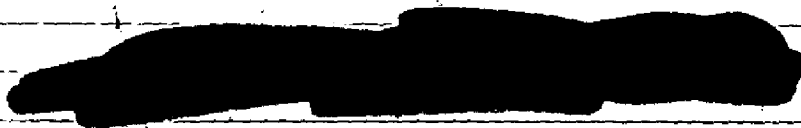


4942



Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. X-37

Aleutian Islands
State ALASKA

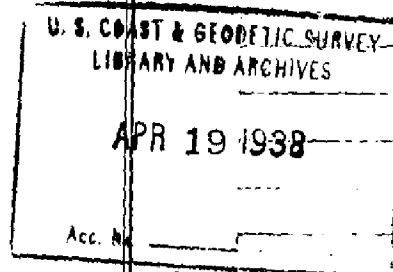
LOCALITY
Umnak Island
ALEUTIAN ISLANDS

SOUTHWEST OF KETTLE CAPE UMNAK
ISLAND

1937
CHIEF OF PARTY
A. M. Sobieralski

4942

8802-2



4942

applied to new compilation Chart 8861- Jan 1942 - JFW
" " " " " 9025- Mar 1942 - JFW

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. K-37

REGISTER NO. **T4942**

State ~~ALASKA~~ Aleutian Islands

General locality ~~ALEUTIAN ISLANDS~~ Umnak Island

Locality SOUTHWEST OF KETTLE CAPE -- ~~UMNAK ISLAND~~

Scale 1:20,000 Date of survey Aug. 1936-Aug. , 1937

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

Chief of party A. M. SOBIERALSKI

Surveyed by John C. Ellerbe - H.C. Applequist

Inked by John C. Ellerbe

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

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

Instructions dated April 13, 1934

Remarks: This sheet partially done in 1936; finished
in 1937.

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET FIELD LETTER K-37 T-4942

PROJECT NUMBER HT - 176

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

A. M. SOBIERALSKI, Cmd'g.

AUTHORITY

Director's instructions dated April 13, 1934.

CONTROL

Triangulation executed by the party of A. M. Sobieralski, in 1936.

EXTENT

This sheet begins at Kettle Cape, on the southeast side of Umnak Island, and extends for about 6 miles in a southwesterly direction. It covers shoreline, offshore rocks, and form lines from 2 to 6 miles inshore.

GENERAL DESCRIPTION

A sand beach begins at Kettle Cape and extends the entire length of the sheet. This beach is free from rocks except for a small area at each end of the sheet, and a small group of rocks lying a short distance offshore in the approximate center.

Kettle Cape, at the northeastern end of the sheet, is a bold promontory rising abruptly from the waters edge to over 500 feet, and breaking into a series of vertical pillars a short distance back from the top. About $1/3$ mile from the water's edge, the cape merges into a long, gently rising ridge, extending in a northwesterly direction to the crater of Tulik Volcano.

About 6 miles southwest of Kettle Cape is a pair of large pillar rocks, the larger one 130 feet high, known as the Pillars. These rocks are very prominent and may be seen many miles.

The land for about $2\frac{1}{2}$ miles southwest of Kettle Cape is a large, flat, grassy valley which extends 3 or 4 miles inshore at right angles to the shoreline. At the inner end, this valley merges abruptly into a series of ridges 1200 to 1800 feet high, running in approximately an east-west direction. There is one gap which apparently breaks through this ridge into a like valley on the opposite side of the island.

On the southwestern side, this valley breaks abruptly into a high ridge, which, in turn, merges into a series of ridges cut by deep gorges. The interior of the island in this vicinity is very rough and rugged.

About 5 miles southwest of Kettle Cape, in the vicinity of False Kettle Cape (so called by the survey party), is a rather wide, shallow, flat, grassy valley which merges into the ridges mentioned above. In the southwestern part of this valley is a small lake, which drains into the sea through a small, short stream, and is fed by a stream rising in the high hills in the interior.

Each of these valleys contains 2 fairly large streams which rise in the hills at their inner ends and empty into the ocean. The mouths of these streams are at the sand beach found all along the high water line in this area, and are subject to frequent change in position, caused by the shifting of the sand by the heavy breakers which constantly pound the beach. For instance, the stream in the near vicinity of station FUTT emptied into the sea about 200 meters northeast of that station in 1936, but now flows parallel to the beach to the southwestward for nearly 1000 meters before cutting through the sand to the ocean. It is entirely possible that these streams will be found flowing in the opposite direction along the beach next year, since their maximum change seems to occur in the winter season.

PROMINENT FEATURES

Kettle Cape, on the northeastern end of the sheet, is a bold bluff rising about 500 feet, vertically, from the water's edge, and breaking at the top into a series of rugged columns. About $\frac{1}{3}$ mile back from the water's edge, the cape merges into a gently rising ridge which extends directly into the interior of the island. The cape is very prominent and can be seen and recognized many miles on a clear day.

False Kettle Cape (so called by the survey party on account of its similarity in appearance to Kettle Cape) is situated about $4\frac{1}{2}$ miles southwest of the latter and about $\frac{1}{2}$ mile inland from the beach. It is 220 feet high and may be seen very clearly at reasonable distances, though it tends to blend into the background of higher ridges from points more than six or eight miles away.

A very prominent feature is a pair of pinnacle rocks, the larger of which is 130 feet high, about 6 miles southwest of Kettle Cape and 3 miles offshore. These rocks, known as the Pillars, stand out very prominently from all directions, and may be seen many miles on a clear day. A rock awash at high water lies about 160 meters east of the Pillars.

CHARACTER OF CONTROL

Adequate control for this survey was furnished by triangulation executed in 1936.

CLOSING ERRORS OF TRAVERSES RUN

This sheet was partially done in 1936, a traverse being begun at T. station FUTT and run along the beach to T. station CREEK. A number of cuts to prominent geographic features inshore were taken for elevations. This traverse closed flat.

During the season 1937, a traverse was begun at T. station FUTT and carried along the beach to Kettle Cape, closing on station KETTLE. This traverse closed flat.

The table was set up on the 7 foot rock north of T. station Rk. OFF FUTT and located by 3 point fix. The detail in that vicinity was then rodded in.

A number of the elevations of geographic features were obtained by cuts and vertical angles taken by the hydrographic party, both ship and launch, in the course of their work. It was found desirable to do this because of the clouds in the vicinity almost always obscuring all features higher than five or six hundred feet, thus making it impossible to obtain these elevations when the traverses were run. See Review
Part 1 c.

No adjustments of traverse were necessary.

COMPARISON WITH PREVIOUS SURVEYS

No previous surveys of this area were available for comparison.

JUNCTION WITH OTHER SURVEYS

On the northeastern end of the sheet, a satisfactory junction was made with sheet UK-36, ⁷⁻⁶⁵³¹ season 1936.

On the southwestern end of the sheet, a satisfactory junction was obtained with sheet B-37, ⁷⁻⁶⁵⁹⁶ season 1937.

NEW GEOGRAPHIC NAMES ✓ GHE

There are no geographic features on this sheet which have been given new names.

ANCHORAGES

There are no anchorages for vessels of any size on this sheet.

DATUM

The datum used on this survey is Unalaska, 1901.

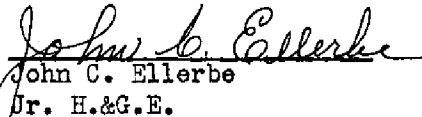
MAGNETICS

Magnetic observations with the declinatoire were made in accordance with instructions in Special Publication #144.

STATISTICS

Statute miles of shoreline	7.4
Area in square statute miles	40.0
Number of elevations obtained.	38

Respectfully submitted


John C. Ellerbe
Jr. H.&G.E.

Forwarded ~~and~~ approved:


A. M. SOBIERALSKI, H.&G.E. Commanding SURVEYOR

Remarks

Decisions

1		<i>USGB decision</i>
2		<i>see H-6286</i>
3		<i>see H-6265</i>
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GEOGRAPHIC NAMES

Survey No. T-4942

Name on Survey	A, On Chart No. 8802	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	
✓ <u>Umnak Island</u>	✓									1
✓ <u>Kettle Cape</u>	✓									2
✓ <u>The Pillars</u>	✓									3
										4
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Names Underlined in Survey										24
by <u>RHE</u> on <u>5/25/38</u>										25
										26
										27

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } ~~No. T~~
 XXXXXXXXXXXXXXXXXX } No. T -4942

{ received April 19, 1938
 { registered May 20, 1938
 { 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.

ROUTE		Initial	Attention called to
20			
22			
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25	✓	<i>T.B.R.</i>	<i>Page 2</i>
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90			

RETURN TO

82	T. B. Reed
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✓ *T.B.R.*

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. T-4942 (1937) FIELD NO. K-37

Southwest of Kettle Cape, Ummak Island, Aleutian Islands
Surveyed in August 1936 and August 1937, Scale 1:20,000
Instructions dated April 13, 1934 (SURVEYOR)

Plane Table Survey.

Cloth mounted.

Chief of Party - A. M. Sobieralski.
Surveyed by - J. C. Ellerbe and H. C. Applequist.
Inked by - J. C. Ellerbe.

1. Condition of Records.

The survey is neat and legible and conforms to the requirements of the Topographic Manual except as follows:

- a. Several geographic names were inked on the survey by the field party. These should have been left in pencil.
(Field Memorandum No. 4 of 1935.)

b. Form Lines.

A considerable number of additional elevations, particularly in the eastern part of the sheet, should have been determined in order to comply with the requirement (Par. 21, Topographic Manual) that one elevation be shown for every four square inches of smooth sheet topography. The form lines in the eastern part of the sheet should for this reason be considered below standard in accuracy.

A penciled note by J. C. Ellerbe was removed from the smooth sheet in the office and is quoted here as a matter of record. "Elevations and positions of peaks north of Lat. 53° 18' were determined by hydrographic cuts and vertical angles by sextant and may need slight revision at a later date."

The Descriptive Report is clear and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project except that no recoverable stations were established between triangulation stations which are three miles apart. The instructions (Par. 10) specify establishment of recoverable stations approximately one mile apart.

3. Junctions with Contemporary Surveys.

The junctions with T-6596 (1937) on the southwest and T-6551 (1936) at Kettle Cape are satisfactory.

4. Comparison with Prior Surveys.

No prior topographic surveys have been made by this Bureau in this area.

5. Comparison with Chart 8802 (New print dated Dec. 13, 1937).

Topography

The topography shown on the chart originates with miscellaneous sources. The authorities cannot be readily ascertained, but the topography in its present form is shown on chart 8800, 1901 edition (superseded by chart 8802 in 1909). Because of the small scale and sketchy nature of the chart in this area no detailed comparison can be made with the present survey. It is noted, however, that the two islets known as "The Pillars" are shown about 1 1/2 miles northeast of the location on the present survey.

6. Field Drafting.

The inking of topographic features is satisfactory. The numbers designating the land elevations are a little too large. The foot symbol "(f)" on elevations is not desirable.

7. Additional Field Work Required.

This survey is satisfactory and no additional work is required.

8. Superseded Prior Surveys.

There are no prior surveys made by this Bureau in this area.

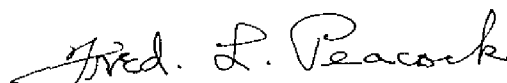
9. Reviewed by Leo S. Straw, September 5, 1938.

Inspected by E. P. Ellis.

Examined and approved:



Thos. B. Reed
Chief, Section of Field Records



Chief, Section of Field Work



Chief, Division of Charts



Chief, Division of Hydrography
and Topography.