U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Topographic
Field No.: Ph-53 (49) Office No.: T-9576, T-9885

LOCALITY
State: Alaska
General locality: St. Lawrence Island
Locality: Akefiyak Bay

19A 50

CHIEF OF PARTY
Fred. A. Riddell, Chief of Field Party
Hubert A. Paton, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE: April 15, 1953
DATA RECORD

T - 9576, 7/8/65

Project No. (II): Ph-58(49) Quadrangle Name (IV):

Field Office (II): Portland, Oregon Chief of Party: Fred. A. Riddell

Photogrammetric Office (III): Baltimore, Md. Officer-in-Charge: Hubert A. Paton

Instructions dated (II) (III): 4 May 1950 supplemented by letter dated 29 March 1951 from Acting Director to Comdr. Hubert A. Paton

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Air photographic (Multiplex)

Manuscript Scale (II): 1:20,000 Stereoscopic Plotting Instrument Scale (III): 1:10,000

Scale Factor (III): 1.000

Date received in Washington Office (IV): 5/22/51 Date reported to Nautical Chart Branch (IV): 5/27/51

Applied to Chart No. 3-17-53

Publication Scale (IV): 1:6,000,000

Geographic Datum (III): St. Lawrence, Ed. (Barber) Astronomic NA 1927

Reference Station (III): Trail, 1950

Lat.: 49°40'39"N Long.: 127°43'56"W

Unadjusted X:

State: ALASKA Zone: 2

Plane Coordinates (IV):

Y = NORTING - 7,000,903.47

X = EASTING - 469,702.79

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)
(I) (II) (III)
DATA RECORD

RAY H. Skelton II

Field Inspection by (II): JACK S. CHAMBERLIN
VICTOR E. SERENA
SHERIDAN D. JONES
ROBERT S. TIBBETTS

Date: June 1950

Planetable contouring by (II): None

Date: —

Completion Surveys by (II): None

Date: —

Mean High Water Location (III) (State date and method of location):
Sept. 24, 1948 (Same as date of photography)

Date: Nov. 1950

Projection and Grids ruled by (IV): T.L.J.

Projection and Grids checked by (IV):

Control plotted by (III): R.L.S.

Date: Dec. 1950

Control checked by (III): S.W.Trow

Date: Dec. 1950

Horizontal and vertical

Stereoscopic A.C. Rauck, Jr.
Control extension by (III): A.K. Heywood

Date: Jan. 1951

Planimetry A.C. Rauck, Jr.
B. Kurs

Date: Jan. 1951

Stereoscopic Instrument compilation (III):

Contours A.C. Rauck, Jr.
B. Kurs

Date: Jan. 1951

Manuscript delineated by (III): B. Wilson

Date: Feb. 1951

Photogrammetric Office Review by (III): A.K. Heywood

Date: Mar. 1951

Elevations on Manuscript
checked by (II) (III): A.K. Heywood

Date: March 1951
PHOTOGRAPHS (III)

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Tide (III)

From Predicted Table of Tides

Reference Station: DUTCH HARBOR
Subordinate Station: ST. LAWRENCE ISLAND, ALASKA

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): 39
Shoreline (More than 200 meters to opposite shore) (III): 21
Shoreline (Less than 200 meters to opposite shore) (III): 0
Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):
Recovered: Recovered:

Number of BMs searched for (II):

Number of Recoverable Photo Stations established (III): 5
Number of Temporary Photo Hydro Stations established (III): 4

Remarks: * This figure given by compilation office.
TOPOGRAPHIC MAPPING PROJECT PH-53
ALASKA - Bering Sea, St. Lawrence Island

Compiled by the U. S. Coast and Geodetic Survey at scale of 1:20,000 from U. S. Navy 1:20,000 scale single-lens photographs taken August 1948.
(Refer to U. S. Navy mosaic index)

OFFICIAL MILEAGE FOR COST ACCOUNTS

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TOTAL 1836
SUMMARY FOR T-9576, 1965

This topographic survey is one of a series of 49 quadrangles, each 7½ minutes in latitude and 15 minutes in longitude at 1:20,000 scale that cover ST. LAURENCE ISLAND, ALASKA.

This SPRING SEA island is approximately 160 miles long and averages 20 miles in width and has not been previously mapped at this large scale.

ST. LAURENCE ISLAND is within the CAPE NOME DISTRICT and the SECOND JUDICIAL DIVISION.

The maps of this island are to be published at 1:25,000 scale by the Army Map Service.

For information concerning the project in its broader aspects see the project completion report which will include, among other items, two detailed field reports—a preliminary report dated 21 September 1950 and a project report dated June-September 1950—both submitted by Fred A. Riddell.

The registered data to be permanently filed in the Library Archives under T-9576 will include a cloth-mounted micrographic print of the map manuscript at 1:20,000 scale together with a cloth-mounted published color print at 1:25,000 scale and the original descriptive report.
<table>
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<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION</th>
<th>DATUM</th>
<th>LATITUDE OR ( \psi )-COORDINATE</th>
<th>LONGITUDE OR ( x )-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927 - DATUM</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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<td>NOOVO, 1950</td>
<td>G-8801</td>
<td>St. Lawrence I.</td>
<td>63° 43' 49.032&quot;</td>
<td>171° 40' 53.478&quot;</td>
<td>1518.3 (339.6)</td>
<td>733.9 (89.5)</td>
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<td>HOOP, 1950</td>
<td>G-8801</td>
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<td>63° 42' 07.252&quot;</td>
<td>171° 45' 36.522&quot;</td>
<td>501.7 (322.5)</td>
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<td>63° 40° 20.155&quot;</td>
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<td>624.1 (1233.8)</td>
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<td>63° 39' 33.751&quot;</td>
<td>171° 32' 39.727&quot;</td>
<td>1045.1 (812.8)</td>
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<td>CAPER, 1950</td>
<td>G-8801</td>
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<td>63° 38' 10.672&quot;</td>
<td>171° 32' 45.944&quot;</td>
<td>330.5 (1527.4)</td>
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<td>AGHSIT, 1950</td>
<td>G-8801</td>
<td>Page 5</td>
<td>63° 37' 42.898&quot;</td>
<td>171° 47' 49.201&quot;</td>
<td>677.6 (148.7)</td>
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To transfer the above values to the NA 1927 datum use the following:

1. At longitude use corrections to latitude:
   - 171° 30' - 4.19
   - 171° 45' - 4.67
   - 172° 00' - 3.94

2. For corrections to longitude use -70.60 for 1950.
COMPILATION REPORT

T-9576, T9885

FIELD INSPECTION REPORT

Refer to project report, part 1, bound under separate cover.

PHOTOGRAMMETRIC PLOT REPORT

This report was submitted with the descriptive report for Survey T-9575 and includes quadrangles T-9575 to T-9577.

31. DELINEATION

Refer to Photogrammetric Plot Report for quadrangles T-9575 to T-9577, item 22.

32. CONTROL

Refer to Photogrammetric Plot Report for quadrangles T-9575 to T-9577, item 22.

33. SUPPLEMENTAL DATA

None.

34. CONTOURS AND DRAINAGE

Extensive intermittent drains and ponds cover this quadrangle. Only those drains of prominence were shown. All ponds were shown where they were of draftable size.

35. SHORELINE AND ALONGSHORE DETAILS

The MHW line was delineated in the multiplex with the aid of "ticks" furnished by the field party on the contact photographs. Foul areas and offshore rocks are for the most part, office interpretation by analogy with those annotated by the field party.

36. OFFSHORE DETAILS

See above.

37. LANDMARKS AND AIDS

These are complete.
38. CONTROL FOR FUTURE SURVEYS

Form 524s are submitted with this report for five recoverable topographic stations. All were located by multiplex.

A list of recoverable topographic stations and the descriptions of the photo-hydro stations are included in paragraph 49 of this report.

39. JUNCTIONS

Junctions have been made to the north with T-9575, to the south with T-9581 and T-9582, and to the east with T-9577. There is no contemporary survey to the west, T-9885, added later, junction satisfactory.

40. HORIZONTAL AND VERTICAL ACCURACY

This subject is fully discussed in the Photogrammetric Plot Report for T-9575-T-9577.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with USGS map, scale 1:250,000, printed in 1949.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with chart 9302, scale 1:534,076 at Lat. 60° 00', published in July 1945 and corrected to August 29, 1949. After completion of hydrographic survey this map should supersede all previous charts.

Items to be applied to nautical charts immediately:

None

Items to be carried forward:

None.

Respectfully submitted
23 May 1951

Albert E. Heywood
Cartographic Photo. Aid

Approved and forwarded
12 June 1951

Hubert A. Paton, Comr., C&GS
Officer in Charge
GEOGRAPHIC NAME LIST

Aghnaghak Lagoon.
Aghsit Point (T-9985)
Aktapuk Point.
Akeftapak Bay.
Akiftapuk. Akeftapak

Bering Sea.

Dovelawik Bay.

Ikoygak Creek.

Kaghoopalik Point. (T-9985)
Kavalghak Bay (T-9985)
Kavalghak Creek (T-9985)
Kavalrok.

Naskak Camp. (T-9577)
Nekeelit Point (T-9885)

Mingeekak.

Mingeekak Beach.

Nindvahut Lake.

Niyrakpak Lagoon.

Ooynik Point.

Singik Point (T-9885)

Troutman Lake.

Upakpak Point. (T-9885)

Names underlined in red are approved.

3-7-53
L. Heck
49. NOTES FOR THE HYDROGRAPHER

The following is a list of recoverable topographic stations:

DUNE, 1950
  CAB (CABIN, 1950) (PUK - hydro) ON T9577
HUMP, 1950
TILT (ROCK, 1950)
WASH (BOULDER, 1950)

The following is a list of descriptions of photo-hydro stations:

CAB - East gable of cabin
TWO - " " " "
OUT - " " " "
PUK - NE gable

Special attention is called to the special volume, Part 2, of the
project report containing "jumbo" size prints of topographic and hydro-
graphic stations prepared for the use of the hydrographic party.

Forms 5-4 for these stations give the positions
on the St. Lawrence Island (Jambull) Aetholake
datum. (Positions on registered copy are on NA 1927 datum.)
PHOTOGRAMMETRIC OFFICE REVIEW

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 lines
10. Photogrammetric plot report
11. Detail points

ALONGSHORE AREAS
(Nautical Chart Data)
12. Shoreline
13. Low water limit
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. Discrepancies on overlay
37. Descriptive report
38. Field inspection photographs
39. Form

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-5627-12
62. Comparison with Registered Topographic Surveys.

T-2337 (1893) is without scale or projection and covers the coastline around Norton Sound to Point Barrow as well as St. Lawrence Island. It was drawn by an Eskimo and is included in the Bureau Archives as a record of native geographic names and for historical reasons.

T-9576 is the first large scale topographic survey of the area.

63. Comparison with Maps of Other Agencies.

St. Lawrence, Alaska, USGS, 1:250,000 1949

The Geological Survey map is on an independent astronomic datum.

Drainage, lakes, contours and other features are shown in greater detail on T-9576 than is possible at the scale of the above survey. The large scale variation precludes a detailed comparison.

64. Comparison with Contemporary Hydrographic Surveys.

There are no contemporary hydrographic surveys of this area as of this date.

65. Comparison with Nautical Charts.

Chart 9302  1:1,534,076 October 1951

The large scale variation precludes comparison.

66. Miscellaneous.

(a) Contours.-Original compilation instructions for this project required a 25-foot supplementary contour interval in addition to the regular 50-foot interval.

After examination of several completed compilations it was decided to show only such supplementary contours as would give significant information or express certain topographic features not indicated by the 50-foot interval contours.

(b) Projections.-The original compilation was made on the St. Lawrence Island Astrolabe horizontal datum.

New projections have been ordered and after review this compilation is to be transferred to NA 1927 datum. The registered vault copy and published copies will be on this latter datum.
(c) Computations. — As of this date the positions of the control stations to be shown on the new projection (mentioned in item (b) above) are not available. Corrections and adjustments for the new datum have not been computed. Corrections have been supplied. See p. 7.

(d) Classified Information. — All data pertaining to this manuscript are classified when received and have been classified during review.

67. Adequacy of Manuscript.

This topographic survey complies with project instructions and National Standards of Map Accuracy.

Reviewed by:

L. Martin Gazik

APPROVED

Chief, Review Section, Div. of Photogrammetry

Chief, Nautical Chart Branch Div. of Charts

Chief, Div. of Photogrammetry

Chief, Div. of Coastal Surveys