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U. S. COAST AND GEODETIC SURVEY  
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Acc. No.

Form 504  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

State: *S. E. Alaska*

11-5013

DESCRIPTIVE REPORT.

*Map.* Sheet No. **3688**

LOCALITY:

*1917*

CHIEF OF PARTY:

*A. G. Adams.*

Sheet "D"

U. S. COAST AND GEODETIC SURVEY.  
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DEPARTMENT OF COMMERCE

E. Lester Jones, Superintendent.

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DESCRIPTIVE REPORT

OF

TOPOGRAPHIC SURVEY 3688

OF

VICINITY OF THOMAS BAY AND CAPE OF THE STRAITS.

FREDERICK SOUND S.E. ALASKA.

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Compiled by

George L. Bean, Aid.

Nov. 7, 1917.

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WIRE DRAG PARTY No. 3

A. Joachims, Chief of Party.

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Plane Table Survey of the Vicinity of Thomas Bay and  
Cape of the Straits.

Sheet "D" 3688 S.E. Alaska.

Wire Drag Party No. 3 June 1917. A. Joachims, Chief of Party.

Survey by A. L. Shalowitz, Aid.

Introductory notes.

This survey, which was on a 20,000 scale, was made to include both sides of Frederick Sound within the prescribed limits, and was done in conjunction with the wire drag work in this vicinity. In accordance with instructions the shore line of Thomas Bay was to be omitted unless sufficient extra time was available to make such work practical without holding up the drag work. As a consequence, no time was available for running in Thomas Bay.

Limits of the sheet.

On the south shore of Frederick Sound this sheet joins sheet "C" at a point about two miles southeast of the Cape of the Straits and continues westward to a junction with sheet "E" at a point about one-half mile east of triangulation station Bridge.

On the north shore of Frederick Sound in the Vicinity of Wood Point, it starts at a point about one-half mile east of triangulation station Wave and continues to a point about one-half mile north of Wood Point. On the west side of Thomas Bay it begins at the extremity of Vanderput Point and continues to the eastern side of the entrance to Farragut Bay at triangulation station Grand.

Control of the sheet.

The control of this sheet is founded upon the triangulation scheme including the signals Cape, Light, Kit, Catch, Grand and Wave. These stations being well distributed over the area of the sheet gave adequate control, making the establishment of topographic stations unnecessary. Therefore station Hall was the only topographic station used.

Method.

The method of the survey was to start at a triangulation station and traverse to the next station, checking the traverse at intervals by a three point fix and resections. At the termination of all traverses and at the junctions with other sheets, very good checks were obtained.

Nature of the shore line.

In the vicinity of Wood Point the shore line is low and a wide gravel beach extends from 100 to 800 meters out from the high water line. Large boulders are scattered about. The tree line comes to the high water line. From the extremity of Vanderput Point north to Triangulation station Catch and a sand beach with occasional boulders is found. From station Catch to the western limit of the sheet the shore line is bold with steep

bluffs and boulder beaches. The tree line comes to the high water line.

On the southern shore of the Sound a rugged shore line is found. With the exception of a short sand beach at Ten Mile Creek, boulder beaches and ledges predominate.

The rocks of this sheet are of slate and granite and small quantities of quartz.

#### Flora.

Fir and yellow cedar form the greater part of the vegetation of this sheet. The trees are of medium size and not of great value as timber. A thick undergrowth of berry bushes, devil's club, alder and ferns is usually encountered.

#### General resources.

Fishing forms the principal industry in this vicinity. Large amounts of shrimp are caught in Thomas Bay, and salmon run in large numbers.

Lumber suitable for piling and simple building purposes may be had in large quantities.

Game and wild fowl are plentiful. Several gold claims have recently been staked in the vicinity of the Cape of the Straits.

One or two ranches are located in Thomas Bay.

#### Coast pilot.

Two large rocks are located about 100 meters off shore near Ten Mile Creek. They are marked by kelp and the larger is awash at high tide.

In the vicinity of Wood Point the beach extends about one-half mile off shore. It is dotted with boulders.

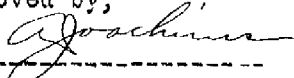
Kelp is found all along the south shore of the Sound and at intervals between stations Catch and Grand.

A secure anchorage for boats up to 100 tons is found in Thomas Bay.

#### Conclusion.

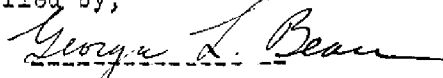
It was hoped that an opportunity would be found to continue the survey further into Thomas Bay, but prolonged rains and the sudden termination of the season, due to the transfer of the personnel of the party, made this impractical.

Approved by,



Jr. Hyd. & Geodetic Engr.  
Chief of Wire Drag Party #3.

Compiled by,



Aid, C.&G. Survey.

Topographic stations used on sheet "D"

3688

Station	Latitude	D.M.	Longitude	D.P.
	'	meters	'	meters
Mall	57 05	215	133 08	544

Statistics.

Miles of shore line:- 21.0

Area:- 15.0 square miles.

Miles of creeks:- 0.2

Plane Table Survey of the Vicinity of Thomas Bay and Cape of the Straits.

Sheet "D"

S.E. Alaska.

Wire Drag Party No 3.

June 1917.

A. Soachims, Chief of Party.

Survey by A. L. Shalowitz, Aid.

Introductory Notes.

This survey, ~~made~~ on a 20,000 scale, was made to include both shores of Frederick Sound and the whole of Thomas Bay. The general plan adopted was to complete the outside work first and then, if compatible with the wire drag operations, the survey of the Bay was to be taken up. This, ~~was~~ however, was ~~rendered~~ impossible by the continued inclemency of the weather during the latter part of the season, as well as by the sudden curtailment of the operations due to the war conditions.

Limits of the Sheet.

This sheet includes both shores of Frederick Sound. On the south shore, this sheet joins Sheet "C" at a point about two miles southeast of the Cape of the Straits and continues westward to a junction with sheet "E" at a point about <sup>300 meters</sup> ~~one half mile~~ east of  $\Delta$  Bridge.

On the north shore of Frederick Sound in the vicinity of Wood Point, it starts at a point about one-half mile east of  $\Delta$  Wave and continues to a point about one-half mile north of Wood Point. On the west side of Thomas Bay, it begins at the extremity of Vandeput Point and continues to the eastern side of the entrance to Fuvragut Bay at  $\Delta$  Grand where it joins with sheet "E."

Control and Method of Survey.

Starting with the recovered triangulation stations Noon and Cape, a tertiary scheme was continued up the Sound establishing stations Wave, Kit, Light, ~~and~~ Catch, and Grand. These stations being well distributed over the sheet, ~~eliminated~~ furnished ample control for the topography and eliminated the necessity of establishing additional stations for wire drag purposes.

The main portion of the shore line was run in by three point fixes and resections. The entire south shore was surveyed by three point fixes. The shore line around Wood Pt. was run in by a traverse, but in all cases checks were obtained by resections.

The shore line from  $\Delta$  Kit to  $\Delta$  Catch was done by ~~one~~ traverse and

resections.

From  $\Delta$  Catch to the first large bight to the northwest the shore line is extremely abrupt. It was found extremely difficult to traverse and so a point had to be established on the opposite shore near the western limit of the sheet. With this point located, three point fixes were possible.

The remainder of the sheet was traversed, checks cuts being taken wherever possible.

All triangulation stations were occupied and the location of the others verified.

#### Nature of Shore line.

The north shore from the eastern limit of the sheet to  $\Delta$  Cape the shore line is generally bold at points and low in bights. The creek just south of  $\Delta$  Cape, known as Ten-mile Creek has a long sand beach at its mouth. On the east side of this creek there is a small wooded islet with a rocky reef extending for about 300 meters offshore. From  $\Delta$  Cape to the western limit of the sheet, the shore line is chiefly rugged with occasional low spots in bights. The low water line is ~~generally rocky~~ consists principally of rocky ledges interspersed with coarse gravel. Reefs extend out for a distance of one to two hundred meters at the points shown on the sheet. Kelp patches are in evidence along the entire shore.

On the north shore in the region of Wood Point the shore line is low. Sand and gravel beaches extend for from 100 to 800 meters from the high water line. From  $\Delta$  Wave to the limit of the sheet large boulders line the entire beach. Continuing into Thomas Bay two small high water islands exist at the mouth of a small creek. These islands are rocky and bare.

The shore line of the the west shore of Pt. Vandeput is low and wooded. The beach consists mainly of boulders, sand and gravel. In one or two places along here there ~~is~~ are patches of almost perfect sand beaches.

From about one quarter mile east of  $\Delta$  Catch running N.W. for a distance of two and a half miles, the shore line is bold and abrupt. Rocky ledges make out from the high water line for a very

short distance, but there is very little low water line to speak of. There are very few landing places along here and these can only be used in the most favorable weather.

From this point to the western limit of the sheet, the shore is generally low, except in the immediate vicinity of  $\Delta$  Grand, where it is bold and rocky. ~~Low~~ rocky reefs make out from almost all the points while coarse gravel usually fills in the bights.

Kelp patches are present in spots along the shore.

#### General Appearance of Country

The country ~~is~~ in this vicinity is essentially heavily wooded and mountainous. On the south side of the Sound the mountains rise as fairly gentle slopes. With ~~very few~~ one or two exceptions they are wooded to the top. This is also true of the area from  $\Delta$  Grand to  $\Delta$  Catch.

In the region back of the lagoon near  $\Delta$  Catch the slopes rise to a height of over 3000 feet in less than a mile. The mountains in this vicinity are usually snow capped the year round.

The mountains back of Thomas Bay and near Patterson Glacier are unusually rugged, there being really no single peak which stands out ~~as~~ more prominent but ~~are~~ are rather formed in clusters. A view of this mountain range on a clear day or in the quietude of a calm summer's evening is an awe-inspiring sight and one that cannot so quickly be erased from the memory.

At the head of Thomas Bay, the Land slides form perhaps the most prominent topographic feature of that vicinity. They can be discerned in almost all kinds of weather and until late at night they stand out like a beacon light on the lonely sea. They are an important aid to navigation, particularly for entering Thomas Bay.

Around Wood Point the country is low and slightly rolling. The timber is very thick in this section.

Point Vandeventer is one of the most prominent points in the Sound. ~~It is flat and wooded.~~ It is a long, low, flat, piece of land about two and a half miles in ~~its~~ length and running in almost a true north and south direction. It is fairly well wooded, the tree line beginning



about one quarter mile north of the extreme end of the point.

Spruce trees predominate this region but there are also in evidence a considerable number of fir trees. A thick undergrowth of berry bushes, devil's club, alder and ferns is usually encountered. The heights of the trees vary from sixty to one hundred and fifty feet.

### Contours

The contours shown are at 100 ft. intervals. This is not a result of the plane table survey but was transferred from triangulation data and sextant cuts. When work was done in this vicinity the weather conditions rendered it impossible to obtain any plane table cuts. Various sextant cuts and elevations were taken from Current Station #2 to the mountains near the Cape of Straits. No additional cuts, however, were obtained, for Current Station #3 was occupied in weather when none of the peaks were visible. The sudden termination of the season rendered any additional work in this locality impossible.

### General Resources

Fishing forms the principal industry in this section. Large amounts of shrimp are caught in Thomas Bay, and salmon runs in large numbers.

Lumber suitable for piling and simple building purposes may be had in large quantities.

The rocks found here are generally of slate and granite with occasional small quantities of quartz. Several gold claims have recently been staked in the vicinity of the Cape of Straits.

Game and wild fowl are plentiful. Numerous small creeks and streams furnish good water supply, but none, however, large enough for waterpower.

### Coast Pilot

About one-half mile southeast of Cape of Straits Light, there are two rocks about one hundred to one hundred and fifty meters off shore. The outer rock is awash at average high tide while the

inner one is awash at half tide. Midway between these rocks and the Light there is another rock that is awash at about half tide.

The shore ~~to~~<sup>westward</sup> between Cape of Straits and the limit of the sheet is full of rocky ledges and reefs, and small boats should not run too close.

Near ten-mile creek, there is a small wooded islet and just beyond that there is a rock that bares 1 ft. at high tide. A small reef extends beyond this rock. The whole is connected with the mainland at low water.

A long reef extends out from Point Van deput and the low water line from Wood Point obstructs the entrance greatly. Boats in entering Thomas Bay should follow the range very carefully. It was hoped that the extreme limits of this reef would be determined before the end of the season and such was the original intention, but the sudden termination of the work and the continued inclemency of the weather prevented this.

Kelp is found all along the south shore of the Sound and at intervals between stations Catch and Grand.

A good anchorage for boats up to 100 tons is found in Thomas Bay.

A #

#### Conclusion

This completes the work <sup>in</sup> of Frederick Sound as far as the outside shores are concerned. The survey of Thomas Bay was omitted for reasons stated above. It might, however, be worthy of mention that while making a triangulation reconnaissance in the Bay, the writer took particular pains to note any marked variations in the topography from the published chart. It was found splendidly to conform to Chart 8210.

#### Note:

This sheet was in the main inked by me before leaving Seattle. Only the lettering and outcours were left in pencil. I have therefore corrected the title sheet to conform.

Respectfully Submitted  
Adrian P. Shalinsky  
Lieut. C. & G. Survey, Jan. 5, 1918.

## DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Sheet "D"

## 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.

U. S. Coast and Geodetic Survey.

Register No. **3688**State . . . **S.E. Alaska** . . . . .General locality . . **Frederick Sound** . . . . .Locality . . . . . **Vicinity of Thomas Bay** . . . . .Chief of party . . . **A. Joachims** . . . . .Surveyed by . . . . **Aaron L. Shalowitz** . . . . .Date of survey . . . **June, 1917** . . . . .Scale . . . . . **1/20,000** . . . . .Heights in feet above . **mean high water** . . . . .Contour interval **100** . . . feet.Inked by **A.L.S. & G.L.B.** . . . Lettered by . **G.L.B.** . . . . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . .

Remarks:

**Descriptive report and description of stations  
forwarded on separate mail**