

# 9043

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(46) Office No. T-9043

### LOCALITY

State TERRITORY OF ALASKA

General locality BRISTOL BAY

Locality KVICHAK RIVER FROM ALAGANAK RIVER

TO LEVELOCK

1946-47

CHIEF OF PARTY

R.F.A. Studds, Ship "PATHFINDER" Field Party.  
W.H. Bainbridge, Portland Photogrammetric  
Office

LIBRARY & ARCHIVES

DATE Aug-17-1953

B-1870-1 (1)

# 9043

DATA RECORD

T - 9043

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): \_\_\_\_\_

Scale Factor (III): None

Date received in Washington Office (IV): *5-13-49*

Date reported to Nautical Chart Branch (IV): *5-21-49*

Applied to Chart No. *9051*

Date: *10-14-49*

Date registered (IV): *3-11-53*

Publication Scale (IV): *1:20,000*

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 Unadj. 27 Datum  
and N.A. 1927 Datum is Lat. minus 4.6 m.  
and Long. minus 6.0 m.*

Reference Station (III): LEVELOCK, 1946

Lat.: *39.938* ~~40.085~~ *1235.8 m*  
*1240.4 m*  
~~(616.2 m)~~  
*(620.8)*

Long.: *156° 52' 04.878"*

*500* ~~77.6~~ *71.6*  
~~(877.3 m)~~  
*883.3*

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 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 field photographs No's. 17988 & 17989 taken in 1946 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): Date: \_\_\_\_\_

Projection and Grids checked by (IV): Date: \_\_\_\_\_

Control plotted by (III): John H. Winniford Date: 12/9/48

Control checked by (III): Ree H. Barron Date: 12/13/48

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

Stereoscopic Instrument compilation (III):  
Planimetry Date: \_\_\_\_\_  
Contours Date: \_\_\_\_\_

Manuscript delineated by (III): Marie B. Elrod Date: 2/21/49

Photogrammetric Office Review by (III): Ree H. Barron Date: 3/2/49

Elevations on Manuscript checked by (II) (III): \_\_\_\_\_ 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
14394 & 14395	6-10-43	11:29	1:20,000	14.5 ft. above M.L.L.W.
14397 to 14399	6-10-43	11:38	1:20,000	13.0 ft. above M.L.L.W.
17920 & 17921	9-22-46	13:37	1:20,000	10.0 ft. above M.D.L.W.
17988 & 17989	9-25-46	09:54	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	Mean Range	Diurnal
		Spring Range
	15.2	19.5

Washington Office Review by (IV): *K.N. Maki*

Date: *6-27-52*

Final Drafting by (IV): *A.P. Berry*

Date: *8-20-52*

Drafting verified for reproduction by (IV): *W.H. Hallum*

Date: *9-4-52*

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 96.6

Shoreline (More than 200 meters to opposite shore) (III): 30.3 Statute Miles

Shoreline (Less than 200 meters to opposite shore) (III): 15.8 Statute Miles

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Recovered:

Identified:

Number of BMs searched for (II):

Recovered:

Identified:

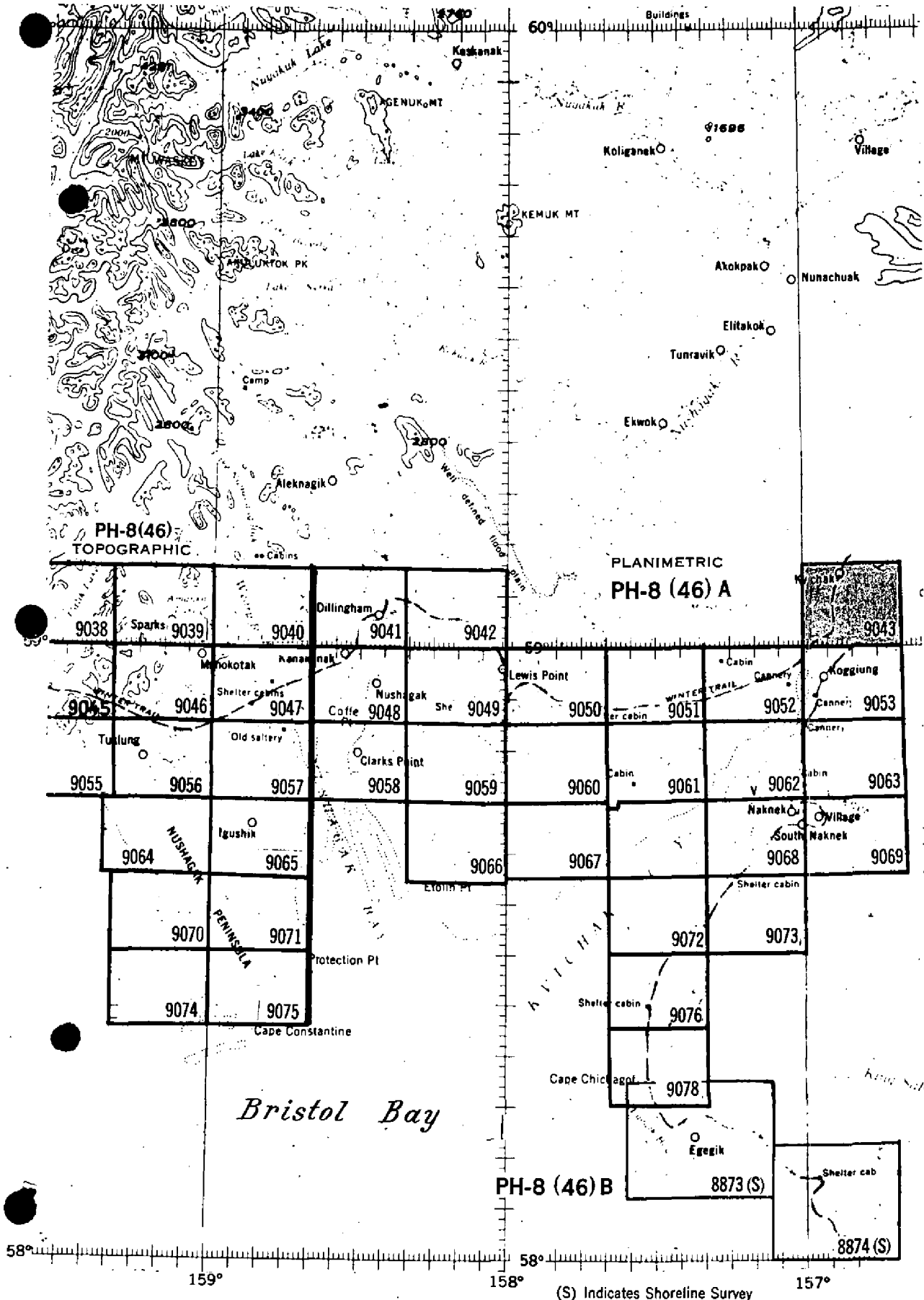
Number of Recoverable Photo Stations established (III): 6 (By Ship "PATHFINDER")

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

Remarks:

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

ALASKA, Vicinity of Bristol Bay



Summary to Accompany T-9043

Project Ph-8(46) consists of a series of 45 topographic maps, sub project Ph-8(46)A consists of a series of 23 planimetric maps and sub project Ph-8(46)B consists of two shoreline maps. T-9043 is one of the planimetric maps.

T-9043, the most northeasterly map in the project is centrally divided by the Kvichak River which runs north and south across the map area. The Alagnak River joins the Kvichak River at the south central limits of the map. Field operations included the establishment of horizontal control and the partial identification of shoreline and interior features. The map is a graphic compilation at a scale of 1:20,000.

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

FIELD INSPECTION REPORT  
Map Manuscript T-9043  
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.

*Report filed in Div. Photogrammetry general files.*

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

*Season's Report 1947. A Newton Stewart. Library No 138*  
*" " RFA Sludds, PATHFINDER Library No 156*



COMPILATION REPORT  
Map Manuscript No. T-9043  
Project Ph-8(46)

Items 26 and 27:

Refer to compilation report for T-9068 and T-9069.

Item 28:

Refer to compilation report for T-9053 eliminating paragraph 5 of Item 28.

Items 29 to 37 inclusive:

Refer to compilation report for T-9053.

38: RECOVERABLE TOPOGRAPHIC STATIONS:

There are <sup>five</sup> ~~six~~ recoverable topographic stations shown on this map manuscript which were located with planetable methods by the Ship "PATHFINDER". Since these stations are all natural objects they were identified on the photographs and radially plotted. The positions scaled from the radial plot did not differ from the scaled planetable positions by more than 3.0 meters in any instance.

Items 39, 44, and 45:

Refer to compilation report for T-9053.

*Now  
Rag  
Zag  
Egg  
Lax* See Desc Report T-7098  
(Graphic Control)

*Toy - submitted as Landmark  
for Charts. See Chart Letter  
#470 (1948)*

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

MAP T.....9043

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)
✓ LEVELOCK, 1946	<del>G-6906</del> G-6906 Page 171	N.A. 1927	59° 06' 39.938"	40.085"	1240.4	( 616.2)		Established in 1946	Established in 1946		
✓ LEVELOCK AZI - MUTH MARK, 1946	<del>G-9236</del> G-6906 Page 177	N.A. 1927	59° 06' 49.92"	48.068"	1487.4	( 369.2)		Identified, used radial plot	Identified, used radial plot		
✓ S 1536 CN 1 (GLO) 1946	<del>G-9236</del> G-6906 Page 178	N.A. 1927	59° 06' 50.253"	50.404"	1559.7	( 296.9)		Not identified	Not identified		
TAK 1947	Field Comp. Page 3	N.A. 1927	59° 00' 22.373"		692.3	(1164.3)		Not identified, established in 1947	Not identified, established in 1947		
WOG, 1947	Field Comp. Page 3	N.A. 1927	59° 01' 44.732"		714.1	( 243.7)		" "	" "		
NOFF, 1947	Field Comp. Page 3	N.A. 1927	59° 03' 58.374"		931.5	( 25.9)		Identified, used in radial plot.	Identified, used in radial plot.		
SCUD, 1947	Field Comp. Page 3	N.A. 1927	59° 03' 22.918"		709.2	(1147.4)		" "	" "		
			59° 04' 19.148"		592.5	(1264.1)		" "	" "		
			59° 04' 14.310"		228.0	( 727.9)		" "	" "		
* Adjusted position											

1 FT. = 3048005 METER  
COMPUTED BY: Frank H. Elrod

DATE: October 5, 1948

CHECKED BY: G. Richter

DATE: October 27, 1948

M-2388-12

T-9043. Geographic Names.

- ✓ Alaska (for title)
- ✓ Bristol Bay " "
  
- ✓ Kvichak River
- ✓ Alagenik River ~~Lachs Point~~
- ✓ Bear Creek
- ✓ Lachs Point (to be shifted to opposite mouth <sup>na</sup> Alagenik River, as on nautical chart 9051)
- ✓ Hallerville
- ✓ Hallerville Creek
- ✓ Levelock
- ✓ Levelock Creek
- ✓ Union Creek

Names underlined in red are approved. 6-26-52.

L. HECK

Review Report T-9043  
Planimetric Map  
27 June 1952

62. Comparison with Registered Topographic Surveys:

<sup>7</sup> T- <del>7</del> 097	1:20,000	1947	(graphic control)
T- <del>7</del> 098	1:20,000	1947	(graphic control)

Sections of rodded in shoreline on the graphic control surveys are in relatively close agreement with the shoreline as compiled from photographs on T-9043. The graphic control surveys make no distinction between shoreline with reference to its character, that is, whether it is marsh line or fast land. Field inspection has provided this information for the photogrammetric survey.

63. Comparison with Maps of Other Agencies:

U.S.G.S., Kamishak Bay - Katmai Region, Alaska, 1923

Detail on the U.S.G.S., map has been generalized and is shown by a dashed line to indicate that it has not been surveyed in detail.

64. Comparison with Contemporary Hydrographic Surveys:

H-7615 1:20,000 1947

The shoreline along the west bank of Kvichak River in the vicinity of Bear Creek between latitude 59° 00' and 59° 01' is not in agreement with the hydrographic survey. In this area the soundings run in the marsh about 40 meters in from the shoreline. The photogrammetric shoreline is well controlled by triangulation in this area and as noted in item 62 does not disagree to any appreciable extent with the rodded in shoreline of the graphic control survey T-7097. This discrepancy will be disposed of when the ~~(hydrographic sheet is reviewed)~~  
*shoreline is completed on H-7615, reviewed in 1949. -GRJ*

The dash line represents a generalized shallow or mud bank limit line as determined from photo interpretation. The low water line has been developed on the hydrographic survey.

65. Comparison with Nautical Charts:

9051, 1:100,000, latest print date 8/20/51

There are no significant differences between T-9043 and the chart.

66. Adequacy of Results and Future Surveys.-

T-9043 complies with project instructions. It is adequate as a base for hydrographic surveys and the construction of nautical charts.

Reviewed by:

K. N. Maki  
K. N. Maki

# NAUTICAL CHARTS BRANCH

SURVEY NO. T9043

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10/14/49	9051	<i>SA McGinn</i>	<u>Before</u> <del>After</del> Verification and Review
1-19-55	9051	<i>J. H. Eaton</i>	<i>no correction</i> <del>Before</del> After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before 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.

Review Report T-9043  
Planimetric Map  
27 June 1952

62. Comparison with Registered Topographic Surveys:

T-7097	1:20,000	1947	(graphic control)
T-7098	1:20,000	1947	(graphic control)

Sections of rodded in shoreline on the graphic control surveys are in relatively close agreement with the shoreline as compiled from photographs on T-9043. The graphic control surveys make no distinction between shoreline with reference to its character, that is, whether it is marsh line or fast land. Field inspection has provided this information for the photogrammetric survey.

63. Comparison with maps of other agencies.-

U.S.G.S., Kamishak Bay - Katmai Region, Alaska, 1923  
Detail on the U.S.G.S., map has been generalized and is shown by a dashed line to indicate that it has not been surveyed in detail.

64. Comparison with Contemporary Hydrographic Surveys.-

H-7615 1:20,000 1947

The shoreline of T-9043 along the west bank of Kvichak River in the vicinity of Bear Creek between latitude 59°00' and 59° 01' is not in agreement with the hydrographic survey. The 1946 photograph from which this shoreline was compiled shows that considerable erosion has occurred in comparison with the shoreline as it appears on the 1943 photography. Continuing erosion is indicated by the latter 1947 graphic control survey (T-7097) which shows a further westward movement of the shoreline.

The dash line represents a generalized shallow or mud bank limit line as determined from photo interpretation. The low water line has been developed on the hydrographic survey.

65. Comparison with Nautical Charts.-

9051, 1:100,000, latest print date 8/20/51

There are no significant differences between T-9043 and the chart.

66. Adequacy of Results and Future Surveys.-T-9043 complies with project instructions. It is adequate as a base for hydrographic surveys and the construction of nautical charts.

Reviewed by:

K. N. Maki  
K, N. Maki

Approved by:

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

H. Edmonson  
Chief, Nautical Chart Branch  
Division of Charts GFD

O. J. Reading  
Chief, Div. of Photogrammetry

Carl O. Heston  
Chief, Div. of Coastal Surveys  
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*[Handwritten initials]*

## 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