DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: S. W. Alaska

DESCRIPTIVE REPORT.

Topo Sheet No. 4311

Locality:
Montague Island
Prince William Sound
Cape Cleare and Macleod Harbor

1919

Chief of Party:
R. P. Lukens
## TOPOGRAPHIC LOCATIONS

### Montague Island

<table>
<thead>
<tr>
<th>Name</th>
<th>Lat.</th>
<th>DM</th>
<th>Long.</th>
<th>DF</th>
<th>Height</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out</td>
<td>59</td>
<td>53</td>
<td>364</td>
<td>147 48</td>
<td>162 (771)</td>
<td>8 ft. The SW point of a tent shaped wall of tilted strata about 8 ft. above high water. Out</td>
</tr>
<tr>
<td>Bug</td>
<td>59</td>
<td>52</td>
<td>490</td>
<td>147 46</td>
<td>794 (140)</td>
<td>10 ft. A small cairn of rock erected on the tip of a narrow rock ledge marking the east bank of a stream. Elevation 10 ft. Bug</td>
</tr>
<tr>
<td>Pin</td>
<td>59</td>
<td>50</td>
<td>1727</td>
<td>147 54</td>
<td>79 (655)</td>
<td>15 ft. A 15 ft. pinnacle at the west end of a rocky dyke extending 50 meters from the bench. The top of the pinnacle is split by a deep crevass. Pin</td>
</tr>
<tr>
<td>RaI</td>
<td>59</td>
<td>49</td>
<td>1563</td>
<td>147 54</td>
<td>613 (122)</td>
<td>30 ft. A natural white spot 30 ft. high on the outer vertical face of a narrow rocky wall extending out from the general shoreline. RaI</td>
</tr>
<tr>
<td>Cab</td>
<td>59</td>
<td>47</td>
<td>1499</td>
<td>147 53</td>
<td>793 (143)</td>
<td>12 ft. A large black boulder about 15 ft. in diameter at HW line on South end of beach. Boulder split by deep crevass. Cab</td>
</tr>
</tbody>
</table>
GENERAL DESCRIPTION. The topography began at the limits of
the previously completed survey at the south point of Hanning Bay and
continued southwestward as far as Cape Cleare.

The beach line from signal King to signal Fun is composed of
coarse shingle and boulders, backed by steep rocky slopes, heavily for-
ested with spruce and hemlock, except for a short stretch just east of
signal Fun, where a coarse sand barrier encloses a small tidal marsh.

From signal Fun, on around the point to signal Bur in Macleod
Harbor the beach is composed mostly of talus from the cliffs which rise
directly from the high water line to a height of thirty to sixty feet.
The cliffs are very steep and can not be scaled except in four or five
places where slides or small watercourses break the wall. The top of
this bluff is heavily wooded except for a short distance north of Point
Woodcock, where a flat grassy meadow stretches for a quarter of a mile
back to the base of the mountains.

Except in calm weather when very little ground swell is run-
ing, landing from a small boat on this beach is impossible. In north
west weather the short strip of shingle beach behind the Point Wood-
cock is somewhat protected and a landing can be made at this point.
At Point Woodcock a mass of sunken ledges and large boulders extends
about one hundred meters out from the base of the cliff. The outer
edge being well marked with kelp.

Signal Cut is located near the extremity of a narrow ridge
of tilted strata about ten feet high, which rises sheer out of fairly
deep water. Three detached boulders at the extreme end are marked with
kelp as shown.

The lower slopes of the peaks north of Macleod Harbor are
heavily forested to an elevation of about a thousand feet. Above this,
the timber gives way to a narrow stretch of alders, above which the
summits rise bare except for short grass and moss where there is enough
soil to support this growth.

At the head of Macleod Harbor, where most of the streams flow
in the high water line, is very indefinite, being mostly a salt marsh
and sunken forest. There are marked indications of subsidence of very
recent date, both in this bay and in the bight just north of Cape Cleare,
which is known locally as San Juan Bay.
A party of timber cruisers from the forestry service furnished the information that evidence of subsidence, particularly in the bays, was even more noticeable on the north and east coast of the island.

The outer edge of the sand and mud flat at the head of the bay was accurately rodded with the plane table on a one foot minus tide, when the entire flat bares. This edge drops off rather steeply into ten fathoms, mud bottom.

A small shingle spit makes out at signal Ten and offers a splendid camp site. There are several groups of pilings driven in depths of from three to five fathoms and so placed behind the spit that they afford ideal moorings for small boats. There is ample level ground for a camp and plenty of fresh water. The ocean swell never runs this deep into the bay and the only bad weather is an occasional Willi-waw which sweeps down the valley in heavy northeast blows. The streams at the head of the bay, and at signals Bug and Gil are salmon streams, running humpback, silver and dogs.

The south beach of the harbor as far as signal Big, is composed of shingle and sand. The rocks forming the shingle barrier along the high water line are sometimes as large as coconuts and are worn round and smooth by wave action. There are two short stretches of rock cliff at signals Bug and Nat. Near signals Bug and Gil are two tidal marshes, behind the shingle barrier, which are fed by streams as indicated on the sheet.

The system of peaks shown on the south and east edge of the contoured area are the highest, or backbone ridge of the island. This ridge splits at the 1200 foot saddle, Lat. 59° 50½', Long. 147° 47', the main branch continuing on southwest along the center of the island, terminating in two 1600 foot peaks just east of Cape Clear. The other branch runs off to the west, forming the highlands of Point Bryant, and terminating in Peak Stair on the north point of San Juan Bay.

The lower slopes of these mountains, especially in the valleys, are heavily timbered to an elevation of about a thousand feet. The slopes above the timber being bare rock slides, or, where the character of the ground permits, are covered with a sparse growth of grass and moss.

From signal Big south to latitude 59° 49' the beach is composed of a jumble of ledge rock and talus backed by a steep rocky bluff, averaging thirty to sixty feet in height. This bluff is so steep in most places that it cannot be scaled from the beach. Because of the broken nature of the beach, the distance between high and low water is very small - in some cases the cliffs drop sheer into deep water.

From signals Hi to Cab there is a smooth stretch of flat sand beach backed by a low shingle barrier which cuts off the booms from the salt marsh shown in outline on the sheet. This beach is of fine white sand with no trace of ledge rock or bowlders visible above low water. The shingle barrier which marks the high water line is about five feet high.
At high water, the outlet to the marsh shown at signal Skull, is flooded sufficiently so that a pulling boat may be worked through the passage, provided there is not a heavy surf running.

From signals Cab to Mont, the beach line is of the same character as that north of signal Hl. Viewed from the north or south, Cape Cleare appears as a low flat promontory rising slightly at the western edge to an elevation of 320 feet, then dropping straight to the beach. It is heavily wooded with hemlock and spruce.

From signal Mont the shoreline shown as dotted was located by the hydrographic party. The beach was too narrow to be traversed except at very low water, the tops of the cliffs too heavily timbered to permit the use of a plane table and the lack of any accurate system of control made it impossible to locate this shoreline except from a launch.

The ship out in the white-washes along the beach on the 60,000 ship sheet and these were transferred to an auxiliary sheet of the same scale and the hydrography executed by a launch party who sketched in the shoreline between signals. This was then transferred to this sheet.

There is almost always a heavy surf running in San Juan Bay, making it impossible to land except at one point about 500 meters south west of signal Cab and a hundred meters northwest of the waterfall. The beach is slightly steeper here and affords the best landing place in the bay.

**Outlying Dangers.** There are no outlying dangers on this sheet unless we take into consideration a few of the rocks farthest from the beach and the remains of old fish traps. These are all accurately located and plainly shown on the sheet with one exception. The rock awash shown in pencil 260 meters northwest of signal Bay was seen at extreme L L W by a signal building party but was not visible when the topography and hydrography were done at this point. Thick kelp prevented a more thorough hydrographic investigation.

The fish trap at station Trap in Macleod Bay was new this year but proved to be an excellent location and will probably be re-driven each year. The one near signal Log is abandoned and will be gone in a year or two due to wave action and tõredos.

**Inshore Dangers.** There are very few objects which can be included under this heading. Most important of these are the detached boulders lying outside the general talus line along the rocky stretches of beach. In every case these rocks are plainly marked with kelp.

240 meters northwest of signal Bay is a rock, bare at 1/2 tide, which marks the outer edge of a boulder and ledge-rock flat extending westward from the shoreline as indicated on the sheet. 140 meters west northwest of signal Basil lies a detached rock in a thick bed of kelp. This rock is bare at about 3/4 tide and has a narrow channel of clear water, averaging two fathoms, between it and the beach.

The fish trap and detached piling need no further explanation.
The detached rock northwest of station Bry is noted under Outlying Dangers.

300 meters north of signal bar is a detached boulder in about 1-1/2 fathoms of water. There are a great many of these rocks extending out to about 50 meters from the beach, but this, being the farthest out, is the only one worthy of note.

250 meters southwest of signal Tom are three points of rock marking the reef that bares at 3/4 tide. Thick beds of kelp prevented a thorough hydrographic investigation but no indication of the reef existed west of the kelp line as shown on the hydrographic sheet.

Survey Methods. The shoreline was run in by the regular plane table traverse method on third order triangulation control. The mountain peaks were cut in and elevations checked from as many stations as possible. Where it was possible to compare with triangulation locations, excellent agreement was found. Due to excessive shrinkage of the sheet, especially in the southern half, it was found necessary to apply a correction to all rod readings. Except for this no unusual features were encountered.

New Place Names. Well established local name:—SAN JUAN BAY as applied to the first bay north of Cape Cleare on the west side of Montague Island. The San Juan Fishing and Packing Co. have for several years maintained a trap in this bay, hence the name.

Geographic Names.

Montague Island
Point Woodcock
Macleod Harbor
Point Bryant
Cape Cleare

Respectfully submitted,

[Signature]

Ch. H. & G. Eng.

Approved

[Signature]

Chief of Party

Inspector and Survey Agent

Addition of salt usage symbol E. P. Ec., May, 1928

(Handwritten note: "Made from information in District Report")
April 16, 1928.

To: Commanding Officer,
   U. S. C. & G. S. S. SURVEYOR,
   202 Burke Building,
   Seattle, Washington.

Through: The Inspector, Seattle Field Station.

From: The Director,
   U. S. Coast and Geodetic Survey.

Subject: Topography, vicinity of Macleod Harbor.

There is enclosed a photostat of a section of topographic sheet 4311 surveyed under your direction by Lieutenant S. B. Grenell in the vicinity of Macleod Harbor, Montague Island, Alaska.

There have been certain additions made to the topographic sheet as will be noted on this photostat from information contained in the descriptive report. This report stated that there were salt marshes in the vicinity of Signals Gill, Bug and Fun. However, the symbol shown indicated grass instead of marsh.

It is stated that a high water line at the head of the bay is very indefinite, being mostly a salt marsh and a sunken forest. The proper symbol was not used for salt marsh at this location. However, the information was too indefinite for correction to be made at this office. It is desired if practicable for you to do so that you indicate on the photostat the extent of the salt marsh in order that the original sheet may be corrected.

In the vicinity of Signal Trap, there are three dots and, in the vicinity of Signal Tom, there are several dots which are understood to be piles and the word "piles" was added to the sheet in each of these locations. In the vicinity of Signal Loc, the words "abandoned fish trap" were added to describe the few of piles noted on the sheet and described in the descriptive report.

Please call these changes to the attention of the officer who made the survey and advise this office if any other additions should be made to the sheet.

(Signed) E. Lester Jones

Inclosure

Director.
At Sea, July 2, 1928.

To: The Director, Coast & Geodetic Survey,
Through: Inspector, Seattle Field Station,
From: Commanding Officer, Str. Surveyor,
Subject: Topography, vicinity of Macleod Harbor.
Ref.: Office letter 10-McC, April 16, 1928.

There is returned herewith a photostat of a section of topographic sheet #4311. The approximate limits of the marsh at the head of Macleod Harbor are shown in red. This marsh is salt during the higher tides and is fresh during the neap tides. It should probably be shown as a salt marsh on the sheet. The corrections made in the office should be left as they stand.

R. P. Lukens,
Commanding.

[Signature]
LANDMARKS FOR CHARTS

Superintendent, U.S. Coast and Geodetic Survey:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

T 4311

Chief of Party.

<table>
<thead>
<tr>
<th>Description</th>
<th>Position</th>
<th>Elev.</th>
<th>Method</th>
<th>Charts affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Clear (top of bluff)</td>
<td>59° 46' 18.28&quot;</td>
<td>147° 55' 710&quot;</td>
<td>320'</td>
<td>Topo. 8502...8515</td>
</tr>
<tr>
<td>Stair (Mt. Pk.) (north of Juan Bay)</td>
<td>59° 49' 1445.6&quot;</td>
<td>147° 53' 501.2&quot;</td>
<td>1595'</td>
<td>Tri.</td>
</tr>
<tr>
<td>Mt. Peak (north side Macleod Harbor)</td>
<td>59° 53' 1182&quot;</td>
<td>147° 46' 616&quot;</td>
<td>1600'</td>
<td>Topo.</td>
</tr>
</tbody>
</table>

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No.  "M"

REGISTER NO.  4317

State.  S.W. Alaska

General locality.  Prince William Sound

Locality.  Montague Island, Cape Clear and Macleod Harbor

Scale 1:20,000  Date of survey.  August, 1927

Vessel.  Str. SURVEYOR

Chief of Party.  R. H. Lukens

Surveyed by.  S. B. Grenell

Inked by.  S. B. Grenell

Heights in feet above H.W. to ground

Instructions dated.  February 3rd, 1927

Remarks:

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