DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

State: SOUTHWEST ALASKA

LOCALITY:
Alaskan Peninsula
OUTWIK ISLAND

1925

CHIEF OF PARTY:
Clem. L. Carrer, H. & G. E.
DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET 106, SATWIK ISLAND, SOUTHWEST ALASKA
Instructions to Commanding Officer
dated March 25 1925.

LIMITS OF WORK

This sheet covers the entire of Satwik Island and offlying rocks.

GENERAL DESCRIPTION

For ships approaching from the south or southeast, Satwik Island presents a range of gently sloping, green hills of even height. About a quarter of the eastern end of the island does not appear until approached within about 25 miles. Then Foggy Cape appears as an offlying island until a vessel is within about 15 miles of the shore.

The southern slopes are grass covered and spread out into marshy flats. The actual shore line presents the appearance of a series of low, sandy, bluffs, fringed by numerous breakers and reefs. The northern shore is a line of bluffs, mostly too steep for vegetation.

Foggy Cape is frequently hidden in fog, even when the rest of the island is clear.

OUTLYING DANGERS AND ISLANDS

There is a marked tide rip 1/4 miles, 150° true from Foggy Cape. There are three rocks a mile or less off the western shore of Satwik Island ranging from 40 to 115 feet in height. The ones marked as signal east and lion are bare reefs rounded in appearance. The third one has bold faces and is jagged in appearance.

LANDMARKS

The dome shaped columnar sided mound, 295 feet in height, whose highest point is marked by signal cow, under certain light conditions shows up well for vessels approaching from any southerly quarter. It then presents a dark shape against a green background. Approached from the east or west, the mound appears detached from the rest of the island.

The rocks off the western shore of Satwik Island mentioned above as offlying rocks are landmarks for vessels approaching the western end of Satwik Is.

Vessels passing between Satwik Island and Cape Kunlik will find the reef marked as signal fish a distinct landmark. It is a cusp-shaped, black reef about 20 feet high.

ANCHORAGES

There is an anchorage off the north shore of Satwik Island in the bay laying between signal fish and signal mid, good for southerly weather. It is of sandy bottom, of only fair holding properties, and has about 8 fathoms of water.
Inshore Dangers

Numerous reefs skirt the southern coast of Satwik Island, extending offshore about one mile. Most of them do not bare until low tide, so this shore should be avoided. The most conspicuous rocks along this shore are the following. There is a grass-covered islet about 220 meters long and 150 feet high in Lat. 56°-51'-20", Long. 157°-17'-00". A grass-covered islet about 150 meters long and 55 feet high lies in Lat. 55°-31'-40", Long. 157°-16'-20". The group of four rocks which include Signal Stick and Signal Bluff, a mile west of Signal Cow, are all about 25 feet high; two of these are small and pillerlike in shape. A reef which bares at \( \frac{1}{2} \) tide lies 5/6 mile, 2478' true from signal Cow. The rock 500 m., 160º true from signal Cow, and marked signal Spikes is a tall, shaped, needlelike rock about 20 feet high. The rock marked signal Table in Lat. 55°-31'-40", Long. 157°-08'-12" is a vertical sided, table-topped rock, 23 feet high. A reef 750 m., 60º true from signal Table bares at \( \frac{1}{2} \) tide. There are two grass covered rocks in Lat. 56°-32'-20", Long. 157°-08'-20", 600 m. offshore the cape; one of these is signal Green. The group of grass covered rocks in Lat. 55°-32'-15", Long. 157°-08'-30", one of which is signal Sand, are connected to the shore at low tide by a sand bar. The islet in Lat. 56°-32'-59", Long. 157°-08'-10", whose highest point is signal Bar, is the largest in the vicinity, but from the sea is inconspicuous because it blends with its background. The group of rocks in Lat. 56°-32'-20", Long. 157°-05'-00" is the most central of which is signal Double, very greatly in appearance according to the tide. They are all low irregular-shaped rocks. The rock marked signal Triplets in Lat. 56°-32'-30", Long. 157°-05'-00" is broken into three perpendicular shafts about 61 feet high. The rock just outside of the Triplets whose center is signal Grass is 32 feet high and grass crowned. There is a rock awash at low tide in Lat. 56°-31'-42", Long. 157°-00'-35" 2/3 mile offshore, southwest of Foggy Cape. A green topped islet lies close to shore in Lat. 56°-32'-02", Long. 156°-59'-20". A barren, vertically stratified, rock 60 feet high, lies 100 m. west of Foggy Cape in Lat. 56°-32'-24", Long. 156°-58'-11". There is a marked tide-rip off Foggy Cape which should be avoided.

A strip of shoal water about 1/3 mile in width extends along the north shore of Satwik Island. It is marked by the reefs and areas of kelp shown on the chart. There are two flat topped, square shaped rocks, about 15 feet high and some 100 m. off shore in Lat. 55°-33'-05", Long. 156°59'-20". The outer of these is signal Square. The rock whose highest point is signal Tail is a green crowned shaft 51 feet high close to shore. The rock in Lat. 56°-33'-51", Long. 157°-01'-22", whose highest point is signal Two Point is conspicuous in its vicinity. It is 65 feet high, roughly pyramidal in shape, and surmounted by a two pronged stone block. The group of reefs in Lat. 56°-35'-25", Long. 157°-05'-20" whose highest point is signal Solo are low and inconspicuous. They lay about 1/2 mile from shore. Signal Solo has a distinct point 4 feet above high water. Signal Pike in Lat. 56°-35'-05", Long. 157°-06'-50" is a shaftlike rock, 30 feet high, grass capped and a 130 m. from shore. Signal Pitch in Lat. 56°-35'-25", Long. 157°-05'-35" marks the high point of a steep sided rock 64 feet high, laying 1/2 mile off a reef fringed cape. Signal Dark marks a black rock 42 feet high, laying between signal Pitch and the shore. The rock in Lat. 56°-35'-17", Long. 157°-09'-56" whose highest point is signal Fore is a grass topped and 53 feet high. Signal Huts is a bare rock 13 feet high about one half way between signal Fore and Signal Fish, and 1/2 mile from shore. Signal Fish in Lat. 56°-36'-28", Long. 157°-14'-50" marks the high point of as irregular, bare rock, crudely resembling a whale's back when seen from the east or west. It is 20 feet high, and lays about 1/5 mile off a prominent
cape. A ragged line of reefs extends a ½ mi. east of signal fish. The highest point of these reefs is 12 feet. Signal from in Lat 55°-33'-50", Long 157°-12'-35", is a black, pyramidal rock about 30 feet high. A jagged line of reefs extends from the point in Lat. 53°-32'-45", Long. 157°-19'-50". Another line of toothlike reefs extend off the southwest point of Sutwik Island in Lat 56°-31'-40", Long. 157°-13'-30".

LANDING PLACES, STREAMS, ETC.

Under favorable weather conditions a small boat can land on the south side of Sutwik Island on the various sand beaches indicated on the sheet. With southerly winds and seas, on the contrary, a high surf is running making such a landing dangerous. There is a small protected cove, however, at the southwestern end of Sutwik Island in Lat. 55°-31'-50", Long. 157°-19'-20", where a landing will be possible. There are several coves on the north shore on the north shore where small boats may easily land. The deep cove between signal tail and signal two point is well protected in any weather, but is very shallow. It is not recommended for anything larger than a whaleboat. The bay between signal Band and signal Dark, and the bay between signal Mid and signal Fish are recommended.Brooks enter both of these bays.

Brooks are everywhere abundant on Sutwik Island except on the eastern end. There are no large streams. The largest brook empties into the sea 1/5 mile west of signal Sand, and the south shore of the island. There is a shack about 50 m. from the stream 1/5 mile west of Sand. There are no inhabitants on Sutwik Island.

SURVEY METHODS

In order to establish control along both north and south shores, a point in Lat 56°-34'-12.4", Long 157°-06'-53.4" was occupied and determined by three point fix to triangulation signals Sat, Cow, Vik. Cuts were here taken to many of the rocks off the south shore and a cut taken to the peak, Razer. Signal Razer was then occupied and determined by resection from triangulation signal Vik. Cuts from this point could be taken here to points on the north shore. Several setups in the vicinity of signal Vik were also made and cuts taken to points on both the north and the south shores. The north shore was then surveyed by cuts, resection, and three point fixes, between signal fish and signal East, except for a traverse a ½ mile long from Lat 56°-34'-43", Long, 157°-04'-00" to signal Rug. This traverse closed without error.

The south shore line from Lat 56°-32'-13", Long. 157°-06'-20" westward and around Peggy Cape was surveyed by cuts, resection, and three point fixes. Theodolite cuts from triangulation signal Emalik to the three rocks off the west end of Sutwik Island were plotted and the signal Lion determined by occupying this rock and resecting on triangulation signal Cow. Cuts were here taken to points along the shore line. The shore line from Lat 55°-31'-30", Long. 157°-13'-31" to Lat 56°-32'-03", Long. 157°-14'-14" was then surveyed by cuts, resection, and three point fixes. Cuts from triangulations signal Sat and two other points on neighboring hills completed the determination of the rocks laying off the south-central shore of Sutwik Island. The shore line itself was then run in from Lat 56°-32'-03", Long. 157°-14'-14" to Lat 56°-33'-13", Long 157°-06'-20" by a sextant survey, the
surveyor taking fixes and making notes as he traveled the shore. Plane table cuts had been taken previously on the headlands inshore from signal Stick and from signal Green, and tangents taken around the cape of signal Cow from plane table setups both north and west of triangulation signal Cow. These cuts supplemented and checked the sextant work at these points.

The shore line from signal fish to the reef line in Lat 56°-32'-41", Long 157°-19'-42" was surveyed by Mr. C. Pierce by the use of resection and three point fixes on signals on the Cape Kumlik side of the straits. A projection upon which the signals upon the other side of the strait were plotted, was used, and the shore line from this projection transferred to the main projection, sheet No.5.

The shore line about a mile in extent, between Lat 56°-32'-41", Long 157°-19'-42" and Lat 56°-31'-30.7", Long 157°-19'-31" was surveyed by cuts from various positions of the ship.

Respectfully submitted,

[Signature]

Approved and Forwarded,

[Signature]

Clem L. Garner,
H. & C. Engineer, Chief of Party.

Note:

The topography of the west end of Sutwik Island was not completed because of unfavorable landing conditions at the time this work was in progress. It will have to be done by during another season.

The sextant work mentioned in the last paragraph above was merely for the purpose of showing in a rough way the trend of the shore line.

[Signature]
<table>
<thead>
<tr>
<th>Name and Description</th>
<th>Lat</th>
<th>Lon:</th>
<th>H.D.P.:</th>
<th>Height</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skale, the highest point of the rocky reefs 250 m. east of Fish</td>
<td>56°-35', 678</td>
<td>157°-14', 334</td>
<td>12'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuts, a bare black rock</td>
<td>56°-35', 33</td>
<td>157°-12', 299</td>
<td>13', center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tip, the outer of two prominent little cones on headland</td>
<td>56°-35', 334</td>
<td>157°-03', 1009</td>
<td>60'</td>
<td></td>
<td></td>
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<tr>
<td>Fore, a grass topped rock</td>
<td>56°-35', 529</td>
<td>157°-09', 964</td>
<td>53'</td>
<td>highest point</td>
<td></td>
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<tr>
<td>Dark, a bare black rock</td>
<td>56°-35', 604</td>
<td>157°-06', 545</td>
<td>42'</td>
<td>highest point</td>
<td></td>
</tr>
<tr>
<td>Pitch, a steep sided grass capped rock 1/2 mi. from shore</td>
<td>56°-35', 858</td>
<td>157°-08', 629</td>
<td>84'</td>
<td>center of top</td>
<td></td>
</tr>
<tr>
<td>Fazer, a steep, even sloped, grass covered hill</td>
<td>55°-34', 1578</td>
<td>157°-06', 703</td>
<td>513'</td>
<td>peak</td>
<td></td>
</tr>
<tr>
<td>Sand, the outer face of a rocky headland</td>
<td>55°-34', 1534</td>
<td>157°-07', 518</td>
<td>8'</td>
<td>white washed in 1925</td>
<td></td>
</tr>
<tr>
<td>Pile, a prominent, shaftlike, grass-capped rock</td>
<td>56°-35', 157</td>
<td>157°-06', 851</td>
<td>90'</td>
<td>highest point</td>
<td></td>
</tr>
<tr>
<td>Bunch, a bare black rock</td>
<td>56°-35', 153</td>
<td>157°-05', 969</td>
<td>22'</td>
<td>highest point</td>
<td></td>
</tr>
<tr>
<td>Solo, the highest sharp point of a group of rocks</td>
<td>56°-35', 759</td>
<td>157°-05', 339</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bug, the outer face of a broken headland</td>
<td>56°-33', 1744</td>
<td>157°-01', 708</td>
<td>15'</td>
<td></td>
<td></td>
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<tr>
<td>Two point, a conspicuous, roughly pyramidal rock, surmounted by a two pronged, stone block</td>
<td>56°-33', 1569</td>
<td>157°-01', 307</td>
<td>65'</td>
<td>highest point</td>
<td></td>
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<tr>
<td>Tail, a green crowned, shaft, close to shore</td>
<td>55°-33', 735</td>
<td>157°-00', 450</td>
<td>51'</td>
<td>highest point</td>
<td></td>
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<tr>
<td>Square, the outer of two flat topped, block-like rocks</td>
<td>56°-33', 133</td>
<td>156°-53', 272</td>
<td>15'</td>
<td>center of top</td>
<td></td>
</tr>
<tr>
<td>Snag, a cylindrical rock, close to shore</td>
<td>56°-32', 333</td>
<td>156°-58', 822</td>
<td>30'</td>
<td>center</td>
<td></td>
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<tr>
<td>Grass, a grass topped rock</td>
<td>56°-32', 699</td>
<td>157°-02', 633</td>
<td>92'</td>
<td>center of rock</td>
<td></td>
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<tr>
<td>Triplets, the highest point of three vertical slabbed rocks</td>
<td>55°-32', 920</td>
<td>157°-02', 932</td>
<td>61'</td>
<td></td>
<td></td>
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<tr>
<td>Cone, a bare cone shaped rock</td>
<td>56°-32', 1054</td>
<td>157°-03', 651</td>
<td>11'</td>
<td>high point</td>
<td></td>
</tr>
<tr>
<td>Bar, the highest point of a large grass covered rock</td>
<td>56°-32', 1735</td>
<td>157°-06', 154</td>
<td>80'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name and Description</td>
<td>Lat.</td>
<td>D.M. Long.</td>
<td>D.P.</td>
<td>Height</td>
<td>Remarks</td>
</tr>
<tr>
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<td>------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>Double, two humped rock</td>
<td>56°32'</td>
<td>1430</td>
<td>157°05'</td>
<td>86</td>
<td>15</td>
</tr>
<tr>
<td>Tick, high point of reef</td>
<td>56°33'</td>
<td>06</td>
<td>157°06'</td>
<td>457</td>
<td>0</td>
</tr>
<tr>
<td>Sand, a vertical sided, grass topped rock</td>
<td>56°32'</td>
<td>491</td>
<td>157°08'</td>
<td>528</td>
<td>52</td>
</tr>
<tr>
<td>Green, outer of two grass topped islands</td>
<td>55°31'</td>
<td>1210</td>
<td>157°08'</td>
<td>696</td>
<td>38</td>
</tr>
<tr>
<td>Table, a vertical sided, table topped rock</td>
<td>56°30'</td>
<td>1642</td>
<td>157°08'</td>
<td>821</td>
<td>29</td>
</tr>
<tr>
<td>Spike, a sharp, needle-like rock</td>
<td>56°31'</td>
<td>704</td>
<td>157°11'</td>
<td>499</td>
<td>20</td>
</tr>
<tr>
<td>Thumb, the highest rock in the reef extending west from the cape of Cow</td>
<td>55°31'</td>
<td>971</td>
<td>157°11'</td>
<td>1007</td>
<td>10</td>
</tr>
<tr>
<td>Mesa, the outer large, vertical 56°31'</td>
<td>1431</td>
<td>157°13'</td>
<td>458</td>
<td>25</td>
<td>center point</td>
</tr>
<tr>
<td>Stick, a pillar like rock</td>
<td>55°31'</td>
<td>1554</td>
<td>157°13'</td>
<td>537</td>
<td>25</td>
</tr>
<tr>
<td>Lion, a black, barren, irregular sloped reef</td>
<td>56°31'</td>
<td>34</td>
<td>157°20'</td>
<td>196</td>
<td>69</td>
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<tr>
<td>West, a long, low, barren reef</td>
<td>56°31'</td>
<td>610</td>
<td>157°21'</td>
<td>504</td>
<td>56</td>
</tr>
<tr>
<td>Thorn, a sharp, needle-like rock in a reef line</td>
<td>56°31'</td>
<td>1201</td>
<td>157°13'</td>
<td>529</td>
<td>15</td>
</tr>
<tr>
<td>Prom, a black, roughly pyramidal, barren rock</td>
<td>56°30'</td>
<td>1572</td>
<td>157°18'</td>
<td>614</td>
<td>40</td>
</tr>
</tbody>
</table>

Miles of Shoreline: --------- 41.4 statute miles
Square miles of contoured area: -- 30.0 square statute miles.
Departments of Commerce  
U.S. Coast and Geodetic Survey  
Washington, February 19, 1926.

Section of Field Records

Report on Topographic Sheet No. 4155
Sutwik Island, Alaska Peninsula
Surveyed in 1925
Instructions dated February 25, 1925.

Chief of Party, C. L. Garner.

Surveyed and inked by L. S. Hubbard.

1. The records as well as the plan and extent of the survey conform to the requirements of the General Instructions.

2. The plan and extent of the survey satisfy the specific instructions.

3. There are no adjoining surveys.

4. The usual field drafting was done by the field party.

5. No further surveying is needed within the area of this sheet.

6. The character and scope of the surveying and field drafting are very good.

7. Reviewed by E. P. Ellis, February, 1925.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4153

State . South-West Alaska

General locality . Alaska Peninsula

Locality . Sutwik Island

Chief of party . Clem L. Garner

Surveyed by . L.S. Hubbard

Date of survey . August - September, 1925

Scale 1 - 20,000

Heights in feet above . Mean High Water

Form line Contour interval . 100 . feet

Inked by . L.S. Hubbard . Lettered by . L.S. Hubbard

Records accompanying sheet (check those forwarded): Photographs,
Descriptive report, Horizontal angle books, Field computations,
Data from other sources affecting sheet . none

Remarks: This work was examined and inspected at each visit of the camp party to the ship, Aug. 25, Sept., 1, 2, 5, and at frequent intervals while the details were being completed aboard ship.

Approval recommended,

Clem L. Garner,
Commanding Steamer DISCOVERER.