Form 804
U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

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

LOCALITY

Territory: State: Alaska
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
T-9561 and T-9562

Project No. (II): 6040

Quadrangle Name (IV):

Field Office (II): Neshik, Alaska

Chief of Party: A. Newton Stewart

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: Fred Natella

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

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 24 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 (5) refer to mean high water

Elevations shown as (3) 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° 33' 33.055"(1022.4)  Long. 159° 45' 42.700"(729.3)

T-9562  ILMIK, 1949

Lat. 56° 35' 59.668"(1845.7)  Long. 159° 37' 01.643"(28.0)
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 Control extension by (III): J. L. Harris
Date: 9 Nov. 1955

Planimetry

Stereoscopic Instrument compilation (III): Contours
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
### Descriptive Report - Data Record

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

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>38722 thru 38725</td>
<td>8/14/52</td>
<td>10:35</td>
<td>1:20,000</td>
<td>1.7 ft. below M.L.L.W.</td>
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<tr>
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<td>6/18/55</td>
<td>16:23</td>
<td>1:20,000</td>
<td>2.0 ft. above M.L.L.W.</td>
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<td>6/18/55</td>
<td>16:35</td>
<td>1:20,000</td>
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<td>6/18/55</td>
<td>16:45</td>
<td>1:20,000</td>
<td>2.0 ft. above M.L.L.W.</td>
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#### Tide (III)

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<tr>
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<th>Subordinate Station: Port Moller</th>
<th>Subordinate Station: Egegik River Ent.</th>
<th>Ratio of Mean Range</th>
<th>Mean Range</th>
<th>Spring Range</th>
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<td></td>
<td>Proportioned</td>
<td>15.3</td>
<td>19.5</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td>13.8</td>
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<td></td>
<td></td>
<td></td>
<td>0.55h</td>
<td>7.5</td>
<td>10.6</td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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</table>

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

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: 5
Identified: 1*

Number of Recoverable Photo Stations established (III): 28

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 Ilinik. 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 vinlylite 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
Condr., C&G Survey
Officer-in-Charge

Respectfully submitted:

J. Edward Deal
Cartographer
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION</th>
<th>LATITUDE OR $\nu$-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET OR PROJECTION LINE IN METERS</th>
<th>DATUM CONNECTION</th>
<th>N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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<td></td>
<td>P- 289</td>
<td>1927</td>
<td>159 44</td>
<td>32,295</td>
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<td>AMBER, 1949</td>
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<td>56 30</td>
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<td></td>
<td>P. 286</td>
<td>&quot;</td>
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1 FT = 0.3048006 METER

COMPUTED BY: D.N.W.  DATE: 17 Sept., 1955  CHECKED BY: C.C. Harris  DATE: 9/21/55
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<th>DATUM</th>
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<th>LONGITUDE OR X-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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<td>P-193</td>
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<td>21</td>
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<td>35</td>
<td>56.625</td>
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<td>(USAF) 1950</td>
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<td>56</td>
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<td>59.668</td>
<td>1845.7</td>
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<td>159</td>
<td>37</td>
<td>01.643</td>
<td>28.0</td>
<td>995.7</td>
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</table>

1 FT. = 304.8006 METER

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 polystirene 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
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  
Comdr., C&G Survey  
Officer-in-Charge

Respectfully submitted:  
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 instru-
ment stations were identified satisfactorily, but many of the ob-
served 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 re-
ferred 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 manu-
scripts, 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:**

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<th>Chart</th>
<th>Scale</th>
<th>Date 1</th>
<th>Date 2</th>
<th>Notes</th>
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<td>8802</td>
<td>1:1023</td>
<td>188</td>
<td>1956</td>
<td>(7-9)</td>
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<tr>
<td>9302</td>
<td>1:1534</td>
<td>076</td>
<td>1956</td>
<td>(12-24)</td>
</tr>
</tbody>
</table>

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:

L. A. Landy
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.