Diagram Chart No. 9400

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Planimetric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field No.</td>
<td>Office No. T-9759 thru T-9761</td>
</tr>
</tbody>
</table>

LOCALITY

<table>
<thead>
<tr>
<th>Territory</th>
<th>Alaska</th>
</tr>
</thead>
<tbody>
<tr>
<td>General locality</td>
<td>Beaufort Sea, North Arctic Coast</td>
</tr>
<tr>
<td>Locality</td>
<td>Chipp River, Ikapikkip River, Smith Bay</td>
</tr>
</tbody>
</table>

| Year | 1951 |

CHIEF OF PARTY

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

LIBRARY & ARCHIVES

DATE

MAY 4 1955
DATA RECORD

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, 2/6/51, 3/16/51, (field)
by 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): FEB - 6 1958

Date reported to Nautical Chart Branch (IV): FEB 17 1953

Applied to Chart No. Date: Date registered (IV): 25 June, 1953

Publication Scale (IV):

Geographic Datum (III): Point Barrow

Vertical Datum (III): Mean Sea Level

Correction figures to M.A. 1927 available.

2 T.S. April, 1953

The difference between Point Barrow Datum and preliminary M.A. 1927 Datum is Lat. plus/minus 3'04 and Long. plus/minus 1'53 G.B.W. 45'04

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

Lat.: Adjusted

Long.: 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 (III): Leo W. Eason II
Date: 2 September 1951

Planetable contouring by (III):
Date:

Completion Surveys by (III):
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):
Date: 10/9/52

Stereoscopic Instrument compilation (III):
Date:

Contours

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:

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:

T-9759  C.C. Wiebe   12-11-52
T-9760  C.C. Wiebe   1-15-53
T-9761  J.E. Deal   1-19-53
PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891 thru 19894</td>
<td>7/20/47</td>
<td>14:13</td>
<td>1:20,000</td>
<td>0.8 ft. above M.L.L.W.</td>
</tr>
<tr>
<td>19904</td>
<td>7/20/47</td>
<td>14:43</td>
<td>1:20,000</td>
<td>0.8 ft. above M.L.L.W.</td>
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<tr>
<td>19942 thru 19944</td>
<td>7/20/47</td>
<td>15:52</td>
<td>1:20,000</td>
<td>0.7 ft. above M.L.L.W.</td>
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<td>19997 thru 20002</td>
<td>7/20/47</td>
<td>17:41</td>
<td>1:20,000</td>
<td>0.3 ft. above M.L.L.W.</td>
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<td>20140 thru 20142</td>
<td>7/25/47</td>
<td>14:02</td>
<td>1:20,000</td>
<td>0.1 ft. above M.L.L.W.</td>
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</table>

Tide (III)

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

Reference Station: KODIAK, ALASKA
Subordinate Station: POINT BARROW

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

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
Number of BMs searched for (II):
Number of Recoverable Photo Stations established (III): 2 (computed field positions)
Number of Temporary Photo Hydro Stations established (III):

Remarks:
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
PHOTограмMETRIC 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 Re-
port for Map Manuscripts No's. T-9743 thru T-9754 and T-9758,
Project Ph-29 (47) II which is included in the Descriptive Re-
port 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 de-
scription of station and this identification held, indicating er-
rors 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  
Condr., USC&G Survey  
Officer in Charge

Respectfully submitted:  
J. Edward Deal, Jr.  
Cartographer
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 CHIIP 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-dal 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: Respectfully submitted:

Fred A. Riddell J. Edward Deal, Jr.
Comdr., USCG Survey Cartographer
Officer in Charge
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

Brother's Caribou Ranch

Chipp River

Pittaluak Lake

Alakat River

T-9760

Ikpikpuk River Delta

Smith Bay

West Channel Ikpikpuk 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

4-5-53

O.J.W.
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. Planetary 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

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
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. Planetary 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 ✓

Reviewer

Supervisor, Review Section or Unit

40. __________________________

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 2673.12
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. Planetary 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  

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:

W-2623-12
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 Ikipikuk 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 Ikipikuk, 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. *Note for revision on chart standard add.

The shoreward part of the Ikipikuk 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
Approved by:

[Signature]
L. Landa
Chief, Review Section
Div. of Photogrammetry

[Signature]
H. E. Storrs
Chief, Nautical Chart Branch
Division of Charts &

[Signature]
W. J. O'Farrell
Chief, Division of Photogrammetry

[Signature]
C. L. Aspaas
Chief, Div. of Coastal Surveys

2 Mar 1955
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 111th Meridian (IBC Datum) to Beaufort Sea (Arctic Ocean), thence westward through the Barter Island 1918, 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.

PLANE 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 18°41.30 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 in Latitude ranges from 1.26 sec. on T-9777 to 3.00 sec. on T-9782, and in Longitude ranges from plus 0.95 sec. on T-9777 to plus 9.00 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___m. and Long. plus/minus___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.