U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: PLANIMETRIC AIR PHOTOGRAPHIC

Field No.: PH-8(46) Office No.: T-9043

LOCALITY

State: TERRITORY OF ALASKA
General locality: BRISTOL BAY
Locality: KUCHAK RIVER FROM ALAGANAK RIVER TO LEVELOCK

1946-47

CHIEF OF PARTY

LIBRARY & ARCHIVES

DATE: Aug 17, 1953
DATA RECORD

T - 9043

Project No. (II): Ph-3(46) Quadrangle Name (IV):


Photogrammetric Office (III): Portland, Oregon Officer-in-Charge: W.H. Bainbridge

Instructions dated (II) (III): 19 March 1948 Copy filed in Division of

Method of Compilation (III): Graphic Photogrammetry (IV)

Manuscript Scale (III): 1:20,000 Office Files

Scale Factor (III): None

Date received in Washington Office (IV): 5-13-49 Date reported to Nautical Chart Branch (IV): 5-21-49

Applied to Chart No. 9051 Date: 10-14-49 Date registered (IV): 3-11-53

Publication Scale (IV): 1 : 20,000 Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): Mean Sea Level

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): LEVELOCK, 1946
Lat.: 59° 06' 49.985" Long.: 156° 52' 04.696"
500 (15.2 m) 71.6 (47.6 m) 883.3
(620.8)

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.

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)
DATA RECORD

- Field Inspection by (II): Ship "PATHFINDER"  Date: Season 1946  Season 1947

- Planetable contouring by (II): None  Date: 

- Completion Surveys by (II): None  Date: 

- Mean High Water Location (III) (State date and method of location): High-water line was located on field photographs No's, 17988 & 17989 taken in 1946 by the field party. This data was transferred to the office photographs, with the aid of the stereoscope and then compiled.

- Projection and Grids ruled by (IV):  Date: 

- Projection and Grids checked by (IV):  Date: 

- Control plotted by (III): John H. Winniford  Date: 12/9/48

- Control checked by (III): Ree H. Barron  Date: 12/13/48

- Radial Plot or Stereoscopic Control extension by (III):  Date: 2/1/49

- Planimetry  Date: 

- Stereoscopic Instrument compilation (III): Contours  Date: 

- Manuscript delineated by (III): Marie B. Elrod  Date: 2/21/49

- Photogrammetric Office Review by (III): Ree H. Barron  Date: 3/2/49

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

Form T-Page 3
PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>14394 &amp; 14395</td>
<td>6-10-43</td>
<td>11:29</td>
<td>1:20,000</td>
<td>14.5 ft. above M.L.L.W.</td>
</tr>
<tr>
<td>14397 to 14399</td>
<td>6-10-43</td>
<td>11:38</td>
<td>1:20,000</td>
<td>13.0 ft. above M.L.L.W.</td>
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<tr>
<td>17920 &amp; 17921</td>
<td>9-22-46</td>
<td>13:37</td>
<td>1:20,000</td>
<td>10.0 ft. above M.L.L.W.</td>
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<tr>
<td>17988 &amp; 17989</td>
<td>9-25-46</td>
<td>09:54</td>
<td>1:20,000</td>
<td>3.5 ft. above M.L.L.W.</td>
</tr>
</tbody>
</table>

Tide (III)

Reference Station: Nushagak Bay Alaska (Clark Point)
Subordinate Station: Approximation at the mouth of Kvichak River to be plus 1 hour.

Washington Office Review by (IV): K.N. Maki
Final Drafting by (IV): A.P. Berry
Drafting verified for reproduction by (IV): W. H. Belden
Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 96.6
Shoreline (More than 200 meters to opposite shore) (III): 30.3 Statute Miles
Shoreline (Less than 200 meters to opposite shore) (III): 15.8 Statute Miles
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): Recovered:
Number of BMs searched for (II): Recovered:
Number of Recoverable Photo Stations established (III): 6 (By Ship "PATHFINDERS")
Number of Temporary Photo Hydro Stations established (III): None

Remarks:
Summary to Accompany T-9043

Project Ph-8(46) consists of a series of 45 topographic maps, sub project Ph-8(46)A consists of a series of 23 planimetric maps and sub project Ph-8(46)B consists of two shoreline maps. T-9043 is one of the planimetric maps.

T-9043, the most northeasterly map in the project is centrally divided by the Kvichak River which runs north and south across the map area. The Alagnak River joins the Kvichak River at the south central limits of the map. Field operations included the establishment of horizontal control and the partial identification of shoreline and interior features. The map is a graphic compilation at a scale of 1:20,000.

A cloth-backed lithographic print of the map, at compilation scale, and descriptive report will be registered in the Bureau Archives.
FIELD INSPECTION REPORT
Map Manuscript T-9043
Project Ph-8(46)

Field inspection work in this area was done by the Ship "PATHFINDER" but a report has not been submitted to this office.
Report filed in Div. Photogrammetry General Files.

W.H. Bainbridge
Comdr. - USCG Survey
Chief of Party

A. F. A. Studds, PATHFINDER Library No. 154
Item 26 and 27:

Refer to compilation report for T-9068 and T-9069.

Item 28:

Refer to compilation report for T-9053 eliminating paragraph 5 of Item 28.

Items 29 to 37 inclusive:

Refer to compilation report for T-9053.

38: RECOVERABLE TOPOGRAPHIC STATIONS:

There are six recoverable topographic stations shown on this map manuscript which were located with planetable methods by the Ship "PATHFINDER". Since these stations are all natural objects they were identified on the photographs and radially plotted. The positions scaled from the radial plot did not differ from the scaled planetable positions by more than 3.0 meters in any instance.

Items 39, 44, and 45:

Refer to compilation report for T-9053.

Approved:

W.H. Bainbridge
Comdr.-USCG Survey
Chief of Party

Respectfully submitted:

J. Edward Deal, Jr.
Photogrammetric Engineer
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</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>DATUM CORRECTION</th>
<th>N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1240.4 (616.2)</td>
<td></td>
<td>Established in 1946</td>
<td></td>
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<tr>
<td>LEVELOCK, 1946</td>
<td>59° 06' 40.085&quot; N</td>
<td>156° 52' 04.978&quot; W</td>
<td>29.95</td>
<td></td>
<td>72.3 (58.9)</td>
<td></td>
<td>1946</td>
<td></td>
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<tr>
<td>LEVELOCK AZI-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1487.1 (369.2)</td>
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<td>Identified, used</td>
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<tr>
<td>MUTH MARK,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>radial plot</td>
<td></td>
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<tr>
<td>S 1536 CN 1</td>
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<td></td>
<td></td>
<td></td>
<td>1559.7 (296.9)</td>
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<td>Not identified</td>
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<tr>
<td>(GLO) 1946</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Established in 1946</td>
<td></td>
</tr>
<tr>
<td>TAK 1947</td>
<td></td>
<td></td>
<td>Field Comp.</td>
<td>156° 51' 12.025&quot; W</td>
<td>191.7 (763.4)</td>
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<tr>
<td>WOG, 1947</td>
<td></td>
<td></td>
<td>Field Comp.</td>
<td>156° 51' 12.025&quot; W</td>
<td>191.7 (763.4)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>HOFF, 1947</td>
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<td></td>
<td>Field Comp.</td>
<td>156° 51' 14.872&quot; W</td>
<td>237.1 (719.3)</td>
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<td></td>
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<tr>
<td>SCUD, 1947</td>
<td></td>
<td></td>
<td>Field Comp.</td>
<td>156° 51' 14.310&quot; W</td>
<td>228.0 (727.9)</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

1 FT. = 304800.6 METER

COMPUTED BY: Frank H. Elrod DATE: October 5, 1948
CHECKED BY: G. Richter DATE: October 27, 1948

* Adjusted position
T-9043. Geographic Names.

Alaska (for title)
Bristol Bay " "
Kyichak River
Alaganik River
Bear Creek
Leachs Point (to be shifted to opposite mouth Alaganik
Hallerville River, as on nautical chart 9051)
Hallerville Creek
Levelock
Levelock Creek
Union Creek

Names underlined in red are approved. 6-26-52.

L. Heck
62. **Comparison with Registered Topographic Surveys:**

- T-9097 1:20,000 1947 (graphic control)
- T-9098 1:20,000 1947 (graphic control)

Sections of rodded in shoreline on the graphic control surveys are in relatively close agreement with the shoreline as compiled from photographs on T-9043. The graphic control surveys make no distinction between shoreline with reference to its character, that is, whether it is marsh line or fast land. Field inspection has provided this information for the photogrammetric survey.

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

U.S.G.S., Kamishak Bay - Katmai Region, Alaska, 1923

Detail on the U.S.G.S., map has been generalized and is shown by a dashed line to indicate that it has not been surveyed in detail.

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

H-7615 1:20,000 1947

The shoreline along the west bank of Kvichak River in the vicinity of Bear Creek between latitude 59° 00' and 59° 01' is not in agreement with the hydrographic survey. In this area the soundings run in the marsh about 40 meters in from the shoreline. The photogrammetric shoreline is well controlled by triangulation in this area and as noted in item 62 does not disagree to any appreciable extent with the rodded in shoreline of the graphic control survey T-9097. This discrepancy will be disposed of when the hydrographic chart is reviewed.

The dash line represents a generalized shallow or mud bank limit line as determined from photo interpretation. The low water line has been developed on the hydrographic survey.

65. **Comparison with Nautical Charts:**

9051, 1:100,000, latest print date 8/20/51

There are no significant differences between T-9043 and the chart.

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

T-9043 complies with project instructions. It is adequate as a base for hydrographic surveys and the construction of nautical charts.

Reviewed by:

K. N. Maki

K. N. Maki
# Nautical Charts Branch

**Survey No. 79043**

Record of Application to Charts

<table>
<thead>
<tr>
<th>Date</th>
<th>Chart</th>
<th>Cartographer</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/14/49</td>
<td>9051</td>
<td>J. A. McGann</td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td>1-49-55</td>
<td>9051</td>
<td>J. H. Eroin</td>
<td>Before After Verification and Review</td>
</tr>
</tbody>
</table>

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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.
62. **Comparison with Registered Topographic Surveys:**

<table>
<thead>
<tr>
<th>Survey</th>
<th>Scale</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-7097</td>
<td>1:20,000</td>
<td>1947</td>
</tr>
<tr>
<td>T-7098</td>
<td>1:20,000</td>
<td>1947</td>
</tr>
</tbody>
</table>

Sections of rooded in shoreline on the graphic control surveys are in relatively close agreement with the shoreline as compiled from photographs on T-9043. The graphic control surveys make no distinction between shoreline with reference to its character, that is, whether it is marsh line or fast land. Field inspection has provided this information for the photogrammetric survey.

63. **Comparison with maps of other agencies.**

U.S.G.S., Kamishak Bay - Katmai Region, Alaska, 1923
Detail on the U.S.G.S., map has been generalized and is shown by a dashed line to indicate that it has not been surveyed in detail.

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

H-7615 1:20,000 1947
The shoreline of T-9043 along the west bank of Kvichak River in the vicinity of Bear Creek between latitude 59°00' and 59°01' is not in agreement with the hydrographic survey. The 1946 photograph from which this shoreline was compiled shows that considerable erosion has occurred in comparison with the shoreline as it appears on the 1943 photography. Continuing erosion is indicated by the latter 1947 graphic control survey (T-7097) which shows a further westward movement of the shoreline.

The dash line represents a generalized shallow or mud bank limit line as determined from photo interpretation. The low water line has been developed on the hydrographic survey.

65. **Comparison with Nautical Charts.**

9051, 1:100,000, latest print date 8/20/51
There are no significant differences between T-9043 and the chart.

66. **Adequacy of Results and Future Surveys.** T-9043 complies with project instructions. It is adequate as a base for hydrographic surveys and the construction of nautical charts.

Reviewed by:

[Signature]

K. M. Maki
K. M. Maki
HORIZONTAL DATUM ADJUSTMENT

Bristol Bay, Alaska

The subject maps were radial plotted on unadjusted (Field) datum which was subsequently adjusted to the North American 1927 datum by the Division of Geodesy. The datum correction has been computed for each sheet, and stamped into the Descriptive Report on page 1, and on the manuscripts and registered cloth-backed copies near the title block. However, as the title block of each clothback sheet contains the note, "1927 North American Datum", it was necessary to stamp the word, "(Unadjusted)" beside this datum note in the title block of each sheet.

See the special report, Horizontal Control Datum, Ph-8(46), Ph-8A(46), and Ph-8B(46), filed with the Completion Report for the project for details and lists of the maps, reports, and registration copies marked with this adjustment. The following is a list of the maps in the projects:

**Ph-8(46), TOPOGRAPHIC**

<table>
<thead>
<tr>
<th>T-9038 thru T-9040</th>
<th>T-9041 thru T-9043</th>
</tr>
</thead>
<tbody>
<tr>
<td>9048</td>
<td>9058</td>
</tr>
<tr>
<td>9057</td>
<td>9053</td>
</tr>
<tr>
<td>9061, 9065, 9070</td>
<td>9066, 9069</td>
</tr>
<tr>
<td>9071, 9074, 9075</td>
<td></td>
</tr>
<tr>
<td>9227 thru 9253</td>
<td></td>
</tr>
</tbody>
</table>

**Ph-8A(46), PLANIMETRIC**

<table>
<thead>
<tr>
<th>T-9041 thru T-9043</th>
</tr>
</thead>
<tbody>
<tr>
<td>9058</td>
</tr>
<tr>
<td>9053</td>
</tr>
<tr>
<td>9066, 9069</td>
</tr>
<tr>
<td>9072, 9073</td>
</tr>
<tr>
<td>9076, 9078</td>
</tr>
</tbody>
</table>

**Ph-8B(46), SHORELINE**

T-8873 (E&W) and T-8874