Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: Alaska

11--5613

DESCRIPTIVE REPORT.

Topographic *Sheet No.* 4221

LOCALITY:

Shelikof Strait

Shuyak Strait and Approaches

1926

CHIEF OF PARTY:

Chas. Shaw

DEPARTMENT OF COMMERCE
U.S.COAST AND GEODETIC SURVEY
E. LESTER JONES, DIRECTOR

DESCRIPTIVE REPORT
TO ACCOMPANY
TOPOGRAPHIC SHEET " 1"
SHUYAK STRAITS,
ALASKA

SHUYAK STRAITS SHORE PARTY
SEASON 1926

CHARLES SHAW, H.& G.ENGINEER, C.& G.S.
CHIEF OF PARTY

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET 1

LOCALITY and LIMITS

The area covered by the topography on this sheet extends from Big Fort Island, at the southeast side of Shuyak Island, along the south side of same to Cape Newland; thence in a northerly direction on the west side of Shuyak Island to the entrance of Western Inlet, situated near Gull Island. It also extends along the entire northerly coast of Afognak Island from Lighthouse Point to Cape Current; thence southwesterly along the east side of the Island into Perenosa Bay for a distance of approximately one mile and a half including the offlying islands in Perenosa Bay.

The topography consists of a detailed survey of the geographic features within these limits including the shoreline, offlying rocks, islands, highwater lagoons and all interior features that could be determined from the shoreline and offlying rocks and islands.

This sheet joins topographic sheet No.T-2 at triangulation station Lighthouse situated on the northwest side of Afognak Island.

CONTROL

An extensive triangulation net over the area furnished very good control. This triangulation was of the third order and gave a control point for the topography at distances along the shoreline not exceeding two miles. For further detailed description of this triangulation net, reference should be made to the triangulation report of the Shuyak Strait Shore Party, Season of 1926.

METHODS

The usual planetable methods of survey were used, traversing between successive triangulation stations and rodding in all shoreline details. Owing to the nature of the shoreline it was possible to " cut in " many of the hydrographic signals. These were subsequently rodded in for check readings while surveying the shoreline. Practically all of the hydrographic signals along the shoreline of Shuyak Straits and Perenosa Bay were located in this manner. This method afforded a constant check upon the orientation and position of the planetable while running the traverse. It was practically always possible to obtain a check of the planetable's position by resecting on triangulation signals at each setup of the table. Planetable triangulation was employed in the survey of Neketa Bay.

The shoreline north of triangulation station Prom was surveyed by traverse and planetable triangulation. This method was employed for the reason that at the time of the execution of the topography in this region, triangulation stations Bay and Bob were not strongly located.

The frequency of triangulation stations enabled the topographer to run all traverse with little or no error. After stations Bay and Bob were strongly fixed in position by triangulation the location of these signals as determined by topography showed an error in traverse of 5 meters between station Prom and Bay, a distance of 1.9miles, and an error of about 10 meters in traverse between Bay and Bob, a distance of about 1.75 nautical miles. These errors are within the allowable limits as perscribed in paragraph 147 of the " General Instructions for Field Work " and no adjustment of the shoreline was made.

The narrow neck of land between Neketa Bay and Big Bay was rodded from two independent traverses. One was carried from triangulation station Head into Neketa Bay and the other from triangulation station Prom along the shoreline of Big Bay. The latter traverse gave a width of 5 meters increase over the width as determined by the former. This was not adjusted since the "Head-Neketa Bay" traverse was given the preference owing to its relative short length as compared with the"Prom-Big Bay" traverse.

The islands in Perenosa Bay were rodded in by the traverse method. Setups of the planetable were always checked by resection and although the topographer was not able to run a closed traverse he feels certain that due to the excellent triangulation control and the opportunity to check his planetable position by resecting on these stations there is little or no error in the location of these geographic features.

One hundred and eleven hudrographic signals were located along the shoreline shown on this sheet, consisting for the most part of whitewashes placed upon conspicuous rocks.

SHORELINE CHARACTERISTICS

The shoreline in this area is for the most part rugged and abrupt. The beaches are composed of very coarse gravel, small stone and boulders. Sand beaches occur only in small stretches and only in the heads of large bights.

In the vicinity of Cape Current Narrows and particularly on the north side of same the shoreline rises abruptly to a height of 10 to 30 feet. This type of shoreline continues on the outside of Cape Current Narrows and extends both northerly and southerly beyond the limits of the topography shown on this sheet

All offlying rocks were "cut in " or rodded in. The reef situated east of Green Island was rodded in at low water, as were all such rocks lying close to shore that could be seen or located during the rodding of the shoreline at that particular section. Rocks that were moderate distances offshore were "cut in" and their position checked by three or more cuts whenever possible.

INTERIOR FEATURES

All interior features with the exception of triangulation points were located by planetable methods and heights determined from vertical angles of the alidade. These heights ,which are in feet, are to the tops of the trees and are shown on the sheet in small red figures. The average height of the trees is between 50 and 75 feet. Elevations which denote the height of the ground are denoted by a small letter "g" placed above and to the right of the figures.

The tops of the tree on Big Fort Island are about 100 feet above high water; these trees have a height of about 50 feet.

Afognak Island is heavily wooded along the shoreline that borders Shuyak Straits, the only exception being at Lighthouse Point where it is grassy. The east side of Afognak is thinly wooded but gradually becomes densely wooded towards the interior.

Shuyak Island is heavily wooded on the extreme southern portion. On the west and east sides this deteriorates into thinly wooded sections and small areas of open country with small scrubby trees. As the northern part of the island is approached these open sections are more numerous and dotted with small pond and sloughs. In the vicinity of station Shuyak the country is undulating terrain which for the most part is completely grassed or mossed over.

It is reported that it is about a 10 minute portage from Big Bay to Carry Inlet and at high water there is a narrow channel with one or two feet of water. The narrow neck of land between Neketa Bay and Big Bay is about 4 feet above high water and grass covered so that a small skiff could be pulled over this portage without much difficulty.

The cuts to the interior features shown on the southwest edge of the sheet should be used in connection with triangulation cuts. Elevation of Peak One and Peak Two are approximations since the elevations by planetable did not give a satisfactory check.

GEOGRAPHIC NAMES

The geographic names appearing on this sheet are either taken from the chart #8555 or are well established by local usage, The names of geographic features in the latter class are such as Red Fox Bay, Cape Current

Narrows, Shuyak Harbor, Port William, Port Lawrence, Daylight Harbor, Big Bay, Western Inlet, Cape Newland, Neketa Bay, and Lighthouse Point. Port William is named after William Sklarof who has a herring saltery and dock here. Port Lawrence is named after Lawrence Calvert son of President Calvert of the San Juan F.& P.Co. The company has a saltery and dock here.

The only unnamed geographic feature in this area is a small grass covered island south of Eagle Cape, in lat 58° 31.3' N and long 152° 40.3' W. The field party suggests the name of Green Island since it so appears during the summer due to the heavy growth of tall grass found there. This name has not been inked. There appears to be no name for this island in local usage in this vicinity.

MAGNETICS

The magnetic meridian was determined at triangulation stations Current and Prom by means of the declinatoire. The dates upon which this observation was made together with the name of the station at which it was taken has been placed on the sheet with its respective direction.

PLANETABLE POSITIONS

Object	Lat	D.M.	Log	D.P.	Description
Out	58 26	918	152 28	333	Northernmost and largest pinnacle rock of group.
Fez	58 25	1393	152 29	215	North side fez shaped rock.
Per	58 26	397	152 30	756	Brass plug cemented into a drill hole in rock.
Plug	58 29	160	152 25	782	Brass plug cemented into a drill hole in rock.
Ok	58 28	524	152 27	838	Highest rock in group.
Rib	58 27	1393	152 31	680	Largest and most prominent whitish boulder in vicinity.
Sic	58 27	93	152 37	209	Large boulder at entrance of lagoon.
Pil	58 28	969	152 37	422	Northernmost pinnacle rock.
Top	58 28	1200	152 38	851	Highest part of rocky islet.
Day	58 28	1800	152 34	314	West gable of shingled bunk house.
Rof	58 29	531	152 35	338	South and outer gable of house on Sklarof dock.
Sang	58 29	1014	152 37	000	Southeast and outer gable on San Juan dock.

Object	Lat	D.M.	Log	D.F.	Description
Dee	58 29	1753	152 37	937	Highest point of small rocky islets.
Cab	58 30	343	152 37	892	West gable of log cabin.
Cone	58 31	634	152 39	189	Highest part of conical rock largest and most prominent in vicinity.
				√HWT.	

Respectively submitted

Kenneth G. Crosby

KENNETH G. CROSBY
Jr.H.& G.Engineer,C.& G.S.
Topographer

Dec 17, 1926

Approved:

Charles Shaw

CHARLES SHAW
H.& G.Engineer,C.& G.S.
Chief of Party

(Over)

BIG BAY, WESTERN INLET, AND HEAD OF CARRY INLET.

The dotted shore line of Big Bay, Western Inlet and head of Carry Inlet was obtained from rough sketch of the Captain of the motor vessel " Decorah " who made the sketches from personal inspection. The depths in Big Bay given as less than 7 fathoms and less than 4 fathoms are from his notes but he was unable to recall the stage of the tide when he sounded. The rise and fall of tide in Big Bay is no doubt about the same as in Bluefox Bay, that is about 21 feet.

When Mr. Crosby, the topographer, accomplished Big Bay entrance and to Gull Id on the outside exposed coast during very bad, windy and wet weather at the tail end of the season with only two men in a pulling boat working from a detached topographic camp he felt unable to dot in the remainder of Big Bay. So the next best information was obtained from Captain Breyer of the " Decorah ".

Although this topo. sheet was completed first except for the above it has been necessary to retain it here to get the above explained dotted shore line. The shore line was dotted in in the Seattle office from a sketch and with Capt. Breyer present. He only recently returned from Alaska.

It was our great desire to reconnoitre all these bays and inlets, as well as navigate around Shuyak Id completely but with our very limited party it was necessary to forego that pleasure to expedite what was more important - the main Shuyak Strait survey.

Charles Shaw

Charles Shaw,
Chief of Party.

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

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

February 18, 1927.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4221

Shuyak Strait, Alaska

Surveyed in 1926

Instructions dated March 27, 1927 (Shaw)

Chief of Party, C. Shaw.

Surveyed and inked by K. G. Crosby.

1. The records conform to the requirements of the General Instructions.

2. The plan and character of the survey conform to the requirements of the General Instructions and satisfy the specific instructions.

3. The junction with the adjoining survey (T. 4218) is satisfactory.

4. No further surveying is required.

5. Character and scope of the surveying and field drafting are excellent.

6. Reviewed by E. P. Ellis, February, 1927.

Approved:

_____

Chief, Section of Field Records (Charts)

_____

Chief, Section of Field Work (H. & T.)

Form 537a
11—5313

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

4221

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4221

State . Alaska . . . . . .

General locality . Shelikof Straits . . . . . .

Locality . Shuyak Straits and Approaches . . . . . .

Chief of party . Charles Shaw . . . . . .

Surveyed by . Kenneth G. Crosby . . . . . .

Date of survey . July - September 1926 . . . . . .

Scale . 1 : 20 000 . . . . . .

Heights in feet above High water . . . . . .

Contour interval . 100 . feet.

Inked by . . K.G.C. . . . Lettered by . K.G.C. . . . . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report ✓, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . . .

Remarks: Joins topographic sheet from Shuyak Straits to Black Cape of the same season. — Topo Sheet # 2.

NAUTICAL CHARTS BRANCH

SURVEY NO. T-4221

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6 Jan 48	8533	Haven Nichols	~~Before~~ (After) Verification and Review.
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.