Form 594
U.S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Topographic</th>
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<tbody>
<tr>
<td>Field No.</td>
<td>Ph-34(h8)</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-9940</td>
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LOCALITY

<table>
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<tr>
<th>State</th>
<th>Alaska</th>
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<tr>
<td>General locality</td>
<td>Aleutian Islands</td>
</tr>
<tr>
<td>Locality</td>
<td>Karrag Island</td>
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</table>

194/52-54

CHIEF OF PARTY
S.B. Grenell, Chief of Field Party
L.W. Swanson, Div. Of Photo. Office

LIBRARY & ARCHIVES

DATE  July 18, 1957
DATA RECORD

T - 9940 and T-9941

Project No. (II): C.S. 218  Quadrangle Name (IV): (T-9940) Kanaga Bay (T-9941) Cape Chlanak
Ph-34(48)

Field Office (II): Ship Explorer  Chief of Party: S. B. Grenell

Instructions dated (II) (III):
Supplemental Instructions - 19 March 1952
n n - 20 Feb. 1953
n n - 23 Dec. 1953
Compilation Instructions - 21 Sept. 1954
Director's Letter No. 22/MEK, S-1-EX. 4 May 1954
Method of Compilation (III): Reading plotter, Model "B"

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

Scale Factor (III): 1.0

Date received in Washington Office (IV): Feb 1955
Date reported to Nautical Chart Branch (IV): 6-27-55

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III):
Mean sea level except as follows:
Elevations shown as (a) refer to mean high water
Elevations shown as (b) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

Lat.: Long.: Adjusted

Plane Coordinates (IV):
State: Zone:

Y=  X=

Universal Transverse Mercator Grid
with 1000 meter interval indicated
with marginal ticks.

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

Field Inspection by (II): Shoreline inspection by C. W. Clark and H. A. Garcia
Date: 1953 1954

Planetary 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): Austin Riley (T-9940)
Date: 18 Oct. 1954
# " " (T-9941)
15 April 1954

Projection and Grids checked by (IV): H. D. Wolfe (T-9940)
Date: 18 Dec. 1954
Austin Riley (T-9941)
18 Dec. 1954

Control plotted by (III): C. O. DeMarr and G. Amburn
Date: October 1954

Control checked by (III): C. O. DeMarr and R. J. French
Date: October 1954

Radial Plot or Stereoscopic S. Blankenbaker
Date: November 1954
Control-extension by (III): R. J. French

Stereoscopic Instrument compilation (III): Planimetry L. Levin
W. Heinbaugh

Contours L. Levin
W. Heinbaugh

Date: January 1955

Manuscript delineated by (III): Shoreline - R. Sugden
Date: November 1954
Topography - R. Sugden
March 1955

Photogrammetric Office Review by (III): Orvis N. Dalbey
Date: 24 May 1955

Elevations on Manuscript checked by (II) (III): Orvis N. Dalbey
Date: 24 May 1955
**U.S.C.&G.S. Nine-lens camera, Model "B"**

\[ f = 3.25 \text{ inches} \]

**PHOTOGRAPHS (III)**

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
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<tr>
<td>37693 thru 37694</td>
<td>1 July 1952</td>
<td>17:31</td>
<td>1:20,000</td>
<td>-1.1 MHW</td>
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<tr>
<td>37697 thru 37699</td>
<td>1 July 1952</td>
<td>17:38</td>
<td>1:20,000</td>
<td>-1.1 MHW</td>
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<tr>
<td>38997 thru 38998</td>
<td>9 Sept. 1952</td>
<td>9:16</td>
<td>1:20,000</td>
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<td>39000 thru 39001</td>
<td>9 Sept. 1952</td>
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**Tide (III)**

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<tr>
<th>Reference Station:</th>
<th>Sweeper Cove, Adak</th>
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<tbody>
<tr>
<td>Subordinate Station:</td>
<td>Hot Springs, Tanaga (West Coast)</td>
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<tr>
<td>Subordinate Station:</td>
<td>Kanaga Bay, Kanaga (East Coast)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Diurnal Range</th>
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<tr>
<td></td>
<td>3.9</td>
<td>3.1</td>
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</tbody>
</table>

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

- **T-9940** 25 sq. mi.
- **T-9941** 4

Land Area (Sq. Statute Miles) (III):

- **(22 miles (T-9940)**
- **(9 miles (T-9941)**

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

<table>
<thead>
<tr>
<th>Control Leveling - Miles (II):</th>
<th>None</th>
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<tr>
<td>Number of Triangulation Stations searched for (II):</td>
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<tr>
<td>Number of BMs searched for (II):</td>
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<tr>
<td>Number of Recoverable Photo Stations established (III):</td>
<td></td>
</tr>
<tr>
<td>Number of Temporary Photo Hydro Stations established (II):</td>
<td></td>
</tr>
</tbody>
</table>

Remarks:

\*None
Summary to Accompany T-9940 and T-9941

T-9940 and T-9941 are two topographic surveys which cover the southeastern end of Kanaga Island. These maps were compiled on the 9-Lens Reading Plotter. Field operations preceding compilation included field inspection of shoreline and offshore rocks, recovery and establishment of horizontal control, and the determination of elevations required to control a stereo-instrument project vertically. Compilation was at the scale 1:20,000. Contours were drawn at a 50-foot interval, with a 25-foot interval supplementary contours. The maps received no field edit.

A cloth-backed lithographic print of each map at manuscript scale and the combined descriptive report will be registered and permanently filed in the Bureau Archives.
FIELD INSPECTION REPORT included in
Descriptive Report for T-9925 and T-9926.
PHOTOGRAMMETRIC PLOT REPORT included in
Descriptive Report for T-9925 and T-9926.
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>LATITUDE OR ( y )-COORDINATE</th>
<th>LONGITUDE OR ( x )-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mast 1943</td>
<td>Vol.V p.183</td>
<td>51.4306.757</td>
<td>177.1143.119</td>
<td>208.8 (164.6)</td>
<td>827.8 (324.1)</td>
</tr>
<tr>
<td>Front, 1943</td>
<td>&quot;p.183&quot;</td>
<td>51.4221.144</td>
<td>177.1153.890</td>
<td>653.5 (1200.9)</td>
<td>1034.8 (117.3)</td>
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<tr>
<td>Rear, 1943</td>
<td>&quot;p.179&quot;</td>
<td>51.4228.870</td>
<td>177.1203.690</td>
<td>892.3 (962.1)</td>
<td>70.9 (1081.2)</td>
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<tr>
<td>Knob, 1943 (P-020)</td>
<td>&quot;p.183&quot;</td>
<td>51.4445.971</td>
<td>177.1558.346</td>
<td>1420.8 (433.6)</td>
<td>1119.4 (31.7)</td>
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<tr>
<td>Cliff, 1943 (P-021)</td>
<td>&quot;&quot;</td>
<td>51.4229.164</td>
<td>177.1420.880</td>
<td>910.6 (943.8)</td>
<td>400.9 (751.2)</td>
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<td>Perch 1954</td>
<td>&quot;</td>
<td>51.4347.787</td>
<td>177.1220.275</td>
<td>1476.9 (377.5)</td>
<td>389.2 (762.4)</td>
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<tr>
<td>Cog. (SW Cor. pier) 1954</td>
<td>Topo</td>
<td>51.4305.505</td>
<td>177.1153.447</td>
<td>170.1 (1684.2)</td>
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<tr>
<td>STATION</td>
<td>SOURCE OF INFORMATION</td>
<td>DATUM</td>
<td>LATITUDE OR y-COORDINATE</td>
<td>LONGITUDE OR x-COORDINATE</td>
<td>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)</td>
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<tr>
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<td>---------------------------------------------------------------------</td>
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<tr>
<td>Ran 1943</td>
<td>Vol.V</td>
<td>1927</td>
<td>51-44-11.076</td>
<td>177-08-24.384</td>
<td>342.3 (1512.1)</td>
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<tr>
<td>Ran sub.sta.</td>
<td></td>
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<td>Dam 2, 1943</td>
<td>&quot; 178</td>
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<td>51-44-25.053</td>
<td>177-08</td>
<td>774.3 (1080.1)</td>
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</table>

1 FT. = .3048008 METER

COMPILATION REPORT
T-9940 and T-9941

31. DELINEATION:

See Compilation Report T-9925 and T-9926 for special methods used in the preparation of the compilation manuscript (re: grids and controls).

Shoreline, contours and interior planimetry were delineated using Reading Plotter (Model B) and rectified, metal-mounted nine-lens photographs with the exception of the shoreline of Kanaga Bay (appearing on T-9940). This shoreline was plotted by J. D. Perrow, Jr., using Kelah Plotter (Model A) and single-lens photography. The resultant manuscript of the shoreline had a scale of 1:5000 from which a reduction print (1:20,000) was made to be used as the final shoreline delineation. See separate Compilation Report T-11555 for detailed report on this inset.

32. CONTROL:

Horizontal control and vertical control were adequate. Refer to Paragraph 23, "Radial Plot Report."

33. SUPPLEMENTAL DATA:

See 31 for details of inset T-11555.

34. CONTOURS AND DRAINAGE:

The quality of the photographs was fair and consequently no unusual difficulty was encountered in delineating the contours and drainage.

35. SHORELINE AND ALONGSHORE DETAILS:

Shoreline inspection was adequate. Some loss of detail along the shoreline was encountered as a result of surf, bluff overhang and shadows but, by constant reference to field inspection photographs during delineation, it is believed that accuracy is adequate.

36. OFFSHORE DETAILS:

Some loss of detail in the many offshore features was encountered as a result of surf, bluff overhang and shadows but, by constant reference to field inspection photographs during delineation, it is believed that accuracy is adequate.

37. LANDMARKS AND AIDS:

Not applicable.
38. Control for Future Surveys:

One Form 524 card is being submitted with this report.

Topographic station, STAG, 1954, identified on photograph 37697, was established in Survey T-9941.

List of recoverable topographic stations and photo-hydro stations, with descriptions of the latter, has been prepared and included in Paragraph 49.

39. JUNCTIONS:

Junction with T-9940 was made on the west by T-9939, on the north by T-9933 and on the east by T-9941.

Junction with T-9941 was made on the west by T-9940 and on the north by T-9934. No contemporary surveys exist on the east as of this date. (T-11329 is proposed.)

40. HORIZONTAL AND VERTICAL ACCURACY:

Not applicable.

46. COMPARISON WITH EXISTING MAPS:

These manuscripts were compared with the following existing maps:

ADAk (U.S.G.S.) N5115-W17 600/60X120 1:250,000 (1951)
KANAGA ISLAND (War Dept., Corps of Engineers) N51405-W17714/7.5X10 1:25,000 (1943)
KANAGA ISLAND (War Dept., Corps of Engineers) N5141.5-W17704/7.5X10 1:25,000 (1943)
PRELIMINARY SHORELINE MANUSCRIPT (U.S.C.&G.S.) RS-489 1:20,000 (1953)

47. COMPARISON WITH NAUTICAL CHARTS:

The manuscripts were compared with the following charts:

U.S.C.&G.S. No. 9193 1:120,000 (1953) Revised 5 July 1954

No appreciable divergences were noted.

Items to be applied to nautical charts immediately—none.
48. GEOGRAPHIC NAME LIST:
   Appended.

49. NOTES FOR THE HYDROGRAPHER:
   Appended.

Respectfully submitted:

[Signature]
Wallace Heinbaugh
Cartographer

Approved:

[Signature]
Orvis N. Dalbey
Supervisory Cartographer
<table>
<thead>
<tr>
<th>Name on Survey</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<td>Pacific Ocean</td>
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<td>Wreck Reef</td>
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<td>22</td>
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</tbody>
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Names approved
8-22-55
O.J.W.
NOTES TO THE HYDROGRAPHER

One topographic station, STAG 1954 identified on photograph 37697, was established in Survey T-9941.

The following photo-hydro stations were located:

<table>
<thead>
<tr>
<th>Station</th>
<th>Description</th>
<th>Identified on Photo No.</th>
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<tbody>
<tr>
<td>HOE</td>
<td>WW</td>
<td>2861</td>
</tr>
<tr>
<td>CUS</td>
<td>WW</td>
<td>37698</td>
</tr>
<tr>
<td>FEZ</td>
<td>WW on SW face of higher part of rock</td>
<td>2861</td>
</tr>
<tr>
<td>EAR</td>
<td>Sign board on top of island</td>
<td>2862</td>
</tr>
<tr>
<td>DUB</td>
<td>WW on outer face of 15-ft. pinnacle</td>
<td>2860</td>
</tr>
<tr>
<td>TANK</td>
<td>Water tank</td>
<td>37694</td>
</tr>
<tr>
<td>BON</td>
<td>White tripod</td>
<td>28699</td>
</tr>
<tr>
<td>AGE</td>
<td>White tripod</td>
<td>2860</td>
</tr>
<tr>
<td>TAP</td>
<td>White tripod</td>
<td>2860</td>
</tr>
<tr>
<td>SAY</td>
<td>West gable cabin</td>
<td>37693</td>
</tr>
<tr>
<td>RAM</td>
<td>WW on point of cliff</td>
<td>2860</td>
</tr>
<tr>
<td>PIX</td>
<td>WW on low rock at point of grass</td>
<td>2861</td>
</tr>
<tr>
<td>NIL</td>
<td>WW on large and northerly of several boulders</td>
<td>2861</td>
</tr>
<tr>
<td>MOB</td>
<td>WW on SE point of bluff</td>
<td>2862</td>
</tr>
<tr>
<td>LUG</td>
<td>WW on SE corner of pilot house of wreck, WW not visible on photo</td>
<td>2861</td>
</tr>
<tr>
<td>KIP</td>
<td>WW</td>
<td>2862</td>
</tr>
<tr>
<td>JIM</td>
<td>WW</td>
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<tr>
<td>CAT</td>
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<td>38997</td>
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</tbody>
</table>

Photo-hydro stations NOB, OLE, PUN, RIB, SOY, TAT, URN, VIC, WAY, and YAW on T-9940 are 1953 signals and not used in 1954.
PHOTOGRAMMETRIC OFFICE REVIEW

T. 9940

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. [Signature]
Reviewer

Supervisor, Review Section or Unit

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:
Review Report - T-9940 and T-9941
Topographic Maps
19 August 1955

62. **Comparison with Registered Surveys:**

There are no prior surveys in the area of T-9940 and T-9941.

63. **Comparison with Maps of Other Agencies:**

USE, Kanaga Island (Sheets 4 and 5) 1:25,000, 1943 (Local Datum)

Because this area is not subject to rapid change, the maps are in good general agreement. The greater detail of foreshore and shoreline on T-9940 and T-9941 fits them to supersede the quadrangles for charting purposes.

64. **Comparison with Contemporary Hydrographic Surveys:**

H-8144 (EX 2454) 1:20,000 1954

Blueprints 51868 and 51870 of boat sheets EX 2454a and c were available during review of T-9940 and T-9941. The shoreline for the boat sheets is from RS 490, a preliminary compilation. The final photogrammetric compilations give a greater refinement in shoreline and delineates more rocks and islets, but this causes no conflict with the boat sheet soundings.

65. **Comparison with Nautical Charts:**

9193 1:120,000 July 1953 Alaska Pass to Adak Strait

The small scale of the chart affords only evidence that there is general agreement.

66. **Accuracy:**

The maps comply with project instructions, are complete and adequate for charting, and meet the National Standards of Accuracy.

Reviewed by:

[Signature]
Lena T. Stevens
APPROVED:

Lester E. Randy
Chief, Review Section
Photogrammetry Division

Chief, Photogrammetry Division
18 July '57

Chief, Nautical Chart Branch
Charts Division

Chief, Coastal Surveys Division