

4661

Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

U. S. COAST & GEODETIC SURVEY
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APR 19 1932

State: S.W. Alaska

Acc. No.

DESCRIPTIVE REPORT

Topographic } Sheet No. F 4661
~~*Hydrographic*~~

LOCALITY

Kodiak Island

Sitkalidak Island, vicinity

of Cape Barnabas.

1931

CHIEF OF PARTY

F. B. T. Siens, H. & C. D.

U. S. GOVERNMENT PRINTING OFFICE: 1921

4661

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET NO. "F"
PROJECT NO. HT-105

STEAMER SURVEYOR

F.B.T.SIEMS, COM'D'G.

INSTRUCTIONS:

DIRECTOR's instructions dated April 22, 1932.

AREA SURVEYED:

The area surveyed on this sheet includes the shore line from BARNABAS, 1931 to WEDGE, 1931; supplementing Topographic Sheet "F", 1931 (T-4661) which covered this area but was surveyed by hydrographic methods due to inaccessibility on account of unfavorable weather at the end of the 1931 season. This sheet joins T-4397 of 1928 and T-4662 of 1931. *superseding*

CONTROL AND SURVEY METHODS:

The control for this work was furnished by the 1931 triangulation and traverse. Signals located by sextant cuts in this area last season were recovered and located by plane table traverses checking the original positions. Traverse of shore line WEDGE to BEACH was run in by G.M. Marchand; BEACH to MARE by M.G. Ricketts, the latter on a celluloid projection which is forwarded with sheet "B". The form lines on this sheet were transferred from T-4661. Some slight changes were made in the vicinity of Cape Barnabas and in the 100 and 200 ft. form lines elsewhere on the sheet. The latter changes were made on account of the shoreline of the 1931 survey being in error in places. *(1931)*

COMPARISON WITH PREVIOUS SURVEYS:

In the rerun of the 1931 topography, a tracing made of the completed 1932 work shows only a few minor discrepancies in depth of bights and shape of points. For additional details reference should be made to Descriptive Report of Sheet "F", 1931. *(T 4661)*

STATISTICS:

Shore line ----- 8.4 statute miles.

PHOTOGRAPHS:

* These photographs are marked confidential and have been forwarded to Comdr. Siems under separate cover. Two air photographs taken by U.S. Navy photographers accompany this report. These photographs should not be reproduced without authority from U. S. Navy.

Respectfully submitted:

Approved and forwarded:

G. M. Sobieralski

F.B.T. SIEMS, H.&G.E., Chief of Party, C.&G.S.

Max G. Ricketts
Max G. Ricketts, Jr. H.&G.E.
U.S.C. & G. Survey.

DESCRIPTIVE REPORT
TO ACCOMPANY
TOPOGRAPHIC FIELD SHEET "F"

STR. SURVEYOR

*These instructions were
submitted with the report
and are retained
1931 as much as possible
information is applied
to the 1932 survey.
F.B.T. SIEMS, COM'D'G. E. 2.*

Instructions dated April 17, 1931

AREA SURVEYED:

The area surveyed on this sheet includes the shoreline and adjacent land features for a distance of six statute miles in a southwesterly direction from Cape Barnabas, Sitkalidak Island, Alaska. The sheet adjoins T-4397, surveyed in 1928 and Topographic Field Sheet E, surveyed in 1931.

GENERAL DESCRIPTION:

The shoreline is extremely rugged and is composed of rocky cliffs approximately 100 feet high. The slopes adjacent the shore are very steep and are covered with grass. There are a number of rock outcrops and land-slides in the vicinity of Cape Barnabas.

CONTROL:

The triangulation stations Right, 1928; Barnabas, 1928; Sigma, 1931; Wed, 1931; and Wedge, 1931 were used for the control of this survey. One station NAB, was located by theodolite and tape traverse (offset method) to supplement the triangulation. (See Descriptive Report to Accompany Topographic Sheet "E", 1931 for a description of the method employed in running theodolite and tape traverses by this field party.) The computations and a list of the traverse positions are included in this report.

The triangulation stations Right and Barnabas, established in 1928 on an independent datum, were corrected to the Valdez Datum by the addition of 9.30 seconds in latitude and 10.51 seconds in longitude. These values represent the latitude and longitude discrepancies between the two datums as determined by field computations when a junction of the two schemes was made early in the season. Practically no discrepancy was noted in distance and the azimuth discrepancy amounted to 18 seconds of arc.

The positions of remaining triangulation stations, Wed, Sigma, and Wedge are based on a scheme originating at the line, Nite, 1928 - Rook, 1928, Nite and Rook were first corrected to the Valdez Datum by the addition of the latitude and longitude differences referred to above. Revised computations at the end of the field season give discrepancies of 9.25 seconds in latitude and 10.35 seconds in longitude between the two datums.

SURVEY METHODS:

This sheet was surveyed entirely by the use of hydrographic methods. This method was resorted to because it was considered impractical to attempt the survey by the usual planetable methods on account of the inaccessible nature of the shoreline. Lack of sufficient time was also a factor in causing the survey to be made from offshore.

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Whitewash signals were established along the coast during perfect weather and sea conditions in sufficient numbers to furnish control for the inshore hydrographic survey and were located by sextant cuts from the Str. SURVEYOR, laying to offshore. In observing these cuts each one was taken simultaneously with the position angles thus eliminating any error due to the drift of the vessel. Three or more cuts were taken to each signal and carefully plotted on the sheet by the use of a steel protractor. All the cuts were plotted by the Chief of Party and as good intersections were obtained no checking was deemed necessary. The plotting was done immediately after the projection was drawn so as to eliminate distortional errors. Good intersections were obtained in all cases. The cuts referred to are recorded in Vol.5 of the Sounding Records of Hydrographic Sheet No.43, pages 54 to 72, inclusive.

Using the hydrographic signals thus located for control, sextant cuts were taken from the Tender WILDCAT to objects, such as, rocks, driftwood, etc., at the high-water line throughout the entire length of the sheet. These supplementary points together with the signal positions furnished the control for the sketching of the shoreline which was done from a distance of one quarter mile offshore.

The signals on this sheet, most of which are on the salient features, are considered more accurately located than could be done by planetable methods in this particular area. However, the shoreline should be considered as a reconnaissance survey. It is thought that this survey will adequately serve for charting purposes until such a time when a detailed survey of the shoreline can be made by means of aeroplane photographs. It completes the topographic survey of Sitkalidak Island.

The locations and elevations of the mountains were obtained by means of sextant angles from the Tender WILDCAT, laying to, offshore. In determining the elevations, the height of eye, distance of the observer from the shore and the curvature of the earth was considered. The form lines were carried to a satisfactory junction with T-4397 and Sheet "E", 1931.

COMPARISON WITH PREVIOUS SURVEYS:

No previous surveys of this area have been made.

PHOTOGRAPHS:

A photograph of the shoreline from the vicinity of Triangulation station Wedge to the vicinity of Cape Barnabas accompanies this report. The elevations of the mountainous features are shown on this photograph for the purpose of identification.

GEOGRAPHICAL NAMES:

Cape Barnabas -- This is a well established name which should be retained.

No new geographic names were ascertained.

LIST OF HYDROGRAPHIC POSITIONS:

1933 survey
unpublished

Object and Description	Lat.	D.M.	Long.	D.P.	Height	Remarks
*BUMP (Out)-South tip of rocky point $2\frac{1}{2}$ miles S.W. of Cape Barnabas. There is a small stream emerging from a deep valley, $\frac{1}{2}$ mile west of the station.	57-07	822	152-55	114	---	Station not marked
*This Station was called <u>BUMP</u> on Sheet 27, and <u>Out</u> on Sheet 43.						
MAR--the offshore point of the large rock $1\frac{1}{2}$ miles S.W. of Cape Barnabas.	57-07	1768	152-53	892	---	Station not marked

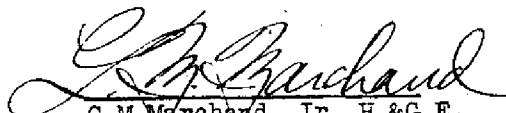
DISCREPANCIES:

A discrepancy of 80 meters exists between the triangulation (1931) position of BAR and the position of the same point as determined by topography in 1928 (See T-4397). Also a discrepancy of 130 meters exists between the 1931 hydrographic location of the mountain crest in Latitude $57^{\circ} 08.5'$; Longitude $152^{\circ} 54.6'$ and the same crest as located by topography (T-4397) in 1928. The 1931 position was verified by theodolite cuts from triangulation stations TABLE, NITE, and ROCK, which were plotted on Hydrographic ^{Sheet} No. 161.


STATISTICS:

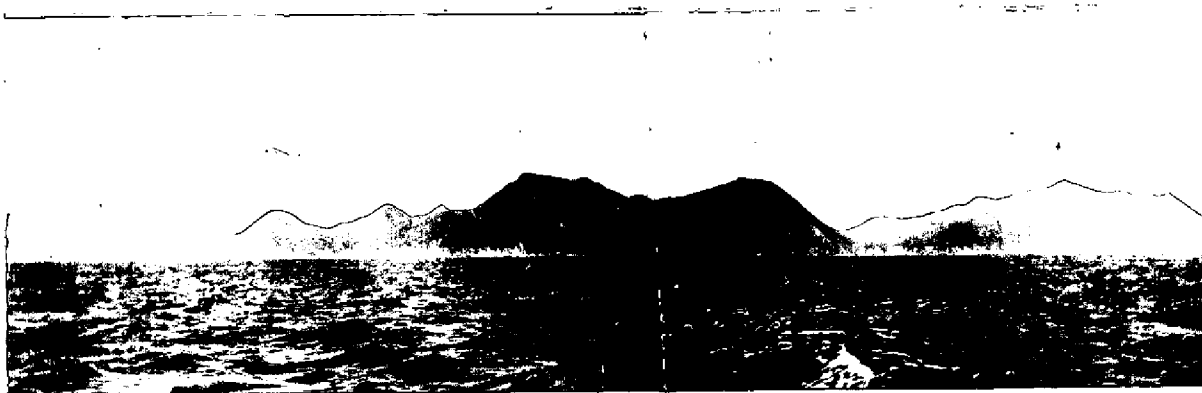
Miles of shoreline surveyed in statute miles ----- 7.4 8.4
Area surveyed in square statute miles ----- 5.0

Respectfully submitted,


G.M. Marchand, Jr. H.&G.E.
U.S.C. & G.S.S. SURVEYOR

Approved and Forwarded:


F.B.T. SIEMS, H.&G.E.
Chief of Party, C.&G.S.



			△ Dan			
Elevations	1062	1010	1812	1498	1705	1475
in feet.....		1325	1625			

Photograph of Sitkalidak Island as seen from a point 3 1/2 statute miles, 160 degrees (true), from triangulation station DAN, 1931.

Note: For the purpose of identification the elevations of the mountains are shown beneath the photograph. These elevations are in agreement with those indicated on the topographic sheet.

TRAVERSE

△ BARNABAS, 1928 TO STATION NAB

*This Traverse applies to the rejected
1931 survey*

TRAVERSE to BARNABAS TO NAB

[illegible]

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4661.
Cape Barnabas, Sitkalidak Island, Kodiak, Alaska.
Surveyed July 1932.
Instructions dated April 22, 1932 (Surveyor).

Chief of Party - F. B. T. Siems.
Surveyed by - G. M. Marchand and M. G. Ricketts.
Inked by - M. G. Ricketts.

1. The plan and character of this survey conform to the requirements of the Topographic Manual. The sheet supersedes a reconnaissance survey made in 1931 to locate signals for the hydrographic work of that year. All the signals were recovered and the planetable survey found the 1931 location of signals correct. The new shoreline has not been transferred to the hydrographic sheet (H. 5178).
2. The 1931 form lines were transferred and adjusted to the rerun shoreline by the field party. In the junction with T. 4662 to westward, the lines agree but the two elevations common to the sheets differ by 7 and 8 feet. In the junction with T. 4397 to eastward, the form lines differed in the vicinity of \triangle Bar but the form lines were carried to a good junction and T. 4397 has been corrected to agree with the later survey.
3. The field drafting is excellent.
4. The obsolete (reconnaissance) sheet was destroyed as all pertinent information is shown on the 1932 sheet and /or is given in the descriptive report. The two Descriptive Reports have been combined.
5. Reviewed by R. J. Christman, March 18, 1933.

Inspected: E. P. Ellis.

Approved: L. O. Colbert, *L. O. Colbert*
Chief, Section of Field Records.

L. O. Colbert
Chief, Division of Charts

W. Borden
Chief, Section Field Work

G. W. Ricketts
Chief, Div. of Hyd'y and Top'y

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4661

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. F

REGISTER NO. **4661**

State Alaska

General locality Kodiak Island

Locality Cape Barnabas, Sitkalidak Island

Scale 20,000 Date of survey July, 1932, 192

Vessel Surveyor

Chief of Party F. E. T. Siems

Surveyed by G. M. Marchand, Max G. Ricketts

Inked by M. G. Ricketts

Heights in feet above M.H.W. to ground ~~XXXXXXXXXX~~

~~Contour interval 100 feet~~ Form line interval 100 feet

Instructions dated April 22, 1932, 192

Remarks: This is a rerun by planetable of sextant topography in the area covered by Sheet No. F, 1931 (Reconnaissance)

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APR 27 1932

Acc. No. _____

TOPOGRAPHIC TITLE SHEET

REG. NO. 4662

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. "E"

REGISTER NO. 4662

State ALASKA

General locality KODIAK ISLAND

Locality S.E. ~~OUTSIDE~~ COAST OF SITKALIDAK ISLAND

Scale 1:20,000 Date of survey September, 1931

Vessel U.S.C. & G.S.S. SURVEYOR

Chief of Party F.B.T. SIEMS

Surveyed by A.C. Thorson

Inked by A.C. Thorson

Heights in feet above M.H.W. to ground ~~to top of rocks~~

~~Contours~~ ~~Approximate contour~~, Form line interval 100 feet

Instructions dated April 17, 1931

Remarks: _____