

9074

9075

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9206 7206

Diag. Cht. Nos. 8502-3 & 8802

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC
T-9075
Field No. Ph-8(46)B Office No. T-9074

LOCALITY

State ALASKA

General locality BRISTOL BAY AREA

Locality NUSHAGAK PENINSULA

1947

CHIEF OF PARTY

A.N. Stewart, Chief of Field Party.
W.H. Bainbridge, Photogrammetric Office,
Washington, D.C.

LIBRARY & ARCHIVES

DATE June-10-1953

DATA RECORD

T- 9074 and T-9075

West of Cape Constantine

Project No. (II): Ph-8(46)B (9074): ~~NUSHAGAK~~ - ~~WEST TR~~
Quadrangle Name (IV): (9075): ~~NUSHAGAK~~ - CAPE CON-
STANTINE

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, Stereo. Mapping Section

Instructions dated (II) (III): 19 March 1948 & 4 Feb. 49 (Office) Copy filed in Division of
21 April 48, 25 Apr. 47 (Field) Photogrammetry (IV)
Office Files

Method of Compilation (III): Shoreline: Graphic
Contours: Reading Plotter No. 1
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. Date: Date registered (IV): 4-7-53

Publication Scale (IV): Publication date (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 (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 3 m.
and Long. minus 5 m.

Reference Station (III):

Lat.:

Long.:

Adjusted ✓

~~Unadjusted~~

Plane Coordinates (IV):

State:

Zone:

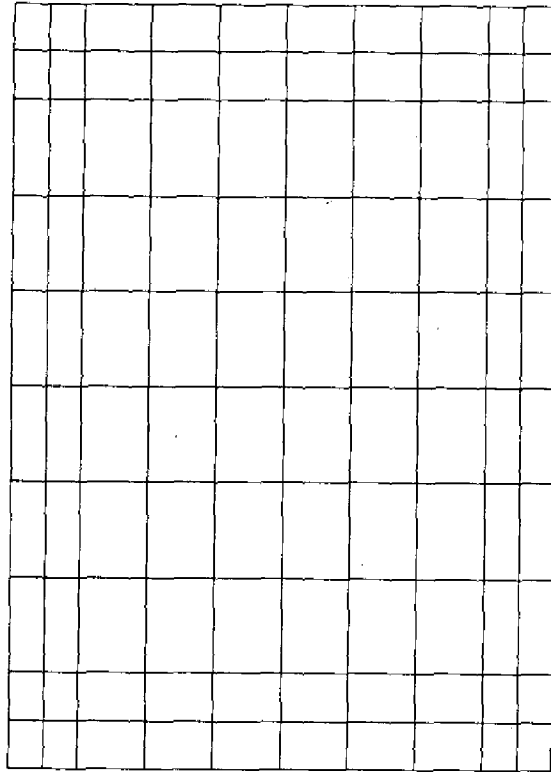
Y=

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.

(17)



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. Misfeldt
Louis Levin

DATA RECORD

T-9074

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

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 1947 field photographs 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): Ruling Machine Date: Unknown

Projection and Grids checked by (IV): Unknown Date: Unknown

Control plotted by (III): Carita C. Wiebe (9075) Date: July 1948

Control checked by (III): James L. Harris (9075) Date: July 1948

Radial Plot of Stereoscopic ~~Control Extension~~ From Unmounted Photographs Date: 10 Aug. 1948
 Control Extension by (III): J.L. Harris and J.E. Deal from Metal Mounted Photographs Date: 25 Apr. 1949

delineation ~~by (III):~~ Orvis N. Dalbey Date:
 Stereoscopic Instrument ~~by (III):~~ Louis Levin
 Contours C.E. Misfeldt Date: 10 Feb. 1950

compilation

Manuscript delineated by (III): Helen L. Laube (shoreline) (9074) Date: 1 Sept. 1948
 John B. McDonald (contours) 20 Feb. 1950
 Roy A. Davidson (shoreline) (9075) 16 Sept. 1948

Revised and

Photogrammetric Office Review by (III): Ree H. Barron (9074) Date: 20 May 1949
 Frank H. Elrod (9075) 25 Apr. 1949

Elevations on Manuscript Date: 1 March 1950
 checked by (III) (III): Louis J. Reed

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

Number	Date	PHOTOGRAPHS (III) Time	Scale	Stage of Tide
9074				
18060	10/12/46	12:00	1:20,000	9.5 ft. above M.S.L.
9075				
18024 & 25	10/12/46	11:29	"	8.0 ft. above M.S.L.
18056 - 60	10/12/46	11:55	"	9.4 " "
20398 - 400	8/23/47	10:58	"	5.0 " " "
23372 - 74	9/ 2/48	10:25	"	5.5 " " "
23391 & 92	9/ 2/48	10:43	"	6.0 " " "

(Above stages checked by McKay of Tides & Currents, 20 Aug. 49)

Tide (III)

Diurnal

Reference Station: Nushagak Bay (Clark Point)
 Subordinate Station: Protection Point
 Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
0.8	12.5	17.0

Washington Office Review by (IV): *C. Theurer*

Date: *10-2-50*

Final Drafting by (IV): *T-9074 Mrs M. Day*
T-9075 Mrs M. Day

Date: *Aug 15-52*

Drafting verified for reproduction by (IV): *Levi Vaucher*

Date: *8-29-52*
8-29-52

Proof Edit by (IV): *Levi Vaucher*

Date: *10-11-52*
10-17-52

Land Area (Sq. Statute Miles) (III): 12.0 (9074); 78.0 (9075)
 Shoreline (More than 200 meters to opposite shore) (III): 6.0 Statute Miles (9074); 18.0 (9075)
 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 (9074); 4 (9075)

Number of Temporary Photo Hydro Stations established (III): 1 (9074); 5 (9075)

Remarks:

Summary to Accompany T-9074 and T-9075

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

^{Ph-8} ~~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-9074 and T-9075 cover the southern part of Nushagak Peninsula and are the southeastern most maps in project Ph-8(~~46~~)B. 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
~~Map Manuscripts T-9074 and T-9075~~
~~Area of the 1st Radial Plot~~
~~Project Ph-8(46)~~

1-20

There was no detailed field inspection in the area of these two map manuscripts. Pertinent data on photographic 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.

Filed in Div. of Photg. - General Files Library No. 138

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

COMPILATION REPORT

~~Map Manuscripts No's. T-9074 and T-9075~~
~~Project Ph-8(46)~~

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-9074 for T-9064 and T-9075 for T-9065.
~~Filed in Div. of Photogrammetry General Files~~

38. RECOVERABLE TOPOGRAPHIC STATIONS:

Form 524 is submitted for the following:

In T-9074

OPEN 1947
NOON 1947

In T-9075

RAIN 1947
SICK 1947
SOAP 1947
POLL 1947

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

COMPILATION REPORT

Topography - Washington Office

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 ^{vertical angle} 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

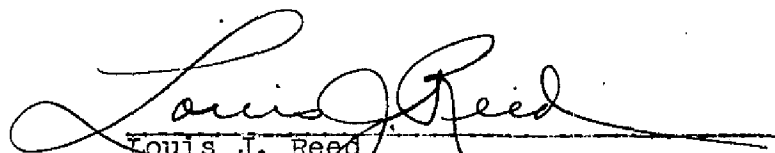
45. Comparison with Nautical Charts:

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 Review Report

The Radial Plot Report for T-9064-5; T-9070-1; T-9074-5 is a separate report and forms part of the Completion Report for Project Ph-4(44)

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-8(46)~~
~~Sheets No's. T-9074 and T-9075~~

T-9074

7401
Formerly # 153 The station is a sand dune probably
20' high (highest one) with exposed sand on
shore side with the rest covered by grass.

T-9075

7501
Formerly # 18 The station is the center of the mouth
of the draw, on the elongation of the bluff
lines at beach level.

7502
Formerly # 19 The station is the center of the mouth
of the draw, on the elongation of the bluff
lines at beach level.

7503
Formerly # 150. The station is the first point, grass
covered and somewhat rounded, east of the
point on the east side of the mouth of the
river after it starts inland.

7504
Formerly # 151 The station is the highest grass covered
sand dune in the area. Approximately 50'
high and is 3200' (scaled) east of the mouth
of a tidal river.

7505
Formerly # 152 The station is a grassy point on the
western side of a small drainage stream.

GEOGRAPHIC NAMES

Survey No.

f-9074

Name on Survey

A On Chart No.
 B On previous survey No.
 C On U. S. quadrangle Maps
 D From local information
 E On local Maps
 F P. O. Guide or Map
 G Rand McNally Atlas
 H U. S. Light List
 K

Name on Survey	A	B	C	D	E	F	G	H	K	
<u>Alaska</u>										1
<u>Bristol Bay</u>									UCOB	2
<u>Nuchagak Peninsula</u>										3
										4
										5
										6
										7
										8
										9
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										26
										27

Names underlined in red are approved. 9-28-50. L HECK

GEOGRAPHIC NAMES

Survey No.

T-9075

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>																1
<u>Bristol Bay</u>															USGB	2
<u>Mushagak Bay</u>																3
<u>Mushagak Peninsula</u>																4
<u>Cape Constantine</u>																5
<u>Quak</u>																6
<u>Protection Point</u>																7
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(Hydro. type: applies to mouth of stream which is used as a refuge for small boats)

Names underlined in red are approved. 9-28-50. L. H. C.

Review Report T-9074 & T-9075
Topographic Maps
October 2, 1950

62. Comparison with Registered Topographic Surveys.-

a. ~~T-9074~~ - None
~~T-9075~~
T-3090 1:20,000 1910

The map manuscript supersedes this survey 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 shown in the chart legend. Nautical chart branch notified.

Several marsh and tidal flats areas, revised during review, should be corrected on the chart.

66. Adequacy of Results and Future Surveys.

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 areas are shown as they appear at the time of the photographs. These areas are more extensive at MLLW.

Field instructions for this project were written in April, 1947. At that time, the intention was to draw 100 foot contours in the low areas and 200 foot contours in the rugged, mountainous areas. It was specified that elevations be spaced 3 - 5 miles where practical and never more than 8 miles apart. It was decided during the compilation of the relatively flat area on the lower Nushagak Peninsula (Radial Plot No. 1 area) that it would be necessary to reduce the contour interval to 50 feet with some 25 foot ^{intermediate} contours to properly express the relief. _{Supplementary}

Elevations provided for the contouring were checked vertical angle elevations at the main scheme triangulation stations and 9 supplementary checked and 5 unchecked vertical angle elevations with an average spacing of 6 miles. The supplementary elevations were obtained by vertical angle readings on triangulation stations and inland mountain peaks. Their horizontal positions were located by radial plot with satisfactory results using metal-mounted photographs.

The elevations for the main scheme triangulation stations in the area of Radial Plot No. 1 were closed into tide readings and are within approximately 6 feet of their true elevation. The inland mountain peak elevations were determined by vertical angles from the main scheme triangulation stations and are correct within approximately 9 feet. The average length of the shots to determine elevations for the supplementary vertical control was 20 miles and they were all in approximately the same direction, toward the northwest. Considering the possible error that might be introduced ^{through the} distances observed, these elevations could be in error as much as 40 feet.

All 6 quadrangles in the Radial Plot No. 1 area contain sea level elevations enabling the Nine-Lens Plotter operator to level the model along the shore and check into mean sea level. Numerous, large lakes were also an aid in levelling models. Field elevations were checked by the operator and one point that could not be held was discarded. Therefore, since no point on lower Nushagak Peninsula is more than 8 miles from the shoreline, the possibility of large errors in the field elevations was eliminated.

The 25 foot contour and all 50 foot contours are within the National Standards of Map Accuracy. All other half-interval contours are approximate.

Reviewed by:

Charles Theurer
C. Theurer

Approved:

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

O. S. Reading
Chief, Div. of Photogrammetry

Reddy

J. H. Robinson
Chief, Nautical Chart Branch
Division of Charts
Carl O. Henton
Chief, Div. of Coastal Surveys

SRF

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