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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. J. Tittman
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Top. Sheet No. *3479*

LOCALITY:

Lanark Bay

1915.

CHIEF OF PARTY:

J. T. Rusden

11-4845

3479

DESCRIPTIVE REPORT

To Accompany Topographic Sheet of ³⁴⁷⁹

LANDLOCKED BAY

PRINCE WILLIAM SOUND, ALASKA.

Coast and Geodetic Survey

Steamer TAKU

Gilbert T. Rude, Asst., Com'dg.

E.E. Mumaw, Deck Officer

Topographer.

September - 1914.

FEB 19 1915

Top: 3479 - Landlocked Bay.
B. T. Rude, 1914.

Additional names shown on the sheet:

Red Snapper Island (local name)

Point Hidalgo (by chief of party)

Long Head

(See descriptive report of Hyd: 3704)

R. F. Stone.

PLANE TABLE POSITIONS

Object & Description	Lat.	D.M.	Long.	D.P.	Height	Remarks
Sta. House, house along shore, about $\frac{1}{2}$ mile north of Bidarka Point.	60-49	1230	146-37	259	10' at ground	
Sta. Bold, longest rock along west shore of Landlocked Bay.	60-50	427	146-36	730	10'	Below high tide, but top of rock is 10' above H.W.
Sta. Prom, prominent sharp point near top of tree line on ridge S.W. of Copper Mt.	60-51	10	146-36	736	1445'	Covered with stunted trees.
Sta. Cable, Chy. of house at upper end of short cable hoist S. of Copper Mt.	60-51	815	146-35	100	1450	House used as support for double cable to beach.
Sta Baldwin, tripod signal on bare hill, put up by Mr. A.C. Baldwin, private survey, 1914.	60-51	817	146-33	678	1720	Unknown whether permanently marked or not.
Sta. Den, lower point of Mt. Denson.	60-52	1680	146-24	56	4540	Very prominent small nub on S.W. edge Mt. Denson.
Sta. Mare, first drop from top of prom. falls, head of Bay, South side..	60-50	1160	146-31	100	840	Locally known as Mare's Tail Falls.
Sta. Amp, prominent rounded peak at S. side of head of Landlocked Bay.	60-50	116	146-31	146	2050	Northerly one of circle of peaks forming amphitheater at S. side, head of Landlock Bay.
Sta. Bunk, outer gable of ore bunkers, near foot of Dickey's wharf	60-51	110	146-32	560	0	

PLANE TABLE POSITIONS- Continued.

Object & Description	Lat.	D.M.	Long.	D.P.	Height	Remarks
Sta. Ide, on rock off N.W. point of island, entrance to narrow part Landlocked Bay.	60-50	1654	146-34	800	-2'	Rock bar except at highest tides
Sta. Doctor, Dr. Rystrom's house E. side Landlocked Bay.	60-50	887	146-33	756	25'	Middle one of # three.
Sta. Ell, rock off point, E. side Bay.	60-49	996	146-54	637	0	
Sta. Gable, house near creek on small bay on E. side at entrance to Bay.	60-48	1628	148-33	240	0	Un-occupied 1914, but in fair con- dition.
Sta. Dos, on / sharp point of rock between Landlocked Bay and Port Fidalgo.	60-48	800	148-33	897	5'	Point sharp enough to recover. Flag placed temporarily.

DESCRIPTIVE REPORT.

Topographic Sheet of Landlocked Bay, Prince William Sound, Alaska.

Scale of Sheet - 1: 20,000.

LIMITS OF SHEET.

Landlocked Bay sheet is included between parallels of latitude 60-48 and 60-54 north, and between meridians of longitude 146-24 and 146-39 west. The sheet covers the area known as Landlocked Bay, on the eastern side of Prince William Sound.

STATISTICS.

No. miles shoreline	18.0 statute.
No. square miles area	14.0 "
No. miles roads and trails	0 "
No. miles rivers and creeks	2.5 "

GENERAL DESCRIPTION OF COAST.

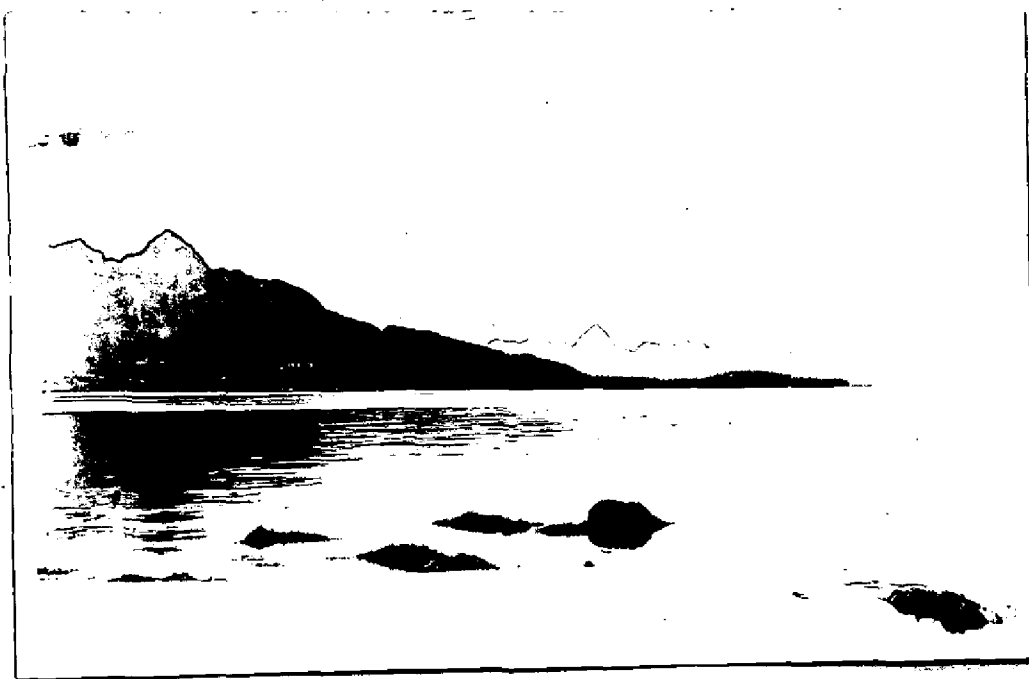
The shore included within the limits of the sheet is variable, steep-to in places to shallow with off-lying rocks.

The main part of the bay runs north and south while the head of the bay runs east and west. The Bay, from the point where it turns a right angle near station Steel to the head of the bay, is practically a river, the sunken valley of a former glacier.

The most prominent thing on the sheet is Copper Mountain on the north shore, with its highest point less than a mile from the beach. Its elevation of 3895 feet so near the beach, makes an almost perpendicular cliff. The head of the bay is surrounded by hills which on the south side make a deep and narrow amphitheater, with elevations varying from 1760 feet to 2200 feet.

From the head of the bay a pass runs in a north east by south west direction towards Fish Bay on the north side of Port Fidalgo.

Its lowest point is in the neighborhood of 1300 feet. In this direction the top of Mt. Denson, locally known as Rooster's Comb, shows through. Only the lower part of it comes within the limits of the sheet. A panorama of the bay taken from near station Pye at Bidarka Point is shown below.





TRIANGULATION STATIONS.

Fifteen triangulation stations come within the limits of the sheet, of which two, Fish and Irish, were not plotted. Stations Fido, Moon, Dal and Go, were used in carrying the triangulation into Port Fidalgo.

Stations Low, Hess, Win, Wet, Swim, and Lock, were the main scheme stations for Landlocked Bay triangulation. Two intersection stations, Per and Dick were cut in for controlling the topography.

Station Go is on a large boulder at about high water on the most southern ~~point~~ part of Bidarka Point. It is very easily found.

Station Lo is on the sharp point near Bidarka Point and is the most ^hnortherly one on that shore south of station Per that will see station Pine on the east side of Porcupine Point. It is on a large sharp pointed rock buried in the beach gravel, and is at high water.

Station Per is a regulation station disc set in a rather soft rock at the first prominent point southwest of the curved shore line from Steel's wharf to Bidarka Pt. There is an arrow beach of fine sand on each side of this rock.

Triangulation station Dick is the other intersection station and is on the most southern point of the prominent bend in the north shore, near the head of Landlocked Bay. It is marked in the usual way in the hard rock at this point and is below the highest tides.

Triangulation station Swim is the most northern and is on the northwestern shore of the large island in the head of the Bay. It was made from necessity below highest water and was not ~~marked~~ occupied.

Triangulation station Lock is a few hundred meters south of station Swim and also at the head of Landlocked Bay. It too is below highest tide but is very permanently marked by a large concrete base into which is set the station disc.

Triangulation Station Wet is the highest station around Landlocked Bay and has an elevation of 1775 feet. It is on the very sharp point which marks the northwestern extremity of the amphitheater before mentioned. Of the three following pictures, one shows the head of Landlocked Bay with three of the triangulation stations, Dick, Swim and Lock. Another shows the point between Landlocked Bay and Port Fidalgo, on which is located station Dal, with stations Pine and Fido across^{ss} Port Fidalgo. The other one shows stations Hes and Lo and the islands and rocks on the east side of Landlocked Bay.



Head of Landlocked Bay.



East side of Landlocked Bay.

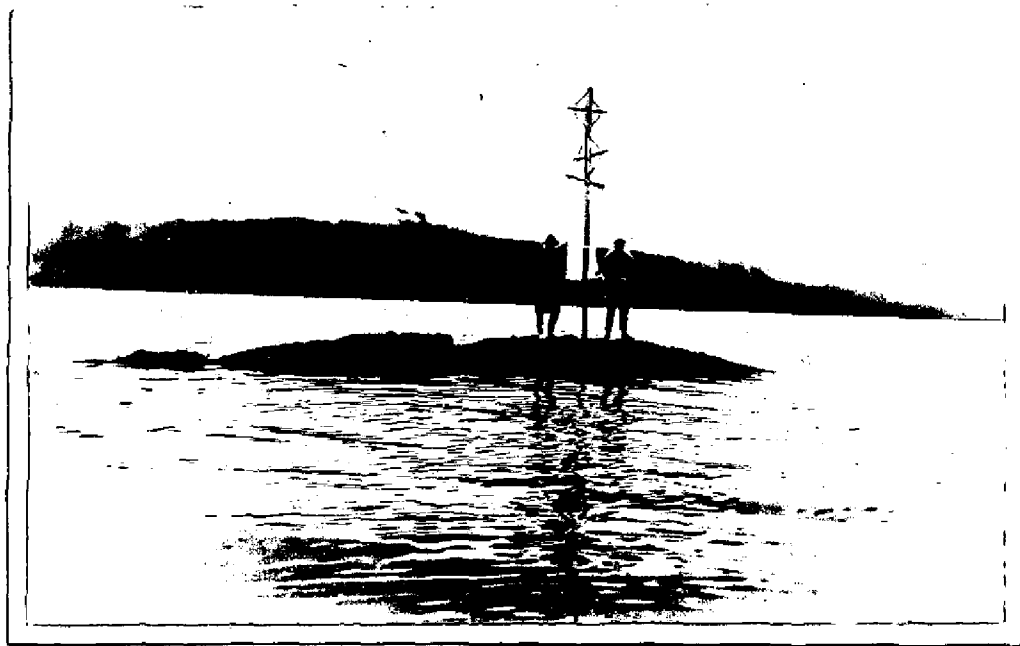


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Point between Landlocked Bay and Port Fidalgo.



Copper Mountain.



Station Moon.

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Station Irish.

Triangulation station Win is on the 795 foot hill south of the sharp bend in the Bay. It is a bare round topped hill and sees all around Landlocked Bay.

Triangulation station Hes is on the high water island near the eastern entrance to the bay. It is about five feet above high water on the western tip of the island.

Triangulation station Dal is about 300 meters east of the sharp point dividing Landlocked Bay and Port Fidalgo. It is about one foot above high water on a sloping rock.

OUTLYING DANGERS AND ISLANDS.

There are no islands proper coming within the limits of this sheet. However the eastern shore from station Dal to the narrows of Landlocked Bay, with the exception of one large bay, is all foul with rocks, reefs and small islands. The limits of these reefs are shown more fully on the hydrographic sheet. The larger islands are covered with small trees and brush. The highest point on the island near signal Sig is 75 feet, and on the one near Ide is 55 feet. All the others are lower.

DESCRIPTION OF SHORE.

Bidarka Point is a low tundra point covered with a few trees. The low land extends inland for several hundred meters, then rises quite abruptly to a thickly wooded ridge, 755 feet in elevation, running in a north and south direction for about a mile, then drops to a grass covered thickly wooded pass of 225 feet elevation. The beach is strewn with boulders. To the northward there is a gentle slope to signal Prom, and this prominent rocky point marks about the southern limit of the tree line. There is a very

smooth curve with a few indentations in the shore line between station Lo and signal Prox.

From station Prox to Dick is another general curve with two deeper indentations, one at Burk and Steel's dock and the other at signal Tar. The bulk of Copper Mountain rises abruptly from the steep-to shoreline. The elevation of this mountain was obtained from signal Hes and checked from other places. On account of being so near the mountain the elevation obtained does not check that given on Chart #8519. The shore line runs northeast from station Dick to to signal Ho at the mouth of a small creek. About 300 meters from station Dick is Mr. W.A.Dickey's wharf, 180 meters long. This wharf was built to load ore and runs from the ore bunker to deep enough water for large ships at half tide. The bunker is shown on the sheet. The mine which is not being worked at present, September 1914, has a high grade of copper ore, varying from 8.7% to 15%. The two buildings shown are the old house next to the bunker and the new house, signal Homea, where the family lives at present.

Signal Ped is a rock that covers at highest water. Signal Barrel was an old butter barrel placed on a stick on a grassy island. A line through signals Homea, Ped and Barrel marks the limits of the flats at low tide. Between the island and the peninsula near station Swim is the outlet of the main creek at the head of Landlocked Bay. The creek divides, part flowing straight and the remainder flowing around the peninsula and northern shore. This peninsula was shown as an island on previous maps but there is at least a forty foot elevation across the neck east of station Ho. On the south side of the head of the bay, emptying into the head of the fresh water swamp, is a rather large stream from Mare's rail falls. A point near the head of the falls of 840 feet

elevation was determined and shown on sheet. Just above this point the stream enlarges into a series of small ponds not shown on the sheet.

The curves in the shore line of the southern side of the head of Landlocked Bay in general parallel those of the northern side. Near signal "mine" are three houses in poor condition, the remains of a mine investment. Some odd pieces of machinery are still left in the shaft house. This mine has never been worked to any extent and has been entirely idle for a number of years. A swift creek enters the bay about 100 meters west of signal Mine. It comes down to the bay in a series of small falls and was a convenient place for watering ship on a rising tide. Water sluiced from this creek was used as power in the above mine.

The shore is steep-to beyond this creek out to signal Dock. This signal was fender piles, whitewashed, at the north east corner of Dr. Rystrom's dock. Dr. Rystrom has a mine here with rather high grade ore and has bunkers along the shore. This dock extends out only about fifteen meters into the stream as the shore is steep-to. There is no beach along the head of the bay. From signal Ide to signal Sharp there is no beach except a very short one in front of Dr. Rystrom's property. He has three houses here and lives in the one nearest the beach. In the small bay between signals No and Sharp there are more rocks than in any other similar area around Landlocked Bay. These rocks shut off the channel along the shore except for the smallest boats, but leave a rather deep passage straight in from the west, half way between signals Nit and Bo. The bay between signals Sharp and In is quite clear and the 50 fathom curve passes to the eastward of a line between the two signals. South of a line through signals In and Mut and

east of a line through signal Sig and station Hes, the bay is very foul,- in fact practically closed to all but row boats.

A short gravel beach between signals Pole and Stump connects the high water island east of station Hes to the short peninsula. A long reef extends southwest from the eastern end of this island, shown approximately by the dotted line on the sheet. It is located exactly on the hydrographic sheet. The outer end is almost in exact line between the rock west of station Hes and signal Point. A very prominent lagoon is inshore from signal Flo. The bay between signals Dead and Dos is clear. Another small creek enters at the eastern end of this bay. Signal Gable is a permanent house at the north end of a narrow spit between the lower end of the creek and the bay. Station Dos is the real division between Port Fidalgo and Landlocked Bay, although the topography was carried around as far as station Dal. The regulation station disc at station Dal affords a permanent mark for the beginning of the topography on the north side of Port Fidalgo.

LANDMARKS.

Copper Mountain on this sheet as well as Mt. Denson, are very prominent marks. Signal Wart, elevation 2205 feet, is another prominent point shown on the sheet.

RIVERS.

There are no rivers on the sheet. All the creeks have been described with the shoreline.

SURVEY METHODS.

The triangulation scheme was laid out, stations observed, and the geographic positions plotted on the projection made for this area. The topography was performed in the usual way except that on account of the number of triangulation stations, no traverse was run between stations, but checks by three point fixes were possible at nearly every set up. The distances were read by rod or determined by intersections and the elevations were read on alidade and computed by using tables 3 and 4 in the plane table manual.

The scale of this sheet is 1:20,000.

Respectfully,

Everett E. Munnaw

Deck Officer,
Topographer.