U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: TOPOGRAPHIC

Field No.: Ph-8 (46)  Office No.: T-9071

LOCALITY
State: ALASKA
General locality: BRISTOL BAY AREA
Locality: NUSHAGAK PENINSULA, NICHOLS SPIT

CHIEF OF PARTY
A. N. Stewart, Chief of Field Party
W. H. Bainbridge, Portland Photo, Office

LIBRARY & ARCHIVES
DATE: JUNE 12, 1953
DATA RECORD

T-9070 and T-9071

Project No. (II): Ph-8(46)B Quadrangle Name (IV): 9070: NUSHAGAK - JUNGHEN STATION
9071: NUSHAGAK - NICHOLS SPIT

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

Photogrammetric Office (III): Portland, Oregon Officer-in-Charge: W.H. Bainbridge
Wash., D.C. Louis J. Reed, Chief, Stereoscopic Mapping

Instructions dated (II) (III): Copy filed in Division of
19 March 1948 and Section
4 February 1949 (Office)
21 April 1948, 25 April 1947 (Field)

Shoreline: Graphic
Contours: Reading Plotter No. 1

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

Scale Factor (III): 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. P-9072 Date: 3-21-50 Date registered (IV): 4-7-53

Publication Scale (IV):

Geographic Datum (III): N.A. 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.:

Plane Coordinates (IV):

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)

Contouring done jointly

on

Reading Plotter No. 1

by

Orvis N. Dalbey
Clarence E. Missfeldt
Louis Levin
DATA RECORD

Field Inspection by (II): A. Newton Stewart Date: 1947 & 1948

Planetary 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. Date:

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 Date: 19 August 1948
Radial Plot by (III): J. L. Harris and J. E. Deal Date: 25 April 1949

From Metal Mounted Photographs Date:
Stereoscopic Instrument (III): Orvis N. Dalbey Date: 10 Feb. 1950
Contours Louis Levin
Clarence E. Mifflandt

Compilation Date:
Manuscript drafted by (III): Marie B. Elrod (shoreline) Date: 8 Sept. 1948
John B. McDonald (contours) 20 Feb. 1950

Revised and Date: 1 June 49(9070)
Photogrammetric Office Review by (III): Ree H. Barron 22 Apr. 49(9071)

Elevations on Manuscript Date: 1 March 1950
checked by Louis J. Reed
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>
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<tbody>
<tr>
<td>9070</td>
<td>10/12/46</td>
<td>12:00</td>
<td>1:20,000</td>
<td>9.5 ft. above M.S.L.</td>
</tr>
<tr>
<td>23376 &amp; 23377</td>
<td>9/2/48</td>
<td>10:27</td>
<td>1:20,000</td>
<td>5.5 ft. above M.S.L.</td>
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(Above stages checked by McKay of Tides & Currents, 20 August 1949)

Tide (III)

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

Reference Station: Nushagak 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: 10-20-50
Date: 7-25-52
Date: 8-29-52
Date: 11-19-52

Land Area (Sq. Statute Miles) (III): 52.2 (9070); 78.0 (9071)
Shoreline (More than 200 meters to opposite shore) (III): 9.5 Statute Miles (9070); 10.0 (9071)
Shoreline (Less than 200 meters to opposite shore) (III): None
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): 2 (9070); 1 (9071)
Number of Temporary Photo Hydro Stations established (III): 2 (9070); 4 (9071)

Remarks:
Summary to Accompany T-9070 and T-9071

Ph-8(46), covering the north shore of Bristol Bay in Alaska, is divided into Parts A and B. Part A consists of 26 planimetric maps and 2 shoreline surveys covering the area from Egegik Bay to Nushagak Bay including Kvichak Bay. The hydrography has been completed in this area.

Part B 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-9070 and T-9071 are located in the southern 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, 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

There was no detailed field inspection in the area of these two map manuscripts. Pertinent data on photogrammetric interpretation of planimetric details was obtained during various conferences between Lt. Comdr. Stewart and personnel of the compilation office during February and March 1948. 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. E. Bainbridge  
Comdr., USC&G Survey  
Chief of Party
Note: For items 26 to 37 inclusive, 39 and 44 to 46 inclusive refer to the descriptive report for T-9064 and T-9065 and substitute T-9070 for T-9064 and T-9071 for T-9065.

38: RECOVERABLE TOPOGRAPHIC STATIONS:

Form 524 is submitted for the following:

In T-9070           In T-9071
TIME 1947           TELL 1947
RILL 1947

Approved:  Respectfully submitted:

W.H. Bainbridge  J. Edward Deal, Jr.
Comdr., USC&G Survey  Photogrammetric Engineer
Chief of Party
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. **Junctions:** 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. See Revised Report.
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-247
Sheets Hold-T-9070 and T-9072

T-9070

# 7001
Formerly # 154  The station is the point of grass line where the present drainage makes a loop to almost rejoin itself before draining on into the ocean.

# 7002
Formerly # 155  The station is the extreme point of the heavy grass growth. A scattering of lighter growth dwindles on inland.

T-9071

# 7101
Formerly # 99  The station is the east gable of the old tent frame structure. Approximately 500' inland and about 35' above H.W.L.

# 7102
Formerly # 15  The station is the center of the mouth, beach level, of a deep cut draw heading out about 800' inland. There does not appear to be any abnormal sluffing.

# 7103
Formerly # 16  The station is a grassy knoll about 1/5 mile south of Nichols Beacon. At the station the beach swings out and away from the bluff line, forming inside the beach and bluff, a tidal area.

# 7104
Formerly # 17  The station is the gable of the southerly and lower of two igloos in the immediate vicinity.
<table>
<thead>
<tr>
<th>Name on Survey</th>
<th>On Chart No</th>
<th>On previous survey No</th>
<th>On U S Gazetteer Maps</th>
<th>From local Information</th>
<th>On Local Maps</th>
<th>P O Guides of Map</th>
<th>Rand McNally Atlas</th>
<th>U S Light List</th>
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<tbody>
<tr>
<td>Southeast Alaska</td>
<td>(for title)</td>
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</tbody>
</table>

None of the recent navy reports covering this region report any names for features in area of this sheet.

Names underlined in red are approved, 10-18-50.

CHECK
<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>
<th>F</th>
<th>G</th>
<th>H</th>
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<tr>
<td>Kachurak Bay</td>
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<td>Kachemak Peninsula</td>
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<tr>
<td>Nicholas Spit</td>
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<td>Nicholas Hills</td>
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<tr>
<td>(this is an old name: Baker reports them as under 300 ft. Name used in 1947 Pacific Coast L.I. for name of Kachemak--p. 417)</td>
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<td>6</td>
</tr>
</tbody>
</table>

Names underlined in red are approved. 10-19-50. L. H. F.
Review Report T-9070 and T-9071
Topographic Maps
October 20, 1950

62. Comparison with Registered Topographic Surveys

- T-9070 - None
- T-9071
  T-2967 1:20,000 1909
  T-3090 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.

The elevations shown on the nautical chart are referred to the mean sea level datum contrary to the note in the chart legend. Nautical Chart Branch notified.

Marsh and tidal flat areas, revised during review, should be corrected on the chart.

66. Adequacy at the Compilation

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 flats show the areas that bare at the time of the photographs. These areas are more extensive at MLLW.


Reviewed by:

Charles Theurer
C. Theurer
Approved by:

S. J. Griffith  
Chief, Review Section  
Division of Photogrammetry

H. H. Adamson  
Chief, Nautical Chart Branch  
Division of Charts

O. I. Heald  
Chief, Div., Photogrammetry

R. C. Keaton  
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 thru 9047
9054 thru 9057
9064 thru 9070
9071 thru 9075
9227 thru 9253

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

T-9041 thru T-9043
9048 thru 9053
9058 thru 9063
9066 thru 9069
9072 thru 9073
9076 thru 9078

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

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