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COAST AND GEODETIC SURVEY

C. S. Pittman
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Type: *3463*
Sheet No. *3464*
3465

LOCALITY:

P. William Id.
Passage Channel

1914

CHIEF OF PARTY:

J. T. Rader

11-4045

Topographic Sheet ~~D~~. 3465
Passage Canal,
Prince William Sound - Alaska.
Scale: 1-10,000.

U. S. Coast and Geodetic Survey
Steamer Taker
Gilbert T. Rude, Asst. Comdg.

J. S. S. Jones, Aid, Topographer.

Dredged by J. S. S. Jones.

June and July 1914.

Contour interval: Ten feet as far as forty foot
contour. Above this elevation one hundred feet.

Following contours are indicated by heavy
lines: 40', 500', 1000', 1500', 2000', 2500', 3000', 3500'.

DESCRIPTIVE REPORT

TO ACCOMPANY

PASSAGE CANAL SHEETS *- B, C, and D.

Passage Canal, Prince William Sound, Alaska.

U.S. Coast and Geodetic Survey

Steamer TAKU,

Gilbert T. Rude Asst., Commanding.

E. E. Mumaw, D.O.

Topographers.

J. S. S. Jones, Aid .

July - - - 1914.

PLANE TABLE POSITIONS

PASSAGE CANAL SHEETS B.C. & D.

SHEET B.

Object & Descrip.	Lat.	D.M.	Long.	D.P.	Height	Remarks
Sta. Ron, rock about 30 m. offshore	60-46	150	148-26	128	10'	Near end of topog., E. side Blackstone Bay.
Sta. Lar, ww. on sharp point about 400 m. W. of Sta. Rane.	60-46	840	148-23	580	5'	First point west of Sta. Rane.
Sta. Finis, Ww. on bend 100 m. S. of Sta. Coch.	60-45	1515	148-22	148	10'	End of survey on west side Cochrane Bay.
Sta. Bay, Ww. on rounding point, west entrance to Pigot Bay from Port Wells.	60-48	1510	148-20	396	5'	End of Pigot Pt. survey to north.
Sta. Cap, Ww. on end of only sharp point on E. side of Pt. Pigot.	60-48	490	148-20	573	0'	
Sta. Nit, ww. on sharp point about 300m. E. of Sta. Pigot	60-47	1850	148-21	485	5'	
Sta. Fif, outer hump on rock detached from shore at high tide, in Entry Cove	60-48	33	148-21	847	15'	Highest point of outer hump.
Sta. Do, 3rd sharp point E. of Sta. Cab	60-48	187	148-23	230	10'	
Sta. Log. ww. rock off point south entrance to Logging Camp Cove.	60-49	927	148-26	58	10'	Sharp rock, clear of shore at low tide.
Sta. Jon, top of grassy rock	60-48	438	148-28	100	12'	About 300m. west of Sta. Decision.

PLANE TABLE POSITIONS

PASSAGE CANAL - SHEETS B, C, & D.

Object & Description	Lat.	D.M.	Sheet D.		Remarks
			Long.	D.P.	
Sta. Lat, rock awash about half tide	60-48	552	148-30	22	
Sta. Flirt, center of large bare rock	60-47	711	148-33	114	
Sta. Stub, home- stead corner stake	60-47	605	148-33	450	
Sta. Tide, Auto. T.G. platform, will stand 4 years	60-46	90	148-34	103	
Sta. Beacon, center of rock, bare at extreme low water	60-47	38	148-34	180	
Sta. Wash, Ww. on extreme end of cliff point.	60-47	151	148-34	337	
Sta. Boulder, on a boulder	60-47	967	148-33	900	
Sta. Near, Ww. on extreme end of point.	60-48	1758	148-33	312	
Sta Quartz, a prominent white quartz rock on beach.	60-49	698	148-33	724	
Sta. Water, a water-fall.	60-49	424	148-33	17	

DESCRIPTIVE REPORT

Scale of Sheets - 1:10,000.

Limits of Sheets.

Sheet B is included between parallels of latitude 60-45 North and 60-50 North, and between meridians of longitude 148-20 and 148-28 west.

Sheet C is included between parallels of latitude 60-47 north and 60-52 north and between meridians 148-27 and 148-33 west.

Sheet D is included between parallels 60-45 and 60-51 north, and meridians 148-30 and 148-38 west.

These sheets include the body of water known as Passage Canal, from Point Pigot on the east to within about five miles of the head of the canal on the west. They include the peaks and ridges falling within the limits of the 1:10,000 scale projections. The peaks farther inland were located by triangulation.

STATISTICS.

	Sheets		
	B	C	D
No. miles shoreline	13.5	7.8	14.5
No. square miles area	7.0	7.5	11.0
No. miles rivers and creeks	1.9	3.5	2.5
No. miles road and trails	0	0	0

GENERAL DESCRIPTION OF COAST.

The shore line of Passage Canal is mostly rocky and steep-to. The canal varies in width from less than a mile to nearly three miles. Pigot Point at the northern entrance is practically a peninsula with a small island off its southern point. A second larger peninsula at Pigot Point is formed by Pigot Bay on the northeast and Passage Canal on the southwest. The neck of the peninsula is bounded on the Passage canal side by the salt water lagoon in Logging Camp Bay. The elevation is probably not over 150 feet through here. The elevation of the highest point on the

large peninsula is 1470 feet. The highest point on the smaller peninsula is at the northeast end and is 220 feet in elevation. The island on which Pigot triangulation station is located is a peninsula except at highest tides and is 50 feet in elevation. Thus a series of three peninsulas of three different orders are formed. The rest of the northern side of Passage Canal to the westward is practically a straight line except for a sharp cove into which the river or creek from Poe glacier flows. The western entrance to the cove at signal Pig marks the limits of Mr. Mumaw's topography on the west.

Decision Point on the south side of Passage Canal and at the northeastern extremity of the peninsula formed by Passage Bay and Blackstone Bay. The part of Decision Point which comes on Mr. Mumaw's sheet lies between triangulation stations Rub and Tit. One prominent peninsula, low and swampy, makes out about a mile east of station Rub from an otherwise smooth shoreline. Upon close observation however, all the rocks around this point along the shore lie in a general northeast and southwest direction. This is very noticeable just south of station Decision.

Across Blackstone Bay, Mr. Mumaw ran a traverse from about a mile southwest of station Tri to station Coch. This is a rather smooth and tree covered point running south to higher hills outside the limits of sheet B. For convenience Mr. Mumaw's sheets B and C were divided on the north side of Passage Canal at station Granite and on the south side of the canal by Blackstone Bay. Cochrane Bay and Port Wells form the border of sheet B on the east.

Sheet D, executed by Mr. Jones, Aid, started on the west at triangulation stations Saw and Delta which were ~~the~~ near the eastern edge of the work for the season of 1913. Thus this sheet overlaps that of 1913 by one station on each shore, on the south for both shoreline and contours and on the north for contours only, as shoreline was started

at intersection station Trap. On the south the sheet includes the bay named Passage Bay in 1913 and the shoreline on the east of the entrance to the point on which intersection station Rub is located. On the north the sheet includes the stretch of shore to the entrance of a small cove.

TRIANGULATION STATIONS.

Sheet B has six main scheme triangulation stations and four intersection stations. The former consist of Pigot, Cab, Granite, Coch and Rane; the latter, Spot and Tri, - coming within the limits of the topography. Sheet C has three main scheme triangulation stations and five intersection stations, and of these one main scheme, Ridge, and three intersection, Rub, Decision and Tit, come within the topography. Sheet D has four main scheme triangulation and seven intersection stations within its limits. Stations Saw, Delta, Treat, and Hill are main scheme stations and Trap, Tag, Dab, Bur, No, Sharp, and Rub are intersection stations.

Station Pigot is on the south point of a small peninsula, separated from the mainland at extreme high tide and is about fifteen feet above high water. The rock is split into fine layers which are on edge about the station.

Station Cab is on the second prominent point west of station Pigot from which point the shore line bends to the northwest. It is about thirty feet above high water and is on a moss covered rocky point which stands out clear of trees and brush.

Station Granite is on the rocky shoreline, about five feet above sea-level. The rock in the vicinity, including that on which the station was marked, has the appearance of gray granite.

Station Coch, on the south side of the entrance into Passage Canal and bordering on Cochrane Bay on the east, is on the northern point of the inner one of two long and narrow rocks lying north and south.

Station Rane is on a prominent point, the only one along this shore seeing both stations Coch and Ridge.

Station Tri is on a sharp point on the eastern entrance into Blackstone Bay. The station is on the tundra, about twenty-five feet in elevation, and twelve meters back from shore. It is not permanently marked.

Station Spot is a large spot of whitewash on a perpendicular rock, at about high water, on a prominent rounding point about half way between Station Cab and Logging Camp Bay.

Station Ridge is on the north slope of the ridge between Passage Canal and Blackstone Bay, at an elevation of 1140 feet, and about half a mile from Decision Point. A trail to the station is shown on the sheet. Two prints taken at this station, looking in two directions, up and down Passage Canal are here shown. A third print shows the signal.



*Looking East - out of Passage Canal.
across Port Wells and out Perry Island Passage.*



Above —
Looking west to-wards
head of Passage Canal.



Station Ridge.

Station Tit is on a prominent point on the west entrance to Blackstone Bay and about a mile south of Decision Point. It is a pile of whitewashed rock on the point.

Station Decision is a banner nailed securely to a tree stump on Decision Point.

Station Rub is a banner on a rather prominent point just in shore from a rock that bares at a l but the highest tides. This rock is signal Lat.

OUTLYING DANGERS AND ISLANDS.

No islands or dangers to navigation come within the limits of sheets E and G. On sheet D a rock with about 3 feet of water on it at low low water was located by the hydrographic party. It is on the east side of Passage Bay, about a half mile from the entrance.

INDUSTRIES.

No mines, settlements, or industries of any kind came within the limits of these sheets.

DESCRIPTION OF SHORE.

Signal Bay is on the rounding point north of Pigot Point on the south entrance into Pigot Bay. The shore is very steep in this vicinity. Between signals Rat and Po is the mouth of a small creek which drains the low pass between Entry Cove and Port Wells. From signal Po south and west around the peninsula the shore is uniformly steep-to. The island or peninsula on which signal Pigot is located, is the only break in the rather even shore line. The outer cove formed by the peninsula and the large main peninsula was named "ENTRY COVE" by the Taku's party. At its inner ~~entrance~~ is a narrow entrance to a salt water lagoon. The xl

lagoon and cove are about a mile long and there is low land, about thirty feet in elevation, between the head of the lagoon and Port Wells. To the west of the cove there is one main scallop in the shore line between signal Han and station Gab. From station Gab the shore line runs almost due northwest to signal ² Log, on a rock on the south side of the entrance to Logging Camp Bay. This shore is nearly all steep-to and the details are shown clearly on the sheet. The bay above mentioned is called Logging Camp Bay in this report because during the season of 1914 a party of men from Valdez were getting out a raft of logs there. The raft when completed and towed to Valdez had about 400,000 feet of lumber of good grade. This bay at its upper end terminates in a saltwater marsh separated from the main bay by a low point. A creek empties at the north end of this marsh and from all indications runs across the neck of the large peninsula before mentioned. From this bay the shore line runs almost due west and in places the bluffs are from 100 to 200 feet high. On sheet C about 300 meters west of signal Be is a small stream from a prominent waterfall about a half mile inland. The falls ran very strong even during August. Just above the waterfall there appears to be a basin about 380 feet in elevation, as shown on the sheet a broken red contour.

The shore line ~~bends~~⁴⁶ around into a very prominent bay, which marks the western limit of sheet C. This bay as shown on the hydrographic sheet has deep water but 300 meters of its upper end is a mud flat, formed by the silt from a very swift creek which empties into the head. This creek was explored up to the glacier which feeds it and which was named by the writer, Poe Glacier. This valley is about two miles in length and a half mile in width, and is nearly closed in by a low ridge near the shore. The stream breaking through the ridge forms a very pretty rapids

and falls and affords the possibility of good water power with 150 feet drop in a few hundred meters. The water power was staked by prospectors during the surveying season of 1914. The eastern side of the valley is notable for the large numbers of granite boulders apparently dropped by the glacier. These boulders vary in size from a weight of a few pounds to some of thirty tons. As shown on the sheet a patch of trees screens the creek a part of the distance. At its upper end the valley narrows considerably. Three plane table stations were made in the valley and two of these were marked permanently and shown on the sheet.

At the western end of sheet D is a delta left by a large glacier stream from Billings Glacier. From this delta east to the small cove the shore is steep and quite regular, though for one short stretch there is a gravel beach on a rounding point.

The point between Cochrane Bay and Blackstone Bay is so lacking in detail that no description is necessary. It was a noticeable fact that all reefs and points of rock seem to parallel each other and to run in a general north and south direction, on this point. The topography ended in Cochrane Bay at signal Finis, marked by whitewash. The topography ended on the east shore of Blackstone Bay near signal Black, where a banner was put up on the small island.

Decision Point runs over on to sheet D, surveyed by Mr. Jones. On sheet C it would appear to be square and running north and south but this is misleading as the general direction of the peninsula is northeast and southwest. The small peninsula on the north side ending in a five foot rock that was signal Out, shows the general direction. Only small creeks were found here.

The shore on the west of Passage Bay is very steep and fairly even. One rocky point, near the entrance, extends out some forty-five meters from shore, but would not ordinarily be dangerous to vessels entering the bay. At the head of the bay the land spreads out into a more gentle slope and several level patches. There are two or three small streams entering here. Near the head of the bay and in the eastern arm there is a rocky reef extending in the same general direction as does the bay. The shore on the east is from eight to twenty feet high with gradual slopes back about 500 meters to the steep slope of the mountains. A small cove indents the shore just south of the point at the entrance, with several streams entering it.

The ridge between the head of this bay and Blackstone Bay falls to about 450 feet, making an easy pass from one bay to the other.

SURVEY METHODS.

According to instructions from the Washington office
10' accurate contours to forty feet were run in and above that 100' contours were used. A scale of 1:10,000 was adopted on account of the detail required. The triangulation stations were located and plotted on the projection as usual before the sheets were taken into the field. On account of the number of triangulation stations three point fixes were used almost continually, checking what traverses were necessary. Sheets B and C were executed by Mr. Mumaw, Deck Officer, while Mr. Jones, Aid, covered sheet D.

Respectfully,

Everett S. Mumaw

Topographers.



Poe Glacier



Looking to-wards Passage Canal from Poe Glacier.



Head of Poe Bay.



*Looking up Port Wells from a point near the
entrance to Passage Canal.*



Approach to Passage Canal.



West shore of Port Wells - near entrance.



Pigot Point.