

9076

Diag. Cht. No. 8502-3

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey PLANIMETRIC AIR PHOTOGRAPHIC

Field No. Ph-8(16) Office No. 7-9076

LOCALITY

State TERRITORY OF ALASKA

General locality BRISTOL BAY

Locality SOUTHEAST SHORELINE KVICHAK BAY,  
ABOUT 7 MILES NORTHEAST OF CAPE CHICHGOF  
MIDDLE BLUFF

1949

CHIEF OF PARTY

H. F. A. Studds, Ship "PATHFINDER" Chief of Party  
M. H. Bainbridge, Portland Office

LIBRARY & ARCHIVES

DATE Sept-8-1953

9206

DATA RECORD

T -9076

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): *6-13-49*

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

Reference Station (III): DEED 1946

Lat.:  $58^{\circ} 28' 27.870''$  <sup>53</sup>  $860.8$  m Long.:  $157^{\circ} 26' 57.289''$  <sup>0.993</sup>  $830.5$  m  
~~(-996.0 m)~~ <sup>26.5</sup> ~~(142.0 m)~~      Adjusted   
~~Unadjusted~~

Plane Coordinates (IV) ~~The difference between Unadjusted State~~ and N.A. 1927 Datum is Lat. plus/minus ~~1.3 m~~ and Long. ~~minus 4.0 m~~.      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.

A large empty grid consisting of 10 columns and 10 rows, intended for drawing areas contoured by personnel. The grid is currently blank.

Areas contoured by various personnel  
(Show name within area)  
(II) (III)

DATA RECORD

Field Inspection by (II): Ship "PATHFINDER"

Season 1947  
Date: 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): The high-water line was located on the 1946 photographs by the field party. It was transferred to the office photographs with the aid of the stereoscope 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. Edward Deal

Date: 2/14/49

Stereoscopic Instrument compilation (III):  
Planimetry } *Inapplicable*  
Contours }

Date:

Date:

Manuscript delineated by (III): Carita C. Wiebe

Date: 4/1/49

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

Date: 4/5/49

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

Date:

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

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
14415 to 14417	6-10-43	11:59	1:20,000	13.0 ft. above M.L.L.W.
17974 to 17976	9-25-46	9:35	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.

Ratio of Ranges	Diurnal	
	Mean Range	Spring Range
	15.2	19.5

Washington Office Review by (IV): *J. B. Willey*

Date: *6/20/52*

Final Drafting by (IV): *R. Brown*

Date: *10/17/52*

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

Date: *11-19-52*

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

Date: *12-24-52*

Land Area (Sq. Statute Miles) (III): 53.8

Shoreline (More than 200 meters to opposite shore) (III): 7.5 Statute Miles

Shoreline (Less than 200 meters to opposite shore) (III): 1.3 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): One ( by planetable, submitted by Ship

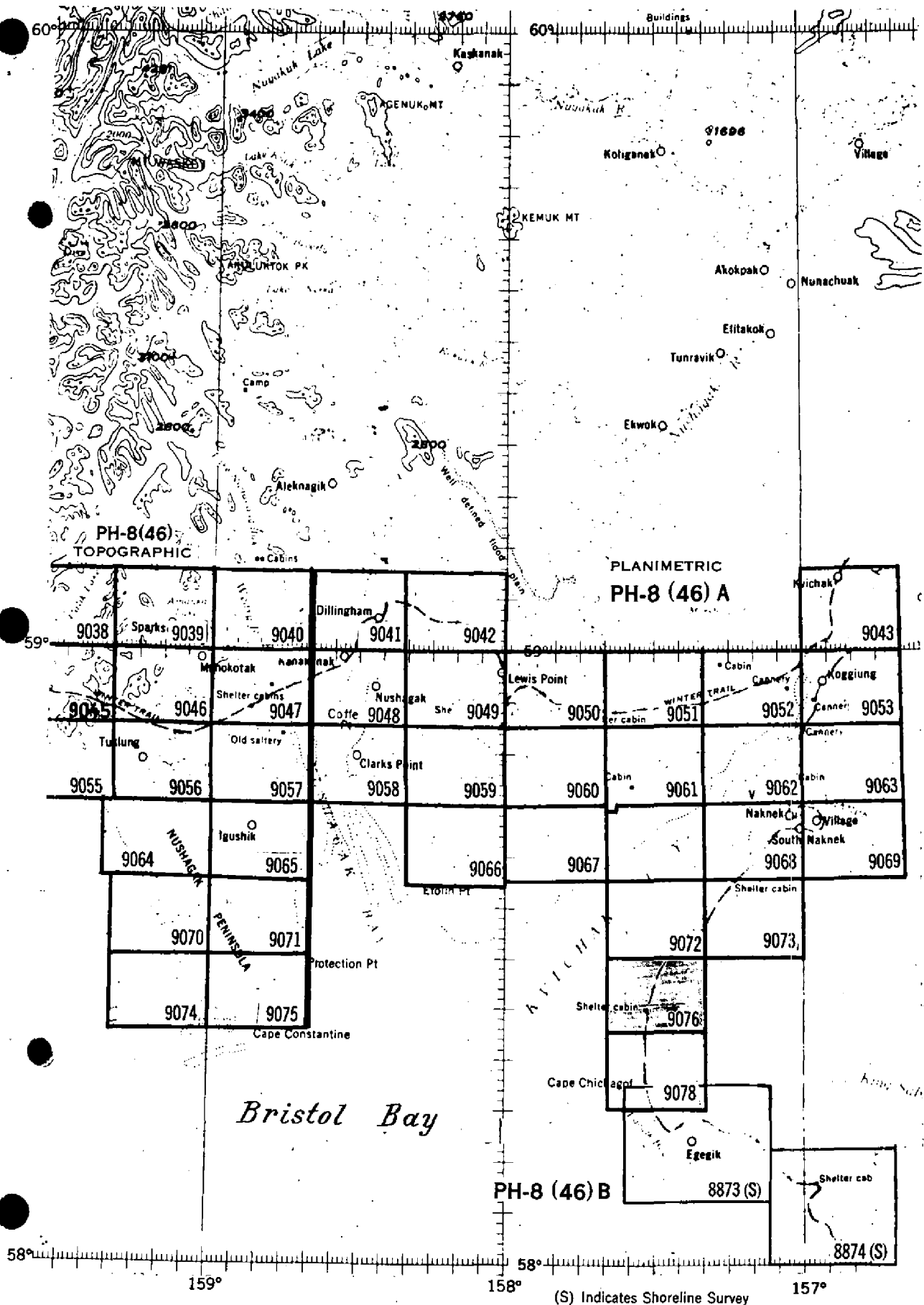
Number of Temporary Photo Hydro Stations established (III): None

"PATHFINDER", Season 1948).

Remarks:

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

## ALASKA, Vicinity of Bristol Bay



Summary to Accompany T-9076

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

23

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, <sup>Plan</sup>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.

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. Husmeyer 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. Studs.

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  
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. Studds.



COMPILATION REPORT  
Map Manuscript No. T-9076  
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.

Ozolid 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:

Except for a small area, the field inspection of the mean high-water line was complete. With the aid of the stereoscope these data were transferred from the field 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:

Station KUK, located with planetable methods by the Ship "PATHFINDER" in 1948 is shown on the map manuscript. Since this station was not a natural object the scaled planetable position could not be verified.

Items 39 and 44:

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

45: COMPARISONS 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 no positive agreement in shoreline between the chart and map manuscript at any place in the area of the map manuscript. There is a large difference of geographic position of the sand spit Lat.  $58^{\circ} 30'$ , and the remaining portion of the shoreline of the chart seems to be about 200 feet west of that of the map manuscript.

Approved:

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

Respectfully submitted:

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

MAP T-9076

PROJECT NO. Ph-8(46)

SCALE OF MAP 1:20,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $x$ -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
				FORWARD	(BACK)		FORWARD	(BACK)	FORWARD	(BACK)
✓ DEED 1946	G-6906 Page 12	N.A. 1927	58° 28' 27.810"	860.5	( 996.0)			Used in radial		
	Field Comp. Page 6	N.A. 1927	58° 24' 22.571"	698.4	(1158.1)			plot		
✓ MIDDLE 1946	Field Comp. Page 3	N.A. 1927	58° 24' 22.448"	694.6	(1161.9)			"	"	"
✓ MIDDLE BLUFF	Field Comp. Page 3	N.A. 1927	58° 24' 22.954"	454.0	( 520.4)			"	"	"
✓ PEPER 1948	Field Comp.	N.A. 1927	58° 26' 42.531"	1315.9	( 540.5)			"	"	"
	Field Comp.	N.A. 1927	58° 29' 09.189"	149.1	( 824.2)			"	"	"
✓ EPIC 1948	Field Comp.	N.A. 1927	58° 24' 25.828"	799.1	(1057.3)			"	"	"
	Field Comp.	N.A. 1927	58° 31' 18.454"	299.7	( 674.7)			"	"	"

T-9076.

Geographic Names.

Alaska

Bristol Bay

✓ Kvichak Bay

✓ Big Creek

✓ Middle Bluff Light

(in part here)

Names underlined in red are  
approved. 6-16-53

REVIEW REPORT T-9076  
Planimetric Map  
20 June 1952

62. Comparison with Registered Topographic Surveys.-

T-7085(GC) 1:20,000 1948 No discrepancies noted.

63. Comparison with Maps of Other Agencies: There are no prior maps of other agencies of comparable scale.

64. Comparison with Contemporary Hydrographic Surveys.-

H-7666	1:20,000	1948
H97672	1:20,000	1948-49

The hydrographic surveys listed above are in very good agreement with this survey and no discrepancies were noted that are worthy of mention.

65. Comparison with Nautical Charts.-

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

~~See item 45 in the Compilation Report. Several minor discrepancies noted. This planimetric map should supersede the detail as shown on the provisional nautical chart.~~ Although there are large discrepancies in the geographic positions and shapes of features existent between this map and Chart 9051, listed above (see item 45) this map is unquestionably reliable in position and in the delineation of shoreline and land features.

66. Adequacy of Manuscript.-~~This planimetric map complies with Bureau standards and with project instructions.~~ The horizontal accuracy of this map manuscript is in compliance with Bureau standards where it is well controlled along the coastal areas. The probable accuracy decreases as the distance increases toward the interior where control stations are widely spaced. However, the results of radial plots and compilation indicate that the error of positioning of the detail most remote from control will not exceed 2 mm., and is probably more accurate than the limits stated.

Reviewed by:

Gordon B. Willey  
Charles Hanavich/ for/ C.H.  
Gordon B. Willey (Report, reworded by)  
*S. V. Lippich*

Approved

*S. V. Lippich*  
Chief, Review Branch  
Div. of Photogrammetry

*L. W. Swanson*  
L. W. Swanson for C. S. Reading  
Chief, Div. of Photogrammetry  
Chief, Div. of Photogrammetry

*W. E. Edwards*  
Chief, Nautical Chart Branch  
Division of Charts *CFW*

*Carl O. Weston*  
Chief, Div. of Coastal Surveys  
*SWT*

# NAUTICAL CHARTS BRANCH

SURVEY NO. T9076

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/17/49	9051	<i>J.A. McLean</i>	<input checked="" type="radio"/> Before <input type="radio"/> After Verification and Review
1-19-55	9051	<i>J.H. Eaton</i>	<i>No correction</i> <del>Before</del> <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review
			<input type="radio"/> Before <input type="radio"/> After Verification and Review

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