9759 9760

9761

9760 9759 9761

Diagram Chart No. 9400

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. Office No. T-9759 thru T-9761

LOCALITY

Territory ~~State~~ Alaska

General locality Beaufort Sea, North Arctic Coast

Locality Chipp River, Ikpikpuk River, Smith Bay.

19~~2~~51

CHIEF OF PARTY

Max G. Ricketts, Arctic Party
Fred A. Riddell, Portland, Oregon Photogrammetric Office

LIBRARY & ARCHIVES

DATE MAY 4 1955

B-1870-1 (1)

T - 9759 thru T-9761

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

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

Correction figures to N.A. 1927 available.
L.T.S. April, 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~~ 40 m. and Long. ~~plus~~/minus 153 m. G.B.W., 8/54 VLeL

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

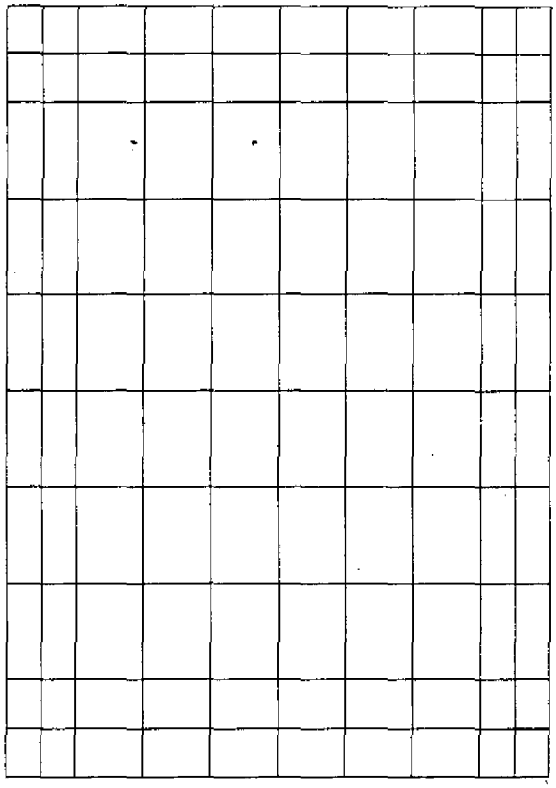
Lat.: Long.: Adjusted Unadjusted

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.



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-9759	J.L. Harris	11-18-52
T-9760	L.L. Graves	1-6-53
T-9761	C.C. Wiebe	11-18-52

Manuscript Reviewed by:		Date
T-9759	C.C. Wiebe	12-11-52
T-9760	C.C. Wiebe	1-15-53
T-9761	J.E. Deal	1-19-53

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
19891 thru 19894	7/20/47	14:13	1:20,000	0.8 ft. above M.L.L.W.
19904	7/20/47	14:43	1:20,000	0.8 ft. above M.L.L.W.
19942 thru 19944	7/20/47	15:52	1:20,000	0.7 ft. above M.L.L.W.
19997 thru 20002	7/20/47	17:41	1:20,000	0.3 ft. above M.L.L.W.
20140 thru 20142	7/25/47	14:02	1:20,000	0.1 ft. above M.L.L.W.

Tide (III)

Diurnal

Ratio of Ranges	Mean Range	~~Spring~~ 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): Date:

Final Drafting by (IV): 59-Robinson A.T. 60-Robinson AT 61-H.P.Taylor Date: 10-12-53 10-23-53 11-23-53

Drafting verified for reproduction by (IV): Wm. Hallinan Date: 11-25-53

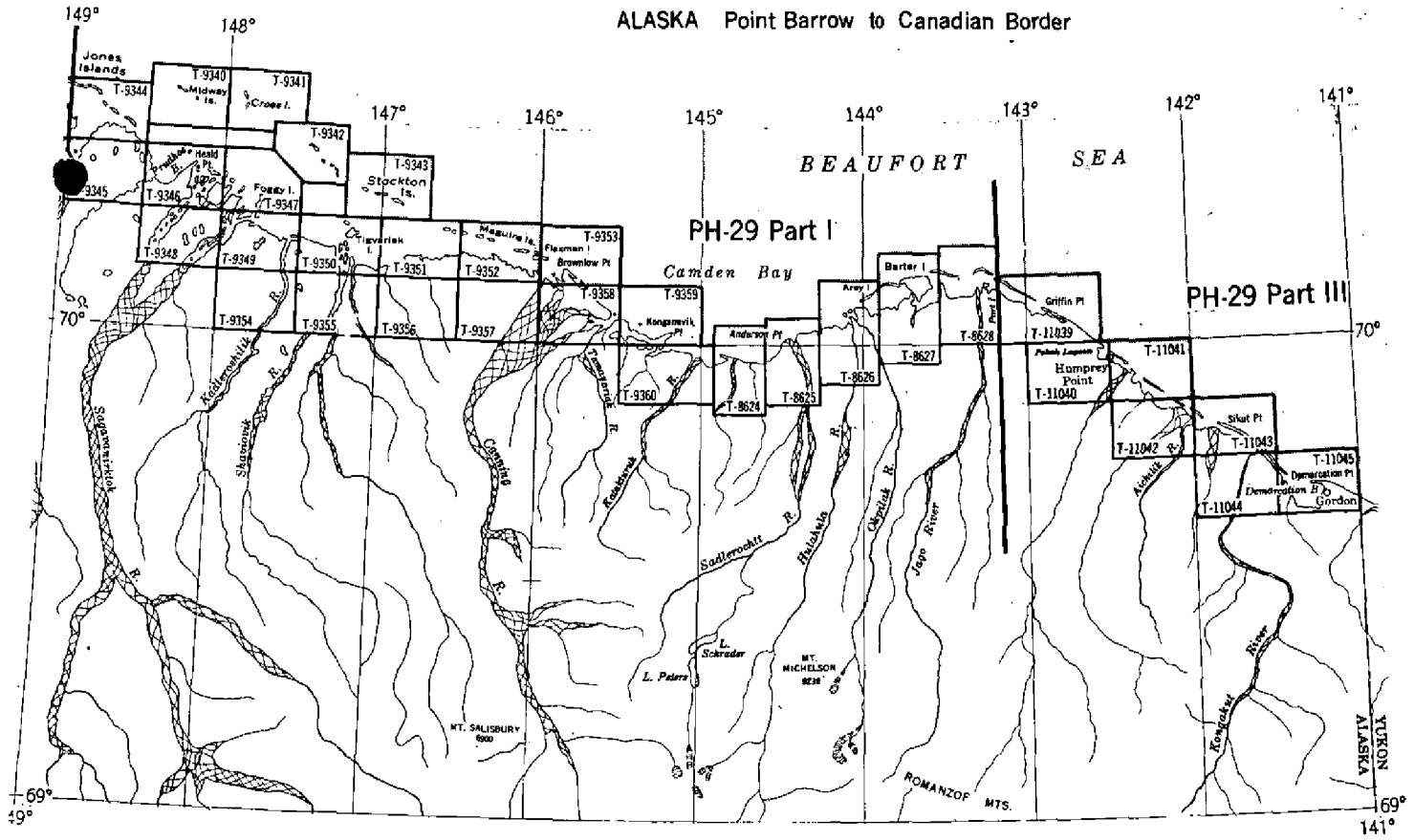
Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 200
Shoreline (More than 200 meters to opposite shore) (III): 172 statute miles
Shoreline (Less than 200 meters to opposite shore) (III): 220 " "
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 13 Recovered: 13 Identified: 8
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III): 2 (computed field positions)
Number of Temporary Photo Hydro Stations established (III):

Remarks:

PLANIMETRIC MAPPING PROJECT PH-29 I-II-III

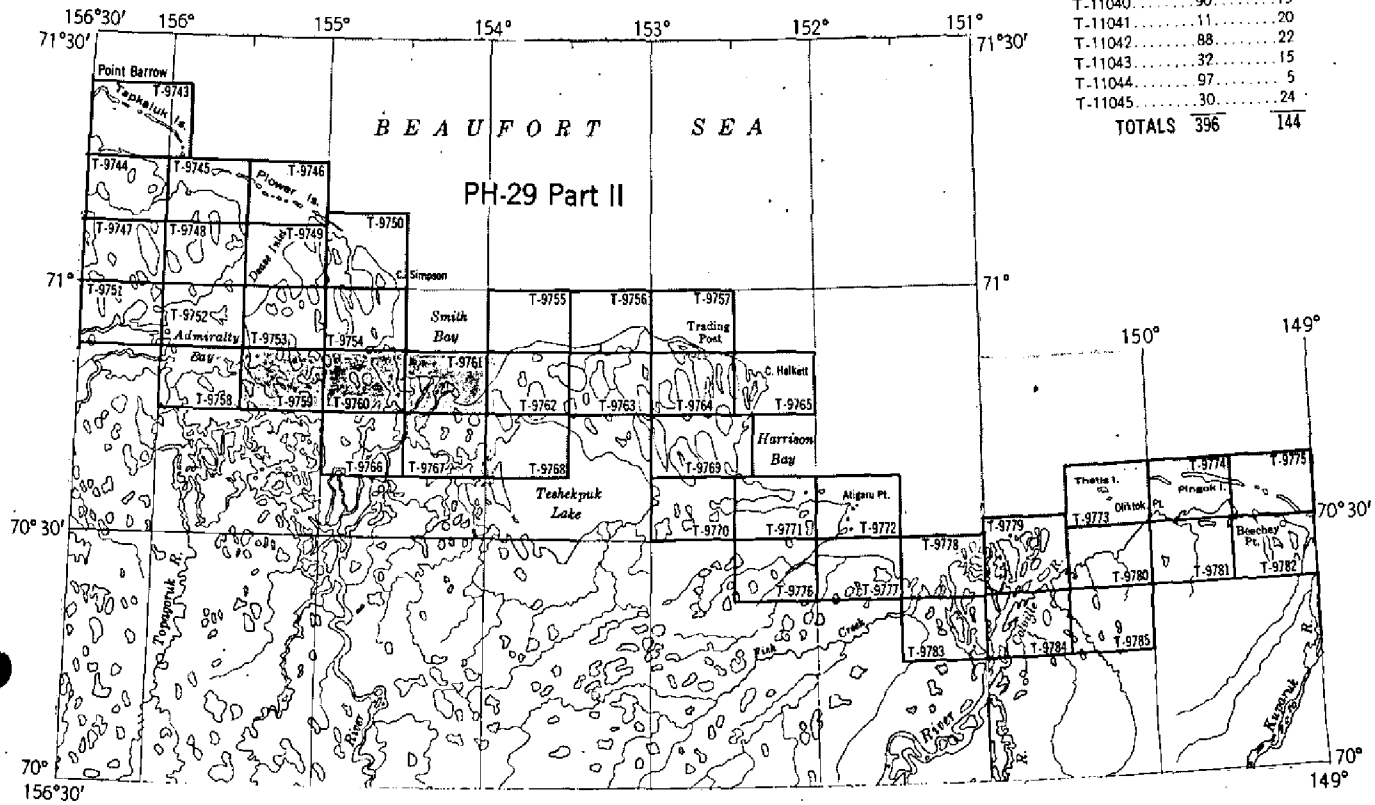
ALASKA Point Barrow to Canadian Border



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-9759 to 61, incl.

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 Manuscripts T-9759 thru T-9761
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.

To be filed in Archives with Completion Report

PHOTOGRAMMETRIC PLOT REPORT
Map Manuscripts T-9759 thru T-9761 and T-9766 thru T-9768
Project Ph-29 (47) II

This combined radial plot comprises map manuscripts T-9759 thru T-9761 and T-9766 thru T-9768

In general Items 21 thru 25 of the Photogrammetric Plot Report for Map Manuscripts No's. T-9743 thru T-9754 and T-9758, Project Ph-29 (47) II which is included in the Descriptive Report for Map Manuscripts T-9743 thru T-9746, are applicable. The following exceptions are noted:

References to damaged map manuscripts do not apply,

It was not necessary to extend any projection.

The sub-stations as computed from field data for station SMITH, 1951 could not be held. The station was located by the arc method from measurements contained in the field data and description of station and this identification held, indicating errors in the angles listed on the control station identification form.

The radial plot could not be completed for small areas at the southwest limits of T-9759 and T-9760, the west limits of T-9766, the southeast limits of T-9767 and for most of the area of T-9768 because of insufficient photograph coverage.

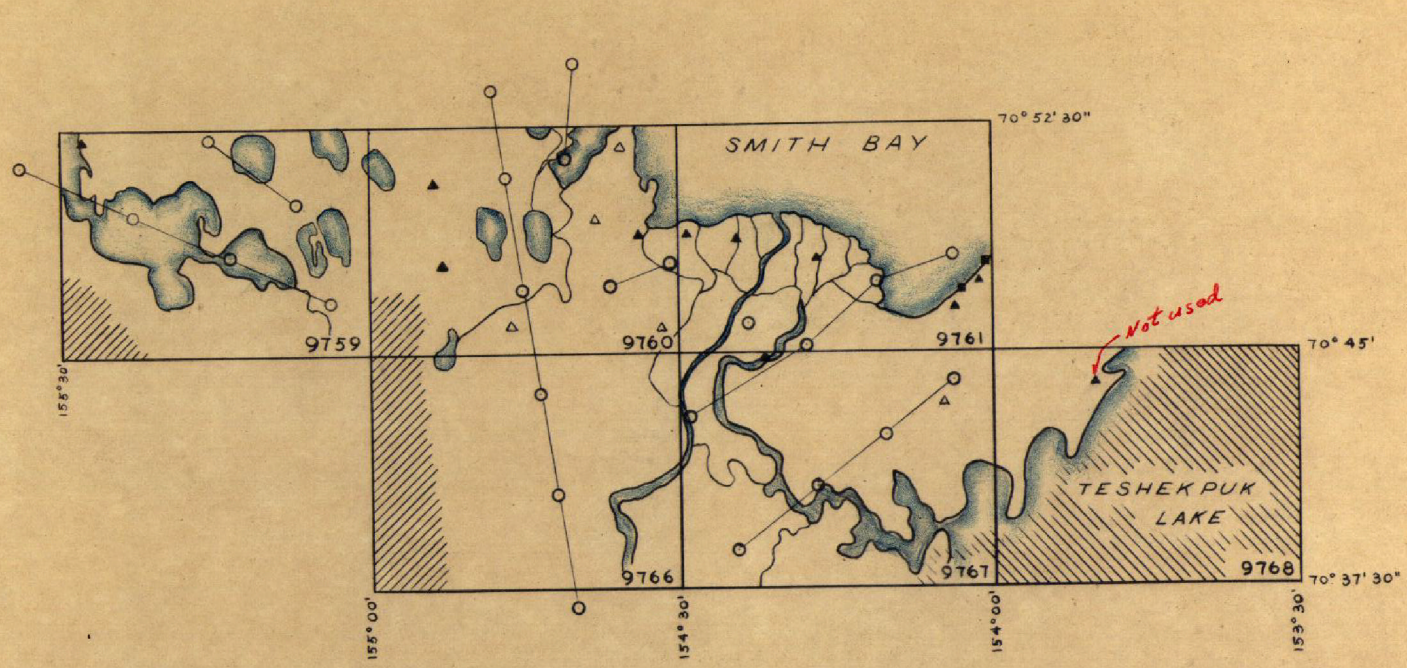
Approved:

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

Respectfully submitted:

J. Edward Deal Jr.

J. Edward Deal, Jr.
Cartographer



RADIAL PLOT Nº 4 PROJECT PH-29(47) II

LEGEND

—O—O— PHOTOGRAPH CENTERS & FLIGHTS

▲ TRIANGULATION STATIONS (IDENTIFIED)

△ " " (UNIDENTIFIED)

■ TOPOGRAPHIC STATIONS (IDENTIFIED)

NOT RADIALLY PLOTTED; INSUFFICIENT PHOTOGRAPH COVERAGE.

COMPILATION REPORT
Map Manuscripts T-9759 thru T-9761
Project Ph-29 (47) II

These three map manuscripts portray the planimetric details along the North Arctic Coast in the vicinity of IKPIKPUK RIVER DELTA 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 No. 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

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

Respectfully submitted:

J. Edward Deal Jr.

J. Edward Deal, Jr.
Cartographer

48. Geographic Name 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-9759

Alaktak
~~Brower's Caribou~~ Ranch
Chipp River
Pittalukrook Lake
Alaktak ua River

T-9760

Ikpikpuk River Delta
Smith Bay
West Channel Ikpikpuk River

Piasuk River

T-9761

Ikpikpuk River Delta
Smith Bay

Sources:

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

Names approved
4-9-53
a.j.w.

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9759

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. Laurita L. 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-9760

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. Wiehe
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:

M-2623-12

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T- 9761

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

Review Report T-9759 - 61, incl.
Planimetric Maps
9 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.-

H-7921 1:40,000 1951 Vic.Pitt Pt. to Cape Simpson

No shoreline is drawn on H-7921. A check of the most southern sounding figures reveals that depths of 2 to 3 feet consistently parallel the eastern shore of Smith Bay and the eastern side of the Ikpikpuk River delta about 650 feet from the MHW line. These depths are from 4900 to 8000 feet from the northern shore of the delta as delineated on T-9760-61. This delta shoreline was drawn without benefit of field inspection and probably depicts a stage lower than MHW at the date of Photography (July 20, 1947). The MHW line has undoubtedly advanced during the five years between photography and delineation, because deposition must be rapid at the mouth of the Ikpikpuk, so that the shoreline as delineated is a good representation of the delta conditions.

65. Comparison with Nautical Charts.-

9495 1:125,000 at 71° 08' May 1950

The names Alaktak River, Alaktak Ranch, and Piasuk River are not on the chart. The name *Chipp River is placed on the wrong stream. * Noted for revision on chart standard - G.R.S.

The shoreward part of the Ikpikpuk River delta has been changed to "inundated" on T-9760 and T-9761.

T-9760 and T-9761 were applied to chart 9495 before review.

66. Accuracy.-The shoreline area (Smith Bay) was well controlled and is of standard accuracy. The southern portions of T-9759 and T-9760 had no control and photographic coverage was inadequate for a full delineation, and is probably of subnormal accuracy.

Reviewed by:

Lena T. Stevens
Lena T. Stevens

Approved by:

L C Lande
Chief, Review Section
Div. of Photogrammetry

H C Edmonston
Chief, Nautical Chart Branch
Division of Charts GFS

Chief, Division of Photogrammetry
2 May 1955

Earl O. Heaton
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.