

9078

8206

Diag. Cht. No. 8502-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey PLANIMETRIC

Field No. Ph-8 (46) Office No. T-9078

LOCALITY

State TERRITORY OF ALASKA

General locality BRISTOL BAY

Locality EAST SHORELINE KVICHAK BAY IN THE
VICINITY OF CAPE CHICHAGOF

1949

CHIEF OF PARTY

R.F.A. Studds, Chief of Field Party
W.H. Bainbridge, Portland Photo. Office

LIBRARY & ARCHIVES

DATE JUNE - 12 - 1953

DATA RECORD

T-9078

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

Field Office (II): Ship "PATHFINDER"

Chief of Party: R.F.A. Studds

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: W.H. Bainbridge

Instructions dated (II) (III): 19 March 1948

Copy filed in Division of
Photogrammetry (IV)

office files

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:20,000

Stereoscopic Plotting Instrument Scale (III): *Inapplicable*

Scale Factor (III): None

Date received in Washington Office (IV): *5-25-49* Date reported to Nautical Chart Branch (IV):

Applied to Chart No. *9051*

Date: *11/17/49*

Date registered (IV): *3/23/53*

Publication Scale (IV): *Not published*

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): *High Water*
~~Mean Sea Level~~

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

The difference between *Unadjusted Datum*
and N.A. 1927 Datum is Lat. plus *1.1 m.*
and Long. ~~minus~~ *3.9 m.*

Reference Station (III): BUG 1948

Lat.: $58^{\circ} 21' 12.026''$ ^{*62*} ^{*73.2*} *372.1 m* Long.: $157^{\circ} 32' 11.054''$ ^{*10.814*} ^{*5.9*} *179.8 m*
~~*(1484.4 m)*~~ ~~*(796.1 m)*~~

Adjusted
~~Unadjusted~~

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 1947
Season 1948

Planetable contouring by (II): *None*

Date:

Completion Surveys by (II): *None*

Date:

Mean High Water Location (III) (State date and method of location): In the area of this map manuscript there was only a very small part of the mean high-water line located by field inspection. With the aid of the stereoscope and by comparison with adjacent shoreline areas which had been field inspected, it was located on the office photographs and then compiled.

Projection and Grids ruled by (IV): *Washington Office*

Date:

Projection and Grids checked by (IV): *Washington Office*

Date:

Control plotted by (III): John H. Winniford

Date: 12/8/48

Control checked by (III): James L. Harris

Date: 1/19/49

Radial Plot or Stereoscopic Control extension by (III): James L. Harris and J.E. Deal

Date: 2/14/49

Stereoscopic Instrument compilation (III):

Planimetry } *Inapplicable*
Contours }

Date:

Date:

Manuscript delineated by (III): Helen Laube

Date: 4/19/49

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

Date: 4/27/49

Elevations on Manuscript checked by (II) (III): *Inapplicable*

Date:

Camera (kind or source) (III): U.S.C. & G.S. 9 lens focal length 8.25 inches

PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
14877	10-11-45	11:45	1:20,000	7.5 ft. above M.L.L.W.
14418 to 14420 incl.	6-10-43	12:02	1:20,000	13.0 ft. above M.L.L.W.
17972 to 17973 incl.	9-25-46	9:30	1:20,000	3.5 ft. above M.L.L.W.

Tide (III)

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

Diurnal		
Ratio of Ranges	Mean Range	Spring Range
	15.2	19.5

Washington Office Review by (IV):

J.B. Willey

Date: *6/20/52*

Final Drafting by (IV): *M.C. Webber*

Date: *8-25-52*

Drafting verified for reproduction by (IV): *W.D. Halluin*

Date: *9-26-52*

Proof Edit by (IV): *W.D. Halluin*

Date: *11-19-52*

Land Area (Sq. Statute Miles) (III): 56.0

Shoreline (More than 200 meters to opposite shore) (III): 9.2 Statute Miles

Shoreline (Less than 200 meters to opposite shore) (III): 5.4 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): Two (By planetable, submitted by Ship

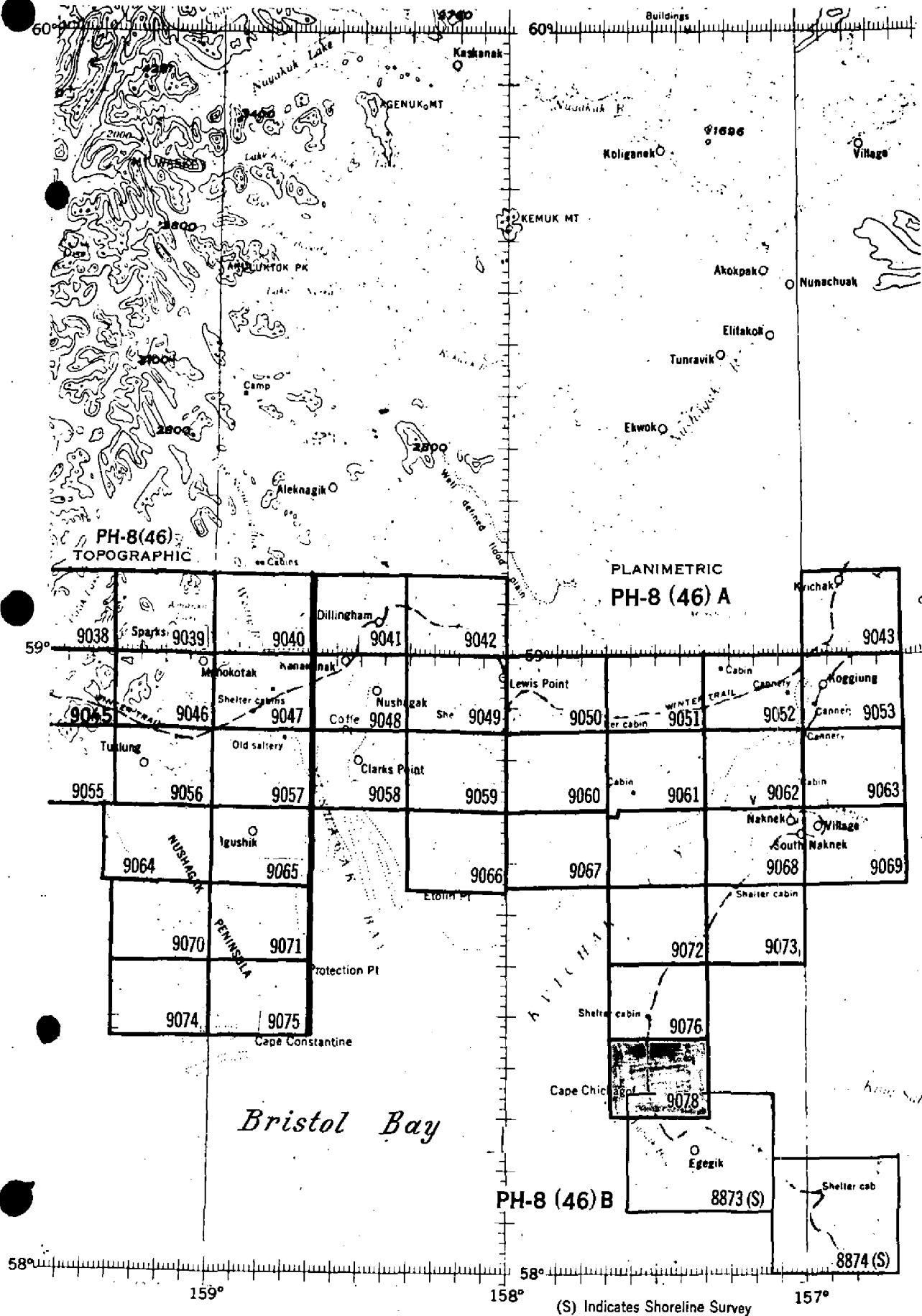
Number of Temporary Photo Hydro Stations established (III): None

"PATHFINDER")

Remarks:

PLANIMETRIC AND SHORELINE MAPPING PROJECT PH-8 (46) A-B

ALASKA, Vicinity of Bristol Bay



Summary to Accompany T-9078

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

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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' (Kvichak 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 Egegik River from Bristol Bay to Becharof Bay. Part A is the planimetric sub-project.

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. LeFever. 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.F.A. Studds.

A cloth-backed lithographic print of this map at compilation scale and the descriptive report will be registered in the Bureau Archives.

NOTES TO ACCOMPANY FIELD INSPECTED
PHOTOGRAPHS, BRISTOL BAY, ALASKA BY
PERSONNEL OF USC&GS SHIP PATHFINDER

The area covered is mostly on the south side of Bristol Bay between EGEGIK and NAKNEK. The photographic inspection is not continuous, the policy being to secure as much information as time and tide conditions permitted while on signal building and triangulation assignments.

From signal building operations on each side of the Bay it was obvious that the north shore was receding; witness loss at Δ KVI-CHAK, while the south shore remains almost stationary. Some receding of the higher bluffs in exposed areas on the south shore was noticed, however, the stations, established in 1946 by R. Woodworth were in the same relative position in 1948. It is believed that the H.W. line on the south shore is building off shore from the present H.W. line. This seemed obvious from the old wrecks and drift wood, found inshore in the marsh flats between MIDDLE BLUFF LIGHT and Δ WILL..

Elevations were not obtained at stations ABE, JOE and BUG due to lack of time. The elevations of stations ABE and JOE as submitted by members of the party of R.W. Woodworth in 1946 are believed to be too high; the approximate elevations submitted are as follows:

ABE 125 to 150 feet
JOE 75 to 100 feet

The computed elevation (1946 triangulation) at Δ MIDDLE is 37.7 meters (124 feet) and RED BLUFF LIGHT 31.0 meters (102 feet). These two points are among the highest along the coast. It is believed that the elevation at station ABE is about 80 feet and the elevation at station JOE about 40 feet.

Δ stations plot on T-9076.

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

- 1) Season Report No. 138 (1947) submitted by Lt. Comdr. A. Newton Stewart.*
- 2) Season Reports No. 156 (1947) and No. 170 (1948) submitted by Comdr. R. F. A. Stedde.*

COMPILATION REPORT
Map Manuscript No. T-9078
Project Ph-8(46)

Items 26 and 27:

Refer to compilation report for T-9072 and T-9073.

28: DETAILING:

This map manuscript 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.

Operations, methods and other facts pertaining to detailing this map manuscript are in general similar to those described for other map manuscripts in Project Ph-8(46). Refer to Item 28: "Detailing" paragraphs 1, 2, 5, 6 and 9, reports for T-9051 and T-9052, and for T-9066 and T-9067.

Additional facts are:

The most prominent ridges and knolls in the area have been detailed.

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

29: SUPPLEMENTAL DATA:

No supplemental data were furnished in the area of this map manuscript.

30: MEAN HIGH-WATER LINE:

In the area of this map manuscript there was only a very small part of the mean high-water line located by field inspection. With the aid of the stereoscope and by comparison with similar areas in adjacent map manuscripts the mean high-water line was delineated on 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.

Items 31 to 37 inclusive:

Refer to compilation report for T-9072 and T-9073.

38: RECOVERABLE TOPOGRAPHIC STATIONS: See Item 66- Review Report

Two recoverable topographic stations, ABE 1948 and JOE 1948, are shown on the map manuscript as 4th order ~~triangulation~~ stations. The positions were established by theodolite and the stations were identified for use as horizontal control. Copies of Form 524 were submitted by the Ship "PATHFINDER".

Items 39 and 44:

Refer to compilation report for T-9072 and T-9073.

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 September 1947, Scale 1:100,000.

There is a positive agreement of the shoreline between the map manuscript and chart between Lat. $58^{\circ} 15'$ and Lat. $58^{\circ} 16' 30''$, which may be due to the azimuth (northwest-southeast) of the shoreline in this section, because beyond Lat. $58^{\circ} 16' 30''$, where the shoreline is generally north-south, the topography of the chart appears to be about 200 feet northwest of that of the map manuscript.

See
Review
Report
for
clarifica-
tion of
this
paragraph
in

Approved:

W.H. Bainbridge
W.H. Bainbridge
Comdr.-USC&G Survey
Chief of Party

Respectfully submitted:

J. Edward Deal Jr.
J. Edward Deal, Jr.
Photogrammetric Engineer

T-9078.

Geographic Names.

Alaska

Bristol Bay

Kvichak Bay

Bishop Creek

Cape Chichagof

Big Creek

Big Flat

(add north of Cape Chichagof)

Names underlined ~~in red~~ are
approved. 6-~~1952~~.

REVIEW REPORT T-9078
Planimetric Map
20 June 1952

62.. Comparison with Registered Topographic Surveys:

None.

63. Comparison with Maps of Other Agencies:

None.

64. Comparison with Contemporary Hydrographic Surveys:

H-7672 1:20,000 scale 1948-49 No discrepancies noted.

65. Comparison with Nautical Charts:

Chart 9051 1st Edition (1950) 51-8/20 1:100,000 scale

See Item 45 in the Compilation Report. Several minor discrepancies were noted. This planimetric map should supersede the detail as shown on the provisional nautical chart. See Item 66 below.

66. Control:

See Item 38 of the Compilation Report. Stations Abe, 1946 and Joe, 1946 were changed from triangulation to topographic stations on this manuscript, as the Division of Geodesy cannot compute positions for them of triangulation accuracy. However, the topographic descriptions for the distance from the stations to the MHW line checks the manuscript detail, not Nautical Chart 1951.


67. Adequacy of Manuscript:


This planimetric map complies with Bureau standards and the ~~with~~ project instructions. It is adequate as a base for hydrographic surveys and for the construction of nautical charts.


Reviewed by:

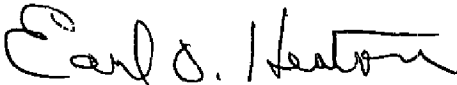

Gordon B. Wilby

Approved:


Chief, Review Section B
Division of Photogrammetry


Chief, Nautical Chart Branch
Division of Charts GR


Chief, Div. of Photogrammetry


Chief, Div. of Coastal Surveys MCT

NAUTICAL CHARTS BRANCH

SURVEY NO. I 9078

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
11/17/49	9051	<i>J.G. McGinnis</i>	Before <input checked="" type="checkbox"/> After Verification and Review
1-19-55	9051	<i>J.H. Eaton</i>	Before ^{<i>No Correction</i>} After Verification and Review
11-14-86	16338	<i>W.M. Maynard</i>	Before After Verification and Review <i>Applied in full</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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M-2168-1

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

T-9038 thru T-9040
9044 " 9047
9054 " 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