**Diag. Chg. No. 8602-3**

**Form 864**

**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-B (14)</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-9064</td>
</tr>
<tr>
<td></td>
<td>T-9065</td>
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</table>

**LOCALITY**

<table>
<thead>
<tr>
<th>State</th>
<th>ALASKA</th>
</tr>
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<tbody>
<tr>
<td>General locality</td>
<td>BRISTOL BAY AREA</td>
</tr>
<tr>
<td>Locality</td>
<td>NUSHAGAK PENINSULA-KIKERLALIK LAKE AND IGUSHIK RIDGE SOUTH</td>
</tr>
<tr>
<td></td>
<td>1947</td>
</tr>
</tbody>
</table>

**CHIEF OF PARTY**

A.N. Stewart, Chief of Field Party  
W.H. Bainbridge, Portland Photogrammetric Office

**LIBRARY & ARCHIVES**

**DATE** 10/77 12/12/1953
DATA RECORD

T-9064 and T-9065
Kikertalik Lake
9064 - NUSHAGAK-BRISTOL BAY
9065 - NUSHAGAK-IGUSHIK RIDGE-SOUTH

Project No. (II): Ph-8(46)B Quadrangle Name (IV): 9065 - NUSHAGAK-IGUSHIK RIDGE-SOUTH

Field Office (II): Nushagak Peninsula, Alaska Chief of Party: A. Newton Stewart

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

instructions dated (II) (III): 19 Mar. 48 & 4 Feb. 49 (office)
21 Apr. 48, 25 Apr. 47 (field)

Copy filed in Division of Photogrammetry (IV)

Shoreline: Graphic
Method of Compilation (III): Contours: Reading Plotter No. 1

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

Scale Factor (II): 1:1

Date received in Washington Office (IV): 3-16-50
Date reported to Nautical Chart Branch (IV): 3-16-50

Applied to Chart No. Date: Date registered (IV): 4-7-53

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

Geographic Datum (II): N.A. 1927

The difference between Unadjusted Datum
and N.A. 1927 Datum is Lat. plus/minus -6 m.
and Long. plus/minus -6 m.

Vertical Datum (III):
Mean sea level except as follows:
Elevations shown as (2) 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.:

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)

Contouring done jointly on
Reading Plotter No. 1
by
Orvis N. Dalbey
Clarence E. Misfeldt
Louis Levin
DATA RECORD

Field Inspection by (II): A. Newton Stewart

Date: 1947 & 1948

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 1947 field photographs 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): Ruling Machine

Date: Unknown

Projection and Grids checked by (IV): Unknown

Date: Unknown

Control plotted by (III): C. C. Wiebe

Date: July 1948

Control checked by (III): J. L. Harris

Date: July 1948

From Unmounted Photographs

Radial Plot from Metal Mounted Photographs

J. L. Harris and J. E. Deal

Date: Aug. 10, 1948

Stereoscopic Instrument Delineation

Orvis N. Dalbey

Louis Levin

Clarence B. Misfeldt

Contours

Date: Apr. 25, 1949

compilation

C. C. Wiebe (shoreline)

John B. McDonald (contours)

Date: 10 Feb. 50

Revised and

Photogrammetric Office Review by (III): Ree H. Barron

Date: 27 Sept. 48

Elevations on Manuscript

checked by Louis J. Reed

Date: 20 Feb. 50

Date: 6 June 1949

Date: 1 March 50

From Unmounted Photographs

Radial Plot from Metal Mounted Photographs

J. L. Harris and J. E. Deal

Date: Aug. 10, 1948

Stereoscopic Instrument Delineation

Orvis N. Dalbey

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Photogrammetric Office Review by (III): Ree H. Barron

Date: 27 Sept. 48

Elevations on Manuscript

checked by Louis J. Reed

Date: 20 Feb. 50

Date: 6 June 1949

Date: 1 March 50
Camera (kind or source) (III): U.S.C. & G.S. 9-lens Focal Length 8.25 inches

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>9064</td>
<td>10-12-46</td>
<td>11:46</td>
<td>1:20,000</td>
<td>9;0 ft. above M.S.L.</td>
</tr>
<tr>
<td>18051</td>
<td>(field only)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18064 &amp; 18065</td>
<td>10-12-46</td>
<td>12:00</td>
<td>1:20,000</td>
<td>9.5 ft.</td>
</tr>
<tr>
<td>20404 &amp; 20405</td>
<td>8-23-47</td>
<td>11:00</td>
<td>1:20,000</td>
<td>5.0 ft.</td>
</tr>
<tr>
<td>23378 &amp; 23379</td>
<td>9-2-48</td>
<td>10:27</td>
<td>1:20,000</td>
<td>5.5 ft.</td>
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<tr>
<td>18028</td>
<td>18030</td>
<td>10-12-46</td>
<td>11:29</td>
<td>1:20,000</td>
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<tr>
<td>20403</td>
<td>8-23-47</td>
<td>10:58</td>
<td>1:20,000</td>
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</tr>
<tr>
<td>20421 &amp; 20422</td>
<td>8-23-47</td>
<td>11:13</td>
<td>1:20,000</td>
<td>4.0 ft.</td>
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<tr>
<td>23386</td>
<td>23388</td>
<td>9-2-48</td>
<td>10:43</td>
<td>1:20,000</td>
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(above stages checked by McKay of Tides and Currents, 20 Aug. 49)

Tide (III)

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.8</td>
<td>12.5</td>
<td>17.0</td>
</tr>
</tbody>
</table>

Reference Station: Mushagak Bay (Clark Point)
Subordinate Station: Protection Point

Washington Office Review by (IV): C. Theurer

Final Drafting by (IV): M. Day
Drafting verified for reproduction by (IV): L. Vander

Proof Edit by (IV): L. Vander

Date: 10-30-50
Date: 8-20-51
Date: 9-17-52
Date: 10-14-52

Land Area (Sq. Statute Miles) (III): 97.9 (9064), 78.0 (9065)
Shoreline (More than 200 meters to opposite shore) (III): 7.5 Statute Miles (9064); 20.0 (9065)
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Levelling - Miles (II): None
Number of Triangulation Stations searched for (II): Nine
Recovered: Nine
Identified: Nine
Number of BMs searched for (II): None
Number of Recoverable Photo Stations established (III): None (9064); 2 (9065)
Number of Temporary Photo Hydro Stations established (III): 3 (9064); 3 (9065)

Remarks:
Summary to Accompany T-9064 and T-9065

Ph-8(46), covering the north shore of Bristol Bay in Alaska, is divided into Parts A and B. Part A consists of the planimetric maps and B Shoreline surveys, covering the area from Egegik Bay to Nushagak Bay including Kvichak Bay. The hydrography has been completed in this area.

Ph-8 consists of 45 Topographic Maps covering the area from Nushagak Peninsula to Cape Newenham and north to Goodnews Bay including the offshore islands. The hydrography has not been completed in this area. Advance copies of the map manuscripts, prior to contouring, were supplied as base sheets for the hydrographic surveys now in progress at Nushagak Bay and west of Nushagak Peninsula.

Topographic maps T-9064 and T-9065 cover the northern part of Nushagak Peninsula. The shoreline was compiled by graphic methods with interior detail and contours added by Reading Plotter from nine-lens photographs taken in 1946, 1947, and 1948. The field inspection, consisting of identification of control, selection of topographic and hydrographic station sites, establishment of vertical control and partial shoreline inspection, was accomplished in 1947 and 1948.

The map manuscripts consist of one sheet each, 7.5 min. in latitude by 20 min. in longitude for T-9065 and 24 min. in longitude for T-9064, at a scale of 1:20,000. A cloth-backed lithographic print of each map at the compilation scale will be registered with the combined Descriptive Report in the Bureau Archives. These maps will not be published.
FIELD INSPECTION REPORT
Map Manuscripts T-9064 and T-9065
Area of the 1st Radial Plot
Project Ph-8(46)B

There was no detailed field inspection in the area of these two map manuscripts. Pertinent data on photographic interpretation of planimetric details was obtained during various conferences between Lt. Comdr. Stewart and personnel of the compilation office during February and March 1946. During this period photographs were examined under the stereoscope, the character of the country was discussed and notes were made on the photographs to clarify the detail for the compilers.

The original field inspection in the area is discussed in the "Project Report, Aerial Photograph Control and Inspection, Bristol Bay, Alaska, Project Ph-8(46) May to September 1947" submitted by Lt. Comdr. A. Newton Stewart.

W.H. Bainbridge
Chief of Party
Comdr. USCG Survey
COMPILATION REPORT
Map Manuscripts No.'s: T-9064, T-9065, and T-9075
Project Ph-8(46)B
Planimetry - Portland Office

ITEMS 26 AND 27:

Refer to the descriptive report for Radial Plot No. 1 (sheets T-9064, T-9065, T-9070, T-9071, T-9074, and T-9075) forwarded to the Washington Office on 1 July 1949, with supplement.

28: DETAILING:

In August 1948 a radial plot was completed for the area of Nushagak Peninsula using nine lens unmounted photographs taken in 1946 and 1947. From the results of this radial plot, shoreline surveys for T-9064 and T-9065 were compiled. On 4 February 1949 new instructions were issued for radial plots, in this area, to be made with metal mounted photographs taken in 1946, 1947 and 1948 for topographic maps, to be contoured on the Reading Stereoscopic Plotting Instrument, in the Washington Office. This radial plot was completed on 25 April 1949 but while the work was in progress it was evident that the planimetry as compiled originally on the shoreline surveys would have to be changed. On 5 April 1949 the Ship "PATHFINDER" requested this office to furnish them ozalid prints of T-9065, T-9071 and T-9075 for use during the 1949 field season. In order that they might have the benefit of the latest information, the planimetry on T-9065 was revised to agree with the results of a preliminary running of the radial plot from metal mounted photographs. Except for the perfection of radial intersections the final results of this radial plot did not alter the preliminary result enough to change the location of the planimetry furnished the Ship "PATHFINDER".

After the final results of the radial plot were complete, T-9064 was revised and ozalid prints of the latest planimetry for T-9064 and T-9065 were furnished the Seattle Processing Office.

These shoreline surveys were detailed in the same manner as described for previous map manuscripts in Project Ph-8(46)A. Refer to the descriptive report for T-9053.

29: SUPPLEMENTAL DATA:

No supplemental data were furnished for the area of these map manuscripts.
30: MAIN HIGH-WATER LINE:

The location of the mean high-water line was indicated on the 1946 field photographs by the field inspection party. With the aid of the stereoscope the high-water line was transferred to the office photographs and then compiled.

The mean high-water line bordering firm ground has been shown by a continuous black acid ink line .012" in thickness.

The mean high-water line bordering marsh areas has been shown by a continuous black acid ink line .006" in thickness.

31: LOW-WATER AND SHOAL LINES:

Shoal lines and low-water lines were not indicated by field inspection and none have been shown.

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

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

33: WHARVES AND SHORELINE STRUCTURES:

There are no wharves or shoreline structures within the limits of these two map manuscripts.

34: LANDMARKS AND AIDS TO NAVIGATION:

It is assumed that a report on these features will be submitted by the Ship "PATHFINDER".

35: HYDROGRAPHIC CONTROL:

There were six temporary hydrographic stations radially plotted within the area of these two map manuscripts. Attached is a list giving a description for each station.

36: LANDING FIELDS AND AERONAUTICAL AIDS:

There are none within the limits of these map manuscripts.
37: **GEOGRAPHIC NAMES:**

Geographic names were obtained from a sketch on tracing cloth which accompanies a special report by Lt. Comdr. A. Newton Stewart entitled "Geographic Names, Bristol Bay, Alaska, December 19, 1947".

38: **RECOVERABLE TOPOGRAPHIC STATIONS:**

Form 524 is submitted for the following:

<table>
<thead>
<tr>
<th>In T-9064</th>
<th>In T-9065</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDEN 1947</td>
<td>LGSS 1947</td>
</tr>
<tr>
<td>DETT 1947</td>
<td>ROOF 1947</td>
</tr>
</tbody>
</table>

Attached are photogrammetric office computations of the geographic positions for EDEN and DETT.

39: **JUNCTIONS:**

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

44: **COMPARISONS WITH EXISTING TOPOGRAPHIC SURVEYS:**

There were no previous topographic surveys of the area furnished to this office.

45: **COMPARISONS WITH NAUTICAL CHARTS:**

These sheets were forwarded to the Washington Office before a comparison could be made with the available nautical charts in this office and it is believed that a more thorough comparison can be made in the Washington Office after the radial plot has been reviewed and the completion of the work on the Reading Stereoscopic Plotting Instrument.

46: **NOTES:**

The map manuscripts were forwarded to the Washington Office on 1 July 1949 along with all other data in Radial Plot No. 1 Project Ph-3(46)E.

Approved:  
W.H. Bainbridge  
Chief of Party

Respectfully submitted:  
J. Edward Deal, Jr.  
Photogrammetric Engineer
28. **Detailing:**

Topography was compiled on the Reading Plotter No. 1 and added to the planimetric manuscripts which had been prepared in the Portland Photogrammetric Office - see compilation report preceding this one. Shoreline detail and inland drainage systems were not altered except to enlarge upon where omissions were discovered. Hashures applied by the Portland Office were removed before the contours were compiled.

During rectification considerable difficulty was encountered due to a scarcity of elevations. A variation of bridging vertical control was resorted to in order to contour areas lacking elevations. The bridging consisted of first rectifying a model where elevations existed, setting up the model in the Reading Plotter, and establishing elevations in the positions needed to rectify the succeeding model, etc. This type of bridging was possible because of the unusual flatness and low elevation character of the terrain. Results are believed to be well within the limits dictated by the 50 ft. contour interval of the map.

All field-established elevations were employed and are shown on the manuscripts, except one, V-118 on T-9065. It was not possible to check this elevation during the rectification or instrument delineation procedures to less than 40 ft., and, therefore, it was considered to be in error and the instrument value for V-118 is shown in its place on the manuscript.

39. **Functions:** Adequate

45. **Comparison with Nautical Charts:**

Chart 9050 covers this area but it is to be superseded by a new compilation, 9052, which is being produced at this time based on the planimetry of the topographic quadrangles herein reported. Recent field surveys are not available for comparison purposes.
47. Contour Accuracy:

The contour interval was set at 50 ft. with 25 ft. supplementals where necessary to show the profile of the terrain. Contours on these quadrangles meet the standards of National Map Accuracy for a contour interval of 50 ft. Also, the supplemental 25 ft. contours are to be considered as meeting the 50 ft. interval standard even though they are thought to be very nearly up to standard for 25 ft. interval.

Louis J. Reed
Chief, Stereoscopic Mapping Section
HYDROGRAPHIC SIGNAL SITES

Project Ph. 8(45) B
Sheets Held: T-9064 and T-9065

T-9064

6401
Formerly # 156  The station is the center of the mouth of a grass draw 30 ft. wide, and at beach level, on the elongation of the bluff lines across the mouth.

6402
Formerly # 157  The station is the top of a grass covered knoll at the edge of top of bluff line.

6403  Deleted  —  Adjacent to ∆ Pike, 1947
Formerly # 1  8 ft. x 12 ft. area of dry grass on flat top of bluff (with outer edge along the edge of the bluff.)
Not good for signal as is, but signal may be erected over center of this spot.

T-9065

6501
Formerly # 96  The station is the east gable of the house. Approx. 40 ft. above H.W.L.

6502
Formerly # 97  The station is the east gable of the easternmost of two caches. Approx. 300 ft. inland and 30 ft. above H.W.L.

6503
Formerly # 98  The station is the east gable of the nearer of two fish drying sheds, to the shoreline — 20 ft. above H.W.L.
<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>
<th>G</th>
<th>H</th>
<th>K</th>
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<tbody>
<tr>
<td>Alaska</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<td>5</td>
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</table>

Names underlined in red are approved.
10-20-50.

h. Heck
<table>
<thead>
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<th>Name on Survey</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<th>F</th>
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<td>(or southeastern Alaska)</td>
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<td>chisal bay</td>
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<td>lughik ridge</td>
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</table>

Names and titles initialized: 10-28-50

Approved: L. Beck

Survey No.
T 9065
Review Report T-9064 and T-9065
Topographic Maps
October 30, 1950

62. Comparison with Registered Topographic Surveys
   a. T-9064 - None
   b. T-9065
      T-2967  1:20,000  1909
      T-2968  1:20,000  1909
      T-3091  1:20,000  1910

   The map manuscripts supersede these surveys for nautical charting purposes.

63. Comparison with Maps of other Agencies
   None

64. Comparison with Contemporary Hydrographic Surveys
   None

65. Comparison with Nautical Charts
   Provisional Chart No. 9052  1:100,000  1950

   The map manuscripts were partially applied to the nautical chart.

   Several marsh areas were revised during review and should be corrected on the chart.

66. Adequacy of Results and Future Surveys

   Revisions in delineation and symbolization of tidal flats and marsh areas were necessary during review.
   The map manuscripts now comply with project instructions.

   The offshore limits of tidal areas are shown as they appear at the time of the photographs. These areas are more extensive at MLLW.


Reviewed by:

[Signature]

G. Theurer
Approved by:

[Signatures]

Chief, Review Section  
Division of Photogrammetry

Chief, Nautical Chart Branch  
Division of Charts

Chief, Div. of Photogrammetry  
Chief, Div., Coastal Surveys
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
T-9038 thru T-9040
9041, 9047
9051, 9057
9064, 9065, 9070
9071, 9074, 9075
9227 thru 9253

Ph-8A(46), PLANIMETRIC
T-9041 thru T-9043
9048, 9053
9058, 9063
9066, 9069
9072, 9073
9076, 9078

Ph-8B(46), SHORELINE
T-8873 (E&W) and T-8874