

9712

Diag. Cht. Nos. 9103 and 9302.

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Planimetric
Field No.	Office No. T-9712
LOCALITY	
Territory	Alaska
State	
General locality	Kuskokwim Bay
Locality	Vicinity Ilkevik River
1949	
CHIEF OF PARTY	
Curtis LeFevre, Chief of Party	
Fred Natella, Portland Photogrammetric Office	
LIBRARY & ARCHIVES	
DATE	11/13/53

COMM-DC 61300

9712

DATA RECORD

T - 9712

Project No. (II): 6041 Quadrangle Name (IV):

Ph-55(49) 24070
41

Field Office (II): Bethel, Alaska

Chief of Party: Curtis LeFevre

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: Fred Natella

Instructions dated (II) (III): 5 April 1949 (Field)
25 October 1950 (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): JAN 26 1956

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): 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

Reference Station (III): Refer to paragraph 12 of Office Instructions

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.

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

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): C. H. Bishop, E. T. Ogilby,
R. A. Pryce, C. A. Annis, G. S. Jackson

Date: Season 1949

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): Located in 1949 on field inspection photographs taken in 1945, on tri-metrogon photographs and K-20 hand hold camera photographs.

Projection and Grids ruled by (IV):

Date:

Projection and Grids checked by (IV):

Date:

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

Date: Sept. 1955

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

Date: Sept. 1955

Radial Plot or Stereoscopic

Date: 14 Oct. 1955

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

Planimetry
Stereoscopic Instrument compilation (III):
Contours

Date:

Date:

Manuscript delineated by (III): L. L. Graves
" scribed by: L. L. Graves

Date: 28 Nov. 1955

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

Date: 29 Dec. 1955

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

Date: 13 Jan. 1956

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

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
28280 to 28282	8/8/50	11:40	1:20,000	4.7 ft. Above M.L.L.W.

Tide (III)

Reference Station: Matarani, Peru
Subordinate Station: Popokamute, Alaska
Subordinate Station:

Ratio of Ranges	Mean Range	Diurnal
		Spring Range
3.7h	8.3	10.9
1.7L		

Washington Office Review by (IV): *Levi T. Stevens*

Date: 31 Jan 1957

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 80

Shoreline (More than 200 meters to opposite shore) (III): 21.0 statute miles

Shoreline (Less than 200 meters to opposite shore) (III): 18.9 statute miles

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 2 Recovered: 2 Identified: 2

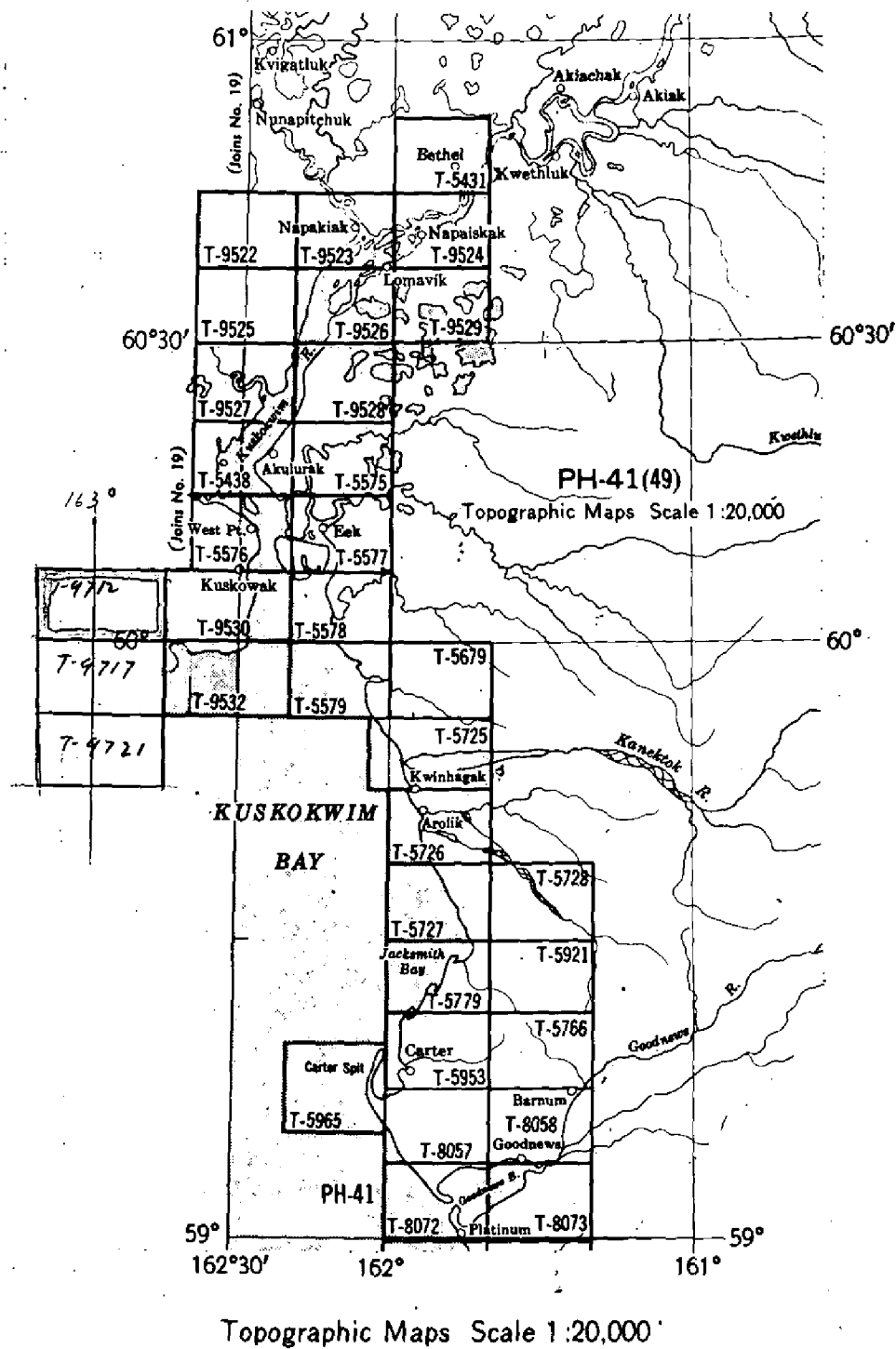
Number of BMs searched for (II): none Recovered: Identified:

Number of Recoverable Photo Stations established (III): none

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

Remarks:

ALASKA, Bering Sea, Vicinity of Kuskokwim Bay



Summary to Accompany T-9712

Project Ph-41(49), Kuskokwim Bay and River, has two sections: Ph-41(S) consists of twelve topographic maps extending from Platinum ($59^{\circ} 00'$) to Kwinhagak ($59^{\circ} 45'$); and Ph-41 (N), twenty-two planimetric maps extending from Kwinhagak to the vicinity of Bethel ($60^{\circ} 52\frac{1}{2}'$).

The field work for the project was executed in the summer of 1949 under A. Newton Stewart in cooperation with the geodetic party in project G-949 under Curtis Le Fever and was a continuation of the Bristol Bay project (Ph-8'46).

After the maps for the project have been received and reproduced, a Project Completion Report will be written. It will include a brief summary of the project, a listing of the various records and reports and a set of project instructions.

A cloth-backed copy of each map at manuscript scale and the descriptive report will be registered and filed in the Bureau Archives.

FIELD INSPECTION REPORT

Map Manuscript T-9712

Project 6041

Refer to: Project Report for Ph-56(49)
dated September 1949
Curtis LeFevre, Chief of Party

PHOTOGRAMMETRIC PLOT REPORT

Map Manuscripts T-9712, T-9717 and T-9721

Project 6041

21. AREA COVERED:

This radial plot covers most of the shorelines of the Ilkevik River and the north shoreline of Kuskokwim Bay for a distance of approximately 15 miles west of the Ilkevik River. Also included is interior planimetry, to the extent of photograph coverage, within the manuscript limits. It comprises map manuscripts T-9712, T-9717 and T-9721.

22. METHOD:

The radial plot was run by the hand templet method on the joined polyconic projections for T-9712, T-9717 and T-9721. To assure good locations for photogrammetric points along the west limits of the radial plot area the plot was extended to the west to include horizontal control stations falling well within the areas of T-9716 and T-9720. On the east the radial plot had been completed in 1951 for T-9530 and T-9532 and these sheets were joined on the east in order to make a junction with this previous work.

Special methods were necessary in making this latter junction because the radial plot for T-9530 and T-9532 had been run in the year 1951 and at that time only field computation positions were available for horizontal control stations. In 1955 when the plot was run for T-9712, T-9717 and T-9721 adjusted positions were available for all horizontal control stations in their areas and upon inquiry by the Compilation Office instructions were issued by the Washington Office to do this radial plot on the adjusted positions.

For station KANG, 1949 the adjusted position placed the station in latitude 23.5 meters north and in longitude 6.6 meters farther east than the field computation position.

For station SHELTER, 1949 the adjusted position placed the station in latitude 23.9 meters farther north and in longitude 8.0 meters farther east than the field computation position.

Since this was a large adjustment the junction between the old and new radial plot was made as follows:

A large piece of vinylite or dog-ear that extended west to include stations SHELTER and KANG was attached to map manuscript T-9530. The field computation positions for these two stations were plotted on T-9712 and then transferred to and pricked on the large dog-ear by matching along longitude $162^{\circ} 45'$ common to both T-9712 and T-9530. The field computation positions were then removed from T-9712 and the adjusted positions of the two stations were plotted. This gave a common line between the two sets of positions about 20 inches in length. T-9717 was then joined on the south of T-9712. The plotting of the adjusted positions was then coincided over the plotting of the field computation positions shown on the dog-ear attached to T-9530. This furnished the location of pass points and of planimetry for T-9530 and T-9532 on the adjusted position datum. The projection or longitude line $162^{\circ} 45'$ on the adjusted datum was then transferred to T-9530 and T-9532 and shown in red ink and the locations of latitude lines along longitude $162^{\circ} 45'$ between lat. $59^{\circ} 52' 30''$ and $60^{\circ} 07' 30''$ were shown by ticks in red ink. Appropriate notes are lettered on T-9530 and T-9532 calling attention to the conditions at this junction.

A junction between T-9712 and T-9530 and between T-9717 and T-9532 of horizontal control, pass-points and planimetry on the adjusted positions datum may now be readily obtained by matching respectively the projection lines at longitude $162^{\circ} 45'$ of both T-9712 and T-9717 to the drawn longitude line $162^{\circ} 45'$ shown in red ink on T-9530 and T-9532.

Photograph coverage was weak for the northern and western part of T-9712 and in this area only two radial intersections were obtained for many pass points.

Photographs were prepared in the usual manner and paper distortion and transforming errors were corrected by use of Master Templet No. 27380 when drawing the hand templets.

All horizontal control station identifications were held rigidly and excellent intersections of radials for photogrammetric points were obtained.

The photogrammetric points were transferred to the map manuscripts by turning the plot face down and pricking the graphic location after which the points were inked with red acetate ink on the reverse sides of the manuscripts.

23. ADEQUACY OF CONTROL:

There were a sufficient number of horizontal control stations identified to adequately control the radial plot.

24. SUPPLEMENTAL DATA:

None.

25. PHOTOGRAPHY:

Refer to Item 22 of the Photogrammetric Plot Report.

26. FORMS 164 (M-2388-12) Control Stations:

These have been omitted in accordance with instructions. A sketch of the area showing photograph centers, control stations etc. is included.

Approved:

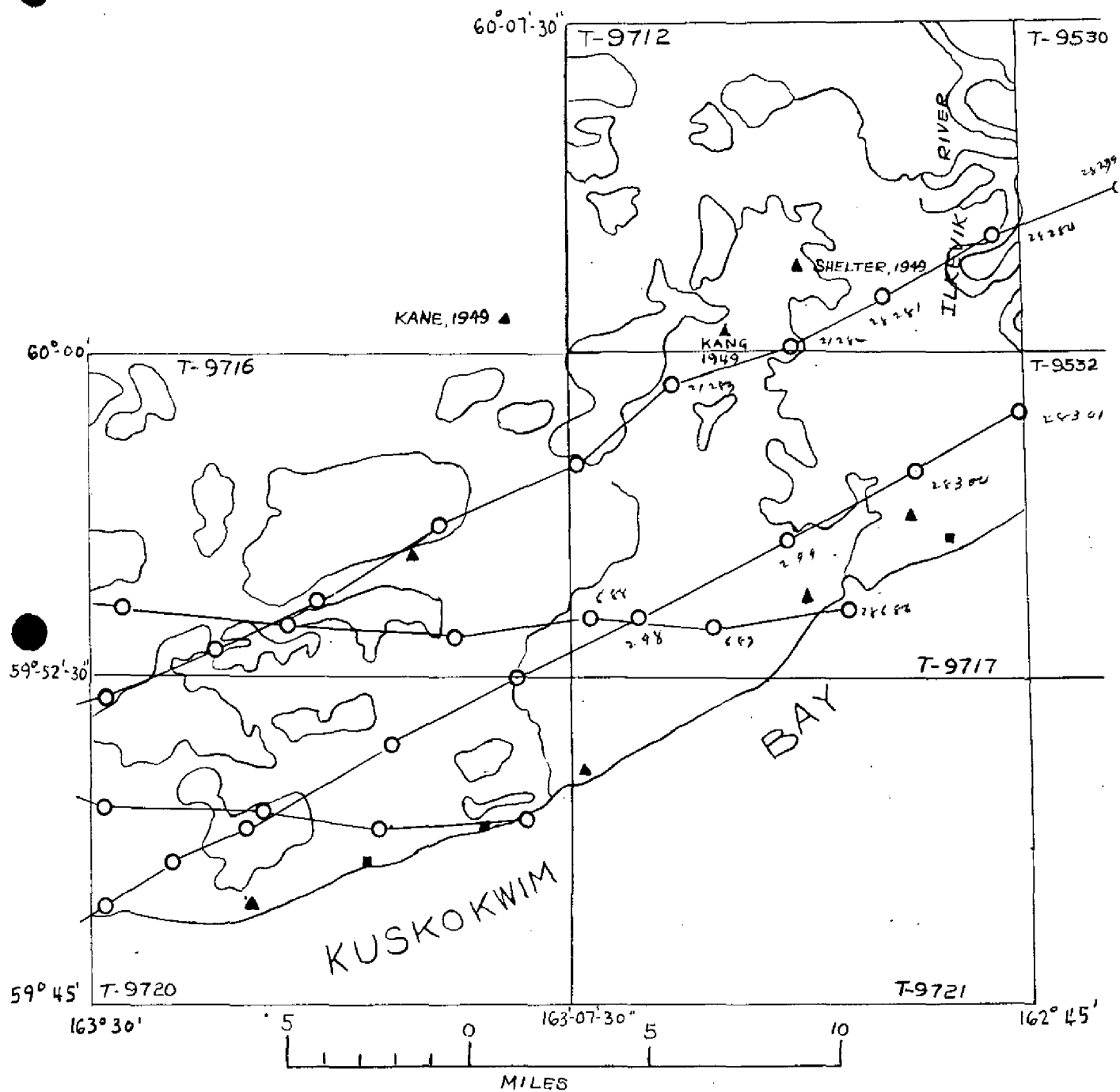


Fred Natella
Comdr., C&G Survey

Respectfully submitted:



J. Edward Deal
Cartographer



SKETCH

PHOTOGRAMMETRIC PLOT REPORT

T-9712, T-9716, T-9717, T-9720 & T-9721

○—○ PHOTOGRAPH CENTERS AND FLIGHTS

▲ TRIANGULATION STATIONS IDENTIFIED

■ TOPOGRAPHIC STATIONS IDENTIFIED

COMPILATION REPORT

Map Manuscript T-9712

Project 6041

31. DELINEATION:

This map manuscript was compiled graphically with black pencil lines, on a polyconic projection of its area, ruled in ink, on vinylite material. The compiled planimetry and projection was then transferred in the negative to the yellow coated side of a sheet of .005" thick Mylar material by the blue water-coat process. The lines of the planimetric details and projection of the map were then scribed in the negative on the Mylar material. A black line contact positive on clear polystyrene material was then obtained from the scribed sheet and symbols and lettering were applied with stick-up material to complete the map manuscript.

The photograph coverage was not sufficient to complete the planimetric details to the north and west limits of the map manuscript. Much of the planimetry in the northwest part of the manuscript was compiled by using pass points located from two radial intersections.

Field inspection notes were confined to the location of the mean high-water line and alongshore features. Interior details were interpreted in the Compilation Office by stereoscopic examination of the photographs aided by data contained in descriptions and identifications of control stations and by consultation with field personnel who had spent considerable time in the area.

32. CONTROL:

Refer to the Photogrammetric Plot Report for T-9712, T-9717 and T-9721 which is included in this Descriptive Report.

33. SUPPLEMENTAL DATA:

There were no supplemental data furnished for the compilation of this map manuscript.

34. CONTOURS AND DRAINAGE:

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

35. SHORELINE AND ALONGSHORE DETAILS:

The predicted tide of the photographs was computed to be 4.7 ft. above M.L.L.W. for the Kuskokwim River at Popokamute, Alaska. There is no tide data available for the Ilkevik River which traverses this map manuscript but conditions indicate the tide would be lower than at Popokamute at the photograph time. Much of the interpretation of the mean high-water line, which for the most part was delineated by stereoscopic examination of the photographs, was based on this assumption. The field inspection data furnished only sparse notes at a few spots on the location of the mean high-water line. These notes will be found on 9 lens-field prints, tri-metrogon photographs and K-20 photographs made with a hand held camera.

The foreshore, approximate low-water lines, and areas that bare at low-water were delineated from the office photographs on the same tide assumption.

There are no alongshore structures.

36. OFFSHORE DETAILS:

No offshore details were indicated by field inspection and none were visible on the photographs.

37. LANDMARKS AND AIDS:

There are none recommended.

38. CONTROL FOR FUTURE SURVEYS:

There was none located within the area of this map manuscript.

39. JUNCTIONS:

Refer to the Photogrammetric Plot Report for T-9712, T-9717 and T-9721, Item 22 "Method", for a description of the junction between T-9712 and T-9530. A satisfactory junction was made with T-9717 to the south.

40. HORIZONTAL AND VERTICAL ACCURACY:

Horizontal accuracy is satisfactory within the limits of photograph coverage described in paragraph 2 of Item 31 of this report.

Vertical accuracy is limited to the location and establishment of spot elevations on several lake surfaces.

41. VERTICAL CONTROL:

No check elevations were computed for vertical control stations from observations of double zenith distances and locations made by radial plot.

All stations are shown on the map manuscripts. There elevations were computed after the type stick-up order was forwarded to Washington so the elevations have been hand lettered on an acetate overlay for subsequent application of type stick-up if desired.

Vertical control stations and their elevations which appear on T-9712 are:

V-1120	9.5 ft.
V-1120A	5.3 ft.
V-1114	10.2 ft.
V-1115	5.9 ft.
V-1116	14.1 ft.

Computations for the above are submitted with this Descriptive Report.

46. COMPARISON WITH EXISTING MAPS:

None were available to the photogrammetric office for comparison purposes.

47. COMPARISON WITH NAUTICAL CHARTS:

There was no nautical chart available for the area of this map manuscript.

Approved:



Fred Natella
Comdr., C&G Survey

Respectfully submitted:



J. Edward Deal
Cartographer

48. GEOGRAPHIC NAMES:

No final names sheet was furnished for the area of this map manuscript. There is only one name on the map manuscript namely:

ILKEVIK RIVER

This name was lettered on field inspection photograph 46 1-V72-2-2011 vertical trimetrogon. In the upper part of this stream beyond the limits of the map the name ISHKOWIK RIVER is indicated on a final name sheet. This latter name has been lettered on the acetate overlay to indicate the disagreement between the two name sources. Mr. Charles H. Bishop, who at this date is in the Portland Office, states that the name Ilkevik River is correct.

The final names report for this area, based on several previous reports, and prepared by Commander Stewart, recommends Ishkowik River, which has been used on maps to northward. Consequently the following names are approved:

Ishkowik River
Kushokwin Bay (fort title)

L. HEAR
2-6-57

49. NOTES TO THE HYDROGRAPHER:

There were no recoverable topographic stations or photo-hydro stations located for this map manuscript.

Review Report T-9712
Planimetric Map
31 January 1957

62. Comparison with Registered Maps

There are no prior surveys of this area.

63. Comparison with Maps of Other Agencies

U.S.G.S. Baird Inlet 1:250,000 ed. 1951 Recon. T-9712 was not utilized in the compilation of the quadrangle which is only a generalized representation in this area.

64. Comparison with Contemporary Hydrographic Surveys

Not applicable to this inland area.

65. Comparison with Nautical Charts

Not applicable to this inland area.

66. Accuracy

The map complies with project instructions and meets charting needs for this inland area.

Reviewed by:

K. H. Maki
for Lena T. Stevens

Approved by:

L. C. Lande
Chief, Review & Drafting Sec.
Photogrammetry Division

W. B. K. Little
Chief, Nautical Chart Br.
Charts Division

Anthony B. Bull
Chief, Photogrammetry Division

W. J. Lowell
Chief, Coastal Surveys

Review Report T-9712
Planimetric Map
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Reviewed by:

Lena T. Stevens
Lena T. Stevens

Approved by:

Chief, Review & Drafting Sec.
Photogrammetry Division

Chief, Nautical Chart Br.
Charts Division

Chief, Photogrammetry Division

Chief, Coastal Surveys