

8256

Diag. Cht. No. 8864-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-34(113) Office No. T-8256

LOCALITY

State Alaska, Aleutian Islands

General locality Rat Island Group

Locality Little Sitkin Island

1943-53

CHIEF OF PARTY

H.E. Finnegan, Chief of Field Party

L.J. Reed, Div. of Photo. Wash., D.C.

LIBRARY & ARCHIVES

DATE September 15, 1958

8256

DATA RECORD

8256
T-9174

Project No. (II): Ph-34(48) Quadrangle Name (IV): LITTLE SITKIN ISLAND

Field Office (II): USC & GSS PIONEER Chief of Party: Henry E. Finnegan

Photogrammetric Office (III): Div of Photogrammetry, Officer-in-Charge: Louis J. Reed, Chief,
Washington, D.C. Stereoscopic Mapping Sect.

Instructions dated (II) (III): 8 April 1948 Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): Stereoplanigraph

Manuscript Scale (III): 1:20,000 Stereoscopic Plotting Instrument Scale (III): 1:20,000

Scale Factor (III): Photographs: Manuscript :: 36,000 : 20,000

Date received in Washington Office (IV): Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV): 5/6/58

Publication Scale (IV): 1:25,000 Publication date (IV):

Geographic Datum (III): NA 1927 Vertical Datum (III):

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): LITTLE, 1944

Lat.: 51° 54' 04.854" Long.: 178° 31' 05.648"

Adjusted
Unadjusted

Plane Coordinates (IV): none State: Zone:

Y= X=

Military Grid: Universal Transverse Mercator, Zone No.60

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

Areas contoured by various personnel
 (Show name within area)
 (II) (III)

~~85%~~ 100% by Michael G. Misulia - single lens, stereoplanigraph.
 10% " L. Levine - 9-lens, Reading Plotter.
 5% " M. Keller - single lens, stereoplanigraph.

Camera (kind or source) (III): 11th AAF Camera, 6inch-Metrogon - FV series
9 lens C & GS Camera - 42206 series
Single lens C & GS Camera, 6 inch - "O" series
PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
Compilation Photography (Not complete coverage)				
0-1237, 0-1238	9-10-52		1:40,000	2.0'
3FV-397		9:52		
thru	24 July 43	unknown	about	Near
3FV-43		Time	1:36,000	high tide
42206-42208	9-25-53	15:41	1:20,000	2.6'

Field Inspection Photography:

~~Same as compilation photography listed above.~~

Field inspection on FV series only.

Tide (III) Diurnal
Reference Station: Sweeper Cove, Adak I. Range
Subordinate Station: Kiska Harbor, Kiska I. 3.7
Subordinate Station: Constantine Harbor, Amchitka I. 2.8

Ratio of Ranges	Mean Range	Spring Range
XXXXXX	XXXXXX	XXXXXX

Washington Office Review by (IV): L. Martin Gazik

Date: 8 Aug 56

Final Drafting by (IV): Patrick Dempsey

Date: 3/14/58

Drafting verified for reproduction by (IV): W.D. Halluin

Date: 5/6/58

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): About 20 sq mi (~~not complete, March 1949~~)

Shoreline (More than 200 meters to opposite shore) (III): ~~About 18 mi (not complete, Mar 1949)*~~

Shoreline (Less than 200 meters to opposite shore) (III): none

Control Leveling - Miles (II): none

Number of Triangulation Stations searched for (II): 6

Recovered: 6

Identified: 3

Number of BMs searched for (II): none

Recovered:

Identified:

Number of Recoverable Photo Stations established (III): none

Number of Temporary Photo Hydro Stations established (III): Several isolated features

Remarks: located during compilation along the stretch of east coast where inshore hydro was not completed during the 1948 summer season, located in the hope they might be useful to the field party this 1949 season.

* 25 miles.

SUMMARY FOR T-8256

T-8256 is one of a series of topographic maps at 1:20,000 scale in Project 24050 covering the ALEUTIAN ISLANDS. This topographic map covers cone-shaped volcanic LITTLE SITKIN ISLAND--one of the RAT ISLAND group in the ALEUTIAN chain.

Project 24050 was previously designated 6034 and, prior to that, was originally numbered Ph-34(48).

Depth curves and soundings were applied during final review and were checked by the Charts Division. The map with this hydrographic information will be published by Army Map Service at 1:25,000 scale.

A cloth-backed color print of the above map and a ~~cloth-backed lithographic~~ ^{COLOR} print of the map at compilation scale without the hydrographic information will be registered in the Bureau Archives.

FIELD INSPECTION REPORT

1. Description of the Area:

The most prominent feature of Little Sitkin Island is a volcano rising to a height of about 3900 feet. This volcano is located in the northeast portion of the island. There are several other peaks and ridges on the north, west, and south sides of the volcano. On the northeast side of the island the volcano slopes directly to the sea, while on the east and south-east sides the slopes end in high bluffs at the water's edge. A prominent ridge extremely steep on the eastern side, runs from the south coast into the center of the island. The bluffs and cliffs along the southwest coast are low and the ground rises gradually to the afore-mentioned ridge. The west coast of the island is an almost continuous line of bluffs. On the north-west side of the island is William Cove, and on the north side is Williwaw Cove; between the coves is a prominent rock head with vertical sides.

For a detailed description see Finnegan's Field Inspection Report for the 1948 season.

2.-25. Photogrammetric control identification and shoreline



COMPILATION REPORT26. Control: (See separate list)

Only 8 of the 17 horizontal positions listed could be identified and used to control the compilation horizontally. The reason for the failure of each of the 9 faulty stations is entered opposite its name in the control listing. However, the usable control was so located as to be adequate for stereoplanigraph compilation.

The water surface served as the primary source of vertical control and was available in all models. In addition, field elevations were furnished for 7 natural ground features; also see control listing. The elevation on SITKIN (USN), 1935, was not usable since the station appeared in only one photograph. NIKTIS, 1948, could not be checked as closely as desired on the instrument; it appeared that the elevation furnished was on a high point near the station since the station is located on the highest point in the vicinity. The elevation on the volcano was given as 3892 feet; the plotting instrument measured it as 3865 feet which is right on the borderline of accuracy specifications and therefore has been considered a check elevation on the manuscript. By comparison, the balance of the elevations, four in number, were checked very closely. Elevation on manuscript 3897' from form 18 B.

28. Detailing:

28. Detailing (continued):

The resulting shoreline, topography, and planimetric details are considered to be well within the limits of map accuracy requirements, and, as a unit, or in part, shall supersede all previous compilations. Two sections of shoreline, north coast and south coast, remain to be compiled on receipt of new photography, and shoreline inspection is yet to be obtained and applied to the compilation of the east coast. Offshore features are covered in paragraph 32, this report.

29. Supplemental Data:

- (a) Field Inspection Photographs, 3FV-39 thru 3FV-43.
- (b) Air-Photo Reports by Henry E. Finnegan, 1948:
 - 1. Vertical Control, two 504 forms
 - 2. Field Inspection, one 504 form
- (c) Hydrographic Surveys by ship PIONEER, Henry E. Finnegan commanding, 1948, not available at the time of this compilation, March 1948.

(d) Control Station Identification Forms M-2226-12 - nine

30. Mean High-Water Line:

The MHWL was delineated from compilation photography during the compilation procedure except for two very short lengths indicated on the field inspection photographs.

32. Offshore Details:


All offshore details shown on the manuscript are as delineated on the compilation instrument using the field inspection data as a guide. The 1948 hydrographic sheets of the area were not available for comparison and application purposes at the time of compilation, March 1948. It is suggested that the offshore details be applied to the manuscript by this compilation section as soon as available and before the sheet is forwarded to the Charts Division for the application of hydrography.

37. Hydrographic Data:

Hydrography is to be added to this survey to the limits of the manuscript by the Nautical Charts Branch.

40. Quality of Contours:

All contours on this manuscript conform to the national map standards of accuracy for a contour interval of fifty feet except the supplemental contour which meets the standard for an interval of twentyfive feet.


Louis J. Reed
Chief, Stereoscopic Mapping
Section

41. Phase II and III of the Compilation:

As stated in sub-heading 28, two small sections of this island were not completed during the original compilation operation for which the body of this report is written. This paragraph is added to cover the compilation of the two small areas which are just now compiled (Sep 1954), several years later, after necessary reflight photography has been accomplished.

PHASE II covers the small area along the north coast of the island beginning at Patterson Point and extending eastward about two miles along the shoreline, and inland to the top of the high cliffs bordering the shoreline. This area was compiled on the Stereoplanigraph by Morton Keller using photos 237* and 238* taken 10 Sep 52. No particular difficulty was encountered in holding to existing detail and to the one control station in the area. The delineation of the shoreline and contours in this area is considered to equal the accuracy of the original compilation.

PHASE III is the compilation of about two square miles at PROKHODA POINT on the south tip of the island, and can be recognized on the manuscript by the different shade of brown used for the contours. The reflight photos of this area were accomplished using the 9-lens camera and therefore the compilation was done on the Reading Plotter, model "B", by Louis Levin. Only one model was required, photos 42207 and 42208, dated 25 Sep 53. During orientation, SITKIN (USN); 1935 and LITTLE, 1948, were not held, due to lack of identification and apparent faultiness in their descriptions. However, the model was tied to details of the original compilation and to SEALY, 1948, to result in a compilation of required accuracy. A search by the Div of Geodesy revealed that Geodesy does not have the original computations for station SITKIN (USN), and that existing data supplied by the Navy gives only the description of the station which states that its elevation is "about" 175ft. The station was recovered by the Hydro Party and therefore it exists and has been left on the manuscript in its plotted position.

GENERALLY, the shoreline and offshore details are not in conflict with the hydro survey H-7648 of Little Sitkin Is. Not all of the rocks and ledges mapped by the instruments were located by the hydro survey, and not all located by the hydro survey were seen in the instrument model. A combination of both should be used on a final hydro chart.



Louis L. Reed, Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

* 9-10-52-0-1237
9-10-52-0-1238

MAP T.	PROJECT NO.	SCALE OF MAP	SCALE FACTOR
T-9134	8256	1:20,000	
T-9134	8256	1:20,000	

MAP T. T-9134 8256 PROJECT NO. Ph-34 (48)

SCALE OF MAP 1:20,000

SCALE FACTOR:

[illegible]

11 FT. = 3048006 METER
COMPUTED BY: Sugden

DATE...

24 Feb 49

CHECKED BY: Misulia

GEOGRAPHIC NAMES
Survey No. T-8256

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
<u>Alaska</u>		(For title)							1
<u>Aleutian Islands</u>		"							2
<u>Rat Islands</u>		"							3
Pacific Ocean		(Not used on map)							4
<u>Little Sitkin Island</u>		(For title)							5
<u>Little Sitkin Pass</u>									6
<u>Rat Island Pass</u>									7
<u>Prokhoda Point</u>									8
<u>Pratt Point</u>									9
<u>Patterson Point</u>									10
<u>Sitkin Point</u>									11
<u>Williwaw Cove</u>									12
<u>William Cove</u>									13
<u>Bering Sea</u>									14
<u>Finger Point</u>									15
<u>Double Point</u>									16
									17
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									25
									26
									27

Names approved
7-17-56. L. Heck

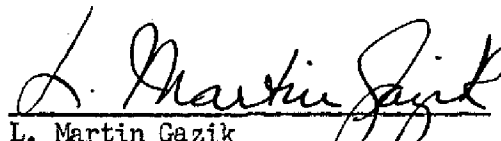
History of Hydrographic Information
LITTLE SITKIN ISLAND - T-8256

Hydrography was applied to the manuscript of this quadrangle in accordance with AMS specifications.

Soundings and depth curves in fathoms at Mean Lower Low Water datum and originate from the following C&GS hydrographic surveys:

H-7648	1:20,000	1948-49
H-7649	1:40,000	1949

Hydrography was compiled by L. Martin Gazik and checked by O. Svendsen.


L. Martin Gazik
Photogrammetry Division
8 August 1956

REVIEW REPORT T-8256
TOPOGRAPHIC MAP
8 August 1956

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

T-2694 (Reconnaissance)	1:100,000	1904
T-2694(a)	1:100,000	1905
T-6946	1:5,000	1935

Survey T-6946 covers WILLIAM COVE and vicinity and was made to determine the feasibility of constructing a landing field in this area.

The complete topographic survey of LITTLE SITKIN ISLAND, T-8256, supersedes the above prior surveys.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

RAT ISLANDS, ALASKA G. S.	1:250,000	1951
LITTLE SITKIN ISLAND, ALASKA C.E.	1:25,000	1943

The Corps of Engineers' map is based on grid coordinates, horizontal and vertical datums other than those used by the present survey.

Shoreline detail on T-8256 shows more development than is found on the C. E. map. The four lakes in the SITKIN POINT area on the C. E. map were not found after stereoscopic inspection of the 1943 and 1952 photographs.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

65. COMPARISON WITH NAUTICAL CHARTS:

Chart 8864

1:300,000

March 1951

No significant differences at these scales were noted, except for three elevations shown on the above chart as compared to the same points on T-8256.

66. ADEQUACY OF MANUSCRIPT:

This topographic survey complies with project instructions and Bureau standards.

Reviewed by:

L. Martin Gazik

L. Martin Gazik

APPROVED:

L. C. Landy

Chief, Review and Drafting Section
Photogrammetry Division

May B. K. Lott

Chief, Nautical Chart Branch
Charts Division

NAUTICAL CHARTS BRANCH

SURVEY NO. T8256

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.