

4633

Form 504  
Ed. June, 1928  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patten, Director

FEB 19 1932

State: Washington

## DESCRIPTIVE REPORT

Topographic  
~~Hydrographic~~

Sheet No.  
Field # B

4633

### LOCALITY

Strait of Juan De Fuca

Cape Flattery to Sekiu

River

1931

CHIEF OF PARTY

K. I. Adams

Applied to chart 6266. Aug. 4, 1942. L.Am.

DESCRIPTIVE REPORT  
to accompany

TOPOGRAPHIC SHEET "B" 1931  
Tatoosh Island to Triangulation Station BRUSH  
U.S.C. & G.S.S. GUIDE  
K. T. Adams, H & G E, Commanding,  
June, 1931.

INSTRUCTIONS:

The authority for the topography on this sheet was contained in the Director's instructions dated April 16, 1930, and May 7, 1931.

LIMITS:

This sheet constitutes a complete re-survey of the area containing Tatoosh Island on the west and making a union with Topographic Sheet Field No. A 1931, at Cape Flattery. From Cape Flattery the sheet extends eastward through Neah Bay, including Waadah Island, to a junction with Topographic Sheet Field No. C 1931, at triangulation station BRUSH 1931 on the eastern limit.

GENERAL DESCRIPTION OF THE COAST:

In general the shore line is bold and rugged and especially is this true around Cape Flattery. From the Cape to a point about a mile eastward the coast is very rugged and indented by small coves and bights. The bluffs are from 100 to 125 feet high and very steep. In this area the beaches are mostly of boulders and large gravel on a coarse sand base. The sand beach that extends about a half-mile westward from  $\Delta$  CLASSET is coarse sand and is underlayed by rock ledges that bare at low tide. Rock ledges are common on all points throughout the area.

The west side of Neah Bay is of a rugged nature and the boulder and gravel beach extends considerably off the high water line at low tide. The kelp offshore from this beach is very thick and an accurate offshore limit was not determined by the topographer. Beginning at a point about a quarter of a mile northwest of Washburns Dock the beach is fine sand and from 75 to 100 meters wide. This beach extends the whole length of the bay to Baadah Point, where the rock ledges are common again.

The beaches around Waadah Island are all rock ledges with boulders, large gravel and sand on top. The offlying rocks to the southwest of the island are bare at low tide but outside of these the hydrographic party charted additional sunken rocks and a sunken pile.

From Baadah Point to  $\Delta$  BEACH the shore line consists of three successive sand beaches. These are known locally as First, Second and Third Beach.

Inshore from Sail Rock and Seal Rock the bluffs are low but steep. In this area there is not much beach. The small stretch of beach shown on the sheet is composed of large boulders and <sup>is</sup> hard to traverse.

The beach from this point to the eastern junction is almost entirely composed of gravel and coarse sand, and varies in width.

The topography inshore from the high water line is of a rolling nature and heavily wooded with virgin hemlock and spruce. There is a small area to the south of Neah Bay that has been cleared

for pulp wood, and the approximate limits are shown on the sheet. The road from Neah Bay eastward was sketched in by the topographer but its location is fairly accurate where it runs parallel to the beach. The road is of gravel and is subject to dangerous slides during the rainy season.

A telephone line from Tatoosh Island to the mainland is shown on the sheet in pencil. This line is lifted by towers on both sides and has a clearance of about 125 feet at the center of the span.

#### CONTROL:

The control for most of the sheet was a first order scheme of triangulation executed by J. J. Gilbert in 1893. The stations of this scheme used for control of this sheet consisted of CLASSET, WAADAH, BEACH, SAIL ROCK, SEAL ROCK, and KNOB.  $\triangle$  BRUSH, an additional station, was located by triangulation in 1931. Plane table traverses were run between triangulation stations. This held true except for one case where the traverse was closed on a three point fix at the base of Seal Rock and the traverse westward from  $\triangle$  CLASSET, which was closed on a common point on Topographic Sheet A, checked by a three point fix on that sheet.

#### CLOSING ERRORS OF TRAVERSES:

The traverse from CLASSET to a common point on Topographic Sheet A checked without error. This was a 2.7 mile traverse.

A traverse of 4.1 miles from CLASSET to WAADAH was out 14 meters in distance. This was adjusted by proportion. The several short setups necessary to traverse around the south end of Waadah

Island and the rather long shot from the island to the Coast Guard dock probably caused this error.

The traverse from WAADAH to BEACH, a distance of 2 miles, was 12 meters in error. This was also adjusted by proportion.

A traverse was run westward from KNOB to a three point fix at the base of Seal Rock. The fix was rather weak but was checked by a rod reading on BEACH. This traverse was 18 meters in error over a distance of 2.9 miles and was adjusted by proportion.

The traverse from KNOB to BRUSH checked satisfactorily. This traverse was 3.4 miles in length. No adjustment was necessary.

#### SURVEY METHODS:

Before the sheet was started, a set of three and one half meter stadia rods were graduated to the alidade. These rods were graduated at 100 meters and checked at 200, 300 and 400 meters. The rods proved satisfactory and a longer foresight was possible with them than with the standard folding rods furnished by the Washington Office.

No deviation was made from the standard practice of plane table surveys. Plane table traverses were run between triangulation stations or the traverses were closed on a three point fix.

Due to the nature of the area, it was very difficult to get alidade cuts to features back of the beach. Only in one locality in the vicinity of Neah Bay was this possible. Subsequently the elevation and locations of the hills were cut in by sextant cuts and vertical angles from a launch. This was subject to error because the water was too deep to anchor and the cuts were taken while drift-

ing. These elevations and features should be classed as form lines. Form lines from KNOB to the eastern limit were sketched by Lieutenant (JG) Henry J. Healy.

#### COMPARISON WITH PREVIOUS SURVEYS:

The last survey of the area was executed by H.W. Rhodes in 1908. This survey included the area between BRUSH and Baadah Point and compares favorably with the present survey. There are discrepancies in a few places but occurring only when the beach is level and subject to change. In the area where there is rock beach and bluff there are slight changes, probably due to the topographer's choice in sketching between setups.

First, Second and Third Beach show an increase in the beach, as does the beach from ⊙ RAD to ⊙ BULL, and from ⊙ ELF to ⊙ RAIN. All of these areas are sand beach and the discrepancy is probably due to the beach building out during the past twenty-two years. The two sunken rocks to the southeast of Sail Rock, charted by H. W. Rhodes in 1908 were not charted by this survey.

The previous survey from Koitlah Point to Cape Flattery was only a reconnaissance survey but the general details compare very well considering the nature of the previous survey.

#### LIST OF NEW NAMES IN LOCAL USE:

The sand beach westward from CLASSET is known as "WARM HOUSE BEACH". No trace remains of the Classet Indian Village as shown on the present charts of this area. It should be removed.

FIRST, SECOND AND THIRD BEACH are the local names of the

three beaches immediately east of Baadah Point.

The stream that empties into the Strait to the southwest of Seal Rock is known locally as SAIL RIVER.

CONCLUSION:

In conclusion a word should be added about the valuable assistance of Chief Boatswain Cooper of the Coast Guard Life Station at Baadah Point.

During most of the survey the topographic party was camped on the Coast Guard reservation and every courtesy was shown them. On several occasions the offer of the use of their power launch was accepted and proved a valuable aid in completing the sheet.

Respectfully submitted,

*John C. Mathisson.*

John C. Mathisson,  
Jr. H. & G. Engineer,  
U.S.C. & G. Survey.

Respectfully forwarded,  
approved.

*Fred. L. Peacock*  
Fred. L. Peacock,  
H. & G. Engineer,  
U.S.C. & G. Survey,  
Commanding Ship GUIDE.



LIST OF PLANE TABLE POSITIONS.

Name	Latitude	D.M.(meters)	Longitude	D.P.(meters)	Description
NUB	48 - 23	665.3	124 - 42	840.4	top of small sharp pinnacle rock
ISM	48 - 23	857.8	124 - 41	633.0	top of large pinnacle rock
TIP	48 - 23	1122.5	124 - 40	590.5	highest point on Chibahdehl Rock. Elevation 21 ft.
FLAG	48 - 22	233.6	124 - 37	471.3	flag pole in front of Dept. Interior
NOR	48 - 22	274.4	124 - 37	29.7	north gable of end building on dock
GAB	48 - 22	53.2	124 - 37	89.9	west gable of cannery building
LONE	48 - 22	118.6	124 - 36	269.4	north gable of lone house on beach
LOOK	48 - 22	532.7	124 - 35	980.8	north gable on U.S. C.G. lookout tower
RICK	48 - 22	842.7	124 - 35	665.2	derrick on end of dock
GRAY	48 - 22	642.1	124 - 35	678.2	west gable on large gray building of pulp wood mill
SCAR	48 - 22	1731.2	124 - 35	874.1	highest point of large scar on east side of Waadah Id.
RED	48 - 22	810.5	124 - 35	464.1	Beadah Point Light
BAR	48 - 21	340.6	124 - 31	1113.1	Offlying rock, bare 3 ft. at high water
TOP	48 - 20	964.7	124 - 30	353.6	large boulder on beach. Elev. about 8 ft.
BOW	48 - 19	164.3	124 - 26	915.4	bow of the wreck of the "BIANCA"

STATISTICS  
Topographic Sheet "B", 1931.

Area square statute miles.....33.6  
Statute miles of shore line surveyed....22.6  
Statute miles of highway(reconnaissance)11.9  
Number of hydrographic signals located 43

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.  
4633

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. B

REGISTER NO. 4633

State WASHINGTON

General locality STRAIT OF JUAN DE FUCA

Cape Flattery to Sekiu River  
Locality ~~PATCOOSH ISLAND TO A BRUSH~~

Scale 1:20,000 Date of survey JUNE, 1931

Vessel U.S.C. & G.S.S. GUIDE

Chief of Party K. T. ADAMS

Surveyed by J. C. Mathisson

Inked by J. C. M.

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

~~Contours, approximate contours~~ Form line interval 100 feet

Instructions dated APRIL 16, 1930 and MAY 7, 1931

Remarks: \_\_\_\_\_