

9561 9562

Diag. Cht. No. 8802.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

*Planimetric*  
Type of Survey ~~Shoreline~~ (Photogrammetric)  
Field No. T-9561 and  
Office No. T-9562

### LOCALITY

Territory Alaska  
State Bristol Bay, North Shore  
General locality Alaska Peninsula  
Locality Vicinity Ilnik Lake

1949

### CHIEF OF PARTY

A. N. Stewart, Chief of Party  
Fred Natella, Portland Photogrammetric Office

### LIBRARY & ARCHIVES

DATE JUN 24 1958

CGMM-DC 61300

9562

9561

DESCRIPTIVE REPORT - DATA RECORD

T - 9561 and T-9562

Project No. (II): 6040

Quadrangle Name (IV):

Field Office (II): Meshik, Alaska

Chief of Party: A. Newton Stewart

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: Fred Natella

Instructions dated (II) (III): Nov. 29, 1954)  
Sept. 14, 1955) Office

Copy filed in Division of  
Photogrammetry (IV)

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):

MAR 22 1956

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 24 Oct 1957

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III):

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

Reference Station (III): See reverse side

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.

T-9561 WILLIE, 1950

Lat.  $56^{\circ} 33' 33.055''$ (1022.4) Long.  $159^{\circ} 45' 42.700''$ (729.3)

T-9562 ILNIK, 1949

Lat.  $56^{\circ} 35' 59.668''$ (1845.7) Long.  $159^{\circ} 37' 01.643''$ ( 28.0)

DESCRIPTIVE REPORT - DATA RECORD

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

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): I. Zirple, R. B. Melby, B. Kurs

Date: Season 1949

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): In stable areas from field locations in 1949 and shown on 1943 nine lens photographs. In unstable areas from office interpretation from 1955 nine lens photographs.

Projection and Grids ruled by (IV):

Date:

Projection and Grids checked by (IV):

Date:

Control plotted by (III): J. L. Harris

Date: 27 Sept. 1955

Control checked by (III): J. E. Deal

Date: 29 Sept. 1955

Radial Plot or Stereoscopic J. L. Harris  
Control extension by (III):

Date: 9 Nov. 1955

Planimetry  
Stereoscopic Instrument compilation (III):  
Contours

Date:

Date:

Manuscript delineated by (III): See reverse side

Date:

Photogrammetric Office Review by (III): J. E. Deal

Date: 24 Feb. 1956

Elevations on Manuscript  
checked by (II) (III): C. C. Harris

Date: 23 Feb. 1956

|        |                    |             |                |             |                 |             |
|--------|--------------------|-------------|----------------|-------------|-----------------|-------------|
|        | <u>Pencil</u>      | <u>Date</u> | <u>Scribed</u> | <u>Date</u> | <u>Stick-up</u> | <u>Date</u> |
|        | <u>Compilation</u> |             |                |             |                 |             |
| T-9561 | D.N. Williams      | 1/11/56     | D.N. Williams  | 1/19/56     | C.C. Harris     | 2/23/56     |
| T-9562 | D.N. Williams      | 1/18/56     | D.N. Williams  | 1/24/56     | C.C. Harris     | 2/20/56     |

## DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): U.S.C. &amp; G.S. 9 lens - Focal length 8.25 inches

## PHOTOGRAPHS (III)

| Number           | Date    | Time  | Scale    | Stage of Tide          |
|------------------|---------|-------|----------|------------------------|
| 38722 thru 38725 | 8/14/52 | 10:35 | 1:20,000 | 1.7 ft. below M.L.L.W. |
| 51077            | 6/18/55 | 16:23 | 1:20,000 | 2.0 ft. above M.L.L.W. |
| 51087 and 51088  | 6/18/55 | 16:35 | 1:20,000 | 2.0 ft. above M.L.L.W. |
| 51093 thru 51096 | 6/18/55 | 16:45 | 1:20,000 | 2.0 ft. above M.L.L.W. |

## Tide (III)

Reference Station: Nushagak Bay  
 Subordinate Station: Port Moller )  
 Subordinate Station: Egegik River Ent.) Proportioned

| Ratio of<br>Ranges | Mean<br>Range | Diurnal<br>Range |
|--------------------|---------------|------------------|
|                    | 15.3          | 19.5             |
| 0.92               | 13.8          | 18.2             |
| 0.55h              | 7.5           | 10.6             |

0.85L

Date:

Washington Office Review by (IV):

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 136

Shoreline (More than 200 meters to opposite shore) (III): 57.0

Shoreline (Less than 200 meters to opposite shore) (III): 32.2

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 6

Recovered: 6

Identified: 5

Number of BMs searched for (II):

Recovered:

Identified: 1\*

Number of Recoverable Photo Stations established (III): 2\*\*

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

## Remarks:

\* Spot elevation vertical control point

\*\* 3 were established but one was made a triangulation station  
by subsequent observations

FIELD INSPECTION REPORT

Map Manuscripts T-9561 and T-9562

Project 6040

Refer to Project Report, Aerial Photograph Control and Inspection, Alaska Peninsula, Alaska, Project Ph-40(49) July - Sept. 1949  
A. Newton Stewart, Chief of Party.

# PHOTOGRAMMETRIC PLOT REPORT

Map Manuscripts T-9561, T-9562, T-9564,

T-9565, T-9567 and T-9570

Radial Plot "A"

Project 6040

## 21. Area Covered:

This radial plot covers an area approximately seven miles in width along the north shore of the Alaska Peninsula or otherwise the southeast shore of Bristol Bay from Bear River Village to Il-nik. It comprises Map Manuscripts T-9561, T-9562, T-9564, T-9565, T-9567 and T-9570.

## 22. Methods:

This radial plot was accomplished by the usual hand templet method.

The manuscripts were furnished on vinylite material each ruled with its respective polyconic projection in one minute intervals and the Universal Transverse Mercator Grids in 2000 meter intervals. These manuscripts were joined together by matching at the neat lines of joining manuscripts and then fastened with clear cellulose tape. Base grids were not used.

The photography consisted mainly of two flights of nine lens photographs made in June 1955 and flown parallel to the shoreline, except in T-9561 and T-9562 where there was only one flight of 1955 photography. The 1955 photographs were supplemented by nine lens photographs made in August 1952. The shoreline in this project is subject to extreme changes due to storms and high tides and the changes in photograph detail made it impossible to correlate the 1952 and 1955 photography when selecting pass points at or near the mean high-water line. This condition did not permit the procuring of wide angle intersections of radials that would strongly fix the latitude locations of pass points that were considered essential at places along the shoreline in T-9561 and T-9562. This difficulty was resolved by using other pass points situated just inshore that were strongly located by using both sets of photography and these points were brought into the radial plot scale on certain of the 1955 photographs by use of the vertical projector. The locations of the weak points were then determined along the slim angle of radial intersections obtained from the 1955 photography.

Master Templet No. 36269 was used for the 1952 photography and Master Templet No. 48340 was used for the 1955 photography for the correction of paper distortion and transforming errors.

All horizontal control stations were held within the allowable tolerance and the resulting intersections of radials for photogrammetric points were very good.

23. Adequacy of Control:

The horizontal control stations were adequate. There were identifications furnished for several stations which were originally intended to be located by photogrammetric methods. Since the time of field inspection sufficient observations were made to compute positions for these stations and their positions are now included in the lists of geographic positions under 3rd order control. In these cases the sub-stations identified for the stations were occupied when turning the angle from the initial so the position of the sub-stations could not be computed. They were used as horizontal control stations in this radial plot by graphically plotting the locations of the sub-stations after the published positions were plotted.

There were just two stations used to control the radial plot along the east detail limits namely: V-18, 1950 in T-9570 and ETHEL, 1949 in T-9562. Other identified stations along the east limits of the plot were beyond the photograph coverage furnished for the project.

24. Supplemental Data:

None.

25. Photography:

Refer to remarks in Item 22 "Methods".

Approved:

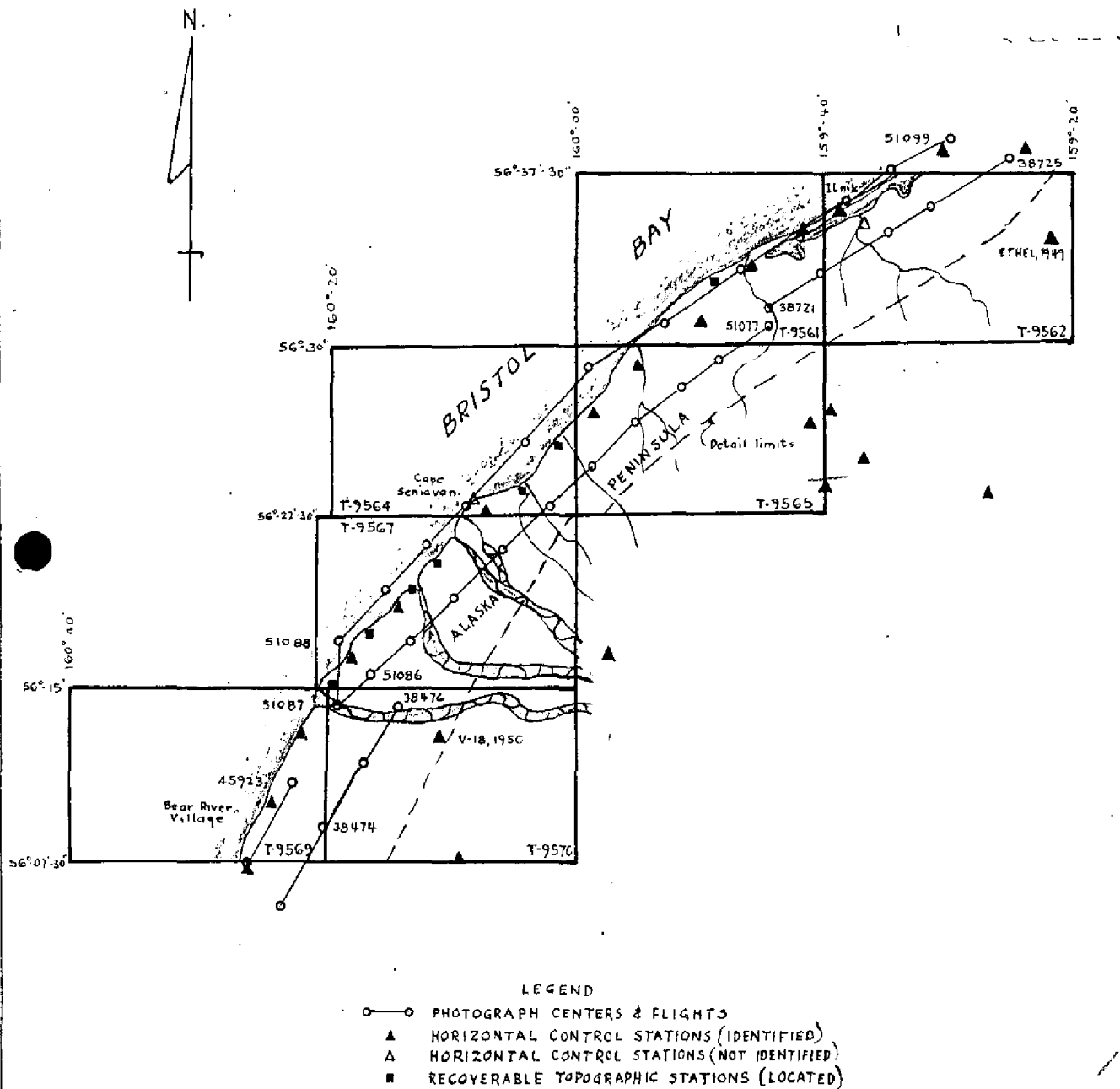
*Fred Natella*  
*JED*

Fred Natella  
Comdr., C&G Survey  
Officer-in-Charge

Respectfully submitted:

*J. Edward Deal*

J. Edward Deal  
Cartographer



SKETCH SHOWING  
AREA OF RADIAL PLOT "A"  
PROJECT 6040  
ALASKA PENINSULA-BRISTOL BAY

0 5 10 15 20 miles

MAP T-9561.

PROJECT NO. 6040

SCALE OF MAP 1:20,000

SCALE FACTOR ..... None.

[illegible]

1 FT. = 3048006 METER

COMPUTED BY: D.N.W.

DATE..... 17 Sept. 1955

CHECKED BY: C.C. Harris

DATE 9/21/55

COMM-DC-57843

MAP T-9562.

PROJECT NO. 6040

SCALE OF MAP 1:20,000

SCALE FACTOR ..... None

[illegible]

1 FT. = 3048006 METER

COMPUTED BY: D.N.W.

DATE 17 Sept. 1955

CHECKED BY: C.C.H.

DATE 9/22/55

COMM-DC-57843

COMPILATION REPORT

Map Manuscripts T-9561 and T-9562

Project 6040

31. Delineation:

These map manuscripts were compiled by the usual graphic methods and detailed in pencil on the polyconic projections on which the results of the photogrammetric plot had been recorded. The planimetric detail in pencil was then transferred in the negative to sheets of yellow coated Mylar material by the "Blue Cote" process. Lines were scribed in the negative on the Mylar material and then contact film positives were made on polystyrene material. Symbols and lettering were applied to the contact film positives with clear stick-up material.

The field inspection of interior areas was generalized and it was necessary to do extensive office interpretation of ground conditions especially in determining low wet areas. The land area on the whole is believed to be mostly low and of a marshy character. An effort has been made to distinguish those areas that are truly low and wet from the areas that are believed to be practically dry during most of the year. This eliminated covering most of the land area with the marsh symbol stick-up and contributed some topographic character to the map manuscript.

Refer to remarks in the photogrammetric plot report relative to photograph inadequacies.

Refer to Item 35, "Shoreline and alongshore details" for other remarks relative to photographs.

32. Control:

Refer to Item 22, "Method" of the Photogrammetric Plot Report for remarks relative to identified horizontal control stations. There were sufficient pass points located during the radial plot to control the orientation of photographs at the compilation table when locating minor pass points for detailing.

33. Supplemental Data:

None.

34. Contours and Drainage:

Contours are not applicable. Drainage was delineated by office examination of the photographs.

35. Shoreline and Alongshore Details:

Within the limits of these two map manuscripts the mean high-water line along the Bristol Bay shoreline is constant and was easily delineated from the 1955 photography. No attempt was made to delineate the approximate low-water line but a foreshore area visible on the 1955 photographs has been shown.

36. Offshore Details:

There are no offshore details.

37. Landmarks and Aids:

There is one landmark recommended namely "Ilnik Village". This village is shown on T-9562 and the location entered on Form 567 is the geographic position of triangulation station ILNIK No. 35, USAF, 1950.

38. Control for Future Surveys:

Forms 524 are submitted with these map manuscripts for EAST, 1949 (T-9561) and TRAP, 1949 (T-9562) and these are also listed in Item 49 "Notes to the Hydrographer".

39. Junctions:

Satisfactory junctions have been made with all adjoining map manuscripts.

40. Horizontal and Vertical Accuracy:

There are no areas of sub-normal horizontal accuracy.

Vertical accuracy is not applicable.

41. Computation of Vertical Control Stations:

In T-9561 are shown stations V-1022 A&B, V-1023 A&B and V-1024 A&B. Computations of elevations for these stations were made from non-reciprocal zenith distances measured in field and horizontal distances scaled from the map manuscripts. The results gave minus elevations and all were rejected. In T-9562 are shown V-1025 and V-1026. The elevation for V-1025 was rejected for like reasons. The elevation for V-1026 was computed to be 26 feet. A separate report will be submitted along with computations and field data for the computations of elevations for vertical control stations for the entire project.

46. Comparison with Existing Maps:

Comparison was made with U.S.G.S. Chignik, Alaska Reconnaissance

Topographic Series, Scale 1:250,000 dated 1951.

47. Comparison with Nautical Charts:

Comparison was made with Nautical Chart No. 8802, Scale 1:1,023,188 at Lat. 56° 00' published Dec. 1952 (18th Edition) last correction date 12/29/52.

"Items to be applied to Nautical Charts immediately"

None.

"Items to be Carried Forward"

None.

Approved:

*Fred Natella*

Fred Natella  
Comdr., C&G Survey  
Officer-in-Charge

Respectfully submitted:

*J. Edward Deal*

J. Edward Deal  
Cartographer

48. Geographic Names:

Geographic names appearing on T-9561 are:

Alaska Peninsula  
Bristol Bay  
Fracture Creek  
Ilnik Lake

Geographic names appearing on T-9562 are:

Alaska Peninsula  
Bristol Bay  
Fog Creek  
Ilnik

Names approved  
5-20-57  
L. Heck

49. Notes to the Hydrographer:

Recoverable topographic stations located are:

In T-9651              EASY, 1949

In T-9562              TRAP, 1949

No photo-hydro stations were located.

27 February 1956

To: CDR Fred Natella  
Coast and Geodetic Survey  
405 Custom House  
Portland 9, Oregon

Subject: Elevations of photogrammetric vertical control  
points - Project 6040 - North Shore, Alaska Pen.

In reference to your letter dated 19 January 1956, a study of the photogrammetric vertical control points in T-9561 and T-9562 has been completed. It has been concluded that the instrument stations were identified satisfactorily, but many of the observed objects and features were misidentified.

Most of the objects were not visited and the water surface points on the distant edges of lakes and ponds in areas of many similar features cast suspicion on their identification. The analysis of the computations further corroborates this suspicion and no valid reason can be found for applying a correction as referred to in your letter.

The terrain in this area is low and flat. Misidentification of some of the stations not visited can be expected. For this reason the vertical control stations should be located on the manuscripts, but the elevations omitted. Enter the elevations in a summary attached to the descriptive reports, including remarks pertinent to the probable reliability and accuracy of each station.

The vertical control stations are not required for mapping project 6040 but will be of considerable help in contouring the Alaska Peninsula. The stations are of sufficient density that no difficulty is anticipated in segregating the good from the bad on the plotting instruments with the small scale photography.

All data pertaining to the computations have been returned under separate cover.

S/ROBERT W. KNOX

Acting Director

Review Report of Planimetric Maps

T-9561 and T-9562

July 1957

62. Comparison with Registered Topographic Surveys:

There are no registered topographic surveys of this area.

63. Comparison with Maps of Other Agencies:

CHIGNIK, ALASKA      1:250 000      1951      USGS

Agreement is as good as scale difference permits.

64. Comparison with Contemporary Hydrographic Surveys:

There are no contemporary hydrographic surveys of this area.

65. Comparison with Nautical Charts:

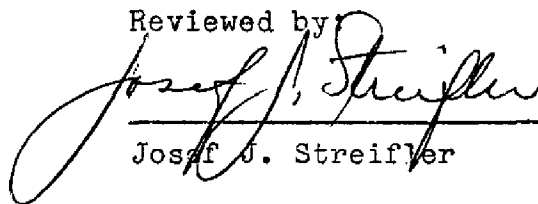
|      |            |      |         |
|------|------------|------|---------|
| 8802 | 1:1023 188 | 1956 | (7-9)   |
| 9302 | 1:1534 076 | 1956 | (12-24) |

The considerable differences in scale do not permit an effective comparison.

66. Adequacy of Results and Future Surveys:

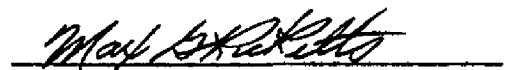
Control and field inspection of these two surveys appear adequate and no inaccuracies are indicated.

Reviewed by:

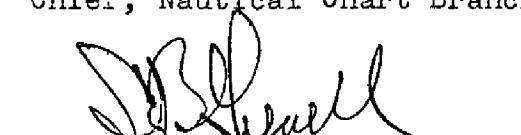
  
Josef J. Streifler

APPROVED:

  
Chief, Review and Drafting Sec.  
Photogrammetry Division

  
Chief, Nautical Chart Branch

  
Chief, Photogrammetry Division

  
Chief, Coastal Surveys

Summary

to accompany Planimetric Maps:

T-9561 and T-9562

The two subject planimetric maps are in the vicinity of SEAL ISLANDS, BRISTOL BAY, ALASKA PENINSULA, ALASKA.

June 1943 photography was used in the field inspection during season of 1949. Compilation of these surveys was accomplished from photography of August 1952 and June 1955. Frequent and extreme shoreline changes along Bristol Bay necessitated the disregard of many of the field inspectors notations on the older photographs.

These two planimetric maps were scribed in the Portland Office from pencil compilations. Limited additions and changes were applied directly to the submitted film positives by the reviewer. Contact film negatives and acceptable "Cronar" film positives will be obtained to be filed with the descriptive report in the Bureau Archives.