9522 THRU 9529

9522 THRU 9529

Diag. Cht. No. 9104.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. 6041 (Ph-41(49)) Office No. T-9522 thru T-9529

LOCALITY

State Alaska

General locality Kuskokwim River

Locality Akulurak to Napakiak

194 49-50

CHIEF OF PARTY

Curtis LeFever, Chief of Field Party
Fred Natella, Portland Photo. Office

LIBRARY & ARCHIVES

DATE May 15, 1958

B-1870-1 (1)

DATA RECORD

T - 9522 thru 9529

Project No. (II): 6041 (Ph-41(49) North)

Quadrangle Name (IV):

Field Office (II): Bethel, Alaska

Chief of Party: Curtis LeFevre

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: Charles W. Clark
Fred Natella
Copy filed in Division of Photogrammetry (IV)

Instructions dated (II) (III): 5 April 1949 (field)
25 October 1950 (office)

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): 5/5/58

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:

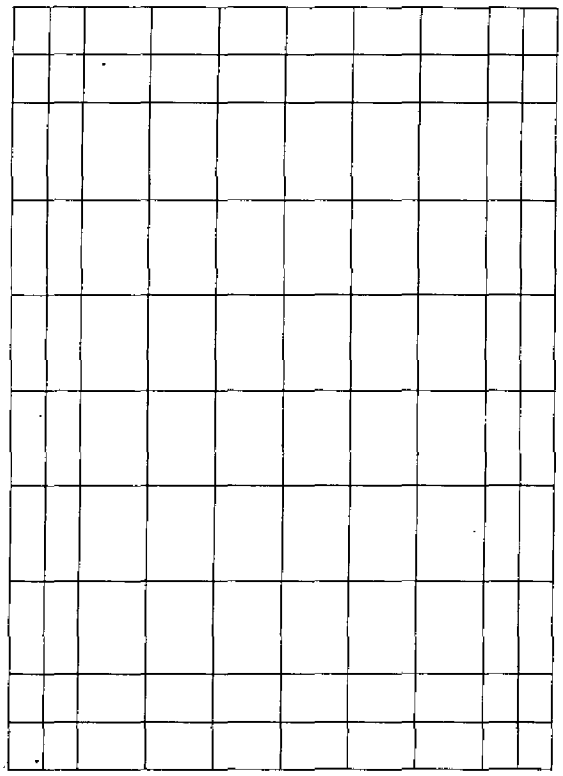
Zone:

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)

FORM 181b
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): C. H. Bishop and E. T. Ogilby 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-met photographs and K-20 hand held camera photographs.

Projection and Grids ruled by (IV): Date:

Projection and Grids checked by (IV): Date:

Control plotted by (III): H. Atkins Date: August 1951

Control checked by (III): J. L. Harris Date: August 1951

Radial Plot or Stereoscopic Control extension by (III): James L. Harris Date: Sept. 18, 1951

Stereoscopic instrument compilation (III): Planimetry Date:

Contours Date:

Manuscript delineated by (III): See reverse side Date:

Photogrammetric Office Review by (III): See reverse side Date:

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

COMM-DC-57842

	Compiled by	Date	Reviewed by	Date
T-9522	H. Atkins	12/17/51	R. H. Barron J. L. Harris	12/18/51 9/15/55
T-9523	Helen Laube & C. H. Bishop	3/27/52	J. L. Harris	9/19/55
T-9524	R. H. Barron	11/14/51	J. D. Harris	9/20/55
T-9525	H. Atkins & L. L. Graves	3/28/52	J. L. Harris	9/13/55
T-9526	J. E. Deal & L. L. Graves	12/20/52	R. H. Barron J. L. Harris	2/26/52 9/18/55
T-9527	C. C. Harris	12/18/51	R. H. Barron J. L. Harris	1/2/52 9/17/55
T-9528	C. C. Harris	3/12/52	J. L. Harris	9/15/55
T-9529	R. H. Barron	12/10/51	J. D. Harris	9/16/55

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

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
28308 to 28342	8/8/50	12:24 to 13:20	1;20,000	2.5 ft.above M.L.L.W.
28364 to 28366	8/8/50	13:57	1:20,000	1.9 ft.above M.L.L.W.
28561 to 28562	8/8/50	Unknown	1:20,000	Unknown

Tide (III)

	Ratio of Ranges	Mean Range	Diurnal ~~Spring~~ Range
Reference Station: Matarani, Peru	4.1/1.7	9.4	12.0
Subordinate Station: Popocamute ~~Apokak,~~ Alaska Apokak	3.7H	8.3	10.9
Subordinate Station: Bethel, Alaska	1.7L 1.0	2.0	3.4

Washington Office Review by (IV): Lena J. Stearns T-9525, 26, 27, 28 average: Popocamute & Bethel (less than high water time) Date: 18 Jan. 1957

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): T-9523, 24 Bethel (approx high water time) Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 470

Shoreline (More than 200 meters to opposite shore) (III): 142 statute miles

Shoreline (Less than 200 meters to opposite shore) (III): 148 " "

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 11 Recovered: 11 Identified: 10

Number of BMs searched for (II): Recovered: Identified:

Number of Recoverable Photo Stations established (III): 22*

Number of Temporary Photo Hydro Stations established (III): 12**

Remarks:

* 4 temporary hydros were submitted on Forms 524 and these have been included in the lists of photo-hydro stations.

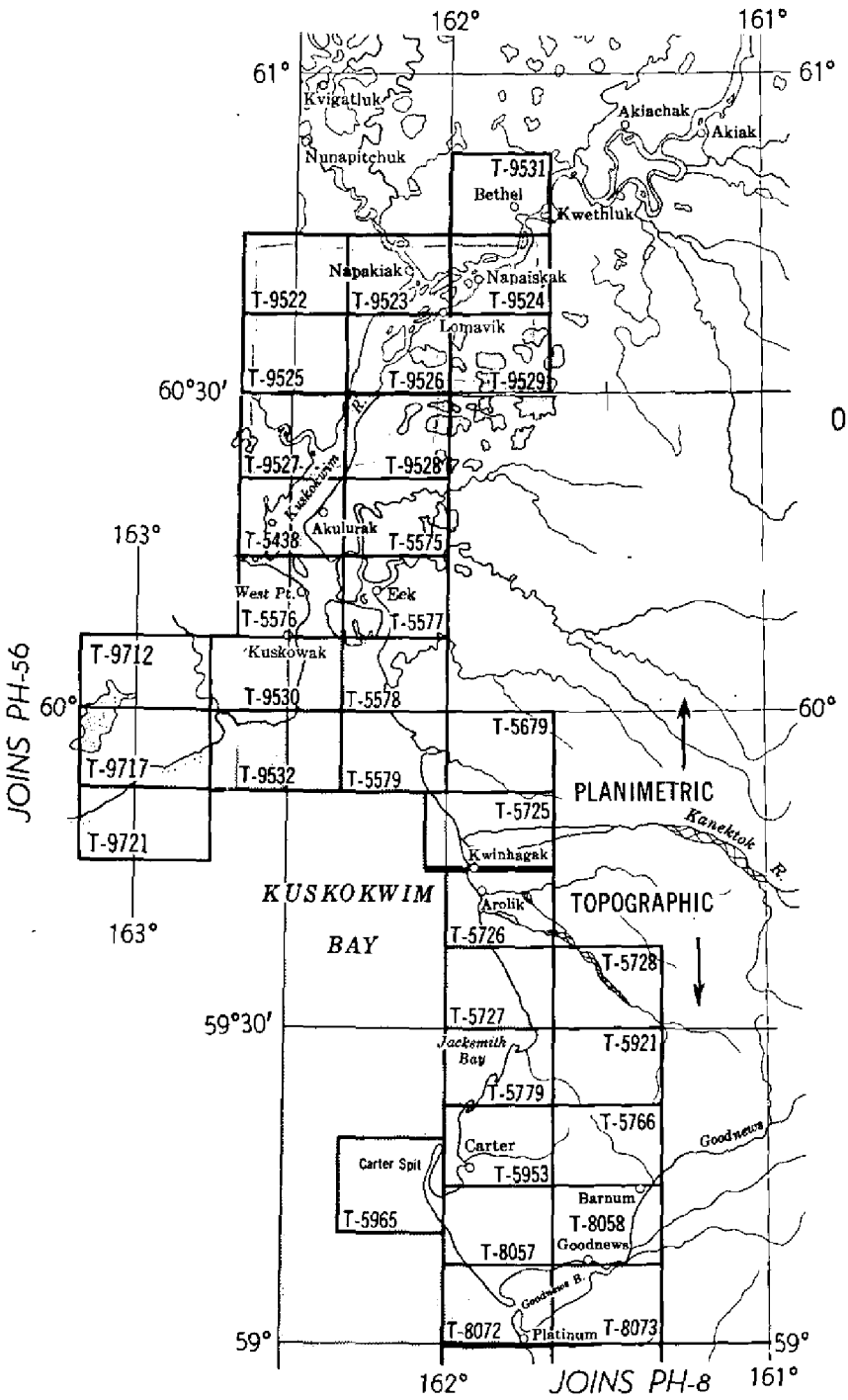
3 recoverable topographic stations have apparently been destroyed since time of field inspection.

** 5 were selected by office examination of the photographs.

M-2618-12(4)

PLANIMETRIC AND TOPOGRAPHIC MAPPING PROJECT

ALASKA-BERING SEA, Kuskokwim Bay to Goodnews Bay



OFFICIAL MILEAGE FOR COST ACCOUNTS

PLANIMETRIC Sheet No's.	Sq. St. Miles	TOPOGRAPHIC Sheet No's.	Sq. St. Miles
T-5438	55	T-5726	80
T-5575	54	T-5727	40
T-5576	65	T-5728	104
T-5577	80	T-5779	45
T-5578	45	T-5921	104
T-5579	35	T-5953	90
T-5679	108	T-5965	15
T-5725	104	T-5766	104
T-9522	18	T-8057	104
T-9523	65	T-8058	104
T-9524	76	T-8072	20
T-9525	65	T-8073	90
T-9526	65	TOTALS	900
T-9527	54		
T-9528	45		
T-9529	82		
T-9530	88		
T-9531	100		
T-9532	18		
T-9712	80		
T-9717	91		
T-9721	6		
TOTALS	1399		

PLANIMETRIC MAPS: Maps T-5438, T-5575 to T-5579, T-5725, T-9522 to T-9532, T-9712, T-9717 and T-9721.
TOPOGRAPHIC MAPS: Maps T-5726 to T-5728, T-5766, T-5779, T-5953, T-5965, T-8057, T-8058, T-8072 and T-8073

Compiled at 1:20,000 scale, from 1:20,000 scale nine-lens photographs taken August 1950 and 1:27,000 scale single-lens photographs taken August 1948. (Refer to Air-photo Index B-52-53 and E-1-2).

For field work done on 1945 photography (See Air-Photo Index E
For field work done on Tri-Met photography (See Tri-Met Index).

Summary to Accompany
T-9522 through T-9529

Project PH-41 (49), Kuskokwim Bay and River, has two sections: Ph-41 (S) consists of twelve topographic maps extending from Platinum (59°00') to Kwinhagak (59°45') and Ph-41 (N), twenty-two planimetric maps, extending from Kwinhagak to the vicinity of Bethel (60°52½').

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 LeFevre and was a continuation of the Bristol Bay Project (Ph-8-46).

T-9522 through T-9529 includes the area along the Kuskokwim River from Kialak River to 59°45', approximately two miles south of Bethel.

After the maps for the project have been reviewed and reproduced, a project Compilation 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 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 Manuscripts T-9522 thru T-9529

Project 6041

Refer to: - PROJECT REPORT, KUSKOKWIM BAY & RIVER
Project Ph-41 (49) North, June, July 1949
Curtis LeFevre, Chief of Party

Filed as part of the
Completion Report.

PHOTOGRAMMETRIC PLOT REPORT

Map Manuscripts T-9522 thru T-9529 & T-9531

Project 6041

21. AREA COVERED:

This photogrammetric plot covers an area in Alaska along both shorelines of the Kuskokwim River from about five miles north of Akulurak to Bethel and includes Map Manuscripts T-9522 thru T-9529 and T-9531.

22. METHOD:

All paragraphs, except 6 and 9 of Item 22: "METHOD" of the Photogrammetric Plot for T-5577 thru T-5579, T-5679 and T-5725, Project Ph-41(49) North are applicable.

The radial plot was run in two sections and no unusual difficulties were encountered.

There was an adequate number of horizontal control stations identified to control the orientation of the templets.

23. ADEQUACY OF CONTROL:

Paragraph 1 of Item 23 "ADEQUACY OF CONTROL" of the Photogrammetric Plot Report for Map Manuscripts T-5577 thru T-5579, T-5679 and T-5725 is applicable.

The photographs are strongly fixed at the northern terminus by several horizontal control stations in the vicinity of Bethel, Alaska.

Items 24, 25 and 26 of the above mentioned photogrammetric report are applicable.

Approved:

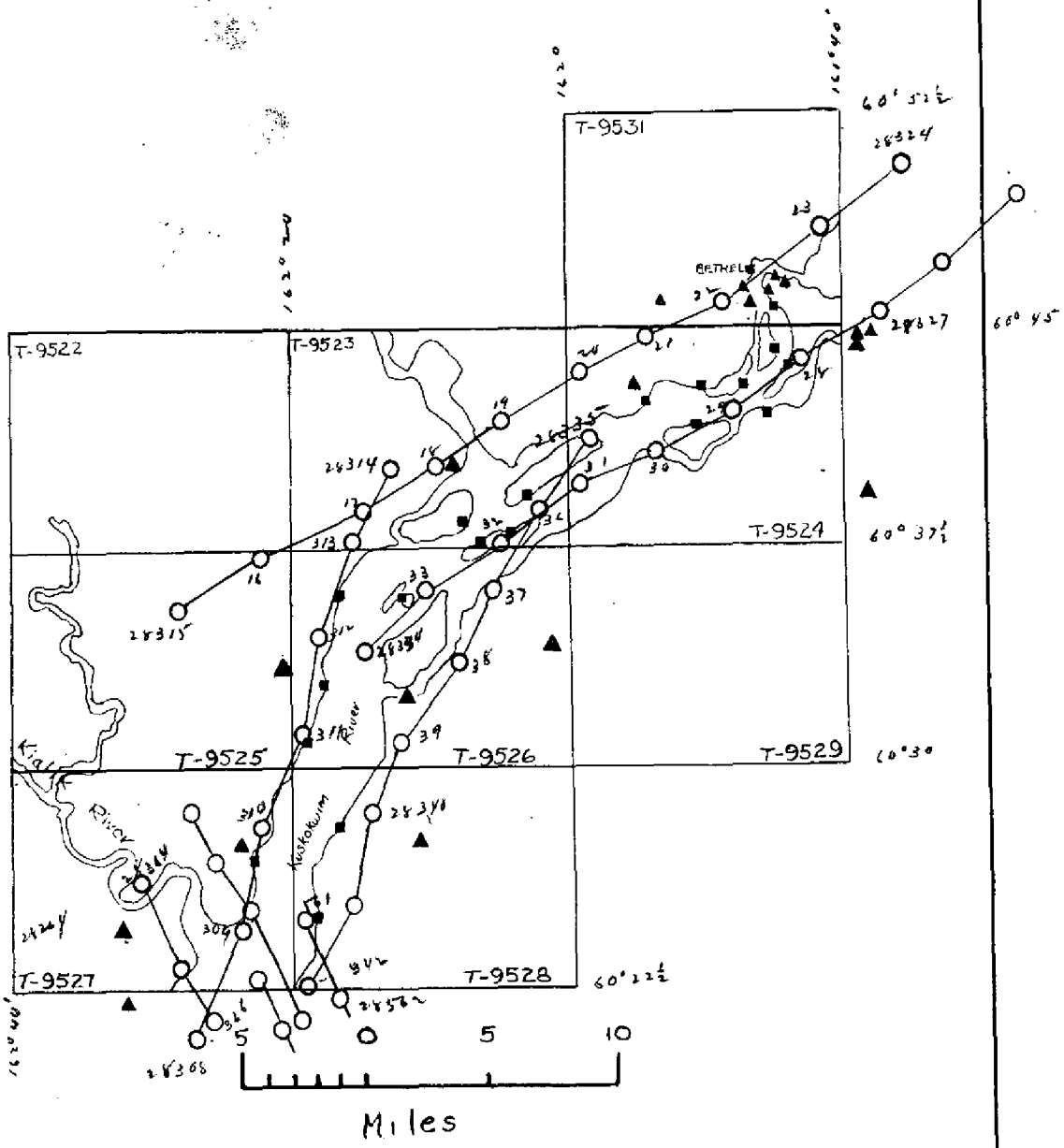
Fred Natella

Fred Natella
Officer-in-Charge

Respectfully submitted:

J. Edward Deal

J. Edward Deal
Cartographer



Sketch

Photogrammetric Plot Report
T-9522 thru T-9529 and T-9531

O—O Photograph centers & Flights
▲ Triangulation stations identified
■ Topographic stations identified

COMPILATION REPORT

Map Manuscripts T-9522 thru T-9529

Project 6041

31. DELINEATION:

Graphic methods were used for the compilation of these map manuscripts.

Field inspection delineation and notes were entered on the tri-metrogon photographs, the 1948 nine lens photographs and on K-20 photographs made in the field with a hand held camera.

Planimetric details have been shown to the extent of photograph coverage.

32. CONTROL:

Refer to side headings 22 and 23 of the Photogrammetric Plot Report which is included in this Descriptive Report.

33. SUPPLEMENTAL DATA:

There were none furnished for the area of these map manuscripts.

34. CONTOURS AND DRAINAGE:

Contours are not applicable.

The drainage has been delineated by stereoscopic examination of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS:

The mean high water line was indicated on the field photographs at a sufficient number of places to enable the compiler to adequately delineate this feature throughout the area.

All of the alongshore details indicated by field inspection or visible by office examination of the photographs have been detailed.

The limits of mud flat areas or the approximate low-water line have been shown as they appeared on the photographs which were taken when the predicted tide was computed to be about 2.5 feet

above M.L.L.W.

36. OFFSHORE DETAILS:

There were no offshore details indicated by field inspection and none were observed by office examination of the photographs.

37. LANDMARKS AND AIDS:

There are none in the area of these eight map manuscripts, except two in T-9524. Forms 567 are submitted.

38. CONTROL FOR FUTURE SURVEYS:

Twenty-two Forms 524 are submitted with this Descriptive Report for Recoverable Topographic Stations located within the areas of these eight map manuscripts.

In T-9523 there were two Forms 524 submitted by the field inspection unit for Hydro Stations No. 134 and No. 136. These have been treated as temporary photo-hydro stations and are listed in Paragraph 49. One other Station, FLAT,1949, could not be located because the sub-station is covered by water on the 1950 photographs.

In T-9524 Forms 524 were submitted by the field unit for Hydro Stations No. 133 and No. 135. These were treated as described in preceding paragraph. Stations WEST and BELL are believed to be now destroyed upon examination of the 1950 photographs.

In T-9526 there is a published position for station FOUR, 1949 which could not be held to the identified location of the station. The scaled position of the radial plot location is shown on the Form 524.

All stations for which Forms 524 are submitted are listed in Paragraph 49. "Notes for the Hydrographer".

39. JUNCTIONS:

Complete and satisfactory junctions have been made with adjoining map manuscripts.

40. HORIZONTAL AND VERTICAL ACCURACY:

Vertical accuracy is not applicable except for the location of vertical control stations and the computation of their elevations.

There are no areas within the limits of these eight map manuscripts which are believed to be of sub-normal accuracy.

41. VERTICAL CONTROL:

There were only suffieient data to compute no check elevations for the identified vertical control stations.

All stations are shown on the map manuscript but only the accepted elevations have been entered.

In T-9526:

V-1117	Elev. -1.3 ft.	(located outside M.H.W. line in marsh)
V-1117A	Elev. 1.2 ft.	
V-1118	" 11.1 ft.	
V-1118A	" -173.5 ?	

In T-9529:

V-1119 Elev.-97.1 ft. ?

It is apparent that an error has been made in the observation of the Zenith Distances for V-1118A and V-1119. After thorough investigation of the data at the Compilation Office the difficulty cannot be resolved. This condition therefore casts doubt on the accuracy of the elevation for V-1118 because observations were made on the station at the same time. Computations are included.

46. COMPARISON WITH EXISTING MAPS:

None were available to the photogrammetric office for comparison purposes.

47. COMPARISON WITH NAUTICAL CHARTS:

A visual comparison was made with Nautical Chart No. 9104, October 1918 (3rd Edition) last printed 12/27/48, Scale 1:100,000.

"Items to be applied to charts immediately"

None

"Items to be carried forward"

None

Approved:

Fred Natella

Fred Natella
Comdr., C&G Survey

Respectfully submitted:

J. Edward Deal

J. Edward Deal
Cartographer

Geographic Names for T-9522 to T-9529 inclusive.

Suggest changing "Locality" line to "Kialik River to Napaiskak". The name Akulurak for a former village on the east bank of the Kuskokwim River is to be deleted from chart 9104 (there is a very small village inland about 3 miles south of the former position now called Akulurak). Napakiak is by no means near the upstream limit of these sheets--see below under T-9524 for correct position of Napaiskak.

- - - - -

T-9522: title only. Names used approved below.

T-9523: Kuskokwim River
Johnson River (not Kvichivak) Also change title.
Kongeruk River

T-9524: Kuskokwim River
Napakiak (correctly placed)
Napaiskak (to be deleted at long. 161 54' and applied in place of Napaskiak at long. 161 46')
Oscarville
Willie Petes
Graveyard Point
Tupuknuk Slough

T-9525: Title only.

T-9526: Kuskokwim River
Lomavik Slough
Fowler Island

T-9527: Kuskokwim River
Kialik River

T-9528: Kuskokwim River
As to title, suggest using East Bank instead of East Shore, as more appropriate for a river.

T-9529: Title only. However, since the former village of Lomavik no longer exists (it is being deleted from chart 9104) suggest using Lomavik Slough in title.

Names approved 1-22-57. L. Heck.

49. Notes to the Hydrographer

T-9522

There were no recoverable topographic stations or photo-hydro stations located at the Compilation Office. See Item 38 of "Compilation Report."

49. Notes to the Hydrographer

T-9523

Recoverable Topographic Stations located are:

BACK, 1949	LEAD, 1949
BEAR, 1949	ROCK, 1949

Photo-hydro Stations located are:

No. 134	Tri-met photo	No. 13-L-33	N. gable of a cache
No. 136	" " "	No. 13-L-33	N. gable of 1st hut E. of small slough

49. Notes to the Hydrographer

T-9524

Recoverable Topographic Stations located are:

WHIT, 1949	YELL, 1949
DOCK, 1949	GEST, 1949
BIRD, 1949	CORN, 1949

Photo-hydro Stations located are:

No. 133	Tri-met	photo	No. 13-L-36	N.W. gable of only hut on NE end island
No. 135	"	"	" No. 13-L-39	N. gable of most northerly cache on point

49. Notes to the Hydrographer

T-9525

Recoverable Topographic Stations located are:

CAPE, 1949

49. Notes to the Hydrographer

T-9526

Recoverable Topographic Stations located are:

RICH, 1949	FOUR, 1949
NINE, 1949	SO, 1949
BEG, 1949	BOOK, 1949

49. Notes to the Hydrographer

T-9527

Recoverable Topographic Stations located are:

POOR, 1949 FOOD, 1949 FIVE, 1949

There were five photo-hydro stations Nos. 140 thru 144 selected by the field inspector in the compilation office. These have been located and their descriptions are lettered, adjacent to the station, on the map manuscript. If desired they may be omitted for hydrographic control.

49. Notes to the Hydrographer

T-9528

Recoverable Topographic Stations located are:

FALL, 1949 GUL, 1949

49. Notes to the Hydrographer

T-9529

There were no Recoverable Topographic stations or photo-hydro stations located at the Compilation Office.

Review Report T-9522 through T-9529
Planimetric Maps
18 January 1957

61. General

The surveys in this group extend from 60°22½' to 60°45' North, so that two tide conditions were taken into consideration. For the surveys between 60°22½' and 60°37½' the average height of tide between Popocamute and Bethel Reference Stations values was used; those north of 60°37½' used Bethel tide values. The former group were photographed at approximately half-tide; the latter group were photographed at approximately high water stage.

Some islets have been added on the basis of their visibility on the high water picture.

62. Comparison with Registered Surveys:

There are no prior surveys for this area.

63. Comparison with Maps of other Agencies:

~~A.M.S.~~ USGS	Baird Inlet	1:250,000	ed.1951	Reconn.
~~A.M.S.~~	Bethel	1:250,000	ed.1950	Reconn.

These quadrangles did not use data from Ph-41 (49) surveys north of 60°22½', consequently there is only general agreement between the quadrangles and the Ph project surveys.

No trails are delineated on the Ph project.

The intermittent stream symbol on these maps should be given a permanent stream symbol.

Changes or additions during review:

T-9523:

Kvichivak River on the manuscript has been changed to Johnson River. This corresponds to Tundra River on Baird quadrangle.

T-9524

Islands and shoals were added.

The village Lomavik no longer exists.

A settlement has been added to the manuscript at 60°41'/161°54' and labeled (Village).

T-9526

Station BEG, 1949, was changed to BEE, 1949, to conform to the name in the description, and in G.P. Vol. IV, p. 274.

Islets have been added in the northern portion of the manuscript because the high water photographs indicate their existence.

LOMAVIK Slough on the manuscript corresponds to The Canal on Baird Inlet quadrangle.

The name Fowler Island has been added to the manuscript.

T-9527

Kialik River on the manuscript corresponds to Napatuk River on Baird Inlet quadrangle.

64. Comparison with Contemporary Hydrographic Surveys:

The latest surveys in the area were made in 1914 and 1915. No comparison was made.

65. Comparison with Nautical Charts:

9104

This chart is obsolete and has been withdrawn from circulation.

66. Accuracy:

These maps comply with project instructions, have utilized field inspection, and meet the needs for charting.

Reviewed by

Lena T. Stevens

Lena T. Stevens

Approved by:

L C Lande

Max B Ricketts

[illegible]

[illegible]

Cert Ch Photo Div. [illegible]