Diag. Cht. No. 9400

Form 504
U. S. COAST AND GEODETiC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Planimetric
Field No. Ph-29 (47) 11 Office No. T-9785 Incl.

LOCALITY
Territory: Alaska
General locality: Beaufort Sea (Arctic Coast)
Locality: North Arctic Coast from Sakonowak
River to Harrison Bay

CHIEF OF PARTY
Max C. Ricketts, Field
Fred A. Riddell, Portland, Ore., Photo.

DATE: JUNE 28, 1955
25 July 1952

To: Comdr. Fred A. Riddell
U. S. Coast and Geodetic Survey
Swan Island Postal Station
Portland 18, Oregon

Subject: Inspection of the compilation of planimetric map manuscript T-9778, Project Ph-29(47)

The subject map manuscript has been received and inspected in this office. This map appears to be very well prepared and the enclosed reproduced copies are easily legible. However, the placement of the name Harrison Bay will be shifted on the map manuscript to a more appropriate place in the bay and the name Beaufort Sea will be added to the map manuscript.

O. S. Reading
Chief, Div. of Photogrammetry
DATA RECORD

T-9778 to T-9785 Incl.

Project No. (II): Ph-29(47) II  Quadrangle Name (IV):

Field Office (II): Arctic Field Party (East Unit)  Chief of Party: Max G. Ricketts
Photogrammetric Office (III): Portland, Oregon  Officer-in-Charge: Fred A. Riddell

Instructions dated (II) (III): 1/13/48, 3/8/50, 2/6/51, 3/16/51 (Field) Copy filed in Division of

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): 6-30-52  Date reported to Nautical Chart Branch (IV): 7-8-52

Applied to Chart No.  Date:  Date registered (IV): 7 Jan. 1955

Publication Scale (IV):

Geographic Datum (III): Flaxmen Island 1912
Correction figures to N.A. 1927 are now available. L.T.S. Nov. 1953

Vertical Datum (III): Mean Sea Level
Mean sea level except as follows:
Elevations shown as (a) refer to mean high water
Elevations shown as (g) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): (See paragraph 12 of Office Instructions Ph-29(47) dated 12 December 1949)

Lat.: Long.: Adjusted

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.
The difference between FLAXMAN ISLAND Datum and preliminary N.A. 1927 Datum is Lat. plus/minus 46 m. and Long. plus/minus 97 m. \\

The difference between Ditto Datum and preliminary N.A. 1927 Datum is Lat. plus/minus 68 m. and Long. plus/minus 98 m. \\

The difference between Ditto Datum and preliminary N.A. 1927 Datum is Lat. plus/minus 75 m. and Long. plus/minus 100 m. \\

The difference between Ditto Datum and preliminary N.A. 1927 Datum is Lat. plus/minus 79 m. and Long. plus/minus 102 m. \\

The difference between Ditto Datum and preliminary N.A. 1927 Datum is Lat. plus/minus 93 m. and Long. plus/minus 103 m. \\

T-9773 \\
The difference between Ditto Datum and preliminary N.A. 1927 Datum is Lat. plus/minus 50 m. and Long. plus/minus 98 m. \\

T-9784 \\
The difference between Ditto Datum and preliminary N.A. 1927 Datum is Lat. plus/minus 63 m. and Long. plus/minus 100 m. \\

T-9785 \\
The difference between Ditto Datum and preliminary N.A. 1927 Datum is Lat. plus/minus 67 m. and Long. plus/minus 101 m.
Areas contoured by various personnel
(Show name within area)
(II) (III)
DATA RECORD

Field inspection by (II): Cornelius A.J. Pauw
Date: Field season 1951

Planetable contouring by (II): 
Date: 

Completion Surveys by (II): 
Date: 

Mean High Water Location (III) (State date and method of location): Location for the most part determined by stereoscopic examination of the photographs.

Projection and Grids ruled by (IV): 
Date: 

Projection and Grids checked by (IV): 
Date: 

Control plotted by (III): Roy A. Davidson, J.L. Harris & R.H. Barron Date: 1-11-52 to 1-15-52

Control checked by (III): Roy A. Davidson, J.L. Harris & R.H. Barron Date: 1-11-52 to 1-15-52

Radial Plot: J.L. Harris & J.E. Deal
Date: 1-22-52

Control extension by (III): 
Date: 

Stereoscopic Instrument compilation (III): 
Contour 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: 

Form T-Page 3
M-2018-12145
<table>
<thead>
<tr>
<th>Referred To</th>
<th>Shoreline</th>
<th>Date</th>
<th>Interior</th>
<th>Date</th>
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<tr>
<td>T-9778</td>
<td>L.L. Graves</td>
<td>1/30/52</td>
<td>J.L. Harris</td>
<td>5/20/52</td>
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<td>T-9780</td>
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<td>1/30/52</td>
<td>C.C. Wiebe</td>
<td>5/12/52</td>
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<td>1/21/52</td>
<td>R.A. Davidson</td>
<td>5/2/52</td>
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<td>J.L. Harris</td>
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<td>T-9783</td>
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<td>1/30/52</td>
<td>R.H. Barron</td>
<td>5/21/52</td>
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<tr>
<td>T-9784</td>
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<td>L.L. Graves</td>
<td>5/14/52</td>
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<tr>
<td>T-9785</td>
<td>None</td>
<td></td>
<td>C.C. Wiebe</td>
<td>4/29/52</td>
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**Manuscript Reviewed By:**

| T-9778      | J.E. Deal | 1/31/52 | R.H. Barron | 5/26/52 |
| T-9779      | J.E. Deal | 2/6/52  | R.H. Barron | 6/6/52  |
| T-9780      | R.H. Barron | 1/31/52 | R.H. Barron | 5/14/52 |
| T-9781      | R.H. Barron | 1/28/52 | R.H. Barron | 5/13/52 |
| T-9783      | R.H. Barron | 2/6/52  | J.E. Deal  | 5/23/52 |
| T-9785      | None       |        | R.H. Barron | 5/7/52  |
PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
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<tr>
<td>20041 to 20043 Incl.</td>
<td>7/23/47</td>
<td>11:53</td>
<td>1:20,000</td>
<td>0.15 above M.L.L.W.</td>
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<td>20092 to 20105 Incl.</td>
<td>7/25/47</td>
<td>12:07</td>
<td>1:20,000</td>
<td>0.02 above M.L.L.W.</td>
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<tr>
<td>20120 to 20123 Incl.</td>
<td>7/25/47</td>
<td>13:12</td>
<td>1:20,000</td>
<td>0.08 above M.L.L.W.</td>
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<td>20128 to 20133 Incl.</td>
<td>7/25/47</td>
<td>13:24</td>
<td>1:20,000</td>
<td>0.10 above M.L.L.W.</td>
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</table>

Tide (III)

Reference Station: Kodiak, Alaska
Subordinate Station: Flaxman Island, Alaska

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<th>Ratio of Ranges</th>
<th>Diurnal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>Range</td>
</tr>
<tr>
<td>6.6</td>
<td>8.5</td>
</tr>
<tr>
<td>0.1</td>
<td>0.5</td>
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</table>

Land Area (Sq. Statute Miles) (III): 526.3
Shoreline (More than 200 meters to opposite shore) (III): 310.3 statute miles
Shoreline (Less than 200 meters to opposite shore) (III): 216.0

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):
- Number of Temporary Photo Hydro Stations established (III):

Remarks:
Summary to Accompany
Descriptive Report T-9778 to 85, inc.

Planimetric project Ph-29(47) consists of 76 maps, scale 1:20,000, - 26 in Part I (Jago River, westward to Jones Islands); 43 in Part II (Jones Islands, westward to Point Barrow); 7 in Part III (Canadian boundary, westward to Jago River). Part III was added to the project in 1952.

This project was designed as surveys for new nautical charts at a much larger scale than the present nautical chart, and to furnish bases to the U. S. Geological Survey for projected topographic maps.

When all the map manuscripts in the project have been reviewed, smooth-drafted, reproduced, and registered, a Completion Report will be filed in the Bureau Archives. This report will discuss the project in its entirety.
FIELD INSPECTION REPORT
Map Manuscript T-9778 to T-9785 Incl.
Project Ph-29(47) II

Refer to Field Inspection Report "Arctic North Coast of Alaska, Kuparuk River to Fish Creek", CS-320 (1951),
Max G. Ricketts, Chief of Party.
PHOTOGRAFMETRIC PLOT REPORT
Map Manuscripts Nos. T-9778 to T-9785 Incl.
Project Ph-29(47) II

These eight map manuscripts are part of a combined radial plot comprising Map manuscripts Nos. T-9773 to T-9775 Incl. and T-9778 to T-9785 Incl.

The Photogrammetric Plot Report is included with the Descriptive Report for T-9773 to T-9775 Incl. (1951).
31. **Delineation.**

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

The field inspection data were not as complete as is usually desired but in general the data were adequate and enabled the compiler to satisfactorily interpret the photographic detail in the interior areas. Assistance was given the personnel of this office in this part of the work by Lt. (j.g.) Dale E. Fisher who served several assignments in the field with the North Arctic Coast party, and who was assigned to the Portland Photogrammetric Office while the compilation work on this project was in progress.

For the most part the location of the mean high-water line was not definitely indicated by the field inspection party and it was determined in the office by stereoscopic examination of the photographs.

Side headings 32, 34, 35, 36, 37, 38, 39, 40, 46, and 47 of the Compilation Report for T-9773 to T-9775 Incl. are in general applicable to T-9778 to T-9785 Incl.

33. **Supplemental Data.**

None were furnished for the areas of these eight map manuscripts.

Approved:

Signed: Fred A. Riddell

Officer in Charge

Portland Photogrammetric Office

Respectfully submitted

Signed: J. Edward Deal Jr.

Cartographer

* T-9775 was returned to Portland (8-10-61) after review.

The original delineation was revised at its junction with the survey on the west (T-9777) which was part of another radial plot.
48. Geographic Names List.

The geographic names report mentioned in side heading 18 of the field inspection report was not furnished the compilation office. The following names were from sources listed below:

**T-9778**
- Colville River (West Branch)
- Fish Creek (East Branch)
- Harrison Bay
- Tamayak Channel

**T-9779**
- Beaufort Sea
- Colville River
- East Channel
- Harrison Bay
- Kupigruak Channel
- Tulakotvut Point
- Tamayak Channel

**T-9780**
- Anachik Creek
- Anachik Lake
- Kalubik Creek
- Kopigruak Channel
- Nicheliknut (Brant Island)
- Nuekshat Island (shift application to sw per navtex report)

**T-9781**
- Thetis Mound
- Unguavik River
- Jones Mound

**T-9782**
- Beechey Point
- Colville Island
- Jones Islands
- Long Island
- Sakonoway River

**T-9783**
- Fish Creek (East Branch)
- Harrison Bay
- Kachemak River (Southeast River)
- Nanuk Narivanga Lake
- Sakonoway River

**T-9784**
- Fish Creek (West Branch)
- Harrison Bay
- Kachemak Mound
- Kachemak River
- Kachemak River Channel
- Nanuk Narivanga Lake
- Pikonk Mound
- Sakonoway River

**T-9785**
- Milnevaech River
- Thetis Channel
- Yakutatilek Creek

Sources
- Nautical Chart No. 9400
- Various Aeronautical Charts of area
- Field Inspection Notes
- Descriptions of stations

Names approved
3-23-53
L. Heck

The numerous changes in the above names are based on the 1951 Project Names Report.
GEOGRAPHIC NAMES

T-9778
Colville River
Fish Creek
Tingmeachsiovik River
Harrison Bay
Tamayavak Channel

T-9779
Beaufort Sea
Colville River
Miluvseach River
Elaktoveach Channel
Harrison Bay
Sakoonaw River
Kupigrusak Channel
Tolaktovvut Point
Tamayavak Channel

T-9780
Colville River (Main Channel)
Anachkik Island
Anachlik Lake
Kalubik Creek
Kupigrusak Channel
Nigaliknut Island
Nuekshat Island

T-9781
Thetis Mound
Ugnuravik River
Jones Mound

T-9782
Beachey Point
Cottle Island
Jones Islands
Long Island
Beachey Mound
Sakonowyak River

T-9783
Fish Creek
Tingmeachsiovik River
Harrison Bay
Nechelik Channel
Nanuk Narivanga Lake
Sakoonaw River
Ublutuoqch River

T-9784
Anajuk Point
Colville River
Kupigrusak Channel
Kachemach Mound
Kachemach River
Miluvseach River
Nechelik Channel
Nanuk Narivanga Lake
Pikonik Mound
Sakoonaw River
Tamayavak Channel

T-9785
Miluvseach River
Kalubik Creek

These names are based on the 1951 Project Names Report.
Names approved:
Signed: L. Heck
3-23-53
PHOTOGRAFMETRIC OFFICE REVIEW
T. 9778 to T-9785 Incl.


CONTROL STATIONS
5. Horizontal control stations of third-order or higher accuracy  X  6. Recoverable horizontal stations of less than third-order accuracy (topographic stations)  X  7. Photo hydro stations  X  8. Bench marks

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES

BOUNDARIES
31. Boundary lines  ______  32. Public land lines  ______

MISCELLANEOUS
40. [Signature]  [Signature]
    Reviewer  Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler  Supervisor

43. Remarks:
62. Comparison with Registered Surveys.—There are no earlier surveys for this area.

63. Comparison with Maps of other Agencies.— None

64. Comparison with Contemporary Hydrographic Surveys.—

T-9778 and T-9779 fall within the area of the 1952 hydrographic surveys which are not available for comparison.

T-9780:
H-9718 1:20,000, 1951, East arm Colville R - Spy Id.
T-9761:
H-9717 1:20,000, 1951, Pingok Id to Thetis Id.
T-9782:
H-9716 1:20,000, 1951, Cottle Id. to Pingok Id.
T-9783, 84, 85: are inland surveys.

There is no conflict between the hydrographic surveys and the topographic surveys.

65. Comparison with Nautical Charts.—

The small scale of the chart affords little basis for comparison.

66. Accuracy.—The delineation complies with project instructions and meets Bureau standards.  for Artie mapping

Reviewed by:

Lena T. Stevens

APPROVED

Chief, Review Section  
Div. of Photogrammetry

Chief, Div. of Photogrammetry

June 21, 1957

Chief, Nautical Chart Branch  
Division of Charts &

Chief, Div. of Coastal Surveys
HORIZONTAL DATUM ADJUSTMENT

ARCTIC OCEAN AREA, ALASKA

Corrections to Preliminary N.A. 1927 Datum from the various independent horizontal datums on the north coast of Alaska have been determined by the Division of Geodesy, being computed from field positions, allowing for closure in azimuth and length. This procedure was started from adjusted N.A. 1927 Datum stations at about the 63rd Parallel on the Canadian Boundary, followed the 114th Meridian (IBC Datum) to Beaufort Sea (Arctic Ocean), thence westward through the Barter Island 1948, Flaxman Island and Point Barrow 1945 Datums to a connection with adjusted N.A. 1927 Datum in the area of Kotschue Sound, off Chukchi Sea. The position of the stations in this area is subject to further adjustment after more geodetic field work.

PLANEOMETRIC MAPPING PROJECT

Ph-29(47) PART II

Point Barrow to Jones Island, Alaska

T-9743 thru T-9785

T-9743 thru T-9772: Point Barrow 1945 Datum, correction to Preliminary N.A. 1927 Datum in Latitude 1st +1.30 sec. on all the maps, and in Longitude, ranges from -11.93 sec. on T-9743 to -15.26 sec. on T-9772. These corrections were converted into meters, and stamped on page T-2 of each Descriptive Report, and near the title block of each manuscript and registered cloth-backed map, with the following stamp:

T-9773 thru T-9785: Flaxman Island Datum, correction to Preliminary N.A. 1927 Datum use ranges from -1.26 sec. on T-9777 to -3.00 sec. on T-9782, and in Longitude from plus 8.95 sec. on T-9777 to plus 9.90 sec. on T-9782. These corrections were stamped on page T-2 of each Descriptive Report, and near the title block of each manuscript and cloth-backed registered map, with the exception that the cloth-backed maps have not been completed for T-9777, T-9778 thru 9782, and T-9784-9785. When these maps are completed they should be stamped the same as have been their descriptive reports with the following stamp:

The difference between Flaxman Island Datum and preliminary N.A. 1927 Datum is Lat. plus minus X m. and Long. plus minus X m.

See the Special Report on HORIZONTAL DATUM ADJUSTMENT for Ph-29(47), Parts I, II, & III, filed with the completion report for a project index showing the correction for each map.
T-9778 applied to Clst. 9403 thru Clst. 9469. Held, Apr. '55.
T-9783

T-9779 applied to Clst. 9403 thru Clst. 9470. Held. Apr. '55.
T-9780

T-9781 applied to Clst. 9403 thru Clst. 9471. Held. Apr. '55.
T-9782

T-9784 compared to ch. 9403. No important differences. Held out 1955.
T-9785