**U. S. COAST AND GEODETIC SURVEY**
**DEPARTMENT OF COMMERCE**

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Topographic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field No.</td>
<td>Ph-34 (48)</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-8099</td>
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</tbody>
</table>

**LOCALITY**

<table>
<thead>
<tr>
<th>State</th>
<th>Aleutian Islands, Alaska</th>
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<tr>
<td>General locality</td>
<td>Rat Island Group</td>
</tr>
<tr>
<td>Locality</td>
<td>DAVIDOF-KVOSTOF-PYRAMID ISLANDS</td>
</tr>
</tbody>
</table>

**CHIEF OF PARTY**

| Henry E. Finnegan, Chief of Field Party |
| Div. of Photogrammetry, Wash., D.C.   |

**LIBRARY & ARCHIVES**

| MAY 4 1956 |
DATA RECORD

T-8099

Project No. (II): Ph-34(48)  Quadrangle Name (IV): Davidof, Krostof, and Pyramid Islands

Field Office (II): Ship Pioneer  Chief of Party: Henry E. Pinnegan

Photogrammetric Office (III): Washington, D. C.  Officer-in-Charge: Louis J. Reed, Chief,

Stereoscopic Mapping Section

Copy filed in Division of

Photogrammetry (IV)

Instructions dated (II) (III):

8 April 1948

Method of Compilation (III): Stereoplanigraph

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

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

Date received in Washington Office (IV): 4-7-50  Date reported to Nautical Chart Branch (IV): 4-19-50

Applied to Chart No.  Date:  Date registered (IV): 2-8-56

Publication Scale (IV):

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 (2) refer to sounding datum

i.e., mean low water or mean lower low water

Reference Station (III):

Lat.:  Long.:  Adjusted

Unadjusted

Plane Coordinates (IV): none  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.

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 Q. Misulia
on the Stereoplanigraph
DATA RECORD

Field Inspection by (II):  Henry E. Finnegan  Date:  Summer 1948

Planetable contouring by (II):  None  Date:  

Completion Surveys by (II):  None  Date:  

Mean High Water Location (III) (State date and method of location):  
MHWL delineated from compilation photography since it was not located by field inspection  
Shoreline as of September 1948.  Date:  

Projection and Grids ruled by (IV):  Ruling Machine  Date:  28 Feb. 1949

Projection and Grids checked by (IV):  W. E. Ward  Date:  28 Feb. 1949

Control plotted by (III):  Orvis N. Dalbey  Date:  2 March 1949

Control checked by (III):  Robert L. Sugden  Date:  2 March 1949

Xtalograph or Stereoscopic  Michael G. Misulia  Date:  10 June 1949

Control extension by (III):  

Stereoplanigraph  Planimetry  Michael G. Misulia  
Stereoscopic Instrument compilation (III):  Contours  

Compiled Manuscript delineated by (III):  John B. McDonald and Robert L Sugden  Date:  5 July 1949

Photogrammetric Office Review by (III):  Louis J. Reed  Date:  5 April 1950

Elevations on Manuscript checked by (II) (III):  Louis J. Reed  Date:  12 April 1950
Camera (kind or source) (III): USC&GS 6" (Metrogon), "O" Camera and USAAF 6" (Metrogon) Camera.

PHOTOGRAPHS (III)

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<th>Scale</th>
<th>Stage of Tide</th>
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<td>1.5' above</td>
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<tr>
<td>0-542</td>
<td>9-19-48</td>
<td>to</td>
<td>1:27,500</td>
<td>MLLW</td>
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<tr>
<td>FV-31</td>
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<td>13:12</td>
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<td></td>
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<tr>
<td>(USAAF) thru</td>
<td>7-24-43</td>
<td>unknown</td>
<td>36,000</td>
<td>unknown</td>
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<tr>
<td>FV-36</td>
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Field Inspection Photography

USAAF - the same numbered photos as listed above
9-lens - #21,226 and #21,227

Tide (III)

Reference Station: Kiska Harbor
Subordinate Station:
Subordinate Station:

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

Final Drafting by (IV): H. Lucas

Drafting verified for reproduction by (IV): C. Kupiec

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): about 2.5 sq. mi.
Shoreline (More than 200 meters to opposite shore) (III): about 17 mi.
Shoreline (Less than 200 meters to opposite shore) (III): none
Control Leveling - Miles (II): none
Number of Triangulation Stations searched for (II) (III): 12
Number of BMs searched for (II): none
Number of Recoverable Photo Stations established (III): none
Number of Temporary Photo Hydro Stations established (III): none

Remarks:

Diurnal

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<tr>
<th>Ratio of Ranges</th>
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<th>Spring Range</th>
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<td>0.9</td>
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Date: 10 Oct 1950

Date: April 21, 1951

Date: April 21, 1951
Topographic map T-8099 is one of a group of similar maps in Project Ph-34(43). This map covers Davidof Island, Khvostof Island and Pyramid 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. Coast and Geodetic Survey 6" Cartographic "C" camera and the USAAF 5" 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.
Field Inspection Report

1. **Description of the Area:**

   This quadrangle includes three principal islands and several offlying rocks and small islands, the named islands being Davidof, Khvostof, and Pyramid. The group lies halfway between Little Sitkin Island and Segula Island in the Rat Island Group of the Aleutian Island Chain, and is nearly two degrees west of the 180th parallel.

   In comparison with their neighbors, these islands are very small. Most of their shoreline is gravel beach backed by cliffs; steep slopes rise from the cliffs to the summits. Offshore waters contain many ledges, pinnacles, and rocks, with the passes between the islands heavy with kelp.

Field inspection was accomplished prior to this compilation by parties from USC&GS Ship PIONEER during the summer of 1948 as part of the hydrographic survey in the area. The report on this inspection is contained in Finnegan's 1948 "Air Photo" report covering North Kiska and Segula to Little Sitkin Islands.
26. Control:

Horizontal control for this quadrangle totaled 12 positions all but one of which (TOF, 1948) were photo identified and used to control the compilation. In general, station identification was weak, three stations requiring reidentification from descriptions in this office. Only unadjusted field positions were available at the time of compilation, except for DAVIDOF ISLAND (USN) 1935. Later after receipt of the adjusted positions, a comparison was made and no appreciable differences were noted. An additional control point was included in the adjusted geographic positions, an unchecked point described as the top islet north of Davidof Island, 1948. This station was not plotted on the manuscript since it is so close to SUM, 1948, that congestion would result.

The water surface was the primary source of vertical control and was available in every model. It was supplemented during compilation by 1948 field-established elevations on five triangulation stations and the highest point on Pyramid Island, as follows:

DAVIDOF ISLAND (USN) 1935 171 ft.
KNIPE, 1948 282 ft.*
DAVE, 1948 919 ft.
MAX, 1948 1074 ft.
VOS, 1948 868 ft.
PYRAMID ISLAND 536 ft.

Except for one, all the above elevations are considered checked since their values agreed with the datum established by the stereoplanigraph model or models in which each was located. The exception was 282 ft. for KNIPE, 1948, for which the instrument read 250 ft. When the adjusted horizontal positions become available it was noted that the 282 ft. elevation was omitted indicating the discovery of an error in the original computations. For this reason the instrument elevation is shown on the manuscript in proper symbol. Also, the final adjusted elevations were altered one to three feet and the revised values are incorporated in the map. In addition, several instrument elevations have been shown on the manuscript in proper symbol for unchecked spot elevations.

28. Detailing:

Delineation and compilation of all topographic and planimetric features were accomplished on the stereoplanigraph for the entire area using a combination of USC&GS 1943 photography and USAAF 1943 photography, neither of which offered complete stereoscopic coverage of the islands in this quadrangle.

The field inspection data as furnished was studied and is incorporated in the manuscript compilation which meets standard
requirements of map accuracy. Field inspection that was made is classified good by this section but for our use should have been implemented. The MHWL line was not identified; short sections would have been useful as a guide for the instrument operator who had to delineate the entire shoreline covered by this report without such a check. It is realized that the tide range in this area is comparatively small, being under 4 ft., and this may be why the MHWL was not identified. The field inspector could have saved some time consumed in labeling features, such as cliffs, that are obvious on the photograph.

29. Supplemental Data:
(a) Field Inspection photographs, #FV-31 thru #FV-36.
(b) Field Inspection photographs, #21226 and #21227.
(c) Air-Photo Reports, 1948, by Henry E. Finnegan:
   1. Vertical Control, two 504 forms.
   2. Field Inspection, one 504 form.
(d) H-7647, 1:20,000, 1948, PIONEER, Finnegan
(e) PI-D(b), 1:20,000, 1948, PIONEER, Finnegan
(f) T-6955, 1:31,000, 1935, U.S.S. OGLALA, Navy
(g) H-6903, 1:60,000, 1935, U.S.S. OGLALA, Navy

30. Mean High Water Line:
The MHWL was delineated on the stereoplanigraph from compilation photography listed in data records, page 4.

32. Offshore Details:
All offshore details visible in the stereoscopic model were delineated using the field inspection as a guide. Later, during final compilation, a check was made to assure that all field inspection data were incorporated in the map, and, at the same time, a comparison was made with the 1948 hydro survey of these coastal waters, and the two were in general agreement. However, local discrepancies in graphic control were noted; certain topo stations and an occasional nearby rock were displaced in their two corresponding positions on the map and on the hydro sheet. Where these discrepancies were discovered the instrument location has been accepted and is that shown on the manuscript since it is more in line with the overall consistency of the placement of map details. A bluff line at the west point of Kivistof Island as shown on Graphic Control survey PI-D(b)-48 is not evident in the compilation photography and is suspected of being in error.

35. Hydrographic Control:
None was established by this compilation inasmuch as contemporary hydro surveys were in existence.
37. **Hydrographic Data:**

Hydrography is to be added to this survey to the limits of the quadrangle by the Nautical Chart Branch.

40. **Quality of Contours:**

All contours on this map sheet conform to the national map standards of accuracy for a contour interval of 50 ft., except for the 25 ft. contour which meets the accuracy standard for a 25 ft. interval.

[Signature]

Louis J. Reed, Chief,
Stereoscopic Lappint Section
PHOTOGRAMMETRIC OFFICE REVIEW

T. 8079


CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ✓ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) none 7. Photo hydro stations none 8. Bench marks none

ALONGSHORE AREAS

(Nautical Chart Data)


PHYSICAL FEATURES


CULTURAL FEATURES


BOUNDARIES

31. Boundary lines none 32. Public land lines none

MISCELLANEOUS


40. Reviewer: Robert L. Nygelon

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:
<table>
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<tr>
<th>Name on Survey</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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Names underlined in red are approved. 10-5-50. L.Huck
62. Comparison with Registered Topographic Surveys

T-6955 1:31,000, 1935 (USN)
P-1D(h) 1:20,000, 1948

These surveys are superseded by T-8099 for nautical charting purposes.

63. Comparison with Maps of other Agencies

None.

64. Comparison with Contemporary Hydrographic Surveys

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

These surveys were compared with T-8099 and no critical differences were evident.

65. Comparison with Nautical Charts

8864 1:300,000, 1948, corr. 3-8-48
9102 1:1,126,000, 1948, corr. 3-8-48
9155 1:50,000, 1944, corr. 5-5-44

There are no significant differences between T-8099 and the nautical charts.

66. Adequacy of Results and Future Surveys.

T-8099 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 guarantees the 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 \( \frac{1}{4} \) 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 unclassified.

Review by:

K. N. Maki

Approved by:

E. L. Lande
Chief, Review Section
Division of Photogrammetry

W. Swanson
Chief, Division of Photogrammetry

McEdmon
Chief, Nautical Chart Branch
Division of Charts

Chief, Division of Coastal Surveys

4 May 1956
HISTORY OF HYDROGRAPHIC INFORMATION
T-8099

Davidof Island and Khvostof 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-7648 (1948-49) 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, 2 February 1951
Nautical Chart Branch
# Nautical Charts Branch

**Survey No.: T.8099**

## Record of Application to Charts

<table>
<thead>
<tr>
<th>Date</th>
<th>Chart</th>
<th>Cartographer</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>1953</td>
<td>9180</td>
<td>G. N. Stephes</td>
<td>Before, After, Verification and Review</td>
</tr>
<tr>
<td>11/61</td>
<td>8864</td>
<td>L/E</td>
<td>Before, After, Verification and Review</td>
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<td>1992</td>
<td>16450</td>
<td>D. Caston</td>
<td>Before, After, Verification and Review</td>
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</tbody>
</table>

- New metric Chart
- Fully applied
- To be considered final until review

---

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.