

9778 THRU 9785

~~CONFIDENTIAL~~

9781 & 9782 - FOR OFFICIAL USE ONLY

9778 THRU 9785

~~CONFIDENTIAL~~

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	T-9778 to Office No. T-9785 Incl.
LOCALITY	
Territory	Alaska
General locality	Beaufort Sea (Arctic Coast)
Locality	North Arctic Coast from Sakonowyak
River to	Harrison Bay
	<u>19A 51</u>
CHIEF OF PARTY	
Max G. Ricketts, Field	
Fred A. Riddell, Portland, Ore., Photo.	
	Office.
LIBRARY & ARCHIVES	
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  
12/14/49, 1/27/50, 11/9/50, 11/23/51 (Office) 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): 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):

Publication date (IV):

Geographic Datum (III): Flaxman Island 1912

*Correction figures to N.A. 1927 are  
are now available.**LTS Nov, 1953**See reverse side of this page.**G.B.W., Sept, 1954*Vertical Datum (III): ~~Mean sea level~~ *High Water*

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 paragraph 12 of Office Instructions Ph-29(47) dated  
14 December 1949)

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-9778 The difference between FLAXMAN ISLAND Datum  
and preliminary N.A. 1927 Datum is Lat. ~~plus~~/minus  
46 m. and Long. plus/~~minus~~ 94 m. ✓kcl.

T-9779 The difference between Ditto Datum  
and preliminary N.A. 1927 Datum is Lat. ~~plus~~/minus  
63 m. and Long. plus/~~minus~~ 98 m. ✓kcl.

T-9780 The difference between Ditto Datum  
and preliminary N.A. 1927 Datum is Lat. ~~plus~~/minus  
75 m. and Long. plus/~~minus~~ 100 m. ✓kcl.

T-9781 The difference between Ditto Datum  
and preliminary N.A. 1927 Datum is Lat. ~~plus~~/minus  
79 m. and Long. plus/~~minus~~ 102 m. ✓kcl.

9782 The difference between Ditto Datum  
and preliminary N.A. 1927 Datum is Lat. ~~plus~~/minus  
93 m. and Long. plus/~~minus~~ 103 m. ✓kcl.

T-9783 The difference between Ditto Datum  
and preliminary N.A. 1927 Datum is Lat. ~~plus~~/minus  
50 m. and Long. plus/~~minus~~ 98 m. ✓kcl.

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. ✓kcl.

T-9785 The difference between Ditto Datum  
and preliminary N.A. 1927 Datum is Lat. ~~plus~~/minus  
69 m. and Long. plus/~~minus~~ 101 m. ✓kcl.



## 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 ~~in stereoscopic~~ **J.L. Harris & J.E. Deal** Date: **1-22-52**  
Control extension by (III):

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:

Manuscript Delineated by:-	Shoreline	Date	Interior	Date
T-9778	L.L. Graves	1/30/52	J.L. Harris	5/20/52
T-9779	C.H. Bishop	2/5/52	L.L. Graves	6/5/52
T-9780	C.C. Wiebe	1/30/52	C.C. Wiebe	5/12/52
T-9781	C.C. Wiebe	1/21/52	R.A. Davidson	5/2/52
T-9782	C.C. Wiebe	1/22/52	J.L. Harris	5/15/52
T-9783	J.L. Harris	1/30/52	R.H. Barron	5/21/52
T-9784	R.A. Davidson	1/30/52	L.L. Graves	5/14/52
T-9785	None		C.C. Wiebe	4/29/52

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-9782	R.H. Barron	1/23/52	R.H. Barron	5/28/52
T-9783	R.H. Barron	2/6/52	J.E. Deal	5/23/52
T-9784	R.H. Barron	2/4/52	R.H. Barron	6/3/52
T-9785	None		R.H. Barron	5/7/52

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

		PHOTOGRAPHS (III)			
Number	Date	Time	Scale	Stage of Tide	
20041 to 20043 Incl.	7/23/47	11:53	1:20,000	0.15 above M.L.L.W.	
20092 to 20105 Incl.	7/25/47	12:07	1:20,000	0.02 above M.L.L.W.	
20120 to 20123 Incl.	7/25/47	13:12	1:20,000	0.08 above M.L.L.W.	
20128 to 20133 Incl.	7/25/47	13:24	1:20,000	0.10 above M.L.L.W.	

Tide (III)

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

Diurnal		
Ratio of Ranges	Mean Range	Spring Range
	6.6	8.5
0.1	0.5	0.7

Washington Office Review by (IV): *Lena J. Stevens*

Date: 25 Mar. 1953

Final Drafting by (IV): *J.H. Frazier - 9779, Robinson A.T. 9780 3/4/54*

Date: 2/23/54, (not 4/1/54)  
 3/22/54  
 4/15/54

Drafting verified for reproduction by (IV): *J.H. Frazier - 9781, Robinson A.T. 9782, 9783, 9784, 9785, 9786*

Date: 3-24-54  
 4-20-54

Proof Edit by (IV):

Date:

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):

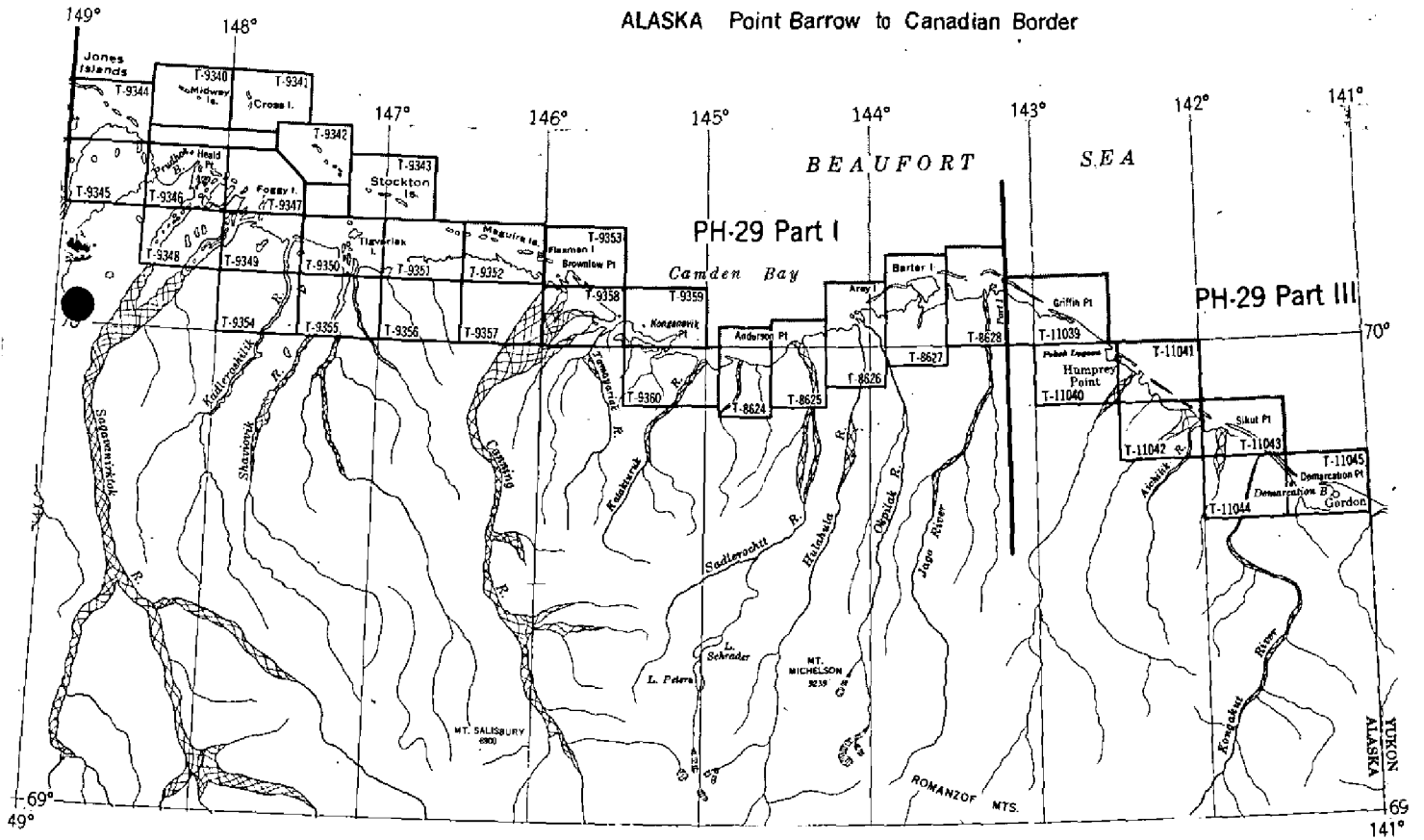
Number of Temporary Photo Hydro Stations established (III):

Remarks:



PLANIMETRIC MAPPING PROJECT PH-29 I-II-III

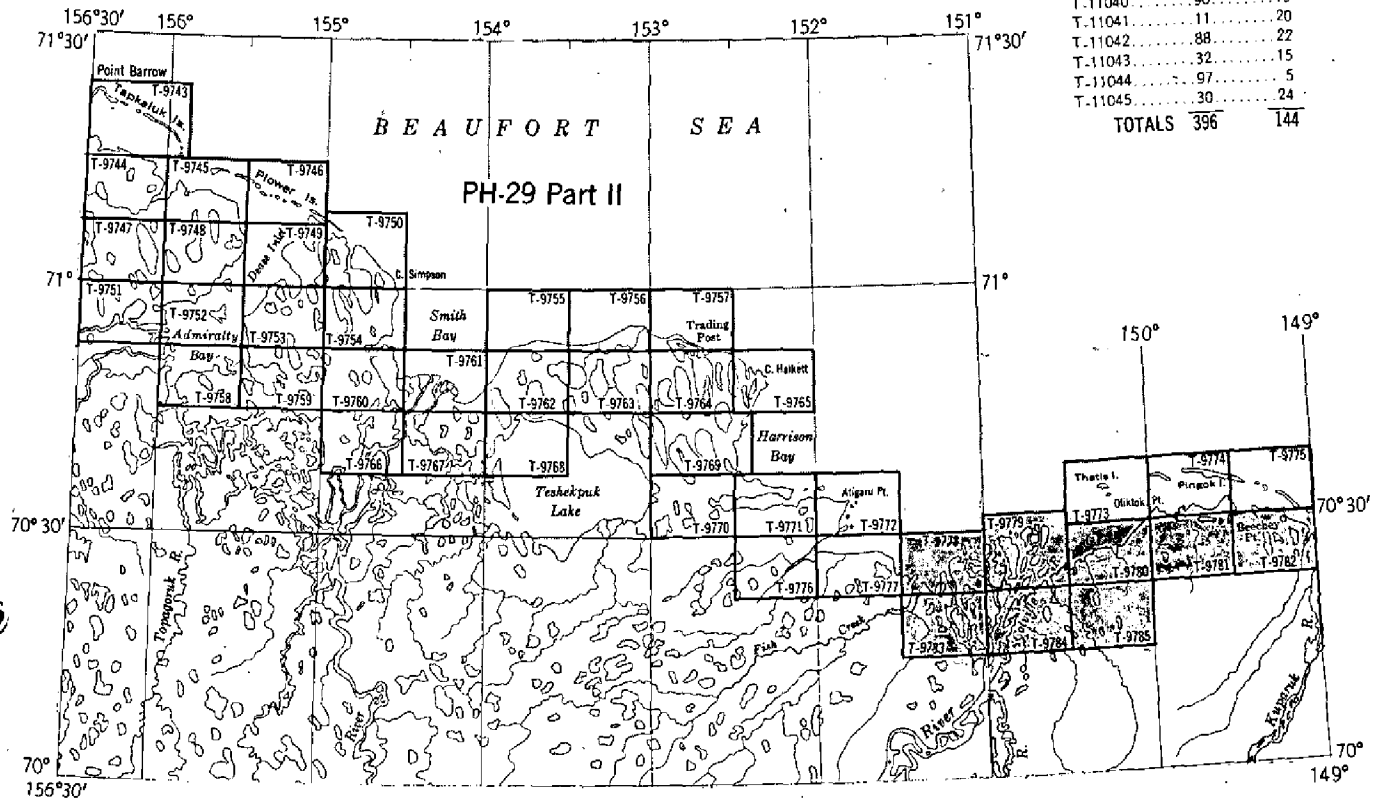
ALASKA Point Barrow to Canadian Border



PH-29 Part III

OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No.	Sq. Miles Area	Lin. Miles Shoreline
T-11039	48	39
T-11040	90	19
T-11041	11	20
T-11042	88	22
T-11043	32	15
T-11044	97	5
T-11045	30	24
<b>TOTALS</b>	<b>396</b>	<b>144</b>



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.

PHOTOGRAMMETRIC 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).

COMPILATION REPORT  
 Map Manuscripts T-9778 to T-9785 Incl.  
 Project Ph-29(47) II

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:

*Fred A. Riddell*

Fred A. Riddell  
 Officer in Charge  
 Portland Photogrammetric Office

Respectfully submitted

*J. Edward Deal Jr.*

J. Edward Deal Jr.  
 Cartographer

*\* T-9778 was returned to Portland (8-10-53) 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)~~
- ~~Fish Creek (West Branch)~~
- ~~Harrison Bay~~
- Tamayayak Channel

T-9782

- ~~Beechey Point~~ • Beechey Mound
- ~~Cottle Island~~
- ~~Jones Islands~~
- ~~Long Island~~
- ~~Sakonowak River~~

T-9779

- ~~Beaufort Sea~~
- ~~Colville River~~
- ~~Ektovach~~ Ektovach Channel
- ~~Harrison Bay~~
- ~~Kupigruak Channel~~ Sakonowak R.
- ~~Tolaktovut Point~~
- Tamayayak Channel

T-9783

- ~~Fish Creek (East Branch)~~
- ~~Fish Creek (West Branch)~~
- ~~Harrison Bay~~ channel
- ~~Nachelik River (Deer River)~~
- ~~Nanuk Narivanga (Deer Lake)~~
- ~~Sakonowak River~~
- ~~Ublu-ku-ech~~
- Ublutuoch River

T-9780

- ~~Colville River~~ Anachlik I.
- ~~Kalubik Creek~~ Anachlik Lake
- ~~Kupigruak Channel~~
- ~~Nicheliknut (Brant Island)~~ Nigaliknut I.
- ~~Nuekshat Island~~ (shift application to sw. per nuchas report)

T-9784

- ~~Anajuk Point~~ Kupigruak channel
- ~~Colville River~~
- ~~Kachemach Mound~~
- ~~Kachemach River~~
- ~~Miluveach~~ Miluveach River
- ~~Nachelik River Channel~~
- ~~Nanuk Narivanga Lake~~
- ~~Pikonik Mound~~
- ~~Sakonowak River~~
- ~~Sitting Shurt Channel~~
- Tamayayak Channel

T-9781

- ~~Thetis Mound~~
- ~~Ugnuravik River~~
- Jones Mound

T-9785

- ~~Miluveach River~~
- ~~Miluveach~~
- Kalubik 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  
Tamayayak Channel

T-9782

Beechey Point  
Cottle Island  
Jones Islands  
Long Island  
Beechey Mound  
Sakonowak River

T-9779

• Beaufort Sea  
• Colville River  
• Miluveach River  
• Elaktoveach Channel  
• Harrison Bay  
• Sakoonawg River  
• Kupigruak Channel  
• Tolaktovut Point  
• Tamayayak Channel

T-9783

• Fish Creek  
• Tingmeachsiovik River  
• Harrison Bay  
• Nechelik Channel  
• Nanuk Narivanga Lake  
• Sakoonawg River  
• Ublutuoch River

T-9780

Colville River (Main Channel)  
Anachkik Island  
Anachlik Lake  
Kalubik Creek  
Kupigruak Channel  
Nigaliknut Island  
Nuekshat Island

T-9784

Anajuk Point  
Colville River  
Kupigruak Channel  
Kachemach Mound  
Kachemach River  
Miluveach River  
Nechelik Channel  
Nanuk Narivanga Lake  
Pikonik Mound  
Sakoonawg River  
Tamayayak Channel

T-9781

Thetis Mound  
Ugnuravik River  
Jones Mound

T-9785

Miluveach River  
Kalubik Creek

These names are based on the 1951 Project Names Report.

Names approved:

Signed: L. Heck

3-23-53

## PHOTOGRAMMETRIC OFFICE REVIEW

T- 9778 to T-9785 Incl.

1. Projection and grids X 2. Title X 3. Manuscript numbers X 4. Manuscript size X

## 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 \_\_\_\_\_  
9. Plotting of sextant fixes \_\_\_\_\_ 10. Photogrammetric plot report X 11. Detail points X

## ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline X 13. Low-water line \_\_\_\_\_ 14. Rocks, shoals, etc. \_\_\_\_\_ 15. Bridges \_\_\_\_\_ 16. Aids to navigation X 17. Landmarks X 18. Other alongshore physical features X 19. Other along-shore cultural features X

## PHYSICAL FEATURES

20. Water features X 21. Natural ground cover X 22. Planetable contours \_\_\_\_\_ 23. Stereoscopic Instrument contours \_\_\_\_\_ 24. Contours in general \_\_\_\_\_ 25. Spot elevations X 26. Other physical features X

## CULTURAL FEATURES

27. Roads \_\_\_\_\_ 28. Buildings X 29. Railroads \_\_\_\_\_ 30. Other cultural features X

## BOUNDARIES

31. Boundary lines \_\_\_\_\_ 32. Public land lines \_\_\_\_\_

## MISCELLANEOUS

33. Geographic names X 34. Junctions X 35. Legibility of the manuscript X 36. Discrepancy overlay \_\_\_\_\_ 37. Descriptive Report X 38. Field inspection photographs X 39. Forms X  
40. Peo H. Barron J. Edward Deal Jr.  
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:



Review Report T-9778 to 85, incl.  
Planimetric Maps  
25 March 1953

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-9781:

H-9717 1:20,000, 1951, Pingok Id to Thetis Id.

T-9782:

H-7916 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.-

9400 1:1,587,870 at 70°, May 1947, rev. June 1952

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

66. Accuracy.-The delineation complies with project instructions and meets Bureau standards. *for Arctic mapping*

Reviewed by:

Lena T. Stevens  
Lena T. Stevens

APPROVED

L. C. Laude  
Chief, Review Section  
Div. of Photogrammetry

W. L. Swanson  
Chief, Div. of Photogrammetry

June 27, 1953

A. B. Edmonson  
Chief, Nautical Chart Branch  
Division of Charts SFV

Carl O. Harton  
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 141st Meridian (IBG 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 Kotzebue Sound, off Chukchi Sea. The position of the stations in this area is subject to further adjustment after more geodetic field work.

### PLANIMETRIC 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 is +1.30 sec. on all the maps, and in Longitude, ranges from -14.93 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-9779 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.

SBW  
11 Jan, 55

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 Clit. 9403 thru Clit 9469. HELM. apr. '55  
T-9783 }

T-9778 }  
T-9779 } applied to Clit. 9403 thru Clit. 9470. HELM. apr. 1955  
T-9780 }  
~~T-9781 }~~

T-9780 }  
T-9781 } applied to Clit. 9403 thru Clit. 9471. HELM. apr. '55  
T-9782 }

T-9784 } Examined + compared to ch. 9403. No important differences ~~FB~~ out 1955  
T-9785 }