

9053

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-3(16)A Office No. T-9053

LOCALITY

State TERRITORY OF ALASKA

General locality KVICHAK BAY

Locality KVICHAK RIVER

194

CHIEF OF PARTY

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

LIBRARY & ARCHIVES

DATE Aug - 17 - 1953

B-1870-1 (1)

3
1
0
0

DATA RECORD

T- 9053

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): *5-5-49* Date reported to Nautical Chart Branch (IV): *5-10-49*

Applied to Chart No. *9051* Date: *11/2/49* 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. ~~3.2~~ / minus 3.2 m.
and Long. ~~5.4~~ / minus 5.4 m.*

Reference Station (III): KOGGIUNG, 1946

Lat.: 58° 57' 23.824" ~~710.7~~ ^{37.2} Long.: 156° 55' 53.606" ~~857.0~~ ^{856.4} ~~Adjusted~~ ✓
~~(2116.3m)~~ ~~(102.2)~~ ~~Unadjusted~~ ✗

Plane Coordinates (IV):

State:

Zone:

Y=

Military Grid: WAC Lambert Projection

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 1946 field photographs by field party. This data was transferred to the 1946 office photographs with the use of the stereoscope and then compiled.

Projection and Grids ruled by (IV): *Washington Office* Date: *1948*

Projection and Grids checked by (IV): *Washington Office* Date: *1948*

Control plotted by (III): John H. Winniford Date: 12/7/48

Control checked by (III): James L. Harris Date: 12/27/48

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

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

Manuscript delineated by (III): Helen L. Laube Date: 3/21/49

Photogrammetric Office Review by (III): Ree H. Barron Date: 3/29/49

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

Camera (kind or source) (III): USC&GS 9 lens - focal length 8.25 inches

PHOTOGRAPHS (III)					
Number	Date	Time	Scale	Stage of Tide	
14391 to 14393 incl.	6-10-43	11:26	1:20,000	14.5 ft. above M.L.L.W.	
14400 to 14402 incl.	6-10-43	11:44	1:20,000	13.0 ft. above M.L.L.W.	
17910 to 17913 incl.	9-22-46	12:51	1:20,000	10.0 ft. above M.L.L.W.	
17986 & 17987	9-25-46	09:50	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): *C. Hanavich*

Date: 7-29-49

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

Date: 10-1-52

Drafting verified for reproduction by (IV): *R. Breene*

Date: 10-8-52

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

Date: 11-14-52

Land Area (Sq. Statute Miles) (III): 81.0

Shoreline (More than 200 meters to opposite shore) (III): 15.0 Statute Miles

Shoreline (Less than 200 meters to opposite shore) (III): 11.0 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):

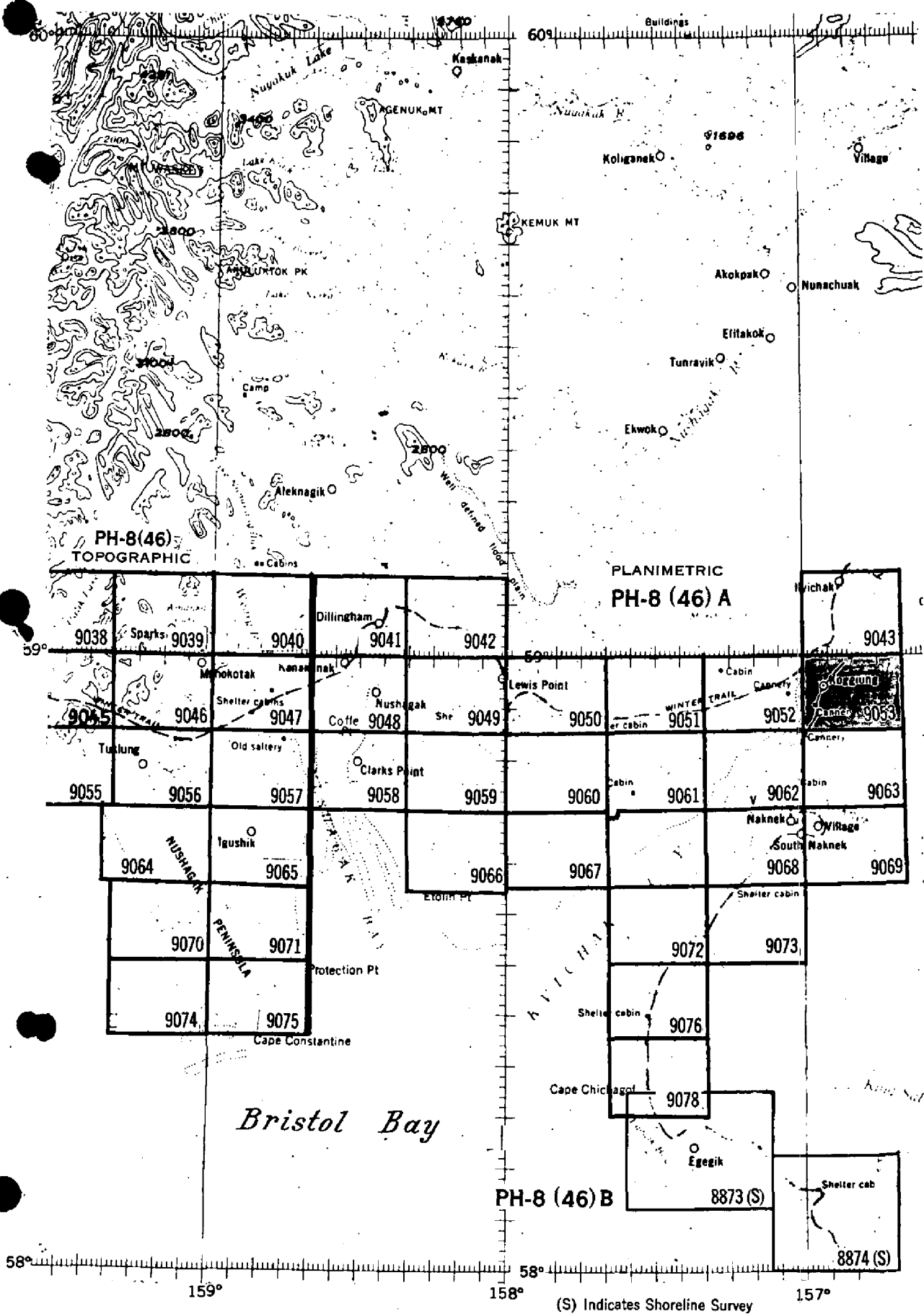
2 (By Ship "PATHFINDER")

Number of Temporary Photo Hydro Stations established (III):

Remarks:

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

ALASKA, Vicinity of Bristol Bay



(S) Indicates Shoreline Survey

Summary to accompany T-9053

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

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.

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. Huseneyer 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.

FIELD INSPECTION REPORT
Map Manuscript T-9053
Area of the 5th Radial Plot
Project Ph-3(46)

Field inspection work in this area was done by the Ship
"PATHFINDER", but a report has not been submitted to this office.

W.H. Bainbridge
W.H. Bainbridge
Comdr.-USC&G Survey

*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. Studts.*

COMPILATION REPORT
Map Manuscript No. T-9053
Project Ph-8(46)

26: CONTROL:

A complete discussion of the horizontal control stations falling in the area of this map manuscript will be found in Item 26, "Control", of the descriptive report for Map Manuscripts No's. T-9068 and T-9069.

27: RADIAL PLOT:

This map manuscript is part of a combined radial plot, comprising Map Manuscripts No's. T-9036, T-9043, T-9053, T-9063, T-9068 and T-9069, which has been fully described in Item 27, "Radial Plot" of the descriptive report for Sheets No's. T-9068 and T-9069.

28: DETAILING:

This map 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.

The transforming printer at the Washington Office was not in proper adjustment at the time the photographs were printed and they could not be oriented in their entirety at the compilation table when radially plotting various types of pass points. Each chamber of each photograph could be oriented separately, since a sufficient number of pass points were established during the radial plot. For at least two of the chambers on each photograph, it was found necessary to de-center the photograph radially, to or from the chamber being oriented, so that the radials to the pass points and horizontal control stations in the chamber would pass through their positions on the map manuscript.

The field inspection consisted generally of a partial identification of the mean high-water line and adjacent foreshore and backshore areas. Also, since Lt. Comdr. Stewart was stationed at the Portland Office while this sheet was being compiled, he was consulted frequently on interpretation of photographic details, and from his knowledge of the area, and by stereoscopic study of the photographs with him, much valuable information was obtained.

It could not be determined whether or not there is drainage connecting many of the ponds. It may be that at some period during the year there is a definite drainage pattern connecting all ponds. In any case, the minor drainage in this area is very complicated and can only be accurately determined by a detailed field inspection of the area.

Because of insufficient photographic coverage, the detailing could not be completed to the southeastern part of the map manuscript.

No attempt has been made to detail and symbolize the many changes in ground elevations. The most prominent of the knolls, which are abundant in the area, have been shown with an appropriate symbol.

Ozolid prints of the completed map manuscript have been forwarded to the Ship "PATHFINDER" and to the Seattle Processing Office.

It is believed that all provisions of paragraph 5 of the instructions, relative to drafting, have been applied to the map manuscript.

29: SUPPLEMENTAL DATA:

No supplemental data was furnished for the area of this map manuscript.

30: MEAN 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:

The approximate limits of mud flat areas in the Kvichak River have been compiled from the photographs taken during low-water.

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

There are no details offshore ^{except for mud banks} from the mean high-water line.

33: WHARVES AND SHORELINE STRUCTURES:

These features were not field inspected but have been compiled after they were determined by a careful office examination of the photographs.

34: LANDMARKS AND AIDS TO NAVIGATION:

A report on these features has been submitted by the Ship "PATHFINDER".

See Review Report

35: HYDROGRAPHIC CONTROL:

Temporary hydrographic control stations have been located by the Ship "PATHFINDER".

36: LANDING FIELDS AND AERONAUTICAL AIDS:

There are none within the limits of this map manuscript.

37: GEOGRAPHIC NAMES: 814 ✓

Geographic Names have been shown on the map manuscript as furnished by the Ship "PATHFINDER" in a temporary report on Geographic Names and as shown on a copy of an advance chart of Kvichak Bay, Egekik Bay to Libbyville, dated September 1947, Scale 1:100,000.

Refer to Form M 234 - attached to this Report - for approved list of geographic names.

38: RECOVERABLE TOPOGRAPHIC STATIONS:

There are ~~three~~^{two} recoverable topographic stations shown on this map manuscript which were located with planetable methods by the Ship "PATHFINDER". Two, which are natural objects were radially plotted and their scaled positions were in very close agreement with the scaled planetable positions furnished by the Ship "PATHFINDER".

39: JUNCTIONS:

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

44: COMPARISONS WITH EXISTING TOPOGRAPHIC SURVEYS:

There were no previous topographic surveys available to this office. *See Review Report*

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. In general the planimetric features of the chart and map manuscript are in agreement.

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. 9053

PROJECT NO. Ph. 8. (46)

SCALE OF MAP 1:20,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -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)
KOG, 1946	G-6906 Page 6	N.A. 1927	58° 58'	13.543"	419.1	(1437.5)		Used in radial plot.	Used in radial		
KOGGIUNG, 1946	G-6906 Page 6	N.A. 1927	58° 49'	14.437"	230.7	(728.1)					
APA DIAMOND "X" CANNERY, SILVER TANKS, 1946	G-6906 Page 14	N.A. 1927	58° 57'	23.929"	740.4	(1116.1)		Not identified established in 1946	Not identified established in 1946		
APA DIAMOND "X" CANNERY RED TANKS Comp. 1947	Field Page 4	N.A. 1927	58° 55'	53.942"	862.3	(96.8)		Used in radial plot	Used in radial plot		
USIM "XA" (USAAF) Comp. 1947	Field Page 3	N.A. 1927	58° 55'	07.602"	121.6	(838.5)		" "	" "		
			58° 55'	07.56"	234.0	(1622.6)					
			58° 57'	10.51"	168.2	(792.0)					
			58° 57'	59.782"	1849.8	(6.7)		Not identified established in 1947	Not identified established in 1947		
			156° 55'	52.442"	838.1	(120.8)					
<i>Note: Handi field computations.</i>											

1 FT. = 3048006 METER

COMPUTED BY: F. H. Flood

DATE October 5, 1948

CHECKED BY: G. Richter

DATE October 27, 1948

M. 2388-12

GEOGRAPHIC NAMES

Survey No. T-5053

Name on Survey	On Chart No.		On previous survey No.		On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List
	A	B	C	D	E	F	G	H	K	
<u>Alaska</u>					(for title)					1
<u>Kvichak Bay</u>			"	"						2
<u>Kvichak River</u>										3
<u>Svogor Slough</u>										4
<u>Cape Horn</u>										5
<u>Kvichak</u>					(pending with USBGN at Mislocation)					6
<u>Prosper Creek</u>										7
<u>Sea Gull Flat</u>					(not Flats)					8
<u>Coffee Creek</u>										9
<u>Coffee Creek Channel</u>										10
										11
										12
					Names underlined in red are approved. 7-14-49					13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

L. Heck

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

T-9053

NONFLOATING AIDS FOR CHARTS
(NAUTICAL)

TO BE CHARTED
-TO-BE-DELETED-

STRIKE OUT ONE

Seattle, Washington

30 March, 1948

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted X from)* the charts indicated.

The positions given have been checked after listing by E. H. Sheridan

Copied by: G. Hanavich

Copy checked by:

R. F. A. Studts

Chief of Party.

CHARTING NAME	STATE	DESCRIPTION	SIGNAL NAME	POSITION				DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	CHARTS AFFECTED		
				LATITUDE		LONGITUDE					HARBOR CHART	INSHORE CHART	OFFSHORE CHART
				°	'	°	'						
Tanks	Alaska, Bristol Bay	Top and center of for elevated wooden water tanks	BIG ✓	58	57	156	55	NA 1927	Topo. FP-B-47	1947	X		A3370
HANGER		W Gable, Silver hanger	MUG ✓	58	57	156	55	" "	" "	" "	X		"
TANKS		4 Elev. tanks (APA Diamond "X" Cannery Red Tanks)		58	55	156	58	" "	Triang. CS-327	" "	X		"
TANKS		4 Elev. tanks (APA Diamond "X" Cannery Silver Tanks)		58	55	156	58	" "	" "	1946 1947	X		"

Note: 1. Data abstracted from Chart Letter 470(1948)

2. Positions are unadj. (Field Computations)

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by

Division of Photogrammetry
Review Report of T-9053

26. Control:-Triangulation station USIM "XA"(USAAF), 1947, was replotted; it was found to have been plotted one minute south (in latitude) of its true position.

28. Detailing:-No inland field inspection on photographs was made, and office photographs were used to examine and check the work. Several tributaries to the major streams were added to retain some consistency in the drainage pattern for the area of the project.

A small section of Sea Gull Flat (an extensive mud bank), which was noted on field inspection photograph 17986 as covering only at extreme high tides, was delineated during the review as bare at MHW. It is probable that other small sections of this large mud bank are exposed at MHW, but considering the unstable nature of the bank and that the field inspection provided no additional evidence, no attempt was made to indicate them.

29. Supplemental Data:-The following were inspected for any additional information:

1. Topographic Control Surveys: T-7096 (1947) and T-7097 (1947).
2. Hydrographic Control Survey H-7615 (1947).

34. Landmarks and Aids to Navigation:-All landmarks for charts, recommended by the Ship PATHFINDER, that fall within the area of this map manuscript have been listed by the reviewer on Form 567 and attached to the Descriptive Report. They were abstracted from Chart Letter 470 (1948) which is filed in the Nautical Chart Branch, Division of Charts.

There are no aids to navigation.

38. Recoverable Topographic Stations:-Topographic Station MUG, 1947, was replotted. It was found to have been plotted about 20 meters W of its true position. (H-7615 agrees with T-9053)-G.F.J.

39. Junctions:-The remaining section of a mud bank on Sea Gull Flat exposed at MHW was added to T-9052 which junctions with this manuscript on the W. An extensive alongshore marsh area found on the N side of Kwichak River was extended into Sheet T-9052.

40. Relief: The representation of approximate relief by hachuring has been used to indicate the general relief of the terrain. Along steep or precipitous bluffs, the bluff (other than rocky) symbol was used as noted in Photogrammetry Instructions No. 17. Along less steep bluffs and slopes, the hachure symbol used is a wedge-shaped line.

44. Comparison with Existing Topographic Quadrangles:-

1. Topographic map of Nushagak District, Alaska, USGS, Scale 1:250,000, surveyed 1930-31, reprinted 1940.
2. AAF Preliminary Base, compiled by USGS from trimetrogon photography (1941-43), Scale 1:500,000, Naknek (136A), Alaska.

45. Comparison with Nautical Charts:-

1. Nautical Chart No. 8802, Scale 1:1,023,188 at Latitude 56°00', August, 1944 (17th Edition).
2. Nautical Chart No. 8502, Scale 1:969,761 at Latitude 58°00', August, 1944 (11th Edition).
3. Advance Nautical Information Chart (Kvichak River, Scale 1:100,000). Sea Gull Flat on this advance chart is shown as exposed at MHW, whereas only a small section of it is shown as exposed at MHW on the map manuscript. For additional information refer to side heading 28, paragraph 2, of the Review Report.

47. Adequacy of the Compilation.-The compilation is considered adequate. To denote more fully the extensive drainage system and to distinguish the tundra from the muskeg or marsh in the inland areas is not feasible unless supplemented by field inspection. In view of this, only the evident streams and their main laterals along with the numerous ponds are noted on the map manuscript. This map complies with project instructions. It is adequate for use as a base for hydrographic surveys and for the construction of nautical charts.

Reviewed by:

Charles Hanavich
Charles Hanavich,
29 July 1949

Approved by:

S. V. Griffith
Chief, Review Section *3*

O. S. Reading
Chief, Division of Photo-
grammetry *OR*

H. Edmonson
Chief, Nautical Chart Branch
Division of Charts *GFJ*

Carl O. Hutton
Chief, Division of Coastal
Surveys *SR7*

NAUTICAL CHARTS BRANCH

SURVEY NO. T 9053

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
11/2/49	9051	<i>L. A. McGowan</i>	Before <input checked="" type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			Before <input type="radio"/> After Verification and Review
			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