DEPARTMENT OF COMMERCE
U. S. COAST AND GEOFETIC SURVEY
R. R. PATTON

C. & G. SURVEY
L. & A.
FEB 17 1930
Acc. No.

State: ALASKA

DESCRIPTIVE REPORT

Topographic
Hydrographic
Sheet No. "P" 4483

LOCALITY

WEST COAST, KODIAK ISLAND
Halibut Bay
CAPE MIDDLE TO CAPE IKOLIK

SEPT
1929

CHIEF OF PARTY

R. R. LUKENS
Potomac Co
Hilbert 1873
GENERAL DESCRIPTION.

This is a mountainous region. The ridges have moderate grassy slopes except where they terminate in precipitous cliffs at the shore. Most of the shoreline consists of bold rocky cliffs and headlands. There are several bights, however, with low sandy beaches.

CAFE MIDDLE consists of two headlands having smooth, grass covered slopes facing inland, and precipitous, rugged cliffs facing the sea. The north headland, a little over a thousand feet in elevation, is the larger and higher. Tombstone Rocks lie about one mile west of Cape Middle. A drumlike pinnacle rock, over one hundred feet high, is situated due west of the highest point of the cape, about two hundred meters offshore. Between this pinnacle rock and the shore are two smaller pinnacle rocks. A series of reefs fringe the shore south from these rocks to the little bight in the middle of the cape.

The shore from Cape Middle to Middle Bay consists of bold cliffs fringed by a scattering of rocks and reefs. The most notable of these are Mushroom Reef and the pinnacle rock called Tuf.

MIDDLE BAY is a small bight having a broad sandy beach backed by earth banks and a grassy valley.

A precipitous headland lies between Middle Bay and Gurney Bay. A few rocks and reefs lie at the base of this headland.

GURNEY BAY is a protected bight with sandy bottom and shore. The slopes of the hillsides end close to the beach.

CAPE I Kolik is a wedge shaped headland, the seaward slopes of which are grass covered above and bare and rugged below. The inshore slopes are grassy. The shoreline consists of rugged cliffs about five hundred feet high. At the northern end of the cape is a striking, double headed mound about four hundred feet high, separated from the larger part of the cape by a saddle about one hundred and eighty feet high. Sail Rock and Lighthouse Rock lie west of this cape.

ROCKS AND REEFS.

TOMBSTONE ROCKS lie one mile west of Cape Middle. They consist of two pillarlike rocks. The south one is 99 feet high, the north one about fifty feet high. 57°21' - 154°47'

MUSHROOM REEF lies 1/2 mile offshore midway between Cape Middle and Middle Bay. It is a flat topped, black reef, somewhat resembling an inverted saucer. It bares 13 feet at M.L.L.W. 57°20' - 154°48'

TUF PINNACLE lies about ninety meters offshore midway between Cape Middle and Middle Bay. It is a pillar-like shaft of rock, 170 feet high, and having slightly overhanging sides. 57°20' - 154°47'

SAIL ROCK (OUTER SEAL ROCK) resembles a jib sail. It is 89 feet
2.

high and lies 1 3/4 miles W.N.W. of Cape Ikolik. This rock is a rookery for sea-lions.

LIGHTHOUSE ROCK (INNER SEAL ROCK) lies about 1/3 mile west of Cape Ikolik. It is a steep sided, bare, rock 141 feet high, surmounted by a rock nub which resembles a lighthouse. Lighthouse Rock is a rookery for sea-lions.

SURVEY METHODS

The shoreline between AFin and OTop was surveyed by traverse. At many set-ups one or two triangulation stations and at some set-ups three triangulation stations were in sight. At no set-up was an error in position detected. In addition to the traverse, Tombstone Rock was occupied and cuts to whitewashes were taken from it. In traversing southward cuts were taken to whitewashed ahead. These were an added check on the work.

CONTOURS. Some cuts to peaks were obtained by plane table, but most of the cuts and elevations were obtained by sextant from a launch laying-to at points along the coast averaging about one mile offshore.

This sheet was distorted during much of its execution (2 1/2 meters per 1000 meters the long way of the sheet, 1 1/2 meters per 1000 meters the short way of the sheet), but the ample amount of control signals usually in sight prevented errors from this cause. After the sheet was completed and had remained on board ship for several months, it was found further distorted (about 12 meters per 1000 meters the long way of the sheet and 8 meters per 1000 meters the short way of the sheet, on the portion of the sheet used in the survey.)

The magnetic meridian was omitted thru oversight.

COMPARISON WITH OLD SURVEY

Cape Middle and Curley Bay were previously surveyed (Topo. #3761). The shoreline of the present survey differs but slightly from that of the previous survey. The greatest discrepancy was found to be in the little cove east of Tombstone Rocks, where the shoreline of the present survey is about 15 meters east of its position on topographic sheet, #3761.

PHOTOGRAPHS

A photograph of Cape Middle is attached to this report.

L.S. Hubbard, Topographer
NEW PLACE NAMES

NAME SUGGESTED BY FIELD PARTY

Cape Middle ✓

REASON FOR NAME

So named because it is the middle of three capes in this vicinity. (Name is used in Coast Pilot)

Tombstone Rocks ✓

To GB

So named because they somewhat resemble tombstones (Name used in Coast Pilot)

Mushroom Reef ok To GB

So named because the reef is shaped somewhat like the head of a mushroom.

Middle Bay

Yes

So named from proximity to Cape Middle. This name is objectionable because there is a Middle Bay on the East. Middle Arm of Chiniak B. MB.

Gurney Bay ✓

So named on old topographic sheet (#3761)

Sail Rock** Outer Seal Rocks (Paw C.R.)

So named because of resemblance to a jib sail.

Lighthouse Rock** Inner Seal Rocks (Pau C.R.)

So named because of the mound of rock on the islet which is so easily mistaken for a lighthouse.

** It is recommended that the names Outer and Inner Seal Rocks for these be discontinued, for the name, Seal Rocks, is a much overworked word in Alaska, and does not distinguish these rocks from the dozen other Seal Rocks in Alaska. Moreover there are no seals on these rocks, only sea-lions.

Retain old names "Inner and Outer Seal Rocks" (See Lay, Sect. of Alaska, Capt. Lucanus and C. Pilot)
### PLANE TABLE POSITIONS

<table>
<thead>
<tr>
<th>Name and Description</th>
<th>Latitude</th>
<th>D.M.</th>
<th>Longitude</th>
<th>D.P.</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOU, western face of pinnacle rock</td>
<td>57-21</td>
<td>1100</td>
<td>154-47</td>
<td>512</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(756)</td>
<td>(491)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LE, bronze disk, top of projection of rock, SW face of prominent rock, 99' high, SW point of Middle Headland</td>
<td>57-20</td>
<td>1247</td>
<td>154-48</td>
<td>256</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(609)</td>
<td>(746)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUSHROOM REEF, highest point of reef</td>
<td>57-19</td>
<td>1527</td>
<td>154-47</td>
<td>674</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(279)</td>
<td>(330)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TUF, center of pinnacle rock</td>
<td>57-19</td>
<td>1530</td>
<td>154-46</td>
<td>895</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(326)</td>
<td>(109)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIT, bronze disk in rock of point, NE of entrance to Gurney Bay</td>
<td>57-18</td>
<td>428</td>
<td>154-45</td>
<td>730</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1428)</td>
<td>(275)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOP, bronze disk on tip of small, toothlike, rock about 15 feet high, the northernmost of a group of islets</td>
<td>57-17</td>
<td>593</td>
<td>154-47</td>
<td>765</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1263)</td>
<td>(240)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CAPE MIDDLE

Taken by R.R. Lukens, September, 1929, at a position about 1 1/2 miles north of Cape Middle, and facing southward
T. 45 S.  by G. C. Thurman & G. M. McChord (Subs. of R.) in 1930

shows an elevation of 17 feet above mean high water for the

group of rocks one mile northeast of Artinite 3, while the

descriptive report of H. 5080 (Field No. 26) states that

the elevation is 18 feet above mean sea level. There is

a discrepancy of 3.6 feet between the two statements.

T. 45 S. shows an elevation of 13 feet above mean high

water for the group of rocks one-half mile northeast of

Artinite 3, while the descriptive report of H. 5080 states

that the elevation of the rocks is 13 feet above mean

sea level. There is a discrepancy 0.4 feet between

the two.

As it was desired to show these equations on the

new chart it is necessary to remove the confusion.

( Difference between M. O. W. and M. H.W. (7.7 C) is 4.6"

It is noted that elevations on T. 45 S. are referred to M.L.W.

whereas the elevations on the adjoining chart 45 S. 2 by the same part

are referred to M. H.W.

E. W. Smith, July 17, 1931
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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 Letter..................................................p......
REGISTER NO. ..................................................4483

State......................................................ALASKA
General locality............................................WEST COAST KODIAK ISLAND
Halibut Bay
Locality....................................................CAPE MEDLE TO CAPE IKOLIK

Scale......................................................1:20,000
Date of survey............................................September 1929, 1o

Vessel.....................................................Str. SURVEYOR
Chief of Party..............................................R. R. LUKENS
Surveyed by..............................................L. S. HUBBARD
Inked by..................................................L. S. HUBBARD

Heights in feet above........................................M. H. W. to ground to tops of trees
Contour Approximate contour Form line interval 100 feet
Instructions dated........................................March 14, 1929

Remarks:..........................................................