U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

<table>
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<th>Type of Survey</th>
<th>Topographic</th>
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<tr>
<td>Field No.</td>
<td>PH-34 (48)</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-8092</td>
</tr>
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</table>

LOCALITY

State: Aleutian Islands, Alaska
General locality: Bat Island Group
Locality: SPGULA ISLAND

1948

CHIEF OF PARTY
Henry E. Finnegan, Chief of Field Party
Div. of Photogrammetry, Wash. D.C.

LIBRARY & ARCHIVES

DATE: August 10, 1951
DATA RECORD

T-2092

Project No. (II): Ph-34(48)  Quadrangle Name (IV): SEGULA

Field Office (II): USC&GS PIONEER  Chief of Party: Henry E. Finneagan
Photogrammetric Office (III): Wash., D. C.  Officer-in-Charge: Louis J. Reed, Chief,
Instructions dated (II) (III): Stereoscopic Mapping Section
8 April 1948

Copy filed in Division of
Photogrammetry (IV)
Office Files

Method of Compilation (III): Stereoplanigraph

Manuscript Scale (III): 1:20,000  Stereoscopic Plotting Instrument Scale (III): 20,000
Scale Factor (III): Photo: Instrument: Plot: 36,000 : 20,000 : 20,000
Date received in Washington Office (IV): 5-26-50  Date reported to Nautical Chart Branch (IV): 6-5-50
Applied to Chart No.  Date:  Date registered (IV): 7-24-51

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 (26) refer to mean high water
Elevations shown as (6) refer to sounding datum
I.e., mean low water or mean lower low water

Reference Station (III):
Lat.:  Long.:  Adjusted
Unadjusted

Plane Coordinates (IV):
State:
Zone:
Y=
X=

Mercator Transverse MERCATOR GRID

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)

100% by Michael G. Misulia on
Stereoplanigraph
DATA RECORD

Field inspection by (II): Henry E. Finnegam

Date: 1948 Season

Planetary contouring by (II): None

Date:

Completion Surveys by (II): None

Date:

Mean High Water Location (III) (State date and method of location): Shoreline was delineated on the plotting instrument during compilation guided by one indication of MHW location on the field inspection photographs

Projection and Grids ruled by (IV): Ruling Machine

Date: 23 Feb. 1949

Projection and Grids checked by (IV): Wheatley E. Ward

Date: 24 Feb. 1949

Control plotted by (III): Robert L. Sugden

Date: 24 Feb. 1949

Control checked by (III): Louis Levin

Date: 25 Feb. 1949

Radial Plot or Stereoscopic

Date:

Stereoplanigraph delineating

Date: 31 May 1949

Contours

compiled

Manuscript compiled by (III): Orvis N. Dalbey

Date: 28 Mar. 1950

Photogrammetric Office Review by (III): Louis J. Reed

Date: 30 Mar. 1950

Elevations on Manuscript

Date: 25 May 1950

checked by (III): Louis J. Reed
11th Army Air Force, 6\textsuperscript{th}, Metrogan

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Washington Office Review by (IV): \textbf{K. N. Maki}

Final Drafting by (IV): \textbf{M. Day}

Drafting verified for reproduction by (IV): \textbf{C. Kupiec}

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): \textbf{about 13 sq. mil.}
Shoreline (More than 200 meters to opposite shore) (III): \textbf{about 19 miles}
Shoreline (Less than 200 meters to opposite shore) (III): \textbf{none}
Control Leveling - Miles (II): \textbf{none}
Number of Triangulation Stations searched for (II): \textbf{5}
Number of BMs searched for (II): \textbf{none}
Number of Recoverable Photo Stations established (III): \textbf{five}
Number of Temporary Photo Hydro Stations established (III): \textbf{none}

Remarks:

Military Grid:

\textbf{Plotted by K. N. Maki, 10-20-50}
\textbf{Checked by Ret French, 10-23-50}
Topographic map T-8092 is one of a group of similar maps in Project Ph-34(48). This map covers Segula Island of the Rat Islands group in the Aleutian Islands.

A radial plot was not required. The map was compiled in the Washington office on the Stereoplanigraph using a contour interval of 50 feet supplemented by a contour interval of 25 feet. The manuscript was compiled on acetate ruled with a polyconic projection at 1:20,000 scale on the North American 1927 Datum. A military grid, one thousand meter universal transverse mercator, was ruled on the manuscript.

Photography for the instrument was taken with the U.S. A.A.F. 6" metrogon camera.

Depth curves and critical soundings were applied to the manuscript by the Division of Charts. These features do not appear on the preliminary registration prints.

A cloth-backed lithographic print of the map, at compilation scale, will be registered with the descriptive report in the Bureau Archives. After publication, a cloth-backed color print of the map will be registered.

Smooth drafted by Division of Photogrammetry
for publication of military quadrangle by army
map survey. 1939.
Compilation Report

26. Control:

(a) Horizontal:

Six (6) triangulation stations exist on Segula Island and are plotted on the manuscript. Five (5) were used to control the compilation, the sixth one, SEGULA NORTH PEAK, 1948, not having been positioned until 1949 after the instrument work was completed. When plotted on the completed manuscript this later station agreed with the location of the highest point of the peak as determined during stereoplanigraph delineation. Adjusted positions were not available at the time of compilation except for station SEGULA (USN), 1935; however, when the adjusted positions were made available, it was noted that the differences were of no consequence. The five (5) stations used to control the map were photo-identified by means of well selected sub-stations. It might be noted that the new position for Segula Peak does not agree with either position for this peak as listed under SEGULA MT, LEFT PEAK, 1943, and SEGULA MT, RIGHT PEAK, 1943. Both were discarded as map control during compilation because of non-agreement. It is, therefore, recommended that both 1943 positions be stricken from the records.

(b) Vertical:

Vertical position was controlled primarily by the water surface which existed in all stereoscopic pairs of compilation photography. During field operations unchecked elevations were established on three of the primary control stations; all three values are shown on the manuscript in proper symbol for checked elevations since each was checked by readings on the stereoplanigraph during compilation. In addition, a fourth elevation was furnished after completion of the compilation, for SEGULA, NORTH PEAK, 1949. It was computed from two sets of field observations, one by the PIONEER from Little Sitkin Island in 1948 and another by the EXPLORER from Rat and Anichitka Islands in 1949. Geodesy weighed the observations and established the elevation at 3784 feet which was checked within accuracy limits by readings made previously on the stereoplanigraph at the time of compilation.

28. Detailing:

Delineation and compilation was accomplished on the stereoplanigraph using two flights of 1943 6-inch photography which was adequate; no USC&GS coverage had been accomplished.
Field inspection was satisfactory except that the mean high water line was not located as frequently as desired. Inspection was studied and data incorporated into the finished compilation which is considered to be within the limits of map accuracy requirements, and shall supersede all previous compilations of the area.

29. Supplemental Data:

(a) Field inspection photographs, FV-25 thru FV-28.
(b) Air-Photo reports, 1948, by Henry E. Finnegam (PIONEER)
   (1) Vertical Control, two 504 forms.
   (2) Field Inspection, one 504 form.
(c) Vertical control Report, Anmhitka Island, by
    E. Arnold Kuro, Ship EXPLORER - Div Photogr General Files
(d) H-7647, 1948, 1:20,000, by the Ship PIONEER,
    Henry E. Finnegam Comdg.
(e) E-2903, 1935, 1:60,000, by Ship OGLAIA,
    F. Cogswell, Comdr., USN, Comdg.
(f) T-6956, 1935, 1:31,000, H.C.
(g) Graphic Control Survey, field No. PI-D(a),
    1948, 1:20,000, Ship PIONEER, Finnegam Comdg.
(h) Nautical Chart No. 8864, Rat Island, Semisopochnoi
    I. to Buldir I., Nov. 1946 (3rd Edition), 1:300,000
(i) Nautical Chart, No. 9180, Kiska Island, May 1944,
    1:80,000.
(j) Nautical Chart, No. 9155, Approaches to Kiska Harbor,
    May 1944, 1:50,000.

A comparison with the 1935 Navy surveys indicates general agreement except in the relative location of the two volcanic peaks near the center of the island. This manuscript indicates an azimuth thru the two peaks to be a NE-SW line while the old surveys show the azimuth to be NW-SE. Further, the error has been transferred to the two current nautical charts listed above in items (i) and (j).

30. Mean High Water Line:

One short length of MHWL were furnished by field inspection and the balance was delineated on the plotting instrument.

32. Offshore Details:

Offshore details were delineated on the plotting instrument, field inspection data being incorporated simultaneously. The resulting compilation is in agreement with contemporary and former hydrographic surveys. It was noted that the hydrographic surveys showed offshore details in addition to those compiled on the map manuscript.
35. **Hydrographic Control:**

Hydrography was accomplished in this area at the time of field inspection and therefore no prospective hydro signals were selected and located during this compilation.

37. **Hydrographic Data:**

Hydrography is to be added to this survey by the Nautical Chart Branch to the limits of the quadrangle as outlined on the manuscript. See attached "History of Hydrographic Information".

40. **Quality of Contours:**

All contours on this manuscript conform to the national map standards of accuracy for a contour interval of 50 ft. except the supplemental contours which meet the standard for an interval of 25 ft.

**Stereoplanigraph Delineation by:**

Michael G. Misulka
Cartographer - Photogrammetric

**Manuscript Compilation by:**

Orvis N. Dalby
Cartographer - Photogrammetric

**Approved and Forwarded by:**

Louis J. Reed, Chief
Stereoecopic Mapping Section
Date: 26 May 50
35. **Hydrographic Control:**

Hydrography was accomplished in this area at the time of field inspection and therefore no prospective hydro signals were selected and located during this compilation.

37. **Hydrographic Data:**

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40. **Quality of Contours:**

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Stereoplanigraph Delineation by:

[Signature]

Michael G. Misulka
Cartographer - Photogrammetric

Manuscript Compilation by:

[Signature]

Orvis N. Dalby
Cartographer - Photogrammetric

Approved and Forwarded by:

[Signature]

Louis J. Reed, Chief
Stereoscopic Mapping Section

Date: 26 May 50
PHOTOGRAMMETRIC OFFICE REVIEW

T. 8092

1. Projection and grids  
2. Title  
3. Manuscript numbers  
4. Manuscript size  

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy  
6. Recoverable horizontal stations of less than third-order accuracy (topographic stations)  
7. Photo hydro stations  
8. Bench marks  
9. Plotting of sextant fixes  
10. Photogrammetric plot report  
11. Detail points  

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline  
13. Low-water line  
14. Rocks, shoals, etc.  
15. Bridges  
16. Aids to navigation  
17. Landmarks  
18. Other alongshore physical features  
19. Other alongshore cultural features  

PHYSICAL FEATURES

20. Water features  
21. Natural ground cover  
22. Planetary contours  
23. Stereoscopic Instrument contours  
24. Contours in general  
25. Spot elevations  
26. Other physical features  

CULTURAL FEATURES

27. Roads  
28. Buildings  
29. Railroads  
30. Other cultural features  

BOUNDARIES

31. Boundary lines  
32. Public land lines  

MISCELLANEOUS

33. Geographic names  
34. Junctions  
35. Legibility of the manuscript  
36. Discrepancy overlay  
37. Descriptive Report  
38. Field inspection photographs  
39. Forms

40. __________  
41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

_________  
Compiler

_________  
Supervisor

43. Remarks:  

_____________________

M-2623-12
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</table>

Lines underlined in review: Approved, 10-11-50, L. Heck

M 234
62. **Comparison with Registered Topographic Surveys**

   T-6955 1:31,000 1935 (USN)
   PI-D(a) 1:20,000 1948

   T-8092 supersedes these surveys for nautical charting.

63. **Comparison with Maps of other Agencies**

   None.

64. **Comparison with Contemporary Hydrographic Surveys**

   H-6903 1:60,000 1935 (USN)
   H-7647 1:20,000 1948

   There are no critical differences between these surveys and T-8092.

65. **Comparison with Nautical Charts**

   9155 1:50,000 1944 corr. 5/5/44
   9180 1:80,000 1944 corr. 12/18/44
   8864 1:300,000 1948 corr. 3/8/48

   There are no significant differences between T-8092 and the charts other than the position of the two highest peaks of the island. The relative position of these peaks do not agree as indicated under item 29, of the compilation report.

66. **Adequacy of Results and Future Surveys**

   T-8092 is a complete topographic map and has been compared and reconciled with all hydrographic and topographic surveys of record in this Bureau and becomes, therefore, the most authoritatively complete and accurate map of record for the area covered as of the date of this report.

   Adequate photo coverage, well distributed horizontal and vertical control and instrument compilation guarantee conformance of this map to the National Map Accuracy Standards.

   No vertical accuracy tests have been made. All contours meet the national map accuracy standards for a contour interval of 50 feet and, where shown, for a contour interval of 25 feet.
67. Military Grids

The universal transverse mercator grid, military zone 60, was applied to the manuscript during review. It is represented by \( \frac{1}{2} \) centimeter ticks at one thousand meter intervals outside but touching the neat lines.

68. Geographic Names

A list of geographic names was prepared by the Geographic Names Section, Division of Charts, and attached to the descriptive report.

69. Classification

The area covered by this map is classified "Restricted."
HISTORY OF HYDROGRAPHIC INFORMATION
T-8092

Segula Island Quadrangle, Aleutian Islands

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry request of 26 January 1951, and general specifications of 18 May 1949, and with Army Map Service TM-35-XVII:

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys

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<td>H-7649</td>
<td>1:40,000</td>
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The reliability of the hydrography is considered to be good; however, the compilation was prepared from unverified surveys subject to revisions in the Washington Office.

Bottom contours are shown at 3, 5, and 10 fathoms.

The compilation was prepared by R. E. Elkins and checked by G. F. Jordan.

R. E. Elkins, 2 February 1951
Nautical Chart Branch
Discrepancy H-7647
Topo Sig "ANN" (planetale PI-D (6) T-7080a)
15' promade rook (T-8092, Chargul St. 178°05.75', 52°00.25')

(see Jns Rep H-7647)

C.A. Hine 7/20/51
(remain)
## NAUTICAL CHARTS BRANCH

### SURVEY NO. T.8092

**Record of Application to Charts**

<table>
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<th>CHART</th>
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**Notes:**
- Before After Verification and Review
- The chart is considered final until reconst.

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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.