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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *2971*

LOCALITY:

Hinchinbrook Island.

Pt Steele to Cape

Hinchinbrook

1908

CHIEF OF PARTY:

G. J. Rude

1262

POST-OFFICE ADDRESS:

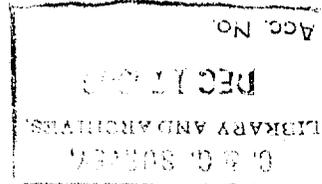
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2448-2971
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Department of Commerce and Labor

COAST AND GEODETIC SURVEY



D E S C R I P T I V E R E P O R T

to accompany Hydrographic Sheet

of

Hinchinbrook Island, Alaska

Point Steele to Cape Hinchinbrook

1908.

Gilbert T. Rude,

Chief of Party.

This work was accomplished under considerable difficulties owing to heavy surf and an exposed coast. There was no anchorage for the Steamer nearer than Boswell Bay and it was impossible to run in and out to work on account of the long sand reefs making out four or five miles to sea off the entrance to Orca Inlet.

There are only two places along the coast where a small boat can land: at Signal Camp, about one half mile North of Point Steele, and in a small sheltered place back of Point Hook. Small boats can land at these two places in smooth weather but the water is shallow and in very heavy weather it would be impossible to make a landing.

The hydrography from Point Steele to "Pillar Rock" was done in a whaleboat, using these two camping places as headquarters. Owing to the fact that S.E. gales arise very quickly, it was not considered safe to work further from the landing place, at Hook Point than Signal "Pillar Rock".

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It was impossible to land and build signals, so natural objects were used and located later by topographic party, working on top of the high cliffs. Many of these signals can be recovered and are carefully described in the "Description of Hydrographic Stations" for this sheet.

Some of the sounding lines are further apart than was intended, but no boat sheet was used, as no signals had been located when the hydrography was done. It was necessary for the hydrographic party to complete the sounding quickly; leave their remaining provisions to the topographic party, and return to Boswell Bay. It was impossible for the topographic party to run the shoreline with the plane table further West than "Pillar Rock".

As soon as the topographic party returned to Boswell Bay; the steamer left for Orca, Alaska, outfitted for Knight Island work and ran to Port Etches. A tide staff was established at this place and at 3:A.M. the steamer left Port Etches in order to catch the early morning smooth weather, ran outside Cape Hinchinbrook, completed the hydrography and returned to Port Etches at 11:30 A.M. As signals for this work, natural objects were cut in with a third sextant as the sounding lines were being run. The Topographic Officer from the bridge sketched the shoreline, cliffs and contours, between these determined points, as the steamer ran along a few hundred meters from the beach. A signal (⊙ strip) was located at the conjunction of this work with a previous survey and checked very

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well. Also signals Face and Yel checked perfectly with the shoreline of the former work.

It is all regular, sandy bottom and clear, except between Point Steele and Hook Point there are a number of rocks which were located by the topographic party by cuts from the top of the cliffs.

Hook Point was so named because it extended to the Westward in a sort of a hook furnishing a smooth place for landing inside. Along the shore at the base of the cliffs at Signal "Book" there are still the remains of the S.S. Oregon; a donkey boiler, ventilator, and parts of metal ribs.

Respectfully submitted,

Gilbert J. Rude.

Asst. C. & G. Survey.

Chief of Party.

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read 600

HYDROGRAPHIC STATIONS

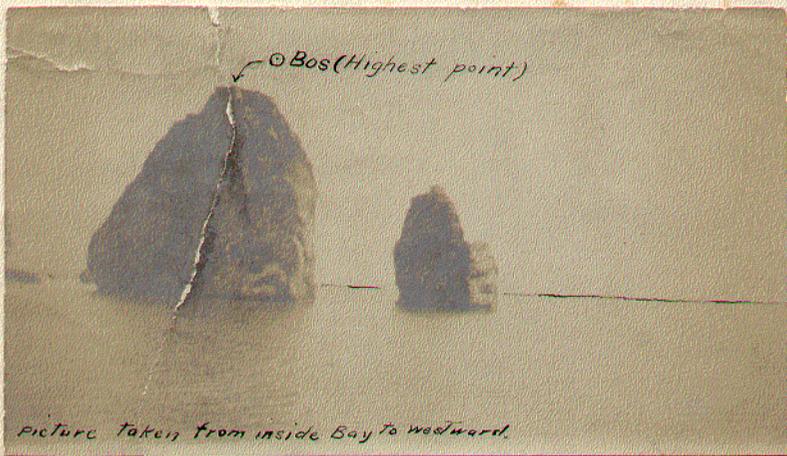
to accompany Hinchinbrook Island Sheet

(Determined by Sextant Cuts)

Station	ϕ	D.M.	λ	D.P.	Description
Fall	59° 18'	1224	146° 26'	628	Midway between Pt. Steele and "Pin" is a shingle beach 1/2 mile long: 2 miles S.W. of this the cliffs are 250 feet high without a break except at one point where a smooth, steep slope, covered with pine trees and grass, juts out beyond the rugged cliffs, terminating in a 60 foot bluff. The waterfall on N. side of this point was located and used as a signal.
Cone	59° 17'	1684	146° 28'	460	Three miles S.W. from above mentioned beach are the highest cliffs along the entire shoreline: above rises a prominent mountain: at base of cliffs is an immense pile of sand and rock fragments 100 feet high, resembling a half cone. The apex of the cone was used as a signal.
Book	59° 17'	152	146° 30'	448	One and 1/2 miles S.W. from "Cone" are two huge flat, smooth faced rocks in contact; The inner one is rectangular, the outer one forms a right triangle. Their grayish white faces show up prominently from S.E. Nearby are pieces of iron from the Oregon wreck.
Bos	60° 24'	700	146° 06'	776	Just inside the narrow entrance to Boswell Bay are two immense masses of perpendicular rock, about 50 feet apart: the one closest to North shore of bay is the larger; the highest point was used as signal. (See photo on other side)
Green	59° 18'	720	146° 27'	336	Cannot be recovered.
Hump	59° 17'	1096	146° 29'	372	" " "



Station (con)	ϕ	D.M.	λ	D.P.	Description (con).
Strip	59° 16'	1308	146° 31'	252	Cannot be recovered.
Face	59° 16'	756	146° 32'	32	" " "
Y1	---	---	---	---	" " " .

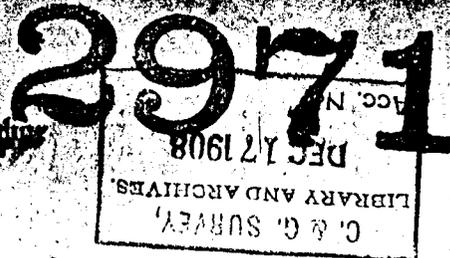


ADDRESS ALL COMMUNICATIONS TO
SUPERINTENDENT, COAST AND GEODETIC SURVEY,
WASHINGTON, D. C.

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COAST AND
GEODETIC SURVEY

Department of Commerce and Labor
COAST AND GEODETIC SURVEY
Washington



December 16, 1908,

Mr. Gilbert T. Rude,

Assistant Coast and Geodetic Survey,

OFFICE,

Sir:

In reply to your letter of the 15th instant, I have to state that the predicted height of the tide at Boswell Bay, Hinchinbrook Island, Alaska, at 10:30 A.M., July 10, 1908, is 13.4 feet on the tide staff there, or 8.8 feet above the plane of reference. The shoal of 24 feet which was sounded at that time would be $24 - 9 = 15$ feet above the plane of reference.

Respectfully yours,


Chief of Tidal Division.

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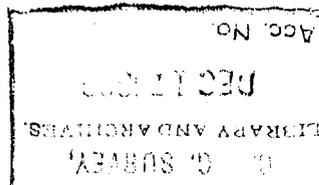
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Department of Commerce and Labor
COAST AND GEODETIC SURVEY



DESCRIPTIVE REPORT

to accompany Topographic Sheet

of

Hinchinbrook Island, Alaska.

Point Steele to Cape Hinchinbrook

1908.

Gilbert T. Rude

Topography by,

Chief of Party

Asst. Eoline H. Hand.

The South side of Hinchinbrook Island comprises one of the boldest, most dangerous shorelines of Alaska.

Beginning at Point Steele and running to the Westward almost to Hook Point this country has an interesting peculiarity; at some prehistoric time a mountain has been broken away from the present shoreline leaving precipitous walls from 250 to 300 feet high, the land back of which slopes rapidly to swamp land that occupies considerable area. Traces of this mountain are seen in the great number of covering and uncovering rocks and the small group of rocky islets off shore; an approach to this part of the shoreline inside of the ten fathom curve would be extremely hazardous as there is every reason to believe that this area is filled with sunken rocks..

Inside of Hook Point and extending to the Westward for over two miles is a magnificent stretch of sand beach; this bares at low water outward for several hundred feet. S.W. from beach to end of work done this season the cliff line is practically

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straight, extremely narrow points jutting out at frequent intervals; these points are characteristic of the entire shoreline; the cliffs are from 100 to 300 feet high, but rising at one point, upward and inshore to over 700 feet; rising rapidly from all parts of the shoreline are steep mountains.

A careful study of the dangerous and constant surf showed the impossibility of using small boats for going from station to station, so it was decided to run the traverse over the cliffs; a start was made at point Steele, orienting on "Whitshed" and checking orientation on "Beach"; the traverse was carried in this manner around Point Hook where a camp had previously been established, and a short distance to the S.W. of a large sand beach when, owing to the mountains mentioned above it was necessary to take to the base of the cliffs, making hurried dashes from station to station at low water, each man packing provisions for four days; finally a point, which I named "Pillar Rock", was reached beyond which it was absolutely impossible to carry the traverse, so the line was ended; a few days later this stretch of four miles was completed from the bridge of S.S. "Taku" by locating stations from ship and sketching in between.

It was not possible to recover the last station left by the party that ran the shoreline from Cape Hinchinbrook but by re-locating points in the shoreline the work was found to check in a most satisfactory manner.

This difficult piece of shoreline was finished only after enduring considerable hardships and with the lives of all the members of the party in constant jeopardy. Upon the return from "Pillar Rock" along the base of the cliffs the surf knocked

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down the seaman carrying the umbrella, rod and plane table board; he recovered his footing but the instruments were lost; later seaman York was washed from a rock and was being carried rapidly seaward but just managed to catch the life line thrown to him; owing to this delay the entire party found themselves marooned by the rapidly rising tide; John Benaquis, seaman, volunteered to swim through the surf; with a life line about his waist he accomplished this, made his way safely around ~~the~~^a jutting corner, scaled the cliffs and lowered the line from a shelf thirty feet above; the party ascended this line hand over hand.

Colin R. Hand.

Asst. C. & G. Survey.

Approved:

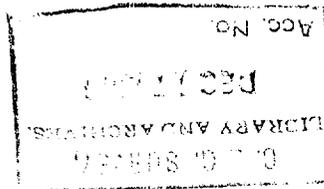
Gilbert J. Rude.

Asst. C. & G. Survey.

2971

PLANE TABLE POSITIONS.

to accompany Topographic Sheet of
Hinchinbrook Island



Stations	ϕ	D.M.	λ	D.P.	Description.
Camp	60° 21'	512	146° 12'	120	At beach 3/4 mi. N. (true) from Point Steele: <i>ruins of old shack.</i>
Tip	60° 20'	892	146° 13'	40	Highest point of rectangular stratified rock on edge, off shore 920 m. S.W. (true) from Point Steele.
Rock	60° 20'	420	146° 13'	736	A conical rock, sharp apex, about 20 feet above H.W., 140 m. off prominent point, and 680 meters W. (true) from "Tip".
Twin	60° 20'	8	146° 15'	200	Two tall pine trees in E. and W. line, bare of limbs, bushy tops, standing on extreme edge of cliff at most Southerly point, two mi. W. from Point Steele.
Grass	60° 19'	476	146° 15'	816	2-1/2 mi. S.W. (true) from Pt. Steele and immediately S. from Hook Point, is an high perpendicular sided island that shows up prominently from any position along S. side of Hinchinbrook: the highest point, grass covered, is the signal.
Tent	60° 20'	788	146° 15'	752	Cannot be recovered.
Break	60° 20'	1360	146° 18'	332	Beginning near Hook Point and extending Westward 2 mi. is wide stretch of sand beach: at W. end and above high W. and on edge fresh water stream, stands an immense moss covered rock, isolated, about 30 feet high.
Sharp	60° 19'	832	146° 23'	508	Midway between Pt. Steele and "Pin" is a shingle beach 1/2 mi. long: at N.E. end a long, narrow rocky point makes out, and 60 ft. above this the rapidly eroding sand cliff forms a saddle,; a tuft of grass forming the horn was used, but the rocky point itself can be used for offshore work.

Plane Table Positions to accompany Topographic

Sheet of Hinchinbrook Island, (continued)

Stations	ϕ	D.M.	λ	D.P.	Description (con).
Sharp (con)					for offshore work.
Pillar Rock	59° 18'	1804	146° 25'	272	Midway between Pt. Steele and "Pin" and one mile S.W. from shingle beach near "Sharp" is an irregularly formed rock very prominent at low water; it is capped by a tall, very thin grayish shaft, rising about 12 feet above H.W. and is close to shore.
Peak "C"	60° 21'	668	146° 18'	436	The range trending S. and of which peak "A" is a part, terminates one mile N. of W. end sand beach in a precipitous bald shoulder: this was located.
Peak "B"	60° 21'	616	146° 20'	244	Over one mi. west from peak C, across a deep valley that apparently extends completely across the island is a rather blunt peak which was located.
Peak "A"	60° 20'	1672	146° 21'	328	Peak "A" is on same ridge as peak "B", it is the only high point to be seen S.W. from "B": from "A" the land falls away rapidly to cliffs.

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STATISTICS FOR HYD. SHT. 2971

DATE	LETTER	VOLUME	SOUNDINGS	ANGLES	MILES (Naut)	BOAT
July 11, 1908	a	1	243	124	7.2	Whaleboat
" 12, "	b	1	175	96	5.6	"
" 14, "	c	1	151	90	6.3	"
" 30, "	a	2	114	76	7.6	"Taku"
TOTALS		2	683	386	26.7	TOTALS

Verification of Hyd. Sht. 2971

It was with great difficulty and risk that this work was obtained owing to rough sea, rocky coast and quickly arising storms, and is consequently rather open. The bottom is very regular in general depth, but except for one stretch of fine sandy beach, is strewn with sunken and covering and uncovering rocks, which could only be located by the closest work. The records are clear.

R. L. Johnston.
Draftsman

Soundings plotted by field party.
Verified and inked by R. L. Johnston.

Department of Commerce and Labor