

# 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"

~~Unadjusted~~ Adjusted

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.



# DATA RECORD

Field Inspection by (II): ~~Henry E. Finnegan~~  
**G.R. Fish, C.J. Bishop, S.D. Parkinson**  
 (All except a section of the East coast)

Date: Summer 1948-49.

Planetable contouring by (II): none

Date:

Completion Surveys by (II): None

Date:

Mean High Water Location (III) (State date and method of location):

**Delineated from compilation photography**

Projection ~~and Grids~~ ruled by (IV): **Ruling machine**  
 Grid " " **L.M. Gazik**

Date: 23 Feb 49  
 7 Aug 56

Projection ~~and Grids~~ checked by (IV): **W.E. Ward**  
 Grid " " **L.M. Gazik**

Date: 23 Feb 49  
 7 Aug 56

Control plotted by (III): **Robert S. Sugden**

Date: 24 Feb 49

Control checked by (III): **Michael G. Misulia**

Date: 24 Feb 49

~~Handwritten~~ Stereoscopic  
 Control extension by (III):

**Michael G. Misulia**

Date: 10 Mar 49

**Stereoplanigraph**

~~Stereoscopic~~ compilation (III):  
**Reading Plotten**

Planimetry

(both) **Michael G. Misulia**  
 Contours **L. Levine**

Date: 29 Mar 49  
 Date:

**inked**  
 Manuscript ~~and~~ by (III): **and**

**John B. McDonald**  
**Robert S. Sugden**

Date: 7 Apr 49

Photogrammetric Office Review by (III):

Date:

Elevations on Manuscript  
 checked by (II) (III):

**Louis J. Reed**

Date: 8 Apr 49



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
<b>Compilation Photography (<del>Not</del> complete coverage)</b>				
0-1237, 0-1238	9-10-52		1:40,000	2.0'
3FV-397		9:52		
thru	24 July 43	unknown	about	<del>Near</del>
3FV-43		Time	1:36,000	<del>high tide</del>
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 Range
Reference Station:	Sweeper Cove, Adak I.	3.7
Subordinate Station:	Kiska Harbor, Kiska I.	3.6'
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 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~~ <sup>COLOR</sup> 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 inspection ~~was~~ made prior to office compilation by parties from the ship PIONEER, Henry E. Finnegan commanding, as part of the 1948 hydrographic work in the area. See that report. ~~Also see~~ a separate "Air Photo Report" on vertical control - Henry E. Finnegan 1948.

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 18B.*

28. Detailing:

Delineation and compilation of all topographic and planimetric features were accomplished on the stereoplanigraph for the area covered by stereoscopic vision; areas not covered were two, one along the north coast and the other on the south coast. Where available, field inspection notes of shoreline and offshore details were thoroughly digested and incorporated into the manuscript compilation. A check for completeness was made later by another person during the inking of the manuscript.

In general the field inspection was considered satisfactory but had not been completed along the east coast at the time of office compilation. Actually, the notes and details outlined on the field inspection photographs were very meager, based on the normal amount of inkwork expected, but the true picture was well conveyed since the entire coastline of Little Sitkin Island is very steep and rugged.

Compilation photography did not afford complete coverage. It consisted of a single east-west flight which left stereoscopic gaps for a short distance along both the north and south coastlines. New photography consisting of one overlapping pair of photos along each coastline will be required to complete the compilation. Further, the photographic quality of the negatives from which instrument diapositives were produced was not up to par and should be improved on in the required reflights.



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. T-913# 8256 PROJECT NO. Ph-34 (48) SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\mu$ -COORDINATE LONGITUDE OR $\kappa$ -COORDINATE	Status	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	Elevation XXCORRECTION XXPROJECTION LINE XXXXXX XXXXXX (BACK)
✓ WILLIAMS, 1948 dm	<i>I 763</i> Field Position	NA 1927	51 59 11.857 178 27 53.327	Not used; SS "a" used instead		366.5 1488.0 1017.7 127.4	<del>604-600'</del> Checked
✓ WILLIAMS, 1948 "a"	<del>SS</del>	"	51 59 11.736 178 27 53.098	Held		362.7 1491.8 1013.3 131.7	
0 Rlt, 1948 nd	<i>I 768</i> "	"	51 58 42.40 178 26 50.10	Not held; on only one photo; a whitewash		1310.5 544.0 956.3 188.9	
✓ Spring, 1948 d	<i>I 768</i> "	"	51 58 47.44 178 28 20.854	Not identified; Shoran Mast		1466.3 388.2 397.9 747.3	639' Checked
✓ Niktis, 1948	<i>I 763</i> "	"	51 56 36.484 178 26 16.708	Not held; sta appears to not be on highest peak		1127.6 726.8 319.2 826.9	<del>220-201'</del> No Check
✓ SEALY, 1948 dm	<i>I 763</i> "	"	51 54 16.834 178 32 27.182	SS "a" held instead; SS protractor plotted		520.3 1334.1 519.7 627.4	
✓ PRATT, 1948 dm	<i>I 767</i> "	"	51 56 46.780 178 35 22.367	Held		1445.8 408.6 427.2 718.8	
✓ LITTLE, 1944 dm	GP-263	"	51 54 04.854 178 31 05.648	Not Held; falls off area of compilation models		150.0 1704.4 108.0 1039.2	
✓ Sky, 1948 d	<i>I 763</i> Field Position	"	51 56 39.275 178 26 01.59587	Held		1213.8 640.6 30.4 1115.7	
✓ Thumb, 1948 d	<i>I 763</i> "	"	51 59 36.86 178 29 59.915	Not held; falls off area of compilation models		1133.1 721.4 1143.1 1.8	



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

Page 2 of 2  
DATE 24 Feb



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
<del>Pacific Ocean</del>		(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
									18
									19
									20
									21
									22
									23
									24
									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:

H-7648	1:20,000	January 1950
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Shoreline field inspection data for T-8256 was obtained in 1948-49 at the time the above hydrographic survey was accomplished.

Shoreline, including alongshore detail, of this topographic survey was tentatively applied (in pencil) to the above survey pending completion of this review. No significant discrepancies were noted during review.

At the time of compilation in February 1949 this survey was designated as T-9134, but has since been assigned its present number, T-8256.



65. COMPARISON WITH NAUTICAL CHARTS:

Chart 8864

1:300,000

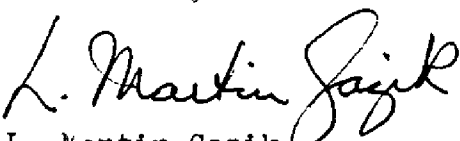
March 1951

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


APPROVED:

  
Chief, Review and Drafting Section  
Photogrammetry Division

  
Chief, Nautical Chart Branch  
Charts Division

  
Chief, Photogrammetry Division

14 Aug. 1958

  
Chief, Coastal Surveys  
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.