[redacted]

8590 & 8591

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-8590, T-8591.

## LOCALITY

State Aleutian Islands, Alaska

General locality Rat Island Group

Locality RAT ISLAND

1949

## CHIEF OF PARTY

F.E.T. Siems, Chief of 1948 Field Party
W.A. Karo, Chief of 1949 Field Party

## LIBRARY & ARCHIVES

DATE Aug 10 - 1951

8-1870-1 (1)

[redacted]

8590 & 8591

# DATA RECORD

T-8590, ~~8590A~~, 8591

Project No. (II): Ph-34(48) Quadrangle Name (IV): RAT ISLAND, West (T-8590)
RAT ISLAND, East (T-8591)

Field Office (II): Ships PIONEER EXPLORER Chief of Party: F.B.T. Siems

Photogrammetric Office (III): Division of Photogrammetry, Washington, D.C. Officer-in-Charge: Lou Reed, Stereoscopic Mapping Section

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

[redacted]

Method of Compilation (III): Stereoplanigraph

Manuscript Scale (III): 1:20,000 Stereoscopic Plotting Instrument Scale (III): 1:16,000

Scale Factor (III): Manuscript : Photograph :: 20,000 : 27,500

Date received in Washington Office (IV): 1-10-50 Date reported to Nautical Chart Branch (IV): 1-16-50

Applied to Chart No. Date: Date registered (IV): 7-5-51

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

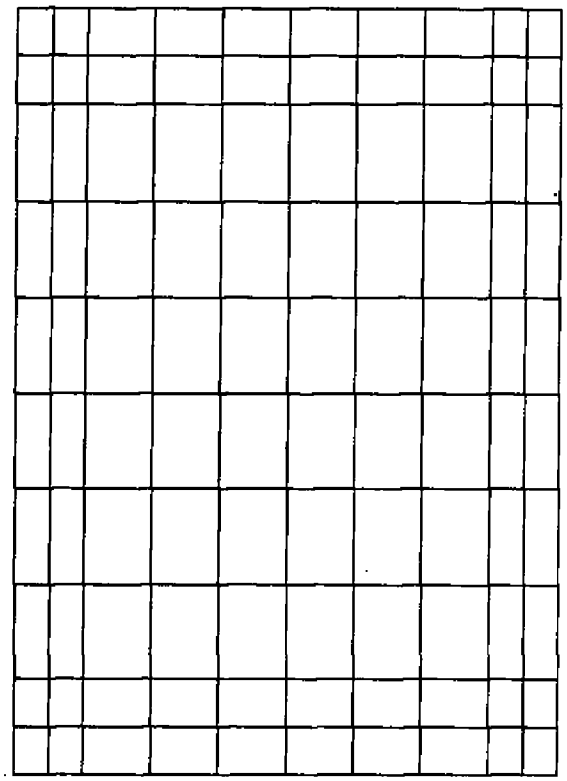
Plane Coordinates (IV): State: Zone:

Y= X=

Military Grid, Universal Transverse Mercator, Zone 60.

Plotted by K. N. Maki, (T-8590) 11-1-50, (T-8591) 11-9-50
Chkd. by [illegible]

[redacted]



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

100% by Michael G. Misulia

# DATA RECORD

Field Inspection by (II): T.B.T. Siems ~~H.A. Hans E.L. Jones~~ Date: Summer 1948 ~~Summer 1949~~

Planetable contouring by (II): None Date:

Completion Surveys by (II): (partial edit) ~~None~~ E.L. Jones Date: 6/26/49 and 7/21/49

Mean High Water Location (III) (State date and method of location):
Delineated entirely on the stereoplanigraph during office compilation

Projection and Grids ruled by (IV): Ruling Machine Date: 8 Dec 48

Projection and Grids checked by (IV): W. E. Ward Date: 8 Dec 48

Control plotted by (III): John B. McDonald Date: 12 Dec 48

Control checked by (III): Louis J. Reed Date: 12 Dec 48

~~Radial Plot or~~ Stereoscopic Control extension by (III): Michael G. Misulia Date: 20 Jan 49, 23 Dec 49

Stereoscopic instrument compilation (III): Planimetry Michael G. Misulia Date: 18 Feb 49
Contours Date:

Manuscript delineated by (III): John B. McDonald Date: 15 Mar 49, 4 Jan 50

Photogrammetric Office Review by (III): Date:

Elevations on Manuscript checked by (II) (III): Louis J. Reed Date: 16 Mar 49, 10 Jan 50

Camera (kind or source) (III): USC & GS 6" Cartographic Wide-Angle "O" Camera

PHOTOGRAPHS (III)

| Number | Date | Time | Scale | Stage of Tide |
|---|---|---|---|---|
| **Compilation Photography:** | | | | |
| 0-530 thru --537 | 9/19/48 | 12:50 | 1:27,500 | 1.6' above MLLW |
| **Field Inspection Photography:** | | | | |
| 48-0-531, 533, 534, 535, & 536 at 1:20,000 scale 21184, 21186-21187, 21209-21210; 1:20,000 | | | | |

Tide (III)

Reference Station: Kiska Harbor — Diurnal Range 3.6'

Subordinate Station:

Subordinate Station:

| Ratio of Ranges | Mean Range | Spring Range |
|---|---|---|
| | | |
| | | |
| | | |

Washington Office Review by (IV): K.N.Maki — Date: 11-7-50

Final Drafting by (IV): J. Battley T-8590. H. Lucas T-8591 — Date: 6-18-51, 6-14-51

Drafting verified for reproduction by (IV): C. Kupiec T-8590 T-8591 — Date: 6-19-51, 6-22-51

Proof Edit by (IV): — Date:

Land Area (Sq. Statute Miles) (III): About 11 square miles

Shoreline (More than 200 meters to opposite shore) (III): About 25 miles

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

Control Leveling - Miles (II): None

Number of Triangulation Stations searched for (II): Recovered: Six Identified: Six

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): Six

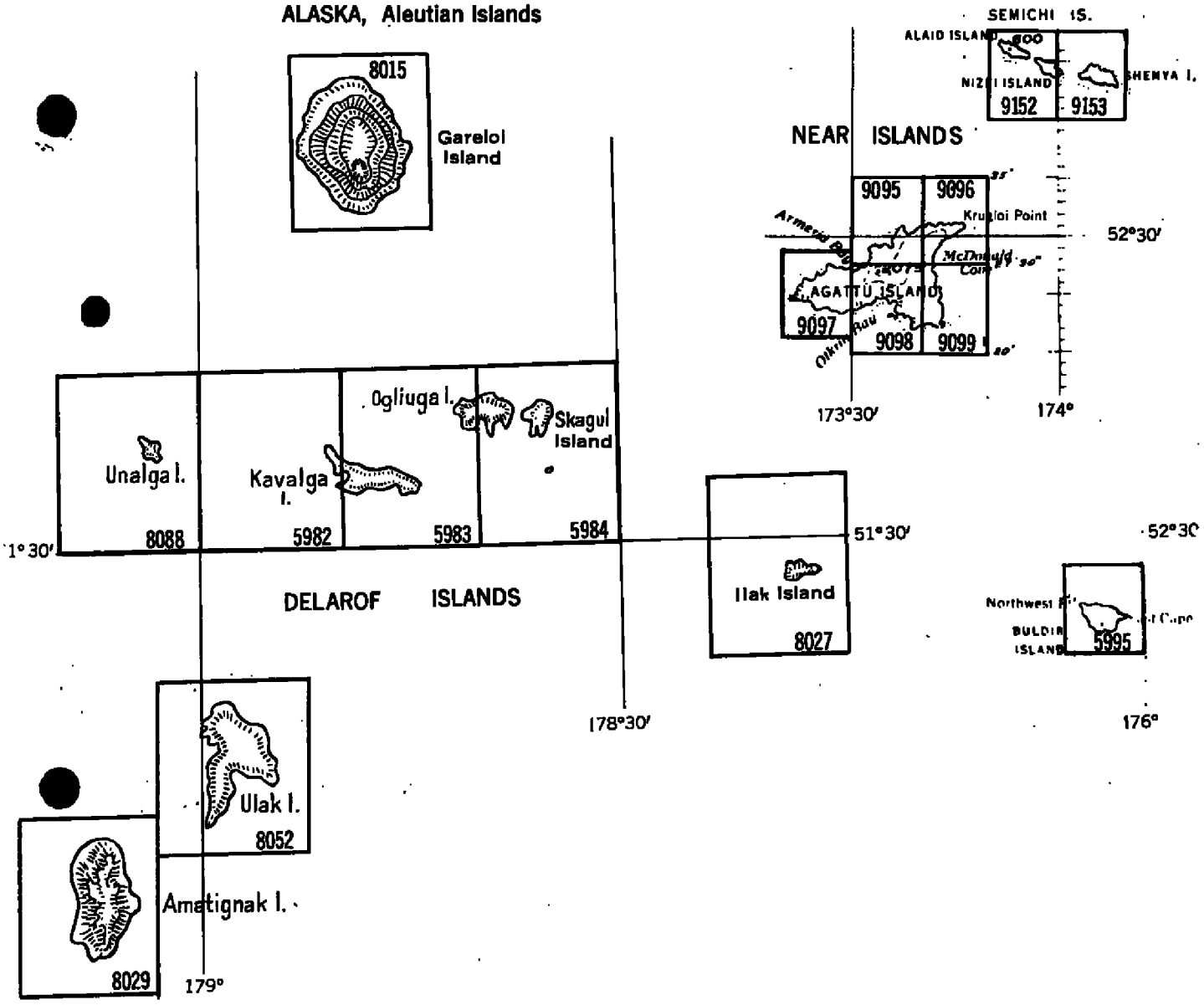
Remarks:



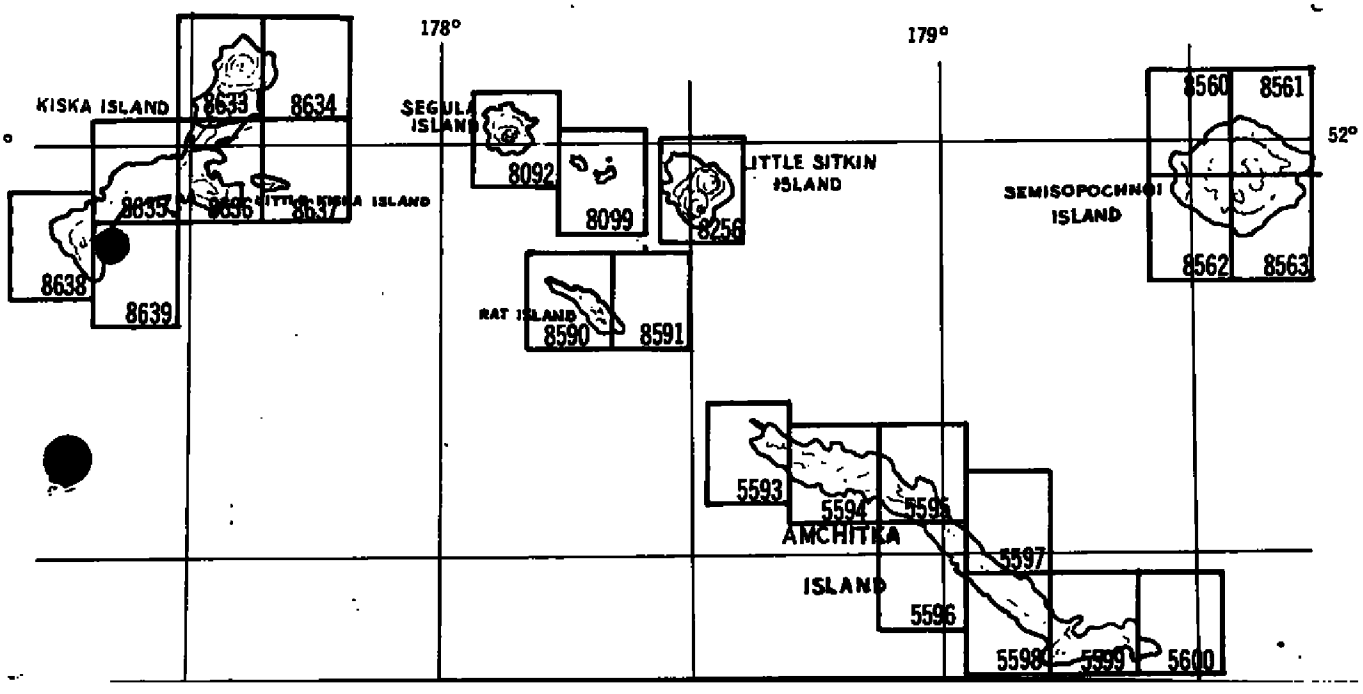
M-2618-12(4)

TOPOGRAPHIC MAPPING PROJECT PH-34(48)

ALASKA, Aleutian Islands




RAT ISLANDS



Summary to Accompany T-8590 and T-8591

Topographic maps T-8590 and T-8591 are two of a group of similar maps in project Ph-34(48). These maps cover Rat Island proper of the Rat Island group in the Aleutian Islands.

A radial plot was not required. The maps were compiled in the Washington Office on the stereoplanigraph using a contour interval of 50 feet supplemented by a contour interval of 25 feet. The small islands south and southwest of Rat Island were compiled on the Reading Plotter from nine-lens photographs. The manuscripts were 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 each manuscript.

Photography for the instruments was taken with the U. S. Coast and Geodetic Survey 6" Cartographic "O" camera and the 8 1/4" nine-lens camera.

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

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

* These maps were smooth plotted by the Division of Photogrammetry for publication of military quads by the Army Map Service. MJ

# FIELD INSPECTION REPORT

1. Description of the Area:

There are no trees on Rat Island. The vegetation consists of tundra grass from the shore to an elevation of about 1000 feet, above which the land area is bare rock formation. The shore, for the most part, is very bold. A shoran house exists just west of the center of the island.

1 thru 25:

Photogrammetric control identification was made prior to compilation by parties from the ship EXPLORER as part of the hydrographic work in the area. The field report on this work is included in "Report on Field Inspection of Air Photographs" Project Ph-34(48) 1948 (CS-218), F.B.T. Siems, Com'dg. Div. of Photogrammetry General Files.

Additional field work was accomplished during the following field season of 1949, the report for which is included in ~~the rear of~~ this report.

COMPILATION REPORT
March 1949

26. Control:

Six horizontal control stations were used to control this survey. They are listed on a separate page of this report* (list) along with their geographic positions, and are shown on the manuscript with proper symbol. The seventh station listed is TRA, 1948 and it was not used as horizontal control because no pricking card or photo-identification was furnished, and further, because the image of this station in the compilation photography was visible in only one photograph. An eighth station, PASS, 1948, was established during the 1948 season but was not observed on. It therefore has no geographic position and was not listed. However, PASS did have a pricking card made for it and with the help of this card the point has been located on the stereoplanigraph and is shown on the

28. Detailing:

Compilation photography was entirely adequate except for

34. Land Marks and Aids to Navigation:

Triangulation station RAT is situated on the highest peak on the western half of the island. The peak should be visible a considerable distance to sea and therefore should be valuable as a landmark.

37. Hydrographic Data:

Hydrographic data is to be added to this survey to the limits of the two manuscripts by the Nautical Chart Branch.
*See attached "History of Hydrographic Information"*

40. Quality of Contours:

All contours on these two manuscripts conform to the national standards of accuracy for a contour interval of 50 feet, except where supplemental contours are shown. In this case the contours conform to the standards of accuracy for a contour interval of 25 feet.

41. Supplemental Quadrangle T-8590A:

Sheet T-8590A was delineated on the stereoplanigraph as per special request from the Ship EXPLORER, a copy of which request may be found in this report. It is a 10,000 scale shoreline sheet and agreement has been made with the section of shoreline on the 20,000 scale T-8590 to which it corresponds. The same diapositives were used in the instrument for both sheets, the coordinatograph fixing the desired scales.

After this sheet had been delineated and compiled it was discovered that the projection was in error; the parallels of latitude are not normal to the central meridian. No correction was made since each photogrammetric model was individually controlled and no consequential errors exist. Transfer of details from this sheet to another should be made by 1/2 minute squares, one at a time.

*T-8590A-filed in Div. Photogrammetry General files. It is supplemental material and will not be registered as a survey.*
*L.J.R. 7/5/51*

Louis J. Reed
Chief, Stereoscopic Mapping Section

# DATA RECORD

T

Project No. (II): CS-218 Quadrangle Name (IV):

Field Office (II): Ship EXPLORER Chief of Party: H. Arnold Karo

Photogrammetric Office (III): Officer-in-Charge:

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

Supplemental Instructions 8 April 1949
Directors letter, subject "Field Work", dated 19 April 1949

Method of Compilation (III):

Manuscript Scale (III): Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III):

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

Applied to Chart No. Date: Date registered (IV):

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): 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=

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

[redacted]

# DATA RECORD

Field Inspection by (II): E. L. Jones

Date: 1/2 day each on 26 June 1949 and 21 July 1949.

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

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

Projection and Grids ruled by (IV): Date:

Projection and Grids checked by (IV): Date:

Control plotted by (III): Date:

Control checked by (III): Date:

Radial Plot or Stereoscopic Control extension by (III): Date:

Stereoscopic Instrument compilation (III): Planimetry Date:

Contours Date:

Manuscript delineated by (III): Date:

Photogrammetric Office Review by (III): Date:

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

2. Field inspection. No field inspection on Rat Island was required by the Washington Office during the 1949 season. A copy of the Director's 19 April 1949 letter concerning the remaining photogrammetric work on Rat Island is attached to this report. However, additional hydrographic work accomplished during the 1949 season in Gunners Cove will require the location by photogrammetric means of several photo-hydro stations before the hydrographic sheet can be smooth-plotted. These stations were identified in the field on single-lens photographs. The identification was made from a launch cruising in the cove since heavy rains and limited time prevented landing at each station site.

Some field inspection and edit notes, mainly of the offshore rocks and ledges, were obtained during the identification of photo-hydro stations and signal building at triangulation stations. These notes are shown in red on single-lens photographs Nos. O-531, O-533, O-534, O-535 and O-536.

3. Horizontal control. The following triangulation stations were visited during the course of field work:

| Station | Recovered or Described | Identifed | Photo | Method of Identification |
|---|---|---|---|---|
| ART, 1935 (USN) | yes | no | — | — |
| COVE, 1949 | yes | yes | O-533 | sub. sta. |
| GADAK, 1948 | yes | yes | O-531 | distances |
| NAU, 1935 (USN) | yes | yes | O-533 | prick direct |

4. Vertical control. No vertical control was established or recovered.

5. Contours and drainage. Inapplicable.

6. Woodland cover. None.

7. Shoreline and alongshore features. The shoreline rocks and the rock bluffs are, in general, very dark and from a distance appear nearly black. This rock, known as tuff, is consolidated volcanic sands of granite-like hardness formed by sedimentation under water. Agates are quite plentiful along the shoreline, which is in contrast to the neighboring Amchitka Island.

There are numerous cobblestone beaches with large jagged rocks offshore along the northern coast. Less common are the few short sand beaches. These beaches are generally found at the heads of coves and bights and are composed of fine black volcanic sand. A sand beach like this, which is comparatively free of offshore rocks, is at the head of Gunners Cove.

8. Offshore features. The rocks and ledges offshore from the high-water line were inspected from a launch which paralleled the shore as closely as safety permitted. An estimate of the amount which the rocks and ledges uncovered was noted on the photographs, together with the time and date. Rocks not visible on the photographs were not located in position on the photographs.

9. Landmarks and aids. None.

10. Boundaries, monuments, and lines. Inapplicable.

11. Other control. The boat-sheet control for the hydrographic survey in Gunners Cove was obtained by tracing the shoreline and photo-hydro stations from the 1:20,000 scale single-lens photograph No. 0-535 and enlarging by graphic means to 1:10,000 scale, the scale of boat sheet (field) No. EX-1249.

The following photo-hydro stations were identified on the photographs indicated and the photogrammetric positions of these stations will be needed for smooth-plotting the 1:10,000 scale hydrographic smooth sheet:

| Name | Identified on Photo | Method of Identification |
|---|---|---|
| Cob | 0-533 | prick direct |
| Eze | 0-533 | " " |
| Fur | 0-533 | " " |
| Sut | 0-531 | " " |
| Toy | 0-533 | " " |
| Wen | 0-533 | " " |

12. Other interior features. Not inspected.

13. Geographic names. Not investigated.

14. Special report and supplemental data. A copy of the transmittal letter showing the photogrammetric records transmitted with this report is attached.

14 November 1949

Edmund L. Jones
Lieut. Comdr., USC&GS

Approved and forwarded 15 November 1949.

H. Arnold Karo
Comdg. Ship EXPLORER

51. Methods. No detailed field edit was made nor was more than the north shore of Rat Island visually examined. Skiff landings were made from the launch at six points along the shoreline. Corrections, additions and deletions, mostly concerning offshore rocks and ledges, were made on the map manuscript. Notes concerning the amount that rocks uncovered at the time of examination are shown on the single-lens photographs Nos. O-531, O-533, O-534, O-535 and O-536. Rocks not shown on the map manuscript were not located in position on the manuscript but have been indicated on the photographs.

52. Adequacy of compilation. Considering that these map manuscripts were compiled without field inspection they give an excellent map representation of the area. Most of the discrepancies found concern the symbolization of offshore rocks; that is, some rocks shown by a solid line should be shown by the rock-awash symbol.

An examination of the photographs will reveal that the surf was heavier on the south coast of Rat Island on the date of the photographs. The manuscript reflects this by showing a wider foul area along this section of coast. Field personnel who have been close inshore on the south coast are of the opinion that the south coast is fouler than the north coast and so the map representation would be correct. However, had there been a strong northerly wind and sea on the date of photography the photographs and the manuscript would have reflected this and given an erroneous map representation. That is mentioned in this report so that the compiler will be cognizant of this possibility in other areas of the Aleutian Island Chain.

53. Map accuracy. No instrument tests were made to determine the accuracy of the map manuscript as to either horizontal or vertical position.

No important discrepancies were found to exist during the limited visual field edit.

54. Recommendations. None.

55. Examination of proof copy. There are no inhabitants closer than 50 miles from Rat Island and they are army personnel rotated on a fairly short term basis.

14 November 1949

Edmund L. Jones
Lt. Comdr., USC&GS

Approved and forwarded 15 November 1949.

H. Arnold Karo
Comdg. Ship EXPLORER

( C O P Y )

9 April 1949

To: Commanding Officer
Ship EXPLORER

Via: Supervisor

Subject: Field work

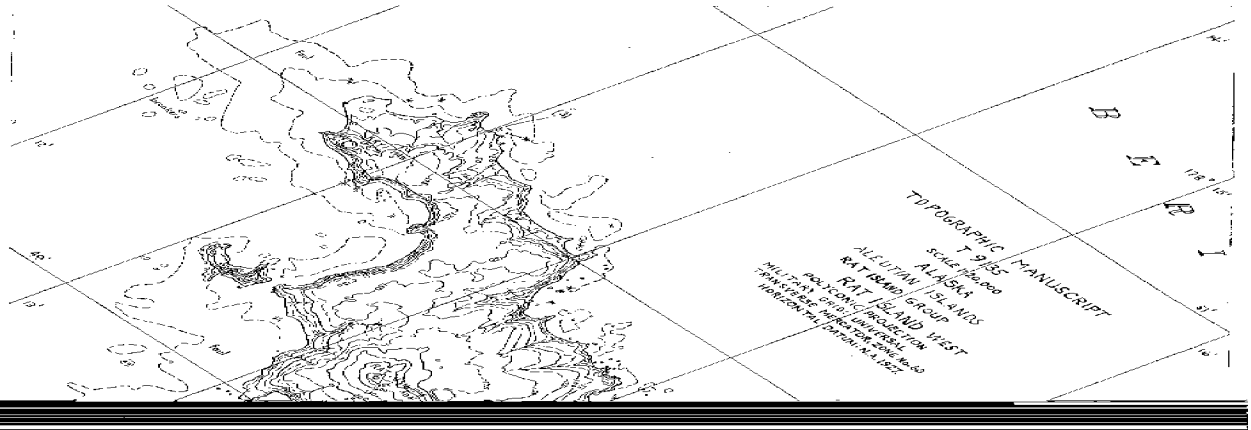
Replying to your letter dated 13 April 1949 the location of the current station northwest of Gunners Cove, Rat Island, may be either in the vicinity of the 50 fathom curve, as specified in paragraph 1(a) of the supplemental instructions dated 11 April 1949, or in the center of Rat Island Pass, as indicated in the Acting Directors letter dated 17 February 1949, file number 38/tmo. A station in the center of Rat Island Pass is considered preferable.

Installation of a portable automatic tide gage at Constantine Harbor to furnish tidal data for the season's work is acceptable to this office.

Field Inspection of Rat Island is not necessary. It will be desirable however, to field edit the compilation in the course of accomplishing other phases of your work in the area to ascertain if any important discrepancies exist. The revised data shall be furnished to this office if discrepancies are found.

Your attention is directed to the fact that observations at triangulation station GADAK (northward of AYAGADAK POINT) have not been completed. Since this station has been used as control in the topographic compilation of Rat Island, it is important that an adequate geographic position be determined for this station.

L. O. Colbert
Director


TOPOGRAPHIC MANUSCRIPT
T 9185
SCALE 1:50,000
ALASKA
ALEUTIAN ISLANDS
RAT (BAND) GROUP
RAT ISLAND WEST
POLYCONIC PROJECTION
1927 NORTH AMERICAN DATUM
MILITARY GRID UNIVERSAL TRANSVERSE MERCATOR ZONE 60
HORIZONTAL DATUM N.A.1927

C
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USC&GSS EXPLORER
705 Federal Office Bldg.
Seattle 4, Washington

21 November 1949

To: The Director
U. S. Coast & Geodetic Survey
Washington 25, D. C.

Subject: Photogrammetric Positions and Shoreline-
Rat Island, Alaska

It is requested that shoreline and photogrammetric positions for six photo-hydro stations in Gunners Cove, Rat Island, Aleutian Islands be furnished this ship so that the 1:10,000 scale hydrographic smooth sheet (field) No. EX-1249 can be plotted aboard before the ship sails for Alaska next field season.

The shore line needed extends from latitude 51°49.4', longitude 178°18.0' to latitude 51°47.8', longitude 178°21.0'. It is requested that this shoreline include the additional offshore rock information obtained during the photogrammetric field work this past field season. The field inspection photographs and accompanying records for Rat Island are being forwarded to the Washington Office by registered mail.

(Signed) H. ARNOLD KARO

H. Arnold Karo
Comdg. Ship EXPLORER

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON 25

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER
AND REFER TO NO. 77-rs

16 January 1950

To: The Commanding Officer
U.S.C.& G.S. Ship EXPLORER
705 Federal Office Building
Seattle 4, Washington

Through: Supervisor, Northwestern District

Subject: Photogrammetric Positions and Shoreline-
Rat Island, Alaska

Reference: Your letter dated 21 November 1949 on the same subject

Shoreline and photogrammetric positions requested in your reference letter have been compiled and are being forwarded in the form of one film positive, one light weight paper copy, and one heavy weight paper copy.

As you plot the smooth hydrographic sheet in this area some adjustment may be necessary between the alongshore details on the photogrammetric sheet and on the hydrographic sheet. Where such changes are necessary in either the limits or elevations of alongshore features, please indicate them on the light weight paper copy of our photogrammetric manuscript and forward it to this office so that the original manuscript may be corrected.

(Signed) H. W. HEMPLE

Acting Director

# GEOGRAPHIC NAMES

Survey No. T-3590

| Name on Survey | On Chart No. A | On previous survey No. B | On U. S. quadrangle Maps C | From local information D | On local Maps E | P. O. Guide or Map F | Rand McNally Atlas G | U. S. Light List H | K | |
|---|---|---|---|---|---|---|---|---|---|---|
| Alaska | | | (for title) | | | | | | | 1 |
| Aleutian Islands | | | | " | | | | | | 2 |
| Rat Islands | | | | " | | | | | | 3 |
| | | | | | | | | | | 4 |
| Rat Island | | | | | | | | | USGB | 5 |
| Gunners Cove | | | | | | | | | " | 6 |
| Krysi Point | | | | | | | | | " | 7 |
| ~~Krysi Pt.~~ | | | | | | | | | | 8 |
| Rat Island Pass | | | | | | | | | USGB | 9 |
| ~~Bering Sea~~ | | | | | | | | | " | 10 |
| Pacific Ocean | | | | | | | | | | 11 |
| | | | | | | | | | | 12 |
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| | | | | Names underlined in red are approved. ~~10-20-50~~ L. Heck | | | | | | 15 |
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| | | | | | Checked & approved. 6-19-51 A.B.W | | | | | 17 |
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# GEOGRAPHIC NAMES

Survey No. T-8591

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Alaska | | | (for title) | | | | | | | 1 |
| Aleutian Islands | | | " | | | | | | | 2 |
| Rat Islands | | | " | | | | | | | 3 |
| | | | | | | | | | | 4 |
| Rat Island | | | | | | | | | USGS | 5 |
| Southeastern Cove | | | | | | | | | | 6 |
| Ayugadak Point | | | | | | | | | USGS | 7 |
| Rat Island Pass | | | | | | | | | " | 8 |
| [illegible] | | | | | | | | | " | 9 |
| [illegible] | | | | | | | | | " | 10 |
| | | | | | | | | | | 11 |
| | | | | | | | | | | 12 |
| | | | | Names underlined in red are approved. 10-20-50 L. Heck | | | | | | 13 |
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M 234

62. Comparison with Registered Topographic Surveys

| | | |
|---|---|---|
| T-6962 | 1:10,000 | 1904 |
| T-6962a | 1:10,000 | 1905 |
| T-6962 | 1:30,000 | 1935 (USN) |

T-8590 supersedes these surveys for nautical charting purposes.

63. Comparison with Maps of other Agencies

None.

64. Comparison with Contemporary Hydrographic Surveys

| | | |
|---|---|---|
| H-7733 | 1:20,000 | 1948 |
| H-7646 | 1:20,000 | 1948 |
| H-7710 | 1:40,000 | 1948 |
| H-6903 | 1:60,000 | 1935 (USN) |
| H-6904 | 1:60,000 | 1935 (USN) |

There are no critical differences between T-8590-91 and the hydrographic surveys.

65. Comparison with Nautical Charts

| | | | |
|---|---|---|---|
| 8864 | 1:300,000 | 1948 | corr. 3/8/48 |
| 9155 | 1:50,000 | 1944 | corr. 5/5/44 |
| 9180 | 1:80,000 | 1944 | corr. 12/18/44 |
| 9102 | 1:1,126,303 | 1948 | corr. 3/8/48 |

There are no significant differences between T-8590-91 and the charts other than the elevation of the island. The maximum elevation of Rat Island on the charts is 1319 feet in comparison with 1127 feet on the manuscript.

66. Adequacy of Results and Future Surveys

T-8590 and T-8591 are complete topographic maps and have been compared and reconciled with all hydrographic and topographic surveys of record in this Bureau and become, therefore, the most authoritatively complete and accurate maps 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 the conformance of these maps 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 manuscripts 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 for each map, and attached to the descriptive report.

69. Recoverable Topographic Stations

A form 524 card was prepared for station Pass, which was established in 1948 but not observed on. A form 524 card was also prepared for station Kry, 1948. Refer to item 26 of the compilation report for a complete explanation of these two stations.

70. Classification

The area covered by these maps is ~~un~~classified, "Restricted" declassified as cover

Reviewed by:

K. N. Maki
K. N. Maki

Approved by:

A. V. Griffith
Chief, Review Section
Division of Photogrammetry

H. C. Edmonston
Chief, Nautical Chart Branch
Division of Charts

O. S. Reading
Chief, Division of Photogrammetry

W. M. Leaile
Chief, Division of Coastal Surveys

History of Hydrographic Information

T-8590, Rat Island West

Hydrography was applied to the map manuscript in accordance with the general specifications of 18 May 1949 and Army Map Service TM 45-14, Chapter 14.

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

USC&GS Hydrographic Surveys
H-7646 (1948-49) 1:20,000
H-7710 (1948) 1:40,000

Depth curves are shown at 3, 5, and 10 fathoms. Hydrography was compiled by C. Theurer and checked by R. K. DeLawder.

C. Theurer
22 May 1951

History of Hydrographic Information

T-8591, Rat Island East

Hydrography was applied to the map manuscript in accordance with the general specifications of 18 May 1949 and Army Map Service TM 45-14, Chapter 14.

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

USC&GS Hydrographic Surveys

| | |
|---|---|
| H 7646 (1948-49) | 1:20,000 |
| H 7733 (1949) | 1:20,000 |
| H 7738 (1949) | 1:40,000 |
| H 7710 (1948) | 1:40,000 |
| H 7649 (1948) | 1:40,000 |

Depth curves are shown at 3, 5, and 10 fathoms. Hydrography was compiled by C. Theurer and checked by R. K. DeLawder.

C. Theurer
C. Theurer
22 May 1951

# NAUTICAL CHARTS BRANCH

SURVEY NO. T.8590 & T.8591

## Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| 1953 | Reconstr 9180 | Geo. Stephanos | ~~Before~~ After Verification and Review |
| 11/61 | 8864 | [illegible] | ~~Before~~ After Verification and Review Extensive partial app'n - to be considered final until record |
| 1993 | 16450 | Don Cordts | ~~Before~~ After Verification and Review Fully appd |
| | | | New metric Chart |
| | | | Before After Verification and Review |
| | | | Before After Verification and Review |
| | | | Before After Verification and Review |
| | | | Before After Verification and Review |
| | | | Before After Verification and Review |
| | | | Before After Verification and Review |
| | | | Before After Verification and Review |

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.