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Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*C. H. Fishman*  
Superintendent.

State: *Wash*

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DESCRIPTIVE REPORT.

*Tape* Sheet No *2857-89*

LOCALITY:

*Juan de Fuca*  
*Strait*

1907-8

CHIEF OF PARTY:

*W. C. Dibrell*

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DESCRIPTIVE REPORT  
to accompany <sup>topographic</sup> sheets No 2, Dungeness to Port Angeles,  
No 3, Signal Bight to Striped Peak,  
No 4, Striped Peak to signal Breakwater.

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GEODETIC SURVEY  
1908

General Description of Coast

The southern shore of Juan de Fuca Strait from the base of New Dungeness Spit to the west end of Freshwater Bay presents a bold regular shore line backed by an abrupt bluff varying in height from fifty to three hundred feet. Thence to the east side of Crescent Bay the shore line is irregular and rocky, the ground rising rapidly inland. Crescent Bay presents a broad sandy beach, the shore to the westward again becoming rocky.

Description of the Shore.

Dungeness Spit at the end of which is New Dungeness light house, is a narrow reach of sand rising a few feet above high water with occasional grassy areas in the widest parts and practically covered with drift wood. The spit swings in regular curves in-shore towards signal Bluff where it joins the mainland. From this point the bluff, which follows the shoreline to the westward, recedes inland to the eastward and slopes down into a low flat upon which is built the village of Dungeness. Considerable marshy land is found along the shore line here, the village being built on ground about 5 feet above high water. From signal Bluff westward to Port Angeles a bare bluff increasing in height from 80 to 180 feet presents a buff colored to grayish brown appearance along the shoreline, which follows regular swinging curves with a narrow sand or pebble beach at

low water. From the edge of the bluff the ground, which is very smooth and covered with a second growth of fir and cedar forest with heavy underbrush, rises gradually to the foot hills of the Olympic mountains four or five miles inland. At the first creek west of signal Bluff, at Green Point, and at Morse point the bluff turns sharply inland and valleys, the widest about 1/2 mile wide at Morse Point, extend inland, the shoreline in these places showing wooded instead of the bare bluff color. The bluff is also broken occasionally by smaller gullies.

From signal Bight to signal Elwha the same character of shore line is found, the bluff falling from 160 to 80 feet high as it extends west, with occasional breaks where small streams come out. The valley of the Elwha River is a low area extending from about 2 1/2 miles west of signal Bight westward 1 1/4 miles. This valley is open except for brush for about 1/2 mile where woods extend inland. To the westward the bluff rises to a height of 300 feet, is shelving and somewhat rocky, and partly concealed by underbrush, the ground above being wooded.

At the west side of Freshwater Bay the shoreline becomes rocky and irregular with precipitous ledges varying up to 100 feet high along the water, the ground rising steeply to the summit of Striped Peak about 1/4 mile inland. This mountain is wooded and covered with dense underbrush.

At the east side of Crescent Bay the rocky shoreline ceases and Salt Creek flows into the bay out of a low open valley which extends some distance inland. A broad gentle sloping crescent beach of very fine gray sand extends across the bay. At the middle of Crescent Bay a rocky cliff rises from the water line and recedes sharply up the valley of Salt Creek to the east,

and to the west becomes an abrupt slope overgrown with brush receding from the beach and leaving a low area upon which is built the village of Port Crescent. The headlands to the west of the bay are rocky and covered with brush and trees.

Objects Located by Plane Table Cuts.  
Sheet No 2.

Three windmills located near the village of Dungeness, a church spire in the village, the northwest corner of the wharf, a pile about 100 meters west of the wharf, and another about 500 meters northwest of the wharf were used as signals. Signal End a braced pole with banners, is built near the south end of the inner spit; signal Mid a round braced pole about 8 inches in diameter with banners is built near the east edge of the spit about 900 meters north of End; signal Spit is an old tripod signal on the outer spit found in good condition; it was not repaired. A small wharf with a road leading down to it about 2 miles east of Green Point where a gully cuts thru the bluff, forms a prominent signal. About 1 1/2 miles west of Green Point is a hole about 6 feet in diameter opening into a natural tunnel thru the bluff.

On sheet No. 3 was located the west end of the gable of a large unpainted barn near the beach, the first barn east of the Elwha River; the west end of the gable of a yellow church in Elwha village; the east end of a shed on the beach at the middle of Freshwater Bay in front of which in the water are built three or four cribs; a large boulder into which is let an eyebolt with chain and ring about 100 meters off the beach in the west end of Freshwater Bay; and a landslide about 400 feet high on the rocky shore somewhat to the eastward of Striped Peak.

On sheet No 4 the cupola of a square white house in the summit of a draw over the ridge back of the village; the weather signal tower near the last named signal; and a whitewashed post light on the headland west of the bay, were located.

Boat Landings.

In good weather with no swell running and at the proper stages of the tide good boat landings may be found at any place along the shore except between Freshwater Bay and Port Crescent. With a swell running, as is often the case, landings are difficult except inside Dungeness spit, Ediz Hook, and the west side of Crescent Bay. At extreme high tide the water washes the bluff except in those places where a wide beach is shown on the sheets, and at extreme low tide landings in the west side of Freshwater Bay are prevented by the numerous boulders awash. Boats may be taken into Morse creek at not less than half tide, and with a swell running this creek offers a good harbor for small boats. Boats may be taken into the Elwha River at high tide, the current at low tide being too strong for headway to be made against. With a heavy swell running breakers and the continually shifting bars at the mouth make entrance dangerous.

A red post light is located on the headland about fifty feet above the water south of Crescent Rock, which is marked by a red buoy #2.

At Dungeness is a pier for wagon traffic about  $3/4$  mile long leading to the wharf, at which steamers may lie. At Port Crescent a narrow gauge logging railroad runs out to the end of the wharf at which steamers may lie.

Recession of the shoreline at the base of Dungeness spit is evident from the fact that the old signal Bluff of which no trace

(5)

could be found had been located north of what is now the edge of the bluff at that place. In general no important change of shoreline were found.

Survey Methods.

The general method employed in this work was that of plane table traverses between triangulation signals. In Crescent Bay cuts from signals Cliff and Breakwater occupied eccentrically served to make the work more accurate. Between signals Reef and Cliff the rocky and precipitous nature of the shore and country inland made the work better suited to sextant traverse, which method was consequently used there. Owing to the steepness of the bluff along practically the whole shoreline and the wooded nature of the country above no attempt at contouring at any distance from the beach could be made.

All the work was done along the beach.

*W. B. Cunningham,*  
*Aid, C. & G. S.*

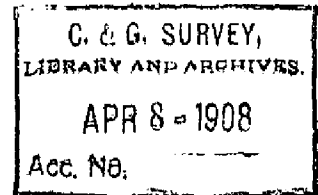
*Approved;*  
*Walter D. Dibble*  
.....  
Assist. C. & G. Survey Comd'g.

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2857



Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*Unfinished*  
*Topographic Sheet No. 1.*

*Steeped Peak to Crescent Rock.*  
*South Shore*  
*Strait of Juan de Fuca*  
*[Crescent Bay]*  
*Scale  $\frac{1}{20000}$*

*Sto. Explor., Walter C. Dibrell, Asst., Chief of Party.*

*Topography done with plane table by Lt. Blumming, Asst.*

*Lights. Fixed red post light on bluff opp. Crescent Rock.*

*Buoys. Red buoy #2 off Crescent Rock.*

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# Statistics

Number of statute miles of shore line surveyed

3.6 miles.

Number of statute miles of creeks & rivers surveyed  
(both banks).  $\frac{3}{4}$  mile.

Number of square statute miles of country  
surveyed. 6.9 sq. miles.

Number of statute miles of railroads and  
other roads surveyed.

Railroads  $1\frac{1}{4}$  miles.

Other roads 0.6 mile

Sheet No. A.

John. E. Pollock

Walter C. Michael, Chf. of Party.

Feb 1908.