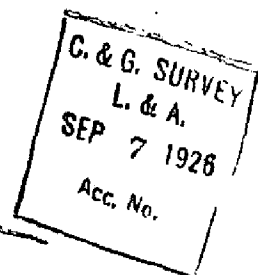


4189

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
State: <u>Washington</u>
11-5013
DESCRIPTIVE REPORT.
<u>Topographic</u> Sheet No. <u>4189</u>
LOCALITY:
<u>Strait of Juan de Fuca</u>
<u>Port Discovery-N. End</u>
<u>and Protection I.</u>
<u>1926</u>
CHIEF OF PARTY:
<u>H.A. Cotton</u>



DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEETS NO 4189 4190  
(Field letters "G" & "H")

PORT DISCOVERY & APPROACHES

STRAIT OF JUAN DE FUCA:  
WASHINGTON.

June - July, 1926

Scale - 1" = 10.000

AUTHORITY-

The topography on these sheets was executed in accordance with instructions to the Commanding Officer of the Motor Vessel NATOMA, dated March 4th, 1926.

LIMITS-

The work on these sheets consists of a resurvey of Port Discovery and approaches and includes Protection Island. The survey extends from the entrance of the harbor eastward as far as Middle Point and westward to  $\triangle$  Rocky. The longitude limits are  $122^{\circ} 50\frac{1}{4}'$  and  $122^{\circ} 58\frac{1}{2}'$ .

DIVISION OF SHEETS-

The work was done on two sheets. The portion of the harbor north of  $\triangle$  Carr and  $\triangle$  Turkey, the approaches from the westward and Protection Island were done on a sheet by H. O. Witherbee. The eastern shore as far north as  $\triangle$  Coyne was on this sheet. Protection Island was as an insert.

The entire portion of the harbor to the south of  $\triangle$  Carr and  $\triangle$  Turkey was surveyed on a second sheet by Carl I. Aslakson. This sheet also included a traverse from  $\triangle$  Coyne to  $\triangle$  Middle which was done as an insert.

These sheets will hereafter be referred to as Sheet "G" and Sheet "H" respectively.

CONTROL-

Excellent control was obtained from the triangulation of the U. S. Engineers whose signals were still standing. Ten of these stations were recovered for use on sheet "G", eight being on the mainland and two on Protection Island. A Coast Survey Station ( $\triangle$  Protection) was also recovered on Protection Island.

Ten stations were also used for control on sheet "G". Two of these, Turkey and Carr were also used on sheet "H".

ELEVATION-

No elevations were determined on sheet "G" and only 5 on sheet "H". The elevations on the old survey were occasionally checked and found to be very good. The five elevations determined on sheet "H" were on the new branch of the Olympic highway which parallels the head of the harbor on the east shore. These were found to compare favorably with old elevations and where discrepancies occur it is recommended that the contours be adjusted to the elevations as obtained on sheet "H" for at least two and on some cases three checks were obtained on these elevations with only slight differences. The mean of the results was used on each case.

# METHODS-

## Sheet "G"

Traverses were run on Protection Island from  $\Delta$  Kanem to  $\Delta$  Violet and from  $\Delta$  Violet to  $\Delta$  Kanem. On the mainland traverses were run from  $\Delta$  Quarantine to  $\Delta$  Thompson and from  $\Delta$  Thompson to  $\Delta$  Rocky. Another was run from  $\Delta$  Beckett to  $\Delta$  Coyne with a check at  $\Delta$  George which was cut in by plane table.

A section of the Olympic Highway was run in by traverse starting from a three point fix; This traverse was not closed. The remainder of the work on sheet "G" was done by three point fix.

Sheet "H" The entire work in the harbor was surveyed by three point fixes and plane table triangulation except a traverse along the road from Kaymes Inn to a point east of  $\Delta$  Spurrell. The outside coast from  $\Delta$  Coyne to  $\Delta$  Middle was traversed with stadia and plane table.

## LIST OF TRAVERSES.

Sheet "G"		Length Statute	Closure	Closure
From	To	Miles	(Meters)	per Mile
$\Delta$ Quarantine	$\Delta$ Thompson	1.3	4	3
$\Delta$ Thompson	$\Delta$ Rocky	1.4	4	3
$\Delta$ Violet	$\Delta$ Kanem	1.8	10	5.5
$\Delta$ Kanem	$\Delta$ Violet	2.2	8	3.7
$\Delta$ Beckett	$\Delta$ Coyne	2.3	15	6.5
Sheet "H"				
$\Delta$ Kaymes Inn	$\Delta$ Spurrell	1 $\frac{1}{4}$	20	*16
$\Delta$ Coyne	$\Delta$ Middle	2 $\frac{3}{4}$	22	7.1

\*This was a secondary traverse with some magnetic orientation and very short set ups.

## CHARACTER OF SHORE LINE-

From  $\Delta$  Rocky to within a short distance of  $\Delta$  Quarantine the shores are bluff on steep hillside except at Thompson which is a low sandy point with a lagoon. From the quarantine wharf to Eagle Creek is a steep bluff. From Eagle Creek to Carrs point is a gravel beach. The east shore of Port Discovery is gravel beach with occasional bluffs. Beckett Point and Cape George are low and sandy.

Protection Island consists of a table land about 200 feet high with two low spits extending from the eastern and southeastern end. A considerable area in the center of the Island is under cultivation. The northwestern side is sparsely wooded. The bluff along the north shore is light in color and very steep. The bluffs on the other three shores are less steep and grassy in places.

Sheet "H"

The shore line on this sheet has a sandy beach except at the head of the bay where there are extensive mud flats bounded by marsh. There are occasional yellow clay bluffs along the shore. These are highest in the vicinity of Chevy Chase Inn.

PROMINENT OBJECTS-

The quarantine station of the U. S. Public Health Service is located on Clallam Point at the west side of the entrance to Port Discovery. The group of white buildings are prominent from the Strait but no individual building shows well enough to be used as a landmark.

All the U. S. Engineers triangulation signals are well built and will probably last for a number of years. Within range of sight they make excellent landmarks.

The only landmarks of importance at the head of the harbor is the large black tank at the end of the ruined dock. This should be shown on the chart.

The largest building at Chevy Chase Inn and Kaymes Inn may also serve as landmarks.

GEOGRAPHIC NAMES-

The Milwaukee R. R. Stations of Discovery Junction and Maynard appear on this sheet as well as the villages of Fairmont and Gardiner.

No other changes in names are noted.

CHANGES SINCE PREVIOUS SURVEY-

There is considerable change at Point Mill as to the rotting and weathering away of the former structures there. Little evidence of these structures remains and the point has become smaller.

The former small slough just south of  $\Delta$  Anderson has filled in and became fast land covered with grass.

There is no evidence of the small spit and slough which appeared on the bromide of the old survey about  $\frac{1}{2}$  mile to the eastward of the present site of Fairmont Village.

All along the eastern shore wherever the railway is close to the water there are frequent changes due to fills for the railway bed.

There are a great many changes at the head of the bay due mainly to the railroad and roads. At the extreme southern part a good deal of land south of the railroad fill which was formerly covered with water has now become hard and fast. The lower water line has built out and at low water the whole head of the bay becomes mud flats.

The dotted stream beds shown therein were unsurveyed as it was impossible to reach them at low water.

The portion of shore line between  $\Delta$  Coyne and  $\Delta$  Middle was found to be unchanged except that some small irregularities shown on the old bromide seemed to have been smoothed out. The bluffs and vegetation closely checked the old survey so no time was wasted in resurveying or inking it in on the topographic sheet.

Carr's Point has built out about 80 meters. The north shore of Protection Island is gradually receding due to caving of the bluff. The greatest change is at the northern point of the island which has receded about 60 meters since 1869. The South-western spit has changed slightly in position and is a little narrower than before.

All other shore line on Sheet "G" agrees with the original survey.

Railroad right of way maps of the C. M. & StP. R. R. have been obtained and are being forwarded with this sheet. These may be used to fill in the unsurveyed portions of the railroad appearing on these sheets.

#### COMMUNICATIONS-

Two daily trains each way are maintained over the C. M. & StP. R. R.

Good service is also maintained over the highway bus lines which connect with all surrounding towns.

Small freight and passenger boats dock more or less regularly at Fairmont and Gardiner. A small steamer calls daily at the latter town.

#### GENERAL DESCRIPTION OF COUNTRY-

The area is sparsely populated except for the neighborhood of Gardiner and the small communities at the head of the bay.

Gardiner has a store, post office, railroad station and wharf. The post office and railroad are half a mile inland.

Discovery Junction has nothing but railroad buildings.

Fairmont has a store, post office and very small dock.

Maynard has a hotel, large garage and service station and several stores but is accessible from the water only at high water. There is a shingle mill in operation here.

The country is wooded in general with a considerable logged off area in the vicinity of Gardiner. About half of this is under cultivation and the other half is second growth and brush.

There are a few small farms near Cape George.

There is some cleared land in the vicinity of Chevy Chase Inn. Part of this has been converted into a golf course and part is under cultivation.

The farms are mainly productive of berries and tree fruit.

A number of logging Companies are in operation at the present time over scattered areas.

The two summer resorts Chevy Chase Inn and Kaymes Inn seem to be well patronized and are open to guests at the present time.

# STATISTICS

Statute Miles of shore line	17.8	14.3	31.9
Statute Miles of Creeks est.		0.5	0.5
Statute Miles of Roads ets.	3.9	17.0	20.9
No. of recoverable Positions	16	24	* 38
Triangulation	11	10	* 19
Plane Table	5	5	10
No. of positions occupied	39	70	109
Elevations	0	5	5
Area	1.5	2	3.5

\* Two triangulation stations appear on both sheets.

Examined, approved and forwarded,

Harold A. Cotton  
 HAROLD A. COTTON, H. & G.E.  
 U. S. C. & G. Survey,  
 Commanding NATOMA

Respectfully submitted,

M. O. Witherbee  
 M. O. Witherbee H. & G. E.  
 U. S. C. & G. Survey,

Carl I. Aslakson  
 Carl I Aslakson, Jr. H. & G. E.  
 U. S. C.&G. Survey,

LIST OF PLANE TABLE POSITIONS

Sheet "G"

Name and Description	Latitude and Longitude	Seconds in Meters	Remarks
George	48 06	312 (1541)	Marked and described on form 524
	122 53	26 (1216)	
Gardiner Post Office	48 04	60 (1793)	
	122 54	1114 ( 128)	
Tank, Quarantine station	48 05	1094 ( 759)	Black Water tank
	122 55	314 ( 928)	
Flagstaff " "	48 05	1210 ( 643)	
	122 55	179 (1063)	
Skid	48 04	873 ( 960)	Bottom of Log Skidway
	122 55	678 ( 564)	

Sheet "H"

Tank on ruin of Wharf	47 59	1600 ( 253)	Des. form 524
	122 52	795 ( 449)	
Black Tank in Maynard	47 59	1754 ( 99)	
	122 52	1190 ( 54)	
Center chimney of station house at Discovery Junction	47 59	1178 ( 675)	Des. form 524
	122 52	451 ( 793)	
East end store	47 59	466 (1387)	Des. form 524
	122 53	147 (1097)	
Center red roof of house	47 59	1473 (380 )	
	122 53	105 (1139)	



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

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.

4189

U. S. Coast and Geodetic Survey.

Register No. 4189 (Field Letter G)

State . . . . . Washington . . . . .

General locality . Strait of Juan de Fuca . . . . .

Locality . Port Discovery, Northern end, and Protection Island.

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

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

Date of survey June - July, 1926 . . . . .

Scale . . . . . 1 : 10,000 . . . . .

Heights in feet above . . . . .

Contour interval . . . . . feet.

Inked by H. H. Hardy. Lettered by H. H. H. . . . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet C. M. & St. P. R. R. Maps

Remarks:

4189