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

State: S.E. Alaska

1917

Chief of Party:

A. G. Jackson
U. S. COAST AND GEODETIC SURVEY.

DEPARTMENT OF COMMERCE

E. Lester Jones, Superintendent.

********

DESCRIPTIVE REPORT

OF

TOPOGRAPHIC SURVEY 3688

OF

VICINITY OF THOMAS BAY AND CAPE OF THE STRAITS.

FREDERICK SOUND  S.E. ALASKA.

********

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 "E" 3688 S.E. Alaska.

Wire Drag Party No. 8 June 1917. A. Joachim, 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 Vandermont 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 Vandermont Point north to triangulation station Catch 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 washed 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 contin-
ue 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,  

[Signature]

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

Compiled by,

[Signature]

Aid, C.3.S. Survey.
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<tr>
<th>Station</th>
<th>Latitude</th>
<th>D.M.</th>
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Statistics:

Miles of shore line: 21.0

Area: 15.0 square miles.

Miles of creeks: 0.2
Planar Table Survey of the Vicinity of Thomas Bay and Cape of the Straits.

Sheet "D"  S.E. Alaska.
Wire Drag Party No. 3  June 1897  A. Soeding, Chief of Party.
Survey by A.L. Shalowitz, Aid.

Introductory Notes

The survey was made on a 1:20,000 scale, was made to include both shores of Frederick Sound and the whole of Kames 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 taken up. This, however, was rendered impossible by the continued inclementy of the weather during the latter part of the season, as well as by the sudden interruption 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 "E" at a point about two miles southeast of the Cape of the Straits and continues westward to a junction with Sheet "F" at a point about one-half mile east of 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 Bridge and continues to a point about one-half mile south of Wood Point. On the west side of Thomas Bay it begins at the extremity of Wood Point and continues to the eastern side of the entrance to Farragut Bay at Grand where it joins with Sheet "E".

Control and Method of Survey

Surveying the two principal stations, Hazo and Cape, as primary stations, the survey was continued up the Sound establishing stations Wave, Kit, Light, and Grand. These stations, being well distributed over the sheet, eliminated the necessity of establishing additional stations for wire drag purposes.

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

The plane line from Kit to Catch was done by traverse and...
From a catch to the first large height 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 firs were possible.
The remainder of the sheet was traversed, checks into being taken
wherever possible.
All triangulation stations were occupied and the location
of the points verified.

Nature of Shore line.
The port shore from the eastern limit of the sheet to Cape
the shore line is generally bold at points and low in heights. The
shoals just south of Cape have an extensive shore on west and
beach at its mouth. On the east side of this shoal there is a small
wooded island with a rocky reef extending for about 1000 meters offshore.
From a Cape to the western limit of the sheet, the shore line
is chiefly rugged with occasional low spots in heights. The low
water line coincides with rocky reefs, mainly 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 500
meters from the high water line. From a Water to the limit of
the sheet large boulders lie 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 St. Vandepa is low and
wooded. The beach consists mainly of boulders, sand and gravel. In
one or two places along here there are patches of almost perfect sand
beaches.

From about one quarter mile east of a Catch running N.W. for a
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
slight distance, but there is very little low water line to speak of. There are very few landing places along here and they 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 a strand where it is bold and rocky. The low, rocky reefs make out from almost all the points while coarse gravel usually fills in the bight.

Kelp patches are present in spots along the shore.

General Appearance of Country

The country in this vicinity is essentially heavily wooded and mountainous. On the south side of the sound the mountains rise as fairly gentle slopes. With two or two exceptions, they are wooded to the top. This is also true of the area from A Grand to C.

In the region back of the long arm near C, the slopes rise to a height of over 3,000 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 more prominent but rather formed in clusters. A view of this mountain range at a clear day or in the quietude of a calm summer evening is an overpowering sight and one that cannot so quickly be erased from the memory.

At the head of Thomas Bay, the land slides from 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 Unakpok is one of the most prominent points in the sound. It is a long, flat, piece of land about two and a half miles in length and running in almost a due north and south direction. It is fairly well wooded.
about one-quarter mile north of the extreme end of the point. Sparse trees predominate this region but there are also an evidence a considerable number of fir trees. A thick undergrowth of berry bushes, devil's club, elder, and ferns is usually encountered. The heights of the trees vary from ninety 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 section cuts. When work was done in the vicinity the weather conditions rendered it impossible to obtain any plane table cuts. Various section cuts and elevations were taken from current station #2 to the mountains near the Cape of Stairs. 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 salmon are caught in Haines Bay and salmon run 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 Stairs.

Game and wild fowl are plentiful. Numerous small creeks and streams furnish good water supply but run, however, large enough for waterpower.

Coast Pilot

About one-half mile southeast of Cape of Stairs Light there are two rocks about one hundred feet 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 right one is another rock that is awash at about half tide.

The shore between Cape of Good Hope and the limit of the chart is full of rocky ledges and reefs, and small boats should not run too close.

Near the south end there is a small rounded island just beyond that there is a rock that bears off 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 Vancup and the low water line from Wood Point obstructs the entrance greatly. Boats entering Tomas Bay should follow the range very carefully. It was hoped that the entrance 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 inclement of the weather prevented this.

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

Conclusion.

This completes the work of Frederick Sound so far as the actual places are concerned. The survey of Tomas 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 chart was in the main in hand me before leaving Seattle. Only the lettering and contours were left in pencil. Have therefore crossed the title sheet to conform.

William H. A. Selkirk
Assistant, 1st. Lieut., Jan. 6, 1917.
Wire Drag Party No. 3

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**

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<th>S.E. Alaska</th>
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<td>Frederick Sound</td>
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<tr>
<td>Locality</td>
<td>Vicinity of Thomas Bay</td>
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<tr>
<td>Chief of party</td>
<td>A. Joachims</td>
</tr>
<tr>
<td>Surveyed by</td>
<td>Aaron L. Shalowitz</td>
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<tr>
<td>Date of survey</td>
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<td>Contour interval</td>
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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