

8092

(ORIGINAL)

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 (48) Office No. T-8092

LOCALITY

State Aleutian Islands, Alaska

General locality Rat Island Group

Locality SEGIJA ISLAND

194 8

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

8092

DATA RECORD

T-8092

Project No. (II): Ph-34(48)

Quadrangle Name (IV): SEGULA

Field Office (II): USC&GSS PIONEER

Chief of Party: Henry E. Finneagan

Photogrammetric Office (III): Wash., D. C.

Officer-in-Charge: Louis J. Reed, Chief,
Stereoscopic Mapping Section

Instructions dated (II) (III):

Copy filed in Division of
Photogrammetry (IV)

Office Files

8 April 1948

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 (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):

Lat.:

Long.:

Adjusted
Unadjusted

Plane Coordinates (IV):

State:

Zone:

Y=

X=

Universal 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. Finnegan

Date: 1948 Season

Planetable 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
Control/extension by (IV):~~

Date:

Stereoplanigraph delineation Planimetry

~~Stereoscopic instrument compilation~~ (III): Michael G. Misulia
Contours

Date:

31 May 1949

Date:

compiled

Manuscript ~~checked~~ by (III): Orvis N. Dalbey

Date: 28 Mar. 1950

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

Date: 30 Mar. 1950

Elevations on Manuscript Louis J. Reed
checked by (II) (III):

Date: 25 May 1950

Camera (kind or source) (III): 11th Army Air Force, 6", Metrogon

Number	Date	PHOTOGRAPHS (III) Time	Scale	Stage of Tide
3FV25 thru 3FV29 and FV25 thru FV29	24 July 1943	unknown	about 1:36,000	unknown

Tide (III)

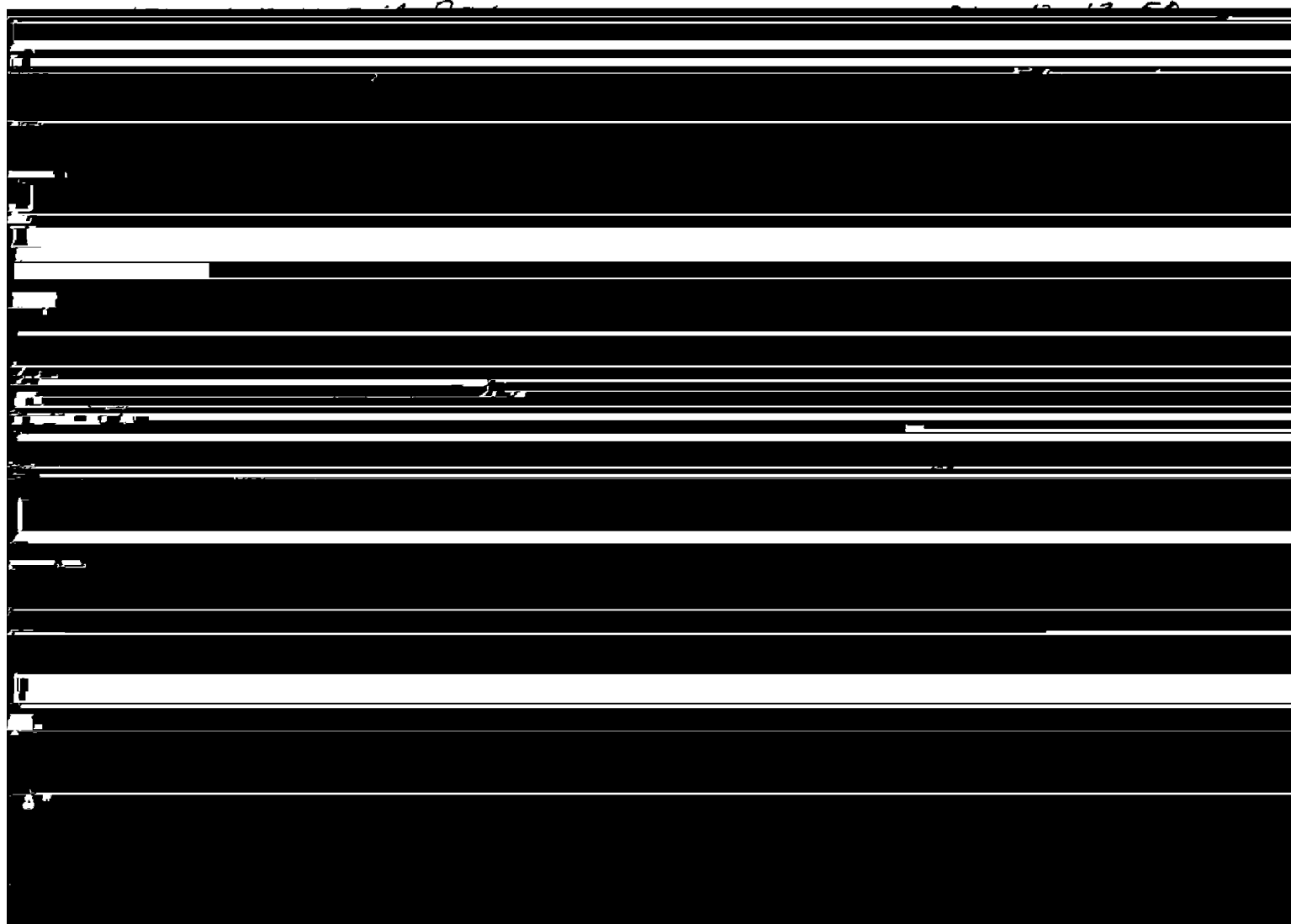
Diurnal

Reference Station:
Subordinate Station:
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
		3.2

Washington Office Review by (IV): *K. N. Maki*

Date: 10-19-50



Summary to Accompany F-8092

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 service. szg*

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.

this has been reported to 60
My

(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, 1948. 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 Amchitka 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. Finnegan (PIONEER)
 - (1) Vertical Control, two 504 forms.
 - (2) Field Inspection, one 504 form.
- (c) Vertical control Report, Amchitka Island, by H. Arnold Karo, Ship EXPLORER. - *Div. Photogr General Files.*
- (d) H-7647, 1948, 1:20,000, by the Ship PIONEER, Henry E. Finnegan Comdg.
- (e) H-7903, 1935, 1:60,000, by Ship OGLAIA, F. Cogswell, Comdr., USN, Comdg.
- (f) T-6955, 1935, 1:31,000, H.O.
- (g) Graphic Control Survey, field No. PI-D(a), 1948, 1:20,000, Ship PIONEER, Finnegan 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. Misulia

Michael G. Misulia
Cartographer - Photogrammetric

Manuscript Compilation by:

Orvis N. Dalby

Orvis N. Dalby
Cartographer - Photogrammetric

Approved and Forwarded by:

Louis J. Reed

Louis J. Reed, Chief
Stereoscopic 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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Louis J. Reed
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) N 7. Photo hydro stations N 8. Bench marks N 9. Plotting of sextant fixes N 10. Photogrammetric plot report N 11. Detail points N

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ☒ 13. Low-water line N 14. Rocks, shoals, etc. ☒ 15. Bridges N 16. Aids to navigation N 17. Landmarks N 18. Other alongshore physical features ☒ 19. Other along-shore cultural features ☒ N = none

PHYSICAL FEATURES

20. Water features ☒ 21. Natural ground cover N 22. Planetable contours N 23. Stereoscopic instrument contours ☒ 24. Contours in general ☒ 25. Spot elevations ☒ 26. Other physical features ☒

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines N 32. Public land lines N

MISCELLANEOUS

33. Geographic names ☒ 34. Junctions N 35. Legibility of the manuscript ☒ 36. Discrepancy overlay N 37. Descriptive Report ☒ 38. Field inspection photographs ☒ 39. Forms ☒40. [Signature]

Reviewer

[Signature] Chief,
Supervisor, Review Section or Unit
Stereoscopic Mapping Section

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:

GEOGRAPHIC NAMES

Survey No.

T-8092

GEOGRAPHIC NAMES										
Survey No. T-8092										
Name on Survey	On Chart No. On previous survey No. On U. S. quadrangle Maps From local information On local Maps P. O. Guide or Map Rand McNally Atlas U. S. Light List									
	A	B	C	D	E	F	G	H	K	
<u>Alaska</u>			(for title)							1
<u>Aleutian Islands</u>				"						2
<u>Adut Islands</u>				"						3
										4
<u>Pacific Ocean</u>										5
<u>Bering Sea</u>								USGB		6
<u>Seegula Island</u>									"	7
<u>Khvostof Pass</u>									"	8
<u>Iron Point</u>									"	9
<u>Seegula Point</u>									"	10
<u>Alcedo Head</u>									"	11
<u>Seegula Point</u>									"	12
<u>Seegula Pass</u>										13
										14
										15
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										25
										26
										27
										M 234

Names underlined in red are
approved. 10-11-50. L. Heck

Review Report T-8092
Topographic Map
19 October 1950

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

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".
Cancelled on cover

Reviewed by:

K. N. Maki
K. N. Maki

Approved by:

A. V. Griffith
Chief, Review Section *K.N.M.*
Division of Photogrammetry

H. Edmonston
Chief, Nautical Chart Branch
Division of Charts

O. S. Reading
Chief, Division of Photogrammetry
B.J.G.

W. M. Saife
Chief, Division of Coastal
Surveys
S.H.

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

H-7647 (1948) 1:20,000

H-7649 (1948) 1:40,000

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

R. E. Elkins, 2 February 1951
Nautical Chart Branch

Discrepancy H-7647

Topo Sig "ANN" (planetable PI-D(a) T-7080a)

15' pinnacle rock (T-8092, Chugul Pt. $178^{\circ}05.75'$, $52^{\circ}00.25'$)

(see Res Rep H-7647)

C Helmer 12/20/51
(verified)

NAUTICAL CHARTS BRANCH

SURVEY NO. T. 8092

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.