Form 504
U. S. COAST AND GEODEITIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Planometric. Air Photographic.

Field No.: T-9063. Office No.: 

LOCALITY

 Territory of Alaska

General locality: Kvichak Bay

Locality: East Shore of Kvichak Bay, Haknek River. Northerly

Project: Ph-8(46)A

194

CHIEF OF PARTY
R. F. A. Studds, Ship "PATHFINDER" (Field)
W. H. Bainbridge, (Office)

LIBRARY & ARCHIVES

DATE: May 21, 1953
DATA RECORD

Project No. (II): Ph-8(46) Quadrangle Name (IV):

Photogrammetric Office (III): Portland, Oregon Officer-in-Charge: W.H. Bainbridge
Instructions dated (II) (III): 19 March 1948

Method of Compilation (III): Graphic

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

Scale Factor (III): None

Date received in Washington Office (IV): 5-5-49 Date reported to Nautical Chart Branch (IV): 6-10-49
Applied to Chart No. 9051 Date: 11/4/49 Date registered (IV): 3/23/53

Publication Scale (IV): not published Publication date (IV):

Geographic Datum (III): N.A. 1927 Vertical Datum (III): Mean Sea Level

Mean sea level except as follows:
Elevations shown as (H) refer to mean high water
Elevations shown as (L) refer to sounding datum
I.e., mean low water or mean lower low water

Reference Station (III): NTG, 1946
Lat.: 58° 48' 13.07" N Long.: 156° 56' 22.38" W

Plane Coordinates (IV):
X = Military Grid: W. H. Lambert projection
Y = Zone:

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.

Form T- Page 1
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 1943 photographs by field party. This data was transferred to 1946 photographs with the use of the stereoscope and then compiled.

Projection and Grids ruled by (IV): Washington Office  Date: 12/8
Projection and Grids checked by (IV): Washington Office  Date: 2/1/49
Control plotted by (III): John H. Winniford  Date: 12/9/48

Control checked by (III): James L. Harris  Date: 12/28/48

Radial Plot or Stereoscopic Control extension by (III): James L. Harris & J.E. Deal  Date: 2/1/49

Stereoscopic Instrument compilation (III): Planimetry  Date: 2/14/49
   Contours

Manuscript delineated by (III): John Winniford  Date: 2/28/49

Photogrammetric Office Review by (III): Ree H. Barron  Date: 2/28/49

Elevations on Manuscript checked by (II) (III):  Inapplicable  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>14403 to 14405</td>
<td>6/10/43</td>
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<td>1:20,000</td>
<td>13.0 ft. above M.L.L.W.</td>
</tr>
<tr>
<td>14390</td>
<td>6/10/43</td>
<td>11:23</td>
<td>1:20,000</td>
<td>14.5 ft. above M.L.L.W.</td>
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<tr>
<td>17985</td>
<td>9/26/46</td>
<td>9:48</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): C. Homovich
Final Drafting by (IV): E. R. Vantine
Drafting verified for reproduction by (IV): W.O. Heilman
Proof Edit by (IV): W.O. Heilman

Land Area (Sq. Statute Miles) (III): 72.0
Shoreline (More than 200 meters to opposite shore) (III): 1.0 Statute Miles
Shoreline (Less than 200 meters to opposite shore) (III): 4.0 Statute Miles
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II):
Recovered: Identified:
Number of BMs searched for (II):
Recovered: Identified:
Number of Recoverable Photo Stations established (III): None
Number of Temporary Photo Hydro Stations established (III): None

Remarks:
Project Ph-8(46), vicinity of Bristol Bay, Alaska; consists of 44 topographic, 27 planimetric, and 2 shoreline surveys.

The topographic surveys extend from 158° 40' (east shore of Nushagak Peninsula) to 162° 20' (Cape Newenham).

The eastern portion of the project is divided into Part A, 156° 38' (Kvishak River) to 158° 40' (Nushagak Bay) where the topographic surveys begin, and Part B, the most southerly part of the project, consisting of 2 shoreline maps of the Aggeik River from Bristol Bay to Becharof Bay.

Field work in the area of the planimetric maps from about 157° 30' westward to and including Nushagak Peninsula was carried forward cooperatively by the photogrammetric party under A. Newton Stewart, the reconnaissance party under W.H. Husemeyer and the triangulation party under C. LaFever. Four 1909-10 stations were recovered on the eastern side of Nushagak Peninsula, and the 1947 control was thus tied into the 1909-10 work. No additional search was made for 1909-10 stations, the 1947 control being sufficient for the new project.

East of 157° 30' the field work was accomplished by the hydrographic party on the Ship PATHFINDER under Comdr. R.P.A. Studds.

A cloth-backed lithographic print of this map at compilation scale and the descriptive report will be registered in the Bureau Archives.
FIELD INSPECTION REPORT
Map Manuscript T-9063
Area of the 5th Radial Flot
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.

W.H. Bainbridge
Comdr., USC&G Survey

For information on field inspection in the area of this project refer to the following filed in the Beaufort Library:

1) Season Reports No. 156 (1947), and No. 170 (1948) submitted by Comdr. R.F.R. Studds.

COORDINATION REPORT
Map Manuscript No. T-9063
Project Ph-8(46)

26: CONTROL:

A complete discussion of the horizontal control stations falling in the area of this map manuscript will be found in Item 26, "Control", of the descriptive report for Map Manuscripts No's. T-9066 and T-9069.

27: RADIAL PLOT:

This map manuscript is part of a combined radial plot, comprising Map Manuscripts No's. T-9036, T-9043, T-9053, T-9063, T-9068 and T-9069, which has been fully described in Item 27, "Radial Plot" of the descriptive report for Sheets No's. T-9068 and T-9069.

28: DETAILING:

This map was compiled in accordance with instructions for Project Ph-8(46). Features and symbols were shown as indicated in Photogrammetry Instructions No's. 10, 12, and 17 and in a special symbol of hachures, furnished by the Washington Office.

The transforming printer at the Washington Office was not in proper adjustment at the time the photographs were printed and they could not be oriented in their entirety at the compilation table when radially plotting various types of pass points. Each chamber of each photograph could be oriented separately, since a sufficient number of pass points were established during the radial plot. For at least two of the chambers on each photograph, it was found necessary to de-center the photograph radially, to or from the chamber being oriented, so that the radials to the pass points and horizontal control stations in the chamber would pass through their positions on the map manuscript.

The field inspection consisted generally of a partial identification of the mean high-water line and adjacent foreshore and backsore areas. Also, since Lt. Comdr. Stewart was stationed at the Portland Office while this sheet was being compiled, he was consulted frequently on interpretation of photographic details, and from his knowledge of the area, and by stereoscopic study of the photographs with him, much valuable information was obtained.
It could not be determined whether or not there is drainage connecting many of the ponds. It may be that at some period during the year there is a definite drainage pattern connecting all ponds. In any case, the minor drainage in this area is very complicated and can only be accurately determined by a detailed field inspection of the area.

Because of insufficient photographic coverage, the detailing could not be completed to the eastern limits of the map manuscript.

No attempt has been made to detail and symbolize the many changes in ground elevations. The most prominent of the knolls, which are abundant in the area, have been shown with an appropriate symbol.

Ozalid prints of the completed map manuscript have been forwarded to the Ship "PATHFINDER" and to the Seattle Processing Office.

It is believed that all provisions of paragraph 5 of the instructions, relative to drafting, have been applied to the map manuscript.

29: SUPPLEMENTAL DATA:

No supplemental data was furnished for the area of this map manuscript. See Review Report

30: MEAN HIGH-WATER LINE:

A very small part of the mean high-water line of Kvichak Bay falls within the limits of this map manuscript. It has been shown by a continuous black acid ink line .012" in thickness.

31: LOW-WATER AND SHOAL LINES:

There are none within the limits of this map manuscript, except for a mud bank adjoining the MHW line.

32: DETAILS OFFSHORE FROM THE MEAN HIGH-WATER LINE:

There are no details offshore from the mean high-water line.

33: WHARVES AND SHORELINE STRUCTURES:

There are none within the limits of this map manuscript.
34: LANDMARKS AND AIDS TO NAVIGATION:

A report on these features has been submitted by the Ship "PATHFINDER". See Review Report

35: HYDROGRAPHIC CONTROL:

Temporary hydrographic control stations have been located by the Ship "PATHFINDER."

36: LANDING FIELDS AND AERONAUTICAL AIDS:

There are none within the limits of this map manuscript.

37: GEOGRAPHIC NAMES:

Geographic Names have been shown on the map manuscript as furnished by the Ship "PATHFINDER" in a temporary report on Geographic Names and as shown on a copy of an advance chart of Kvichak Bay, Egegik Bay to Libbyville, dated September 1947, Scale 1:100,000. Refer to Form 426A attached to this report for approved list of geographic names.

38: RECOVERABLE TOPOGRAPHIC STATIONS:

There are none within the limits of this map manuscript. See side heading S.T. of the Review Report

39: JUNCTIONS:

Complete and satisfactory junctions have been made between this map manuscript and adjacent map manuscripts.

44: COMPARISONS WITH EXISTING TOPOGRAPHIC SURVEYS:

There were no previous topographic surveys available to this office. See Review Report

45: COMPARISON WITH NAUTICAL CHARTS:

A comparison was made by use of the vertical projector with the advance chart of Kvichak Bay, Egegik Bay to Libbyville, dated Sept. 1947, Scale 1:100,000. In general the planimetric features of the chart and map manuscript are in agreement. The compilation office has not
been furnished any data on the landmark "KNOLL" shown on the chart.

Refer to note leading to 3rd of the revised report.

Approved:

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

Respectfully submitted:

J. Edward Deal Jr.
J. Edward Deal, Jr.
Photogrammetric Engineer
<table>
<thead>
<tr>
<th>DATUM</th>
<th>N.A. 1927, D.A.M.E.</th>
<th>PAGE 5</th>
<th>PAGE 5</th>
<th>PAGE 3</th>
<th>PAGE 4</th>
<th>PAGE 4</th>
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</thead>
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<tr>
<td>NORTHING</td>
<td>560.49</td>
<td>560.49</td>
<td>560.49</td>
<td>560.49</td>
<td>560.49</td>
<td>560.49</td>
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<tr>
<td>EASTING</td>
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<td>4367.6</td>
<td>4367.6</td>
<td>4367.6</td>
<td>4367.6</td>
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<td>131,622</td>
<td>131,622</td>
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<tr>
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**Notes:**
- Not identified, established 1948.
- Plot not identified.
- Project No.: E-1
- Scale of Map: 1:20,000

**Checked by:** G. Richter
**Date:** October 6, 1948

**Remarks:**
- BEND LIGH, 1948
- MILE 19, HOWARD ISLAND
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<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>
<th>G</th>
<th>H</th>
<th>K</th>
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<tbody>
<tr>
<td>Alaska</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Kvichak Bay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Bend Light</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
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<tr>
<td>Graveyard Creek</td>
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<td></td>
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<td></td>
<td>5</td>
</tr>
<tr>
<td>(mainly on T-9069)</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>6</td>
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</table>

Names underlined in red are approved. 7-14-49

L. Heck
NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED

TO BE DELETED

STRIKE OUT ONE

Seattle, Washington 30 March 1948

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (delet ed-from) the charts indicated.

The positions given have been checked after listing by E. H. Sheridan

copied by: C. Hanavich

copy checked by: R.F.A. Studds

Chief of Party.

<table>
<thead>
<tr>
<th>STATE</th>
<th>Alaska, Bristol Bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>The Bond Light</td>
<td>White slatted tripod (△ Bond Light)</td>
</tr>
</tbody>
</table>

Note: 1. Data abstracted from Chart Letter No. 470 (1948).
2. Positions unadj. (Field Computations).

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by dual field survey sheets. Information under each column heading should be given.
**Nonfloating Aids or Landmarks for Charts**

(Nautical) Seattle, Washington 30 March 1948

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.

The positions given have been checked after listing by E. H. Sheridan

copied by: C. Hanavich

copy checked by: R. F. A. Studds

<table>
<thead>
<tr>
<th>State</th>
<th>Charting Name</th>
<th>Description</th>
<th>Signal Name</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Datum</th>
<th>Method of Location and Survey No.</th>
<th>Date of Location</th>
<th>Harbor Chart Issued For Chart</th>
<th>Charts Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska, Bristol Bay</td>
<td>KNOLL</td>
<td>Top of low-rounded knoll, about 65' above MHW</td>
<td>58 49 1149 156 59 241</td>
<td>NA</td>
<td>1927 FF-P-47 7-18-47</td>
<td>X</td>
<td>8802</td>
<td>A3370</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: 1. Data abstracted from Chart Letter 470 (1948).
2. Positions unadj. (Field computations).

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
Division of Photogrammetry

Review Report of T-9063

28 Detailing

To maintain a uniformity in the drainage pattern within the project, a few of the more important tributaries joining the main creeks were added, and unimportant, short drainage laterals were removed. Two prominent bog areas were added.

29 Supplemental Data

The following were inspected for any additional information:

1. Topographic control survey T-7099 (1948)
2. Hydrographic control survey H-7616 (1947-48)

34 Landmarks and Aids to Navigation

One landmark (KNOLL, 1947) and one aid to navigation, recommended by the Ship PATHFINDER, that fall within the area of this map manuscript have been listed by the reviewer on Form 567 and attached to the Descriptive Report. They were abstracted from Chart Letter 470 (1948) which is filed in the Nautical Chart Branch, Division of Charts.

38 Recoverable Topographic Stations

Topographic station KNOLL, 1947, (a landmark) was plotted by the reviewer. Since no Form 524 was found, it was made up during review. For additional information refer to side heading 34 above.

40 Relief

The representation of approximate relief by hachuring has been used to indicate the general relief of the terrain.

Along steep or precipitous bluffs, the bluff (other than rocky) symbol was used as noted in Photogrammetry Instructions No. 17. Along less steep bluffs and slopes, the hachure symbol used is a wedge-shaped line.

44 Comparison with Existing Topographic Quadrangles

1. Topographic map of Nushagak District, Alaska, USGS, Scale 1:250,000, surveyed 1930-31, reprinted 1940.

2. AAF Preliminary Base, compiled by USGS from trimeetrogon photography (1941-43), scale 1:500,000, Naknek (136A), Alaska.
45 Comparison with Nautical Charts

1. Nautical Chart No. 8802, scale 1:1,023,188 at Latitude 56°00', August 1944 (17th Edition).


3. Advance Nautical Information Chart (Kvichak River, scale 1:100,000).

47 Adequacy of the Compilation

The compilation is considered adequate. To denote more fully the extensive drainage system and to distinguish (except for the two prominent bog areas added) the tundra from the muskeg or bog areas is not feasible unless supplemented by field inspection. In view of this, only the evident streams and their main laterals, including the numerous ponds, are noted on the map manuscript. This map complies with the National Map Accuracy Standards.

Reviewed by:

Charles Hanavich, 29 July 1949

Approved by:

[Signatures]
### Nautical Charts Branch

**Survey No. 7963**

**Record of Application to Charts**

<table>
<thead>
<tr>
<th>Date</th>
<th>Chart</th>
<th>Cartographer</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>11/4/69</td>
<td>9051</td>
<td>S. A. McLean</td>
<td>Before After Verification and Review</td>
</tr>
</tbody>
</table>

**Note:**

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.
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>9044</td>
<td>9044</td>
</tr>
<tr>
<td>9054</td>
<td>9058</td>
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<td>9064, 9065, 9070</td>
<td>9066</td>
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<tr>
<td>9071, 9074, 9075</td>
<td>9072, 9073</td>
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<tr>
<td>9227 thru 9253</td>
<td>9076, 9078</td>
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Ph-8A(46), PLANIMETRIC

Ph-8B(46), SHORELINE

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