

4187

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Form 504 <b>DEPARTMENT OF COMMERCE</b> U. S. COAST AND GEODETIC SURVEY B State: <u>Washington</u> <small>11-5613</small>
<b>DESCRIPTIVE REPORT.</b> Topographic Sheet No. <u>4187</u>
<b>LOCALITY:</b> <u>Strait of Juan de Fuca-S. Shore</u> <u>Tongue Pt. to Ediz Hook</u>
<u>1926</u> <b>CHIEF OF PARTY:</b> <u>H. A. Cotton</u>

DESCRIPTIVE REPORT

TOPOGRAPHIC SHEET "B"  
4187

STRAIT OF JUAN DE FUCA

TONGUE POINT to EDIZ HOOK

MAY 1926

MOTOR VESSEL NATOMA

HAROLD A. COTTON, COMMANDING

SCALE - 1 : 20,000

AUTHORITY -

Director's Instructions, dated March 4th, 1926.

LIMITS -

The work on this sheet is a resurvey of Topographic Sheet No. 2856 and a part of No. 2857, done by the party of W. C. Dibrell in 1908.

The limits are Tongue Point Monument on the west and the base of Ediz Hook on the east. The topography includes the form lines of Striped Peak and the Elwha River Valley to about  $\frac{3}{4}$  mile from the shore; in other places the width is not appreciable.

The sheet was laid out to include the survey of Port Angeles, which caused Tongue Point Monument to fall off the sheet by about  $\frac{1}{2}$  mile; this was done on an insert and transferred to Field Sheet "A".

CONTROL -

The work was controlled by the following triangulation stations: Tongue Point Reference Monument, Reef, Angeles Point Reference Monument, Bight, and Ediz Hook Lighthouse, the latter being used for a check on azimuth.

GENERAL DESCRIPTION OF COAST -

From Tongue Point eastward to Station Reef the shore is rocky and very rugged with vertical cliffs rising to 200 feet in places. The slopes of Striped Peak are wooded but are now being logged.

The south shore of Freshwater Bay is bluff, consisting of clay, sand, and gravel; the bluff is from 100 to 200 feet in height. Parts of the face of this bluff are wooded; for the wooded parts contours instead of hachures are used.

The Elwha River Valley is about one mile wide, and is mostly under cultivation.

Elwha Indian Village which is about  $\frac{3}{4}$  mile west of the mouth of Elwha River; is nearly deserted.

The Elwha River is a large stream, but is only navigable for small boats for about  $\frac{1}{2}$  mile at high water.

Between the Elwha Valley and the base of Ediz Hook is a bluff similar to the bluffs of Freshwater Bay, averaging about 100 feet in elevation.

COMPARISON WITH PREVIOUS SURVEYS -

The shore line was found to agree closely with the survey of 1908, except for the rocky shore line to the west of Station Reef, and the vicinity of the mouth of Elwha River.

The original survey to the west of Station Reef was done by sextant, evidently because adverse weather made landings with a plane table outfit impracticable. The present survey was done by plane table under favorable conditions, and with good control in azimuth.

COMPARISON WITH PREVIOUS SURVEYS - (Continued)

Large changes were found in the vicinity of the mouth of the Elwha River. The mouth of the river is now about  $\frac{1}{4}$  mile east of its former location. The eastern branch of the river is blocked off and nearly dry, only a short section of slough being left of it. There are only a few scattered remnants of the network of sloughs to the east of the mouth of the river. The high water line at Angeles Point has not changed appreciably.

DANGERS -

There are no offlying dangers. There are a few boulders in Freshwater Bay, all inside the low water line.

PROMINENT OBJECTS -

The only conspicuous landmarks are the landslide on Striped Peak (It is 675 feet in height and about 50 meters wide) and the small rocky island on which Station Reef is located; there is a lone tree on this island.

Other objects much less conspicuous and of doubtful value as landmarks are as follows :

A log skidway on the face of the bluff in Freshwater Bay (⊙ Bay)

A farmhouse near the edge of the bluff in Freshwater Bay one mile east of the western end of the bay.

The west gable of the largest house in Elwha Indian Village; this house has a very sharp peaked roof.

A house on the bluff above Elwha Indian Village; this is obscured by trees from some angles.

A tall tree on the bluff east of Angeles Point.

A sharp corner of the bluff one mile west of Station Bight.

GENERAL NOTES REGARDING COUNTRY -

A branch of the Chicago Milwaukee & St. Paul Railway and the Piedmont Road traverse the sheet from east to west, from one to three miles back from the shore. The railroad runs a passenger train to Twin Rivers twice a week, and an auto stage makes one trip a day from Twin Rivers to Port Angeles. The road and railroad were not run on this sheet.

A branch road serves the lower Elwha Valley.

The only farming of any extent is in the lower Elwha Valley.

A logging camp, located at the west end of Freshwater Bay, is logging the northeast slope of Striped Peak.

SURVEY METHODS -

The entire sheet was done by plane table traverse.

Following is a list of traverses with length and closure :

<u>From</u>	<u>To</u>	<u>Length</u> <u>Statute Miles</u>	<u>Closure</u> <u>Meters</u>
Tongue Point Monument	Station Reef	3.5	10
Station Reef	Angeles Point Monument	5.0	18
Angeles Point Monument	Station Bight	3.5	10

SURVEY METHODS - (Continued)

The traverse in Freshwater Bay was strengthened by taking cuts to signals from Station Reef.

A part of Elwha River and the lower Elwha Valley were done by a magnetic traverse.

The sheet is considerably distorted, but was in good condition at the time the work was done.

S T A T I S T I C S

Statute miles shoreline .....	13.1
" " rivers, creeks & sloughs .....	1.9
" " roads .....	1.8
Number of positions .....	40
Positions recoverable .....	15
Area - square statute miles .....	3.1
Elevations .....	17

Examined, approved and forwarded,

*Harold A. Cotton*

HAROLD A. COTTON,  
Hyd. & Geo. Engineer,  
C. & G. Survey,  
Commanding M.V. NATOMA

Respectfully submitted,

*M. O. Witherbee*

M. O. WITHERBEE  
Hyd. & Geo. Engineer,  
C. & G. Survey.

LIST OF PLANE TABLE POSITIONS

Object & Description	Latitude & Longitude	Seconds in Meters	Elevation feet
<u>SIT</u> - Small white cliff	48 09 123 41	1562 385	
* <u>TOP OF SLIDE</u> -	48 09 123 40	1216 1110	675
* <u>DED</u> - Marked Station	48 09 123 40	1428 310	
<u>MOW</u> - Overhanging Cliff	48 09 123 39	850 75	70
<u>AYE</u> - Overhanging cliff	48 09 123 38	567 771	appx. 20
<u>ROCK</u> - (Sheet 2858) Boulder	48 08 123 38	1463 409	2
<u>BOY</u> - Bottom of log skidway	48 08 123 37	688 820	0
* <u>MIKE</u> - Marked Station	48 08 123 36	452 20	
* <u>FARM</u> - North gable of house	48 08 123 37	460 610	appx. 200
* <u>GOR</u> - West gable of house	48 08 123 34	813 151	
<u>WATER TANK</u> -	48 08 123 33	1713 255	appx. 15
<u>WATER TANK</u> -	48 08 123 32	1621 789	appx. 25
<u>HID</u> - House on bluff above Elwha village	48 08 123 34	1021 37	appx. 150
* <u>TREE</u> -	48 08 123 32	1392 240	appx. 800
* <u>GOR</u> - Corner of bluff	48 07 123 30	1726 500	126

\* Described on Form 524

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. 4187

Tongue Point to Ediz Hook, Strait of Juan de Fuca

Surveyed in 1926

Instructions dated March 4, 1926 (NATOMA)

Chief of Party, H. A. Cotton.

Surveyed and inked by M. O. Witherbee.

1. The records, as well as the plan and character of the survey, conform to the requirements of the General Instructions.
2. The plan and extent of the survey satisfy the specific instructions.
3. The junctions with the adjoining sheets are satisfactory.
4. No further surveying is required.
5. The character and scope of the surveying and field drafting are good.
6. Reviewed by E. P. Ellis, October, 1926.

Approved:



Chief, Section of Field Records (Charts)



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

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

4187

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. **4187**  
Field Letter "B"

State . . . Washington . . . . .

General locality . . . Strait of Juan de Fuca, S. Shore . . .

Locality . . . Tongue Point to Ediz Hook. . . . .

Chief of party . . Harold A. Cotton . . . . .

Surveyed by . . . M.O. Witherbee. . . . .

Date of survey . . May, 1926 . . . . .

Scale . . . . . 1:20000. . . . .

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

Contour interval . 100 . feet.

Inked by M.O. Witherbee . Lettered by M.O. Witherbee . . . . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . .

Remarks: