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C. & G. SURVEY
L. & A.

DEC 19 1921

Ass. No.

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State *S. E. Alaska*

11-5613

DESCRIPTIVE REPORT.

Sops Sheets No. *3849*
3850

LOCALITY:

Gastineau Channel
Pt. Arden to
Jenian

1921

CHIEF OF PARTY:

W. H. Heel

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849 Applied to Reconstruction of Chart 8235: 2-10-40 by Chas R Bunkley

3850

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET NO. 3 & 3a.

LIMITS:

Sheet No 3 is a 1 to 20,000 scale and extends from north latitude 58° 08' to 58° 20' and from east longitude 134° 05' to 134° 30'. This sheet covers the following shore line. A small stretch on Admiralty Island connects sheets 1 and 2 at Δ CORNER and Δ OLIVER respectively. On Douglas Island the shore line begins at Δ ~~DONCHUE~~ ^{Donough} and extends up Gastineau Channel to Δ BUL. Another piece on this shore begins at a point 215 meters NW of Δ SON and extends to Δ SAL the limit of the work on this shore. On the mainland the shore begins at Δ BISHOP on Pt. Bishop and extends to Δ LITTLE.

Sheet No 3a is 1 to 10,000 scale and extends from north latitude 58° 15' to 58° 20' and from east longitude 134° 18' to 134° 28'. On the Douglas Island shore it fills in the gap left by sheet 3. On the mainland it connects with the work on sheet 3 at Δ LITTLE and extends to Δ ROCK the upper limit of the work on this shore.

GENERAL DESCRIPTION OF COAST:

The strip of shore on Admiralty Island is very rocky and steep with the exception of the small bight east of Δ OLIVER. The shore of the bight is sandy with a large flat bare at low water. The shore from ~~DONCHUE~~ ^{Donough} to Δ ~~MAN~~ ^{Mar} and from Δ BISHOP to Sheep Cr., is of a steep rocky character with here and there a strip sandy beach. From Δ MAN to Δ LION the beach is almost straight and is mostly boulders and sand, this is a possible base site. The rest of the shore in the channel is boulder and sand beaches, the upper part of the channel is very much built up.

There are large sand bars at Thane, Treadwell, Douglas and Juneau. These bars are due to the talings from the gold mills. All these bars were run at low tide. The channel above Juneau is narrow with large flats on either side. This section was developed by hydrography.

The channel is lined on both sides with high mountains, covered with trees to a height of approximately 17,000'. On the mainland the thickly wooded strip runs to a point even with Thane, from here the covering is alder bushes and brush. The trees, on the range of low hills directly in back of Treadwell and Douglas, have all been killed by the Taku winds.

Thane: Described in the coast pilot.

I obtained a good map of the mill and town, the following points marked on the map were located by the plane table, end of street, points No 2312, 2311, 3700, 2400, a point in the middle of the street near Δ BAY; the point where the plank street and dirt road join. All these points were marked on the plane table sheet. The map is marked "BLUE PRINT NO. 1. The mill is closed down and is being dismantled, the buildings will probably be used for a pulp mill.

Treadwell & Douglas: Described in coast pilot.

A bad cave in at the Treadwell mine forced them to close it down, hence many of the buildings are going to ruin. I was unable to obtain a good map so the most important part of the town was run in by plane table.

I obtained BLUE PRINT No 2 of Douglas. The following points marked on the print were located on the sheet by plane table, No 1, St. Anne Ave. near Summer St, and No., 2, Second and "D" St. The saw mill mentioned in the Coast Pilot is no longer in existence.

JUNEAU: Described in Coast Pilot.

The town of Juneau and the shore from Δ SNOW was surveyed by Mr Weber, this part of the report under the heading Juneau was written by him.

From Snowslide Cr., west, the high water line was run in as far as the Alaska Juneau Mining Co. docks; the low water line could be determined only as far as the Standard Oil Dock on account of the tide. From the former point the general line of the docks was determined as far as U.S.L.M. No. 3, from which point the running of the shore line was again taken up.

Sufficient points were determined to tie in with blue prints No 3 & 4 and Geological survey print No 5. The work shown on the sheet in red was transferred from blue print No 3 and Geological survey sheet No 5.

Just east of the Alaska Juneau Docks is a breakwater, which was in the process of construction when this topography was done. The breakwater was located as it then existed. The proposed length is 1500 ft. For the next year the part already built will not be extended but widened.

LANDMARKS: All important land marks not described in the Coast Pilot

were located and described by Mr Ratti in his Triangulation of Gastineau Channel.

INSHORE DANGERS:

The southern point of Marmion Island has a ledge of rock extending out 100 meters, this bares at low water.

A sand bar covered with small boulders, located at the mouth of Nevada creek. Bares for 200 meters at low tide.

The breakwater at the Alaska Juneau mine ^{is} marked by a white light at night.

SURVEY METHODS:

Points of controll were recovered from previous work as follows,

OLIVER, CORNER, BISHOP, SALISBURY, TANTALLOM, ^{Donough} DONOHUE, MARMION, (F.S. Borden 1917)

The following points are from Mr Ratti's triangulation this season,

IDE, ENTRANCE, MAR, RAN, MION, PONT, SHEEP, DAN, GEO, LITTLE, BUL, LION,
LIT, HAN, FOUND, BAY, JUNE, SNOW, OIL, LAW, TRAM, SON, DOCK, COW, GOLD,
FENCE, STREAM, ROCK, SOL, CREEK. These are all main scheme stations.

Intersection stations: Gable, pav, beacon, stan, office, hos, pac, dome,
gov, bung,

△ PONT and U.S.L.M.No.18 are the same point. △ Creek and U.S.L.M.No.7 are
the same point.

¹⁷⁸⁶³
Blue print (No 1) Obtained from chief engineer of the Alaska Gastineau
mining Co., Thane.

¹⁷⁸⁶¹
Blue Print (No 2) Obtained from city clerk at Douglas. This man is also agent
for the Alaska S.S.Co.

¹⁷⁸⁵⁷⁺¹⁷⁸⁶² ¹⁷⁸⁶⁰
Blue Prints No (3&4) and U.S.G.S. print (No 5) were obtained through the
engineer in charge of the Office of the U.S. Land Survey.

The form lines for Gastineau channel and Douglas Island are to be
transferred from the work done by the Geological Survey in 1914, 15, & 16
by D.C. Witherspoon. After the work had been started I found that
this^s survey had been made and that the original sheet was in Washington
at the U.S. Geological Survey. I was able to get a print showing a part
of the work done, this is marked print No. 5. The control of print No. 5
is tied in with our own triangulation at four places, namely.

U.S.L.M.No.18 and △ PONT), (U.S.L.M.No.7 and △ CREEK), (U.S.L.M.No.1 on
Juneau Island located on sheet No.3a), (A cairn on Mountain marked on
sheet No.3 and on print No.5).

17859- mining Co.

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

September 24, 1924.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 3849

Gastineau Chamel, Alaska

Surveyed in 1921

Instructions dated February 17, 1921.

Chief of Party, N. H. Heck:

Surveyed and drawn by B. H. Rigg.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the survey conform to the requirements of the General Instructions, except that the magnetic meridian is not shown.
3. The plan and extent of the survey satisfy the specific instructions, except that no form lines are available from any source on the mainland between Dupont Creek and Pt. Bishop, nor on Douglas Island below latitude $58^{\circ} 13'$. North of the points indicated the form lines should be taken from Blueprint 17860 (by U. S. Geological Survey).
4. The junctions with adjacent surveys are satisfactory.
5. The triangulation datum of this sheet differs from that of T. 3847 which adjoins it on the south. The triangulation of this locality has not yet been adjusted, and this should be considered when using this sheet.
6. Except for the omission of form lines, the character and scope of the surveying and field drafting are good.
7. Reviewed by E. P. Ellis, September, 1924.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

September 24, 1924.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 3850

Gastineau Channel, Alaska

Surveyed in 1921

Instructions dated February 17, 1921.

Chief of Party, N. H. Heck.

Surveyed by B. H. Rigg, A. M. Weber and A. J. Hoskinson.

Inked by A. M. Weber and B. H. Rigg.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the survey conform to the requirements of the General Instructions except that the magnetic meridian is not shown.
3. The plan and extent of the survey satisfy the specific instructions.
4. The junctions with the adjacent survey are satisfactory.
5. The character and scope of the surveying and field drafting are good.
6. Reviewed by E. P. Ellis, September, 1924.

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.

U. S. Coast and Geodetic Survey.

Register No. 3849

State . . . SE Alaska

General locality . . . Gastineau Channel

Locality . . . Pt. Arden to Douglas Pt. P. C.

Chief of party N.H. Heck

Surveyed by Benjamin H. Rigg &

Date of survey Season 1921

Scale 1 to 20,000

Heights in feet above Mean sea level

Contour interval feet.

Inked by . . B.H. RIGG . . Lettered by B.H. RIGG

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet Contours for Gastineau

Channel and Douglas Island can be gotten from U.S. Geological

Survey of 1914 - 1915 - 1916 by D.C. Witherspoon. A rough copy

marked "print No 5" accompanys sheet.

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U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

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U. S. Coast and Geodetic Survey.

Register No. 3850

State . . . **SE Alaska**

General locality **Gastineau Channel**

Locality **Towns of THANE, DOUGLAS, TREADWELL, JUNEAU.**

Chief of party **N.H.Heck**

Surveyed by . . **B.H.Rigg. A.M.Weber.. A.J.Hoskinson.**

Date of survey **Season 1921.**

Scale **1 to 10,000.**

Heights in feet above

Contour interval **75** feet.

Inked by **A.M.Weber, B.H.Rigg** lettered by **B.H.Rigg.**

Records accompanying sheet (check those forwarded): Photographs,
Descriptive report, Horizontal angle books, Field computations,
Data from other sources affecting sheet **Blue prints No1, Houses
and mill at Thane, No.2 Douglas, No.3&4 Juneau.**

Remarks: **Sheet No.3a.**