9766 9767 9768

* 9768 "FOR OFFICIAL USE ONLY"
* 9766 "FOR OFFICIAL USE ONLY"

Diagram Cht. No. 9100

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. Office No. T-9766 thru T-9768

LOCALITY

Territory ~~State~~ Alaska

General locality North Arctic Coast

Locality Ikpikpuk River, Teshekpuk Lake

19~~4~~ 51

CHIEF OF PARTY

Max G. Ricketts, Arctic Party

Fred A. Riddell, Portland, Oregon Photogrammetric Office

LIBRARY & ARCHIVES

JUN20 1955

DATE

B-1870-1 (1)

DATA RECORD

T- 9766 thru 9768

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

Field Office (II): Arctic Field Party (West 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): FEB - 6 1953 Date reported to Nautical Chart Branch (IV): FEB 17 1953

Applied to Chart No. Date: Date registered (IV): 25 June, 1954

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): Point Barrow Vertical Datum (III): Mean ~~Sea Level~~ High Water

Correctum to N.A.1927 is now available. LTS. Apr. 1953

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

The difference between Point Barrow, 1945 Datum and preliminary N.A. 1927 Datum is Lat. plus/~~minus~~ 40m. and Long. ~~plus~~/minus 154m. G.B.W.,8/54 ~L.L.

Reference Station (III): (See paragraph 12 of Office Instructions Ph-29 (47) dated 14 December 1949)

Lat.: Long.: ~~Adjusted~~ Unadjusted

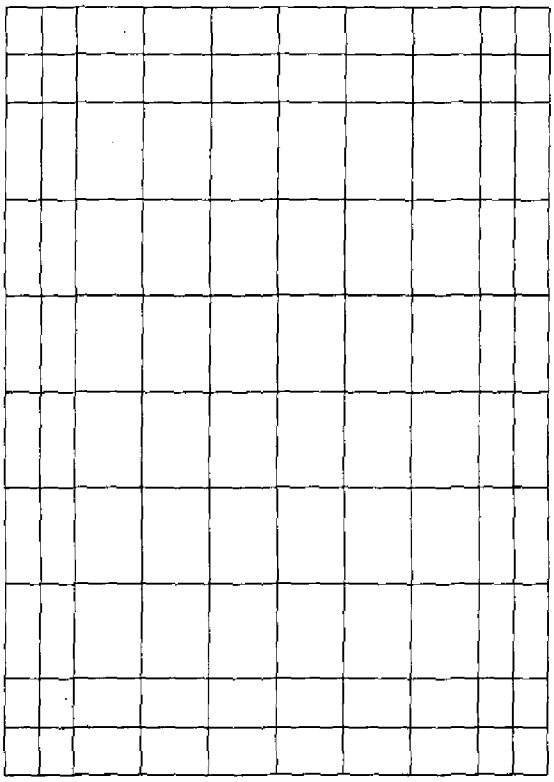
Plane Coordinates (IV): State: Zone:

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)



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

Field Inspection by (II): Leo W. Eason II Date: 2 September 1951

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

Mean High Water Location (III) (State date and method of location): Delineated by stereoscopic examination of photographs with the aid of spot locations shown on reverse side of field photographs.

Projection and Grids ruled by (IV): Date:

Projection and Grids checked by (IV): Date:

Control plotted by (III): Fred A. Riddell Date: 9/22/52

Control checked by (III): C. C. Wiebe Date: 9/26/52

Radial Plot or Stereoscopic Control extension by (III): James L. Harris Date: 10/9/52

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:		Date:
T-9766	J.E. Deal & L.L. Graves	1/6/53
T-9767	L.L. Graves	11/4/52
T-9768	J.E. Deal	10/13/52

Manuscript reviewed by:		Date:
T-9766	C.C. Wiebe	1/20/53
T-9767	C.C. Wiebe	11/27/52
T-9768	J.L. Harris	10/15/52

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

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
19934 thru 19941	7/20/47	15:51	1:20,000	0.7 ft. above M.L.L.W.
20143	7/25/47	14:03	1:20,000	0.1 ft. above M.L.L.W.

Tide (III)

Ratio of Ranges	Mean Range	Diurnal Range
	6.6	8.5
0.1	0.4	0.5

Reference Station: Kodiak, Alaska
Subordinate Station: Point Barrow
Subordinate Station:

Washington Office Review by (IV): Lena T. Stevens Date: 17 April 1953

Final Drafting by (IV): Robinson A.T. (67268) Robinson AT 66 Date: 30 Oct, 1953 22 Dec., 1953

Drafting verified for reproduction by (IV): Wm A. Hallum Date: Dec 23-53

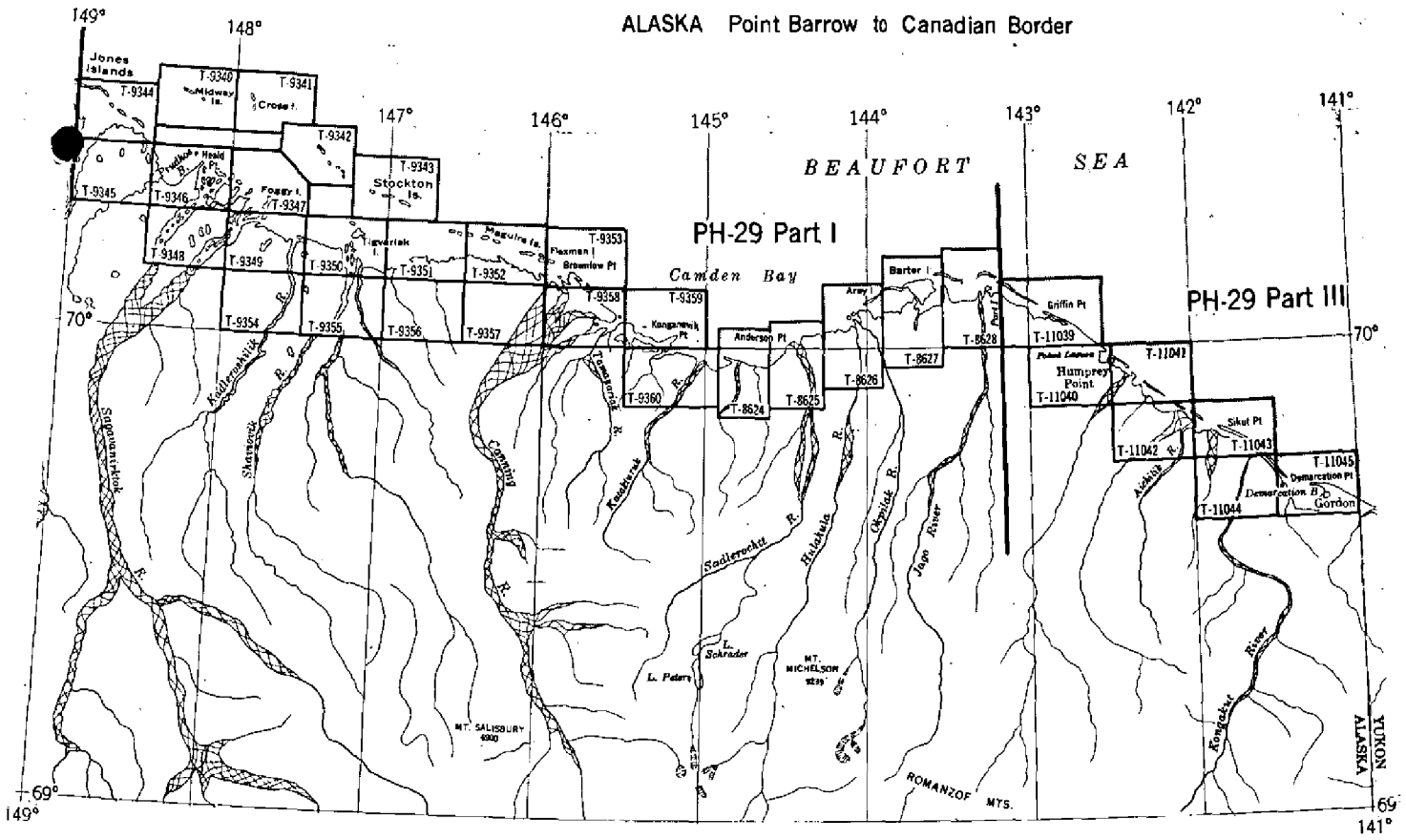
Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 135
Shoreline (More than 200 meters to opposite shore) (III): 65 Statute miles
Shoreline (Less than 200 meters to opposite shore) (III): 133 " "
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 3 Recovered: 3 Identified: 2
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III): None
Number of Temporary Photo Hydro Stations established (III):

Remarks:

PLANIMETRIC MAPPING PROJECT PH-29 I-II-III

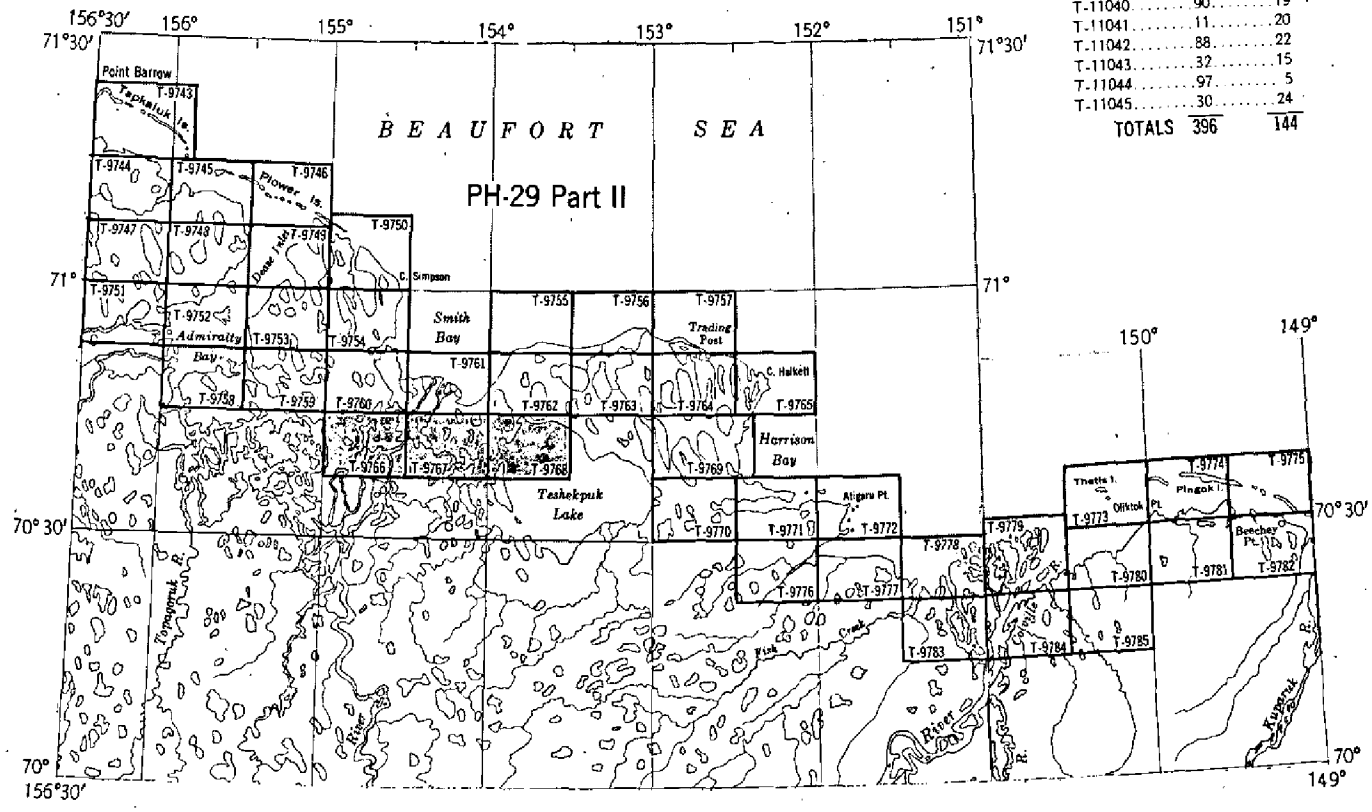
ALASKA Point Barrow to Canadian Border



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-9766 to 68, incl.

Planimetric project Ph-29(47) consits 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 Compilation Report will be filed in the Bureau Archives. This report will discuss the project in its entirety.

FIELD INSPECTION REPORT
Map Manuscripts T-9766 thru T-9768
Project Ph-29 (47) II

Refer to Descriptive Report "Shoreline - Photogrammetric, Alaska, North Arctic Coast, Point Barrow to Cape Halkett, 1951" Max G. Ricketts, Chief of Party.

PHOTOGRAMMETRIC PLOT REPORT
Map Manuscripts T-9766 thru T-9768
Project Ph-29 (47) II

Refer to Photogrammetric Plot Report of the combined radial plot for Map Manuscripts T-9759 thru T-9761 and T-9766 thru T-9768 which is included in the Descriptive Report for T-9759 thru T-9761.

COMPILATION REPORT
Map Manuscripts T-9766 thru T-9768
Project Ph-29 (47) II

These three map manuscripts portray the inshore planimetric details along the North Arctic Coast west of Teshekpuk Lake in the vicinity of IKPIKPUK RIVER and CHIPP RIVER.

In general Items 31 thru 47 of the Compilation Report for Map Manuscripts T-9743 thru T-9746 Project Ph-29 (47) II are applicable. The following exceptions are noted.

31. Delineation:

Drawing of the "Low area or area of Seasonal Inundation" symbol was discontinued on Nov. 10, 1952 while compilation was in progress in accordance with instructions contained in letter 711-aal dated 31 October 1952 Subject:- "Examination of Map Manuscripts T-9747, T-9751, and T-9754." Since that date these areas have been enclosed with a dashed line in blue acetate ink and labelled "fls" as indicated in Topographic Manual Part II, Page 429.

39. Junctions:-

Delete references to small projection.

Approved:

Fred A. Riddell
Comdr., USC&G Survey
Officer in Charge

Respectfully submitted:

J. Edward Deal, Jr.
Cartographer

48. Geographic Names List.

The geographic names report, side heading XIV of the field inspection report, was not furnished the compilation office.

The following were from sources listed below:

T-9766

Ikpikpuk River

T-9767

Ikpikpuk River (East Channel)
Teshekpuk Lake

T-9768

Teshekpuk Lake

Sources:

Nautical Charts Nos. 9400 and 9495
Various Aeronautical Charts of the Area
Field Inspection Notes
Description of Stations

Names approved
4-17-53
L. Heck

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9766

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

CONTROL STATIONS

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

9. Plotting of sextant fixes _____ 10. Photogrammetric plot report ✓ 11. Detail points ✓

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

20. Water features ✓ 21. Natural ground cover ✓ 22. Planetable contours _____ 23. Stereoscopic instrument contours _____ 24. Contours in general _____ 25. Spot elevations ✓ 26. Other physical features ✓

CULTURAL FEATURES

27. Roads _____ 28. Buildings ✓ 29. Railroads _____ 30. Other cultural features ✓

BOUNDARIES

31. Boundary lines _____ 32. Public land lines _____

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay _____ 37. Descriptive Report ✓ 38. Field inspection photographs ✓ 39. Forms ✓

40. Carita L. Wiebe
Reviewer

J. Edward Dewe 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

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9767

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

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ✓ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ✓ 7. Photo hydro stations _____ 8. Bench marks _____
9. Plotting of sextant fixes _____ 10. Photogrammetric plot report ✓ 11. Detail points ✓

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

20. Water features ✓ 21. Natural ground cover ✓ 22. Planetable contours _____ 23. Stereoscopic instrument contours _____ 24. Contours in general _____ 25. Spot elevations ✓ 26. Other physical features ✓

CULTURAL FEATURES

27. Roads _____ 28. Buildings ✓ 29. Railroads _____ 30. Other cultural features ✓

BOUNDARIES

31. Boundary lines _____ 32. Public land lines _____

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay _____ 37. Descriptive Report ✓ 38. Field inspection photographs ✓ 39. Forms ✓

40. Carita C. Wiebe
Reviewer

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

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T. 9768

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

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ✓ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ✓ 7. Photo hydro stations _____ 8. Bench marks _____
9. Plotting of sextant fixes _____ 10. Photogrammetric plot report ✓ 11. Detail points ✓

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

20. Water features ✓ 21. Natural ground cover ✓ 22. Planetable contours _____ 23. Stereoscopic instrument contours _____ 24. Contours in general _____ 25. Spot elevations ✓ 26. Other physical features ✓

CULTURAL FEATURES

27. Roads _____ 28. Buildings ✓ 29. Railroads _____ 30. Other cultural features _____

BOUNDARIES

31. Boundary lines _____ 32. Public land lines _____

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay _____ 37. Descriptive Report ✓ 38. Field inspection photographs ✓ 39. Forms ✓

40. _____ Reviewer

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-9766 to 68 incl.
Planimetric Maps
17 April 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: These are inland areas in which no hydrographic survey was made.

65. Comparison with Nautical Charts:

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

The small scale of the chart precludes more than a superficial inspection.

66. Accuracy:

Station Wolf, at the northwest border of T-9767 is the only station used in the radial plot in the area of these three map manuscripts, though both Polar and Teshekpuk fall within the area. Substitute points and measurements for Teshekpuk were furnished on photograph 19934; and during review an attempt to verify the delineated position of shoreline was made by cutting in the substitute points on the manuscript (T-9768). Verification could not be accomplished because neither the angles nor distances provided could be aligned with the plotted position of the triangulation station.

The shoreline of the lake north of the station is about 260 ft. distant on the map manuscript, though the description and the sketch give 205 ft. This could, in part at least, be atributed to change during the interval between photography (1947) and field work (1951).

The map manuscripts are well delineated, but are probably of substandard position accuracy for this scale.

Reviewed by:

Lena T. Stevens
Lena T. Stevens

Approved by:

L C Lundy
Chief, Review Section
Div. of Photogrammetry

Wallace A. Bruder
Acting Chief, Nautical Chart Branch
Division of Charts

Chief, Div. of Photogrammetry
11 May 1953

Earl O. Hatton
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:

The difference between Point Barrow 1945 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-9766 } Examined for chart 9403. No correction required at scale of chart.
T-9767 }
H.H.B. Oct 1955