordance with instructions of February 13, 1928, to the Commanding Officer of the Str. EXPLORER.

LIMITS:

This sheet is a topographic re-survey of the shore line along the west and south coasts of Kruzof Island from Point Mary on the north to Cape Edgecumbe, and thence east to a point about  $1\frac{1}{2}$  miles east of Lava Island. It connects with topographic sheet (Field Letter C) at station "Wet" at Point Mary.

CONTROL:

Control for this survey was finished by recovered Triangulation stations "Fluke" and "Peg", and by Triangulation stations "Shel", "Beaver" and "Storm" which were established during the season.

CONNECTION WITH PREVIOUS SURVEYS:

The difference in location of the shore line between this survey and the previous survey was so great that it was considered best to make a complete re-survey of the coast line. The difference between the two surveys is considerable over nearly all the shore line located on this sheet.

METHODS:

The survey was made by Stadia Traverse and by Plane-table Triangulation.

The whole of Shelikof Bay was surveyed by a system of Plane-table Triangulation based on Triangulation stations, "Storm" "Beaver" and "Shel".

The section of the shore-line along the east coast of

Shelikof Bay from station "Der" north to station "Nik" including the islands at station "Tree" was surveyed by W. D. Patterson on a separate sheet. The work was controlled by a traverse line from station "Der" to station "Nik"; and was later traced and transferred to this sheet.

A traverse line was run from Triangulation station "Peg" at Sitka Point to station "Lit" at Cape Edgecumbe.

A traverse line was also run from Triangulation station Beaver at Beaver Point south to station "Lit". The two traverse locations of "Lit" agreed within about four meters and no adjustment was made.

At this time there was some shrinkage in the sheet and distances on the traverse lines were plotted so as to adjust for that shrinkage.

A traverse was next run from Triangulation station "Peg" east to station "Ger"; and from Triangulation station "Fluke" west to station "Ger". The two traverse locations of station "Ger" agreed within about five meters and no adjustment was made. From these traverse lines, several stations on St. Lazaria Island were located by plane-table intersections.

St. Lazaria Island and the shore line from Triangulation station "Fluke" east to the edge of the sheet were surveyed by A. N. Stewart on a separate sheet and later transferred to this sheet with his assistance.

The survey of St. Lazaria Island was controlled by the stations already located on that island by Plane-table intersections from the traverse lines between "Fluke" and Triangulation

station "Peg".

A traverse was run from Triangulation station "Fluke" to station "End" so as to include in this survey the islands just east of station "Fluke". That traverse line was not closed on any known position. The only check on the traverse were the agreements of intersections taken on points ahead and on St. Lazaria Island. Those intersections were good and indicated no considerable errors in the traverse. The old shore line was traced onto the sheet and connected with "End". \*See note at end of report.

#### MAGNETIC VARIATION:

The Magnetic Variation was measured at Triangulation stations "Fluke" and "Beaver". The Declinatoire used was checked at the Sitka Magnetic Observatory and found to be correct.

#### ELEVATIONS AND FORM LINES;

Elevations are in feet above high water and are plotted in red ink. They were determined with the sextant except for Mt. Edgecumbe which was located and its elevation determined by Theodolite angles from Triangulation stations. Elevations taken to the tops of trees have not been reduced to the ground. However, in that case, the estimated height of the trees is plotted on the top sheet in red in parenthesis just above the observed elevation.

Reference is made to Topographic sheet No. 2305 for vegetation symbols and limits of trees in the interior of Kruzof Island.

The elevation of Mt. Edgecumbe has been changed from 3467 feet to 3227 feet on this sheet. There is also considerable change in the shore line. The Form Lines were traced from the

Photostat copy of Topographic sheet 2305. They have been placed on this sheet so as to conform to the new location of Mt. Edgecumbe and to changes in the shore line.

The 200 foot form line has been re-sketches around Cape Edgecumbe to agree with changes in the shore line and with elevations taken on the tops of the cliffs.

The form lines for the 523 foot hill at the north east end of Shelikof Bay, at about Latitude  $57^{\circ}10'$  and Longitude  $135^{\circ}43'$  have been entirely re-sketches to conform to a new elevation and the shape of the hill.

Form lines have been re-sketches around the top of Mt. Edgecumbe to take up the difference in Elevation found on this survey.

Inspection in the field did not seem to warrant a complete re-sketch of the form lines and the 200 foot form line interval used on the previous survey has been retained.

#### DESCRIPTION OF SHORE LINE:

Shelikof Bay is characterized particularly by the long sand-beaches, which are composed of a fine, dark, igneous sand; and by the numerous small islands in its north east section. The beaches are comparatively low, and the rise of the hills is gradual. The country back from the beach is wooded, with low wooded hills to the Eastward.

To the south eastward, Mount Edgecumbe stands out as the most distinct landmark in the vicinity. It is an extinct volcano, and its cone-shaped crest and bare reddish-colored slopes make it easily recognizable.

From Beaver Point to Neva Bay, the beaches are low and

broken and are formed largely of a dark igneous rock ledge.

The water is shoal for some distance off shore and there is considerable Kelp.

From Neva Bay to Cape Edgecumbe, and thence east nearly to Sitka Point, the beach is marked by steep, nearly vertical, dark cliffs. The cliffs rise to a height of over two-hundred feet, north of Cape Edgecumbe, and are formed of a lava rock with a somewhat columnar structure. A picture of these cliffs, with Mt. Edgecumbe in the back-ground, is attached to this report.

The cliffs break off just west of Sitka Point, and that point is marked by a rubble-beach with numerous small, detached, high-water rocks. At this point, the beach has a gradual slope, and is <sup>heavily</sup> ~~fairly~~ wooded back of high water.

The St. Lazaria Islands are of a distinct Volcanic origin, and are marked by steep ~~bare~~-faced cliffs on the west end.

A picture of the islands, showing the cliffs at the west end in the fore-ground, is attached to this report. There is also attached a picture taken from the south, looking towards Cape Edgecumbe.

#### ANCHORAGES:

The only anchorages along the section of coast covered by this sheet are in Shelikof Bay.

Small boats usually anchor in the cove at the North end of the bay, at station "Mak". Entrance is made to the right of the low-water rock shown in mid-channel. This cove affords protection except from southerly and south westerly winds.

Some protection may be found just east of the island on which station "Kan" is located, but only in reasonably good weather.

There is also an anchorage for small boats in the small cove at the east side of the bay and just south of station "End".

RECOVERABLE PLANE-TABLE POSITIONS:

Stations have been described on form 524, attached to this report. They are listed below.

|     |     |     |
|-----|-----|-----|
| SIT | ALE | OX  |
| ED  | BO  | GER |
| LIT | NIL | KA  |

GEOGRAPHIC NAMES:

The Geographic names in ink on this sheet were taken from charts and those in pencil were given by the party. No local names were found to be in use for the places to which new names were given.

\*Old shoreline taken from Chart No. 8240. Old and new shoreline joined exactly at ⓄEnd.





STATISTICS

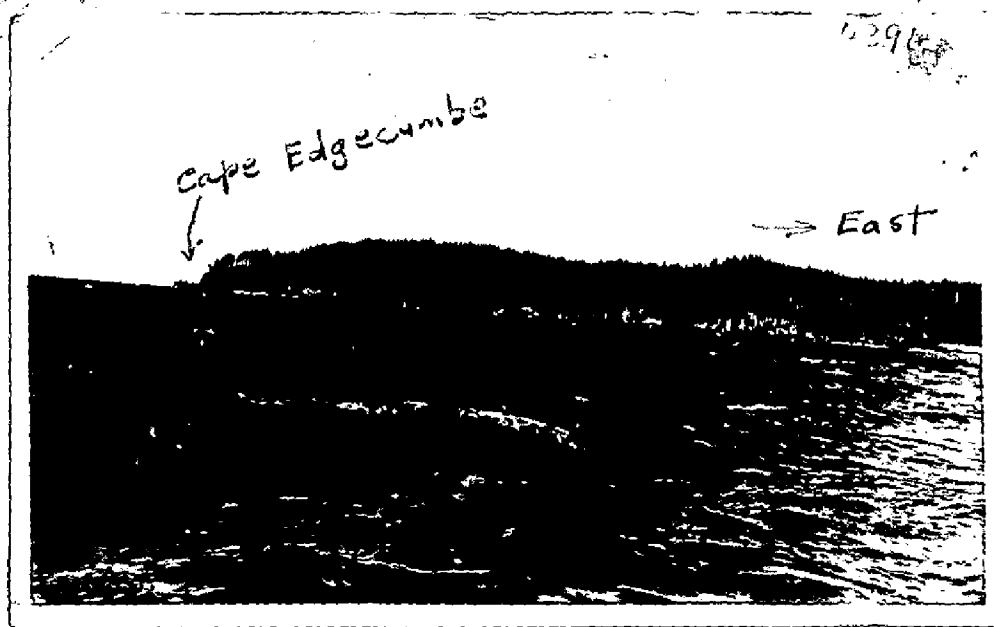
|                                |                      |      |
|--------------------------------|----------------------|------|
| Statute miles of shore line    | -- High water        | 47.0 |
| Area                           | Square statute miles | 14.3 |
| Number of elevations           |                      | 12   |
| Number of recoverable stations | Triangulation        | 5    |
|                                | Plane-table          | 9    |
| Positions occupied             |                      | 68   |

Examined, approved and forwarded

Respectfully submitted

  
Harold A. Cotton  
Commanding Officer  
U.S.S. EXPLORER

  
B. G. Jones  
Jr. H. & G. E.  
Coast & Geodetic Survey.



st. Lazaria Islands  
taken from East



st Lazaria Islands  
showing cliffs on West End



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY  
L. & A.  
FEB 26 1929  
Acc. No.

REG. NO.

4390

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 and B

REGISTER NO. **4390**

State S. E. Alaska

General locality Kruzof Island

Locality Pt. of Shoals to Pt. Mary  
~~Point Mary to Lava Island~~

Scale 1/20,000 Date of survey July and August, 1928.

Vessel Steamer EXPLORER

Chief of Party Harold A. Cotton

Surveyed by B. G. Jones

Inked by B. G. Jones

Heights in feet above High Water to ground to tops of trees

~~Contour, Approximate contour~~, Form line interval 200 feet

Instructions dated February 13, 1928.

Remarks: