

4956

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Form 504 Rev. April 1935	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. FL-2-1939
U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES AUG 12 1940 Acc. No. _____	
State Southwest Alaska	
LOCALITY Unimak Island Round Top Mountain	
1939	
CHIEF OF PARTY G. C. Jones	

U. S. GOVERNMENT PRINTING OFFICE

8802
applied to chart 886. J.M.G. Oct. 29, 1940
" " " 8701 - J.W. July 12, 1941

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. FL-2-39

REGISTER NO. **T4956**

State Southwest Alaska

General locality Unimak Island

Locality Round Top Mountain

Scale 1:80,000 Date of survey August, 1939

Vessel DISCOVERER

Chief of party G. C. Jones

Surveyed by L. S. Hubbard

Inked by L. S. Hubbard

Heights in feet above M.H.W. to ground ~~to tops of trees~~

~~Contours approximately constant~~, Form line interval 100 feet

Instructions dated March 18, 1938

Remarks: _____

DESCRIPTIVE REPORT

to accompany

FORM LINE SHEET, FIELD NO. FL-2-1939

Round Top Mountain

Unimak Island, Alaska.

Scale 1:80,000

U.S.C. & G.S.S. DISCOVERER

G. C. Jones, Comd'g.

1939

INSTRUCTIONS

This sheet was surveyed in accordance with the Director's Instructions, 22-RS-1995DI1, dated March 18, 1938.

LIMITS

This survey covers the slopes of Round Top Mountain, and the area between Round Top and Isanotski Peaks. It makes a junction on the southwest side with form line sheet T-4943. ⁽¹⁹³⁸⁾ It makes a junction on the south and east sides with form lines found on Chart No. 8701.

FIELD METHODS

This sheet was surveyed almost entirely by sextant cuts and vertical angles from the ship. While the ship was running sounding lines northeast of Sanak Island, the topographer took cuts to salient features simultaneously with the fix observations made by the hydrographic party. The fixes were plotted on the form line sheet and the cuts protracted.

Cuts and vertical angles were also taken by sextant from an anchorage at the north end of Otter Cove.

In addition, a theodolite was set up at triangulation station EAST BASE, north of Otter Cove, and horizontal and vertical angles taken to the most important features of the terrain.

Most of the points were determined by the intersection of four or five cuts and the elevations determined by averaging the results from four or five vertical angles.

ACCURACY OF POINTS DETERMINED

Since the ship was sounding about 25 miles from the region being form-lined, many of the intersecting cuts were slim, and many of the determinations of elevations did not check each other within fifty feet.

When it is remembered that in reading a sextant an error of one minute will cause a difference in elevation of 44 feet at this distance, and that variations in refraction cause additional errors, the wide range in values obtained is accounted for. An average of four or five observations, however, is believed to be fairly accurate.

A theodolite, set up at station EAST BASE, determined all the elevations which are recommended for charting.

OFFSHORE INSPECTION

Most of the observations were taken from offshore sounding lines, so the form lines are the result of the offshore appearance of the country. After the elevations were computed, the form lines were compared with photographs taken from the ship.

ADDITIONAL SURVEYS

The foothills at the base of Round Top did not show offshore distinctly enough to obtain cuts. This area has been shown on the sheet in dotted lines. Additional work is necessary to properly fill in the area between the upper slopes of the mountain and the contours of the shore line topographic sheets.

GENERAL DESCRIPTION

Round Top appears as a broad based, squat mountain, with a plateau-like top surmounted by a butte-like mass of rock. The rim of the plateau is broken by rugged masses of black rock separated from each other by down-sweeping sheets of ice. The most conspicuous feature below the mountain top is a rugged, black, spur hill on the south slope. The spur usually shows against a snow background.

A glacier filled valley separates Round Top Mountain from Isanotski Peak.

To the north of the valley, a ridge of hills extends between Round Top and Isanotski Peaks. The highest points of this ridge are the peaks labeled "X" and "Y". This ridge is almost continually hidden in fog and clouds. Only one cut, for instance, was obtained to Peak "X" during the 1938 season, and intersecting cuts were obtained one day only during the 1939 season.

WEATHER

During the summer, the region surrounding Round Top is covered by fog and clouds much of the time. Strong northerly winds bring brief periods of clear weather.

STATISTICS

Square statute miles of form lines - - - - - 74

Number of elevations determined- - - - - 61

Respectfully submitted,

L. S. Hubbard
L. S. Hubbard, H. & G. Engr.,
U. S. C. & G. Survey.

Inspected and Approved:

J. M. Smook
J. M. Smook, H. & G. Engr.,
Officer in Charge,
Seattle Processing Office.

Remarks

Decisions

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GEOGRAPHIC NAMES

Survey No. T4956

Name on Survey	A. On Chart No.	B. On previous survey No.	C. On U. S. quadrangle Maps	D. From local information	E. On local Maps	F. P. O. Guide or Map	G. Rand McNally Atlas	H. U. S. Light List	K.	
Black Outcrop										1
Round Top Mountain										2
Spur Rock										3
Needle Rock										4
Unimak Island										5
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Names underlined in red approved
by L. Heck on 10/14/40

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

~~XXXXX~~

No. T T4956

{ received Aug. 12, 1940
registered Aug. 22, 1940
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

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RETURN TO

82	T. B. Reed
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✓ *TBR*

DIVISION OF CHARTS

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4956 (1939) FIELD NO. FL-2-39

Southwest Alaska, Unimak Island, Round Top Mountain
Surveyed in August 1939, Scale 1:80,000
Instructions dated March 18, 1938 (DISCOVERER)

Plane Table Survey

Whatman's Paper

Chief of Party - G. C. Jones.
Surveyed by - L. S. Hubbard.
Inked by - L. S. Hubbard.
Reviewed by - Harold W. Murray, September 30, 1940.
Inspected by - H. R. Edmonston.

Form Line Survey

1. Junctions with Contemporary Surveys.

- a. The junction on the southwest with form line sheet T-4943 (1938) is very good.
- b. The present survey form lines (all broken lines) make a junction on the east and south side of Round Top mountain with those on Chart 8701 (see Descriptive Report, page 2). It is unfortunate that the topographer did not have a tracing or photostat of T-6506 (1936) on a scale of 1:20,000 or a later copy of the chart (superseded shortly after present survey was made) because the form line adjustment agrees with that on the superseded survey T-2554 (1901) but is at variance with that on T-6506 (1936).
 - (1) Agreement of the form lines (broken line) on the present survey on the extreme east with the form lines (broken line) on T-6506 (1936) is very poor. The form lines on T-6506 are controlled by 10 elevations whereas the present survey has none (the descriptive report, page 2; states that the foothills at the base of the mountain did not show off-shore distinctly enough to obtain cuts). As a consequence, the maximum discrepancy noted is one elevation of 730 feet in lat. $54^{\circ}44.6'$ long. $163^{\circ}26.4'$, from T-6506 which falls directly on a 200 foot form line on the present survey. A resurvey of this area is essential for clearing up of these discrepancies. For charting purposes in the meantime,

it is recommended that the form lines on the present survey, T-4956 be used as the estimated form lines harmonize with the more rigid work on the higher slope of the mountain.

- (2) Holidays of 3 to 4 miles exist on the north-east and south slopes of Round Top mountain between the present survey limits and the modern surveys along the coast, T-4078 (1924), T-4147 (1925), T-6506 (1936) and T-6655 (1937). The major portions of these areas, however, are covered by T-2554 (1901), scale 1:40,000 and T-2556 (1901) on a scale of 1:140,000. This later survey which covers most of the holiday areas is considered as a reconnaissance survey since it is nearly twice the scale of Chart 8701.

2. Comparison with Prior Surveys.

H — T-2556 (1901), scale 1:140,000.

This survey is on a very small scale and covers the entire area of the present survey. The form lines are practically all broken lines and were observed from offshore sounding lines and supplemented by the use of a number of photographs attached to the descriptive report.

The general outlines of Isanotski and Round Top mountains are in close agreement but there is considerable difference in the details of the side slopes, particularly since the present survey delineation is based on numerous elevations whereas no elevations are shown on the side slopes on the old survey. The elevations and positions of the tops of the mountains, however, are very good. The present survey within the area covered supersedes this 1901 survey.

3. Comparison with Chart 8710 (New Print dated May 11, 1940)

a. Topography.

Topography shown on the chart originates with surveys discussed in the previous paragraphs of this review and no further consideration is necessary.

b. Magnetic Meridian.

This is an inland survey and since the topography was delineated from offshore observations, no

magnetic meridians were determined. These, however, have been determined on the large scale surveys made along the coast line. (See par. 1 above for sheet numbers).

4. Condition of Survey.

- a. The inking of the form lines and elevations is satisfactory.
- b. The descriptive report is very clear and comprehensive and satisfactorily covers all matters of importance.

5. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the survey.

6. Additional Field Work Recommended.

The following additional form lines are necessary to complete the covering of this area with modern surveys.

- a. Fill in the holidays of at least 3 to 4 miles in width between the present survey limits and the large scale coast line sheet T-4078 (1924), T-4147 (1925), T-6506 (1936) and T-6655 (1937) on the northeast and east. (See review, par. 1b(2) and descriptive report, page 3).
- b. Reconcile the discrepancies at the junction with T-6506 (1936) in the vicinity of lat. $54^{\circ}45'$, long. $163^{\circ}25'$. (See Review, par. 1b(1)).

7. Superseded Surveys.

T-2556 (1901) in part.

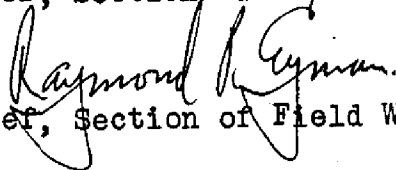
Examined and approved:



T. B. Reed,
Chief, Section of Field Records.



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.