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 *Office No.* T-9778 to T-9785 Incl.

LOCALITY

Territory

~~State~~ Alaska

*General locality* Beaufort Sea (Arctic Coast)

*Locality* North Arctic Coast from Sakonowyak River to Harrison Bay

1951

CHIEF OF PARTY

Max G. Ricketts, Field

Fred A. Riddell, Portland, Ore., Photo. Office.

LIBRARY & ARCHIVES

DATE JUNE 28, 1955

B-1870-1 (1)

78-aal

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 Harrision 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) 12/14/49, 1/27/50, 11/9/50, 11/23/51 (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): 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 NA. 1927 are now available.
LTS Mar, 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.



M-2618-12(4)

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. ✓ lcl.

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. ✓ lcl.

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. ✓ lcl

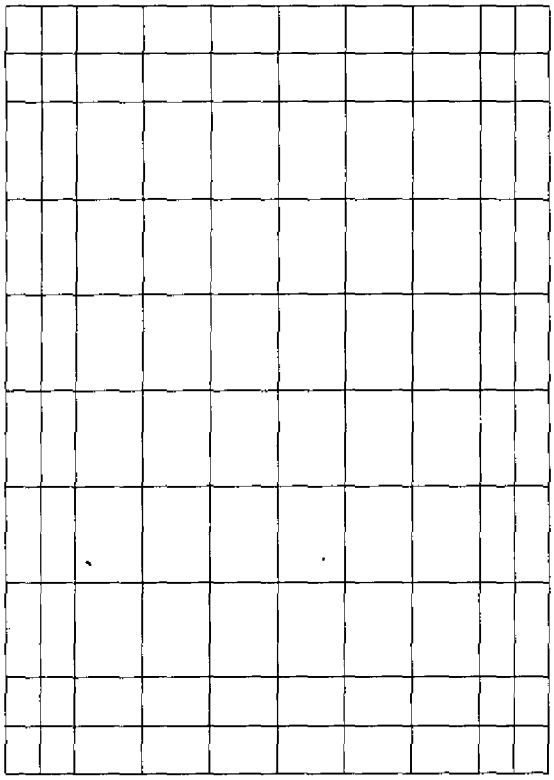
T-9781 The difference between Ditto Datum and preliminary N.A. 1927 Datum is Lat. ~~plus~~/minus 79 m. and Long. plus/~~minus~~ 102 m. ✓ lcl

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

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. ✓ lcl.

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. ✓ lcl.

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. ✓ lcl



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 ~~or 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:



M-2618-12(4)

| | Shoreline | Date | Interior | Date |
|---|---|---|---|---|
| Manuscript Delineated by:- | | | | |
| 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)

Diurnal

| Ratio of Ranges | Mean Range | Spring Range |
|---|---|---|
| | 6.6 | 8.5 |
| 0.1 | 0.5 | 0.7 |
| | | |

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

Washington Office Review by (IV): Lena T. Stevens Date: 25 Mar. 1953

Final Drafting by (IV): JH. FRAZIER - 9779 JH. FRAZIER - 9783 JH. FRAZIER - 9785 JH. FRAZIER - 9781 Robinson A.T. Robinson A.T. 3/4/54 Date: 2/23/54 3/22/54 4/5/54 (9781 + 9782)

Drafting verified for reproduction by (IV): Hallum T-9779 9779 9780 9781 9782 9783 9784 9786 Date: 3-24-54 4-20-54

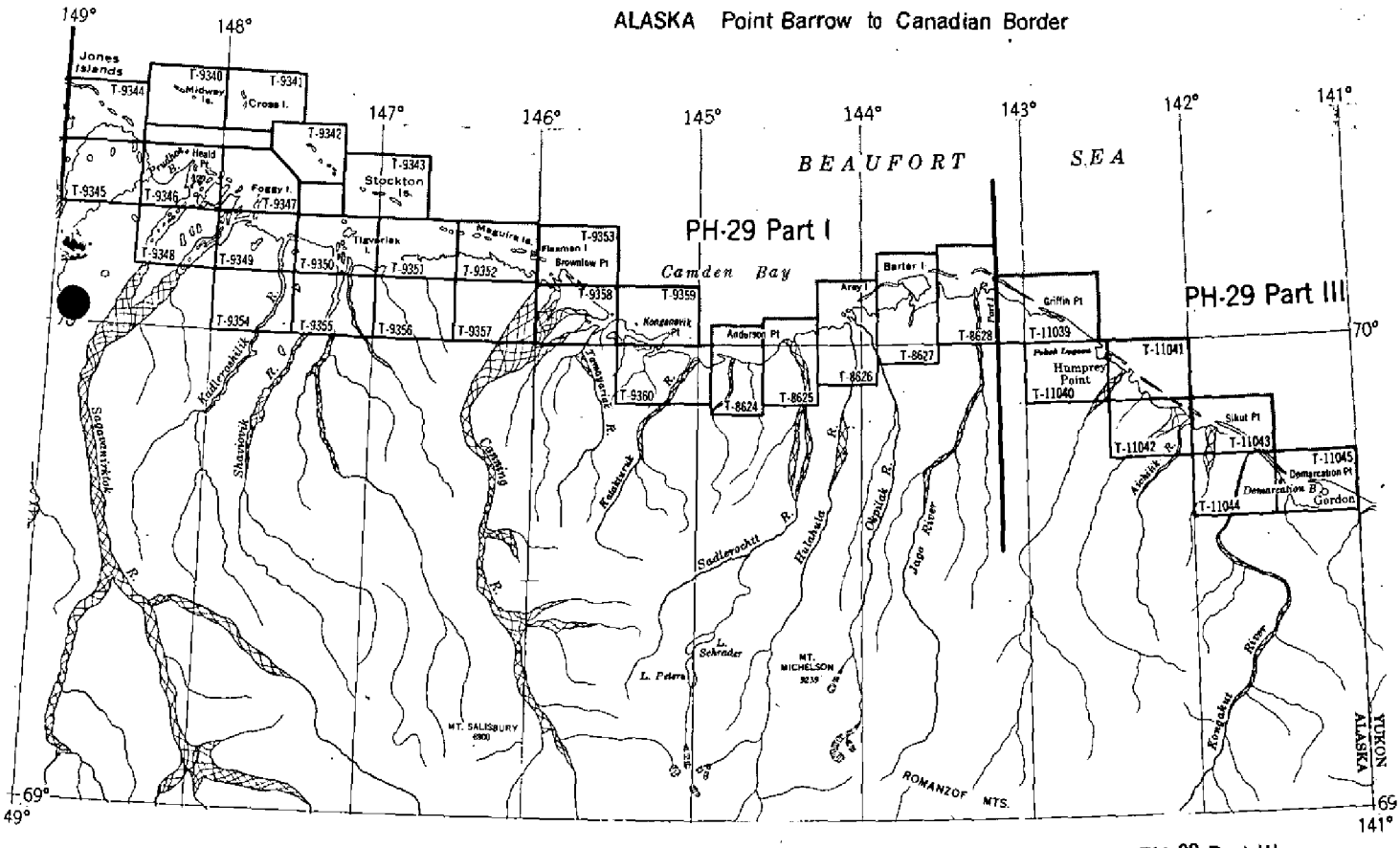
Proof Edit by (IV): Date:

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

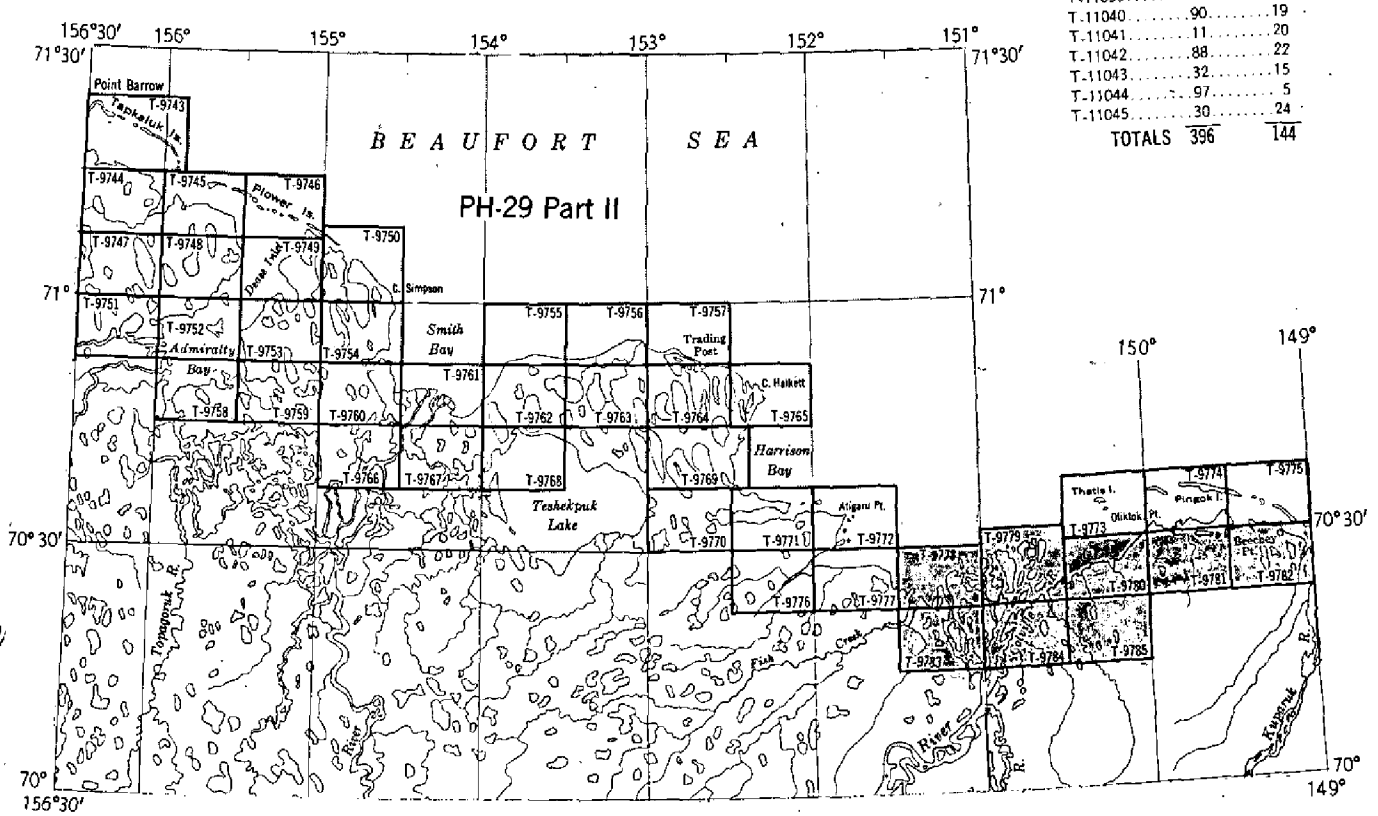
## ALASKA Point Barrow to Canadian Border




## 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 |
| TOTALS | 396 | 144 |




Photographs taken July 1947 Scale 1:20,000

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.

Respectfully submitted

J. Edward Deal Jr.

J. Edward Deal Jr.
Cartographer

Approved:

Fred A. Riddell

Fred A. Riddell
Officer in Charge
Portland Photogrammetric Office

* 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-9779

Beaufort Sea
Colville River
~~Telaktoveach~~
Harrison Bay
Kupigruak Channel
Tolaktovut Point
Tamayayak Channel

T-9780

Colville River
Kalubik ~~River~~ Creek
Kupigruak ~~River~~ Channel
~~Nichelikmut (Brant Island)~~ Nigaliknut I.
Nuekshat Island (shift application to s.w. per names report)

T-9781

Thetis Mound
Ugnuravik River
Jones Mound

Sources

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

T-9782

Beechey Point · Beechey Mound
Cottle Island
Jones Islands
Long Island
Sakonowyak River

T-9783

Fish Creek (~~East Branch~~)
~~Fish Creek (West Branch)~~
Harrison Bay
~~Nichelik River~~ (Deen River)
Nanuk Narivanga ~~(Bear Lake)~~
Sakoonowg River
~~Ublutuoch~~ Ublutuoch River

T-9784

Anajuk Point
Colville River
Kachemach Mound
Kachemach River
~~Miluveach~~ Miluveach River
~~Nichelik River~~ Channel
Nanuk Narivanga ~~(Bear Lake)~~
Pikonik Mound
Sakoonowg River
~~Sitting Shut Channel~~
Tamayayak Channel

T-9785

Miluveach River
~~Miluveach~~
Kalubik Creek

Tingmeachsiovik River
Tingmeachsiovik R.
Main channel
Milueach River
Elaktoveach Channel
Sakoonawg R.
Anachlik I.
Anachlik Lake
Kupigruak channel
Nigaliknut I.
Miluveach River
Channel

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-9779

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

T-9780

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

T-9781

Thetis Mound
Ugnuravik River
Jones Mound

T-9782

Beachey Point
Cottle Island
Jones Islands
Long Island
Beechey Mound
Sakonowyak River

T-9783

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

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-9785

Miluveach River
Kalubik Creek

These names are based on the 1951 Project Names Report.
Names approved:
Signed: L. Heck
3-23-53

Form T-2

# 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 alongshore 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. Rae H. Barron — Reviewer; J.Edward Deal Jr. — 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:

M-2623-12

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 Lande
Chief, Review Section
Div. of Photogrammetry

H H Edmonston
Chief, Nautical Chart Branch
Division of Charts GFH

L L Swanson
Chief, Div. of Photogrammetry
June 27, 1953

Earl O. Hanson
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 (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 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: G.B.W. 11 Jan, '55

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
T-9783 } applied to Clt. 9403 Hum. Clt 9469. Hell. apr. '55

T-9778
T-9779
T-9780 } applied to Clt. 9403 Hum Clt. 9470. Hell. apr. 1955.

T-9780
T-9781
T-9782 } applied to clt. 9403 Hum Clt. 9471. Hell. apr. '55

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