

4575

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R.S. Patton, Director	
State: <u>Alaska</u>	
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MAR 5 1931	
Acc. No.	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. "A" 4575
LOCALITY	
Kodiak Island.	
Cape Ikolik to Ayakulik Island	
1930	
CHIEF OF PARTY	
F.H. HARDY, H&GE.	

DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET "A".

Str. SURVEYOR.

F.H.HARDY, Com'd'g.

Instructions dated April 1, 1930.

4575
LOCALITY.

West Coast of Kodiak Island - Cape Ikolik to Ayakulik Id.

GENERAL DESCRIPTION.

The area covered by this sheet is mountainous. The ridges have moderate grassy slopes to landward, with occasional rocky outcrops, but terminate at the sea in steep rocky declivities. The shoreline is rocky and precipitous from Cape Ikolik to Signal Ole, except for a small portion of the bight between Bear Rocks and Pillar Rocks, where the beach is sandy. Southward from Signal Ole the shoreline is sandy and is surmounted by grass-covered and eroded earth bluffs.

CAPE IKOLIK. is a wedge shaped headland (with axis running N.E. and S.W.) with steep grassy slopes to landward and rugged cliffs to seaward. The highest point is 980 feet high. West of this cape lie Sail Rock and Lighthouse Rock.

BUMBLE BAY is a small bight having a steep rocky shoreline on both sides of the entrance. The east shore consists of two stretches of sandy beach separated by a short expanse of rocky bluff. The entrance to this bay is well marked by a group of large rocks extending towards a precipitous headland on either side.

ANVIL MOUNTAIN. surmounts a broad expanse of tableland as viewed from the S. and S.W. It is entirely grass covered and has the appearance of a distorted pyramid with the longest ridge running in an easterly direction. This peak is due north of Ayakulik Island at a distance of 4 1/3 miles.

AYAKULIK ISLAND. is a small island 220 feet high. It presents a bold rocky face to the westward and a gentle grassy covered slope to the east. There is a reef at the westward base of the island which terminates in a rock 55 feet high. A number of small rocks and rocks awash are scattered about the west and north sides of the island at a distance less than 1/4 mile. On the eastern side of the island the area between the high and low water lines is composed of medium sized boulders. The low water line extends within 1/4 mile of the low water line of the mainland. The island is uninhabited although it is used as a fox farm. There are three deserted barabas or native huts on the eastern side of the island.

ROCKS.

Inner Seal RK 4575

Lighthouse Rock (Whale Rock) lies 1/3 mile offshore from Cape Ikolik. It has rounded steep sides and is surmounted by a prominent nub which resembles a lighthouse. The elevation of this rock was found to be 125 feet. Two small rocks with elevations of 6 and 8 feet respectively lie close to the west side of this rock. Southward from Cape Ikolik to Bumble Bay there are numerous scattered rocks close to shore.

Bear Rocks. consist of a group of three large and three small rocks lying close to (within 1/4 mile) of the prominent headland on the west side of Bumble Bay. The three large rocks extend in a straight line toward the headland, and are evenly graded in height. The outermost rock has an elevation of 60 feet; the middle rock 100 feet, while the innermost rock is 142 feet high.

Pillar Rocks lie close to the prominent headland at the east entrance to Bumble Bay. They are so named because the outermost rock is a tall (127 ft.) slender pinnacle resembling a pillar. Inshore from this is a small rock with a flat base surmounted by a small pillar. The end of the headland directly inshore from these rocks is a pinnacle which has the appearance of a detached rock at a distance. From Pillar Rocks to signal Ole there are a number of scattered rocks and rocks awash close to shore.

SURVEY METHODS.

The shoreline between signal Top and signal Lib was surveyed by traverse. Signal Top, a topographic station established in 1929, was recovered and checked by cuts to triangulation station Sail, Tombstone Rock, Whale Rock, and Ikolik. In traversing from signal Top to triangulation station Little Bear set ups were made on rocks near the shore.

In the survey of Bumble Bay, triangulation station Little Bear Rock was occupied and cuts were taken to all the signals in this area. The planetable was then moved to signal Bo and after orienting on triangulation Little Bear, resection was made on station Pillar Rock. With this position as a starting point a traverse was run around the bay and closed on triangulation stations Little Bear and Pillar.

To aid the traverse from triangulation station Pillar to signal Lib, triangulation station Yak₂ was occupied and cuts taken to all the signals along this stretch of shoreline. All traverses closed well within the allowable error and were adjusted by the usual method taking into account the distortion of the sheet.

Form Lines.

A few cuts were obtained by planetable for use in drawing form lines. However the major portion of the cuts to peaks and elevations were obtained by sextant from a launch laying - to about one mile offshore. The magnetic meridian was observed at triangulation station Flat.

DISTORTION.

During the progress of the field work on this sheet, the distortion over the working portion of the sheet amounted to 5 meters per minute of latitude, and 4 meters per minute of longitude. After the sheet had been completed and remained aboard the ship for several months, the distortion along the edges of the sheet amounted to 1.1 meters per 1000 meters the short way of the sheet and 4.5 meters per 1000 meters the long way of the sheet.

COMPARISON WITH OLD SURVEY.

The area covered by this sheet was unsurveyed prior to 1930. However, this sheet joins Topographic Sheet "P" (field) 1929, and a small discrepancy exists in a portion of the shoreline and the location of a group of rocks off Cape Ikolik. Also the elevation of Whale Rock (Lighthouse Rock) was found to be 125 feet, three determinations having been made. The two flat rocks on the west side of Lighthouse Rock are not shown on Topographic Sheet "P" 1929.

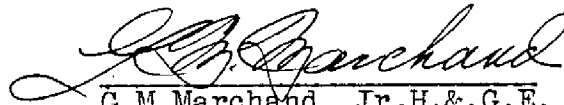
PHOTOGRAPHS.

Seven photographs taken by the field party are attached to this report. The geographic features pictured are as follows :-

1. Sail Rock as seen from a point $3/4$ mile due east.
2. Sail Rock, Tombstone Rock, and Cape Middle as seen from a point about $3/4$ mile W.N.W.(true) from Lighthouse Rock.
3. Cape Ikolik and Lighthouse Rock as viewed from a point $1/2$ mile south of Lighthouse Rock.
4. Bear Rocks as pictured from Signal Shack on the east side of Bumble Bay, distant 2 miles.
5. Pillar Rocks ~~as pictured~~ and seen at a distance of $3/4$ mile, bearing S.E. true.
6. Anvil Mountain, as seen from a point 1 mile south of signal Ole.

7. Ayakulik Island, as viewed from a point 1/4 mile due South of the Island.

Respectfully submitted,


G.M. Marchand, Jr. H. & G. E.

Approved
J. J. Standy
chief of party



1. Sail Rock as seen from a point $\frac{3}{4}$ mile due east.



2. Sail Rock, Tombstone Rock, and Cape middle as seen from a point about $\frac{3}{4}$ mile W.N. W. (true) from Lighthouse Rock.

3.



3. Cape Ikplik and Lighthouse Rock as viewed from a point 1/2 mile south of Lighthouse Rock.

4.



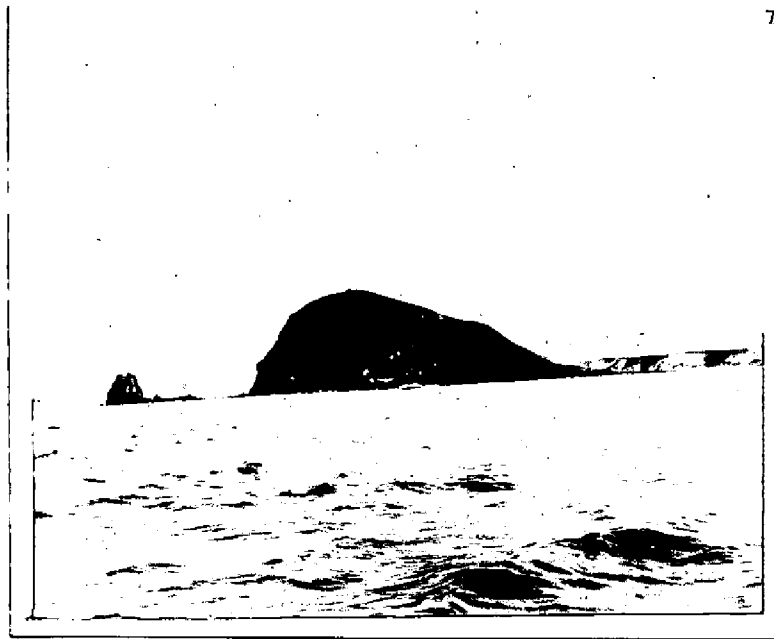
4. Bear Rocks as pictured from signal Shack on the east side of Bumble Bay, distant 2 miles.



5. Pillar Rocks as seen at a distance $3/4$ mile bearing S.E. (true).



6. Anvil Mountain as seen from a point 1 mile south of signal Ole.



7. Ayakulik Island as viewed from a point 1/4 mile south of the Island.

NEW NAMES.

Bear Rocks, so named because there are three prominent rocks in this group evenly graded in height, and suggest to mind the nursery story of "Goldilocks" and the Three Bears".

Pillar Rocks, so named because of the shape of the outermost rock.

Bumble Bay, so named by field party without rhyme or reason.

List of Planetable Positions

Name & Descr.	Latitude D.M. (meters).	Longitude D.P. (meters)	Height.
Lu - highest point of conical rocks.	57° 16' (428) 1428	154° 47' (772) 233	20 feet
Bo - highest point of pinnacle rock at high water line at N.W. end of rocky bluff that separates two sandy beaches in Bumble Bay.	57° 16' (311) 1545	154° 41' (770) 235	-----
Tip - highest point of pointed rocks off point.	57° 15' (196) 1660	154° 39' (163) 943	25 feet.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4575

TOPOGRAPHIC TITLE SHEET

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. "A".

REGISTER NO. 4575

State ~~S.H.~~ Alaska.

General locality Kodiak Island.

Locality Cape Ikolik to Ayakulik Island.

Scale 1:20,000 Date of survey May & June 1930

Vessel SURVEYOR.

Chief of Party F.H.HARDY.

Surveyed by G.M.Marchand.

Inked by G.M.Marchand.

Heights in feet above M.H.W. to ground ~~15-100-25-150-5~~

Contour, Approximate contour, Form line interval 100 feet

Instructions dated April 1-st, 1930

Remarks: