U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Topographic
Field No.: Ph-53 (49) Office No.: T-9599

LOCALITY
State: Alaska
General locality: St. Lawrence Island
Locality: Southwest Cape

19/51

CHIEF OF PARTY
Fred A. Riddell, Chief of Field Party
Louis J. Reed, Div. of Photogrammetry,
Washington, D.C.

DATE: MARCH 25, 1955
DATA RECORD

T-9599 & 9600

Project No. (II): Ph-53(49)  Quadrangle Name (IV): T-9599 -
T-9600 -

Field Office (II): St. Lawrence Island, Alaska  Chief of Party: Fred A. Riddell

Photogrammetric Office (III): Washington, D.C.  Officer-in-Charge: Louis J. Reed, Chief, Stereoscopic Mapping Section

Instructions dated (II) (III):
(II) = 4 May 50, supplemented by letter dated 29 March 1951 from Acting Director to Comdr. Hubert A. Paxon

Method of Compilation (III): Control extension by stereoplanigraph and detailing by stereoplanigraph and Kelsh Plotter "A"

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

Scale Factor (III): 1:1

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.:

Date:

Date registered (IV):

Publication Scale (IV): 1:25,000

Publication date (IV):

Geographic Datum (III):
St. Lawrence Island
NA 1927 ( dof 46)

Vertical Datum (III):
Mean sea level except as follows:
Elevations shown as (2s) refer to mean high water
Elevations shown as (gs) refer to sounding datum
i.e., mean low water or mean lower low water
Shoreline at MHW

Reference Station (III):

Lat.:

Long.:

Adjusted
Unadjusted

Plane Coordinates (IV):

State: Alaska  Zone: 2

Y =

X =

Grid = UTM, Zone 2

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.
1. Control extended 100% on Stereoplanigraph

2. Simultaneous detailing of culture and contours as follows, with reference to diagram above:

   MK = Morton Keller on the Kelsh Plotter "A"
   FJL = Frank J. Lesslie on the Kelsh Plotter "A"
   SWT = Stanley W. Trow on the Kelsh Plotter "A"
   "MK" ≠ Morton Keller on the Stereoplanigraph
   "MGM" = Michael G. Misilia on the Stereoplanigraph
DATA RECORD

Field Inspection by (II): Fred A. Riddell  Date: 1950

Planetable contouring by (II): None  Date: —

Completion Surveys by (II): None  Date: —

Mean High Water Location (III) (State date and method of location):
1950 field inspection of shoreline used as a guide during instrument delineation of the MHWL.

Projection and Grids ruled by (IV): Theodore L. Janson on the Reading Ruling Machine  Date: 15 Nov 50

Projection and Grids checked by (IV): Howard D. Wolfe  Date: 16 Nov 50

Control plotted by (III): Stanley W. Trov  Date: 8 Dec 50

Control checked by (III): Robert L. Sugden  Date: 8 Dec 50

Radar Photo Stereoscopic  Michael G. Misulia  Date: 14 Sep 51
Control extension by (III):

Planimetry

Stereoscopic Instrument compilation (III): See data Page 2  Date: 16 Oct 51
Contours

Manuscript delineated by (III): Henri Lucas  Date: 20 Jan 52

Photogrammetric Office Review by (III): None  Date: —

Elevations on Manuscript checked by (III): None  Date: —
PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time of photo exposure</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>St1-6</td>
<td></td>
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<td>Not computable without time of photo exposure</td>
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<td>60 thru 70</td>
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<td>80 thru 81</td>
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<td>St1-5</td>
<td>Aug 48</td>
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<td>88 thru 90</td>
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<tr>
<td>St1-12</td>
<td>140 thru 159</td>
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Tide (III)

Reference Station: Dutch Harbor, Alaska
Subordinate Station: St. Lawrence Island, Alaska

Washington Office Review by (IV): [Signature]

Diurnal

<table>
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<tr>
<th>Ratio of</th>
<th>Mean</th>
<th>Spring</th>
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<td>Ranges</td>
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<td>3.7</td>
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<td>0.5</td>
<td>1.3</td>
<td>1.9</td>
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Date: 12-12-52

Proof Edit by (IV): [Signature]

Final Drafting by (IV): [Signature]

Drafting verified for reproduction by (IV): [Signature]

Land Area (Sq. Statute Miles) (III): 36
Shoreline (More than 200 meters to opposite shore) (III): 30
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II): None
Number of Triangulation Stations searched for (II): Recovered: 8
Number of BMs searched for (II): None
Number of Recoverable Photo Stations established (III): 7
Number of Temporary Photo Hydro Stations established (III): None

Remarks:
SUMMARY FOR T-9599 v 9600

These topographic surveys are of a series of 1:9 quadrangles, each 7½ minutes in latitude and 15 minutes in longitude at 1:20,000 scale that cover ST. LAWRENCE ISLAND, ALASKA.

This PEERING SEA island is approximately 100 miles long and averages 20 miles in width and has not been previously mapped at this large scale.

ST. LAWRENCE ISLAND is within the CAPE ROME DISTRICT of 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 Bureau Archives under T-9599 will include cloth-mounted lithographic prints of the map manuscripts at 1:20,000 scale together with cloth-mounted published color prints at 1:25,000 scale and the original descriptive report.
2-20:

Refer to two separate reports entitled as follows:

PRELIMINARY REPORT
project Ph-53(49)
FIELD WORK - 1950 SEASON

and

PROJECT REPORT
ST. LAWRENCE ISLAND, ALASKA
Project Ph-53(49)  June - September 1950
Fred A. Riddell, Chief of Party

Part 1 = Written Report
Part 2 = Identification Photos
30-31. Radial Plot Report:

There is no radial plot, as such; since the control for this compilation was extended on the Stereoplanigraph without unusual difficulties.

31. Delineation:

Delineation was accomplished on the Stereoplanigraph and the Kelsh Plotter "A" as outlined on page 2 of the Data Records. Photo coverage was complete and the entire area of the two manuscripts of this report have been compiled. The field inspection along the shoreline was complete and satisfactory.

32. Control:

Both horizontal and vertical control were adequate for this survey because they were office selected before field operations; In general, office selections of control sites were followed closely.

33. Supplemental Data: None

34. Contours and Drainage:

The photographic quality of the photographs for instrument use in contouring was only average, but satisfactory. No particular difficulties were encountered during the bridging of control operation. There remain no areas of questionable contours.

35. Shoreline and Alongshore Details:

Shoreline inspection was adequate. No low-water or shoal lines were located, field or office.

36. Offshore Details: There is nothing unusual to report.

37. Landmarks and Aids:

No nautical or aeronautical aids exist, but some landmarks in the area were recommended for showing on large scale charts; refer to form 567 included in this report.

38. Control for Future Surveys:

A total of 9 hydro stations and 6 topo stations were selected and named in the field. They were also field identified for use during delineation, at which time they were positioned. Each is shown in proper name and symbol on the two manuscripts. Details regarding these points are listed in the Field Inspection Report and in the Notes for the Hydrographer page included in this report.
39. **Junctions:**

   All junctions are in agreement, since they were compiled simultaneously.

40. **Horizontal and Vertical Accuracy:**

   Accuracy in both respects is considered to meet map standards requirements. The horizontal scale of these quads is 1:20,000 and the contour interval is 50ft.

46. **Comparison with existing maps:**

   ST. LAWRENCE, ALASKA, Alaska reconnaissance Topographic Series, Second Judicial Division, USGS, 1:250,000, 1943 compilation printed in 1949. Because of the scale and poor quality of this map, a true comparison is not made. See Item 68 of the Review Report on p. 18. LMG.

47. **Comparison with Nautical Charts:**

   BERING SEA, EASTERN PART, Alaska, West Coast, USCG & GS, scale 1:1,534,076, July 1945 (16th edition), 1/e 11 Jan 52. This chart is the only one covering this area but it is of such small scale that no worthwhile comparison is possible.

48. **Geographic Name List:** See next page.

49. **Compilation Office Review:** Not executed. Why not?

50. **Notes for the Hydrographer:** See separate page included.

Submitted by

[Signature]
Stanley W. Trow, Chief,
Single Lens Plotting Instrument Unit

Approved By

[Signature]
Lewis J. Reed, Chief
Stereoscopic Mapping Section
Photogrammetric Engineer
<table>
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<td>Evaphinak Point</td>
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</table>

Names underlined in red are approved.

11-12-52. /s/ L. Heck
<table>
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<tr>
<th>Name on Survey</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<td>Oklighiat Hill</td>
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<td>Singikpak Point</td>
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<td>Poowoooliak Point</td>
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<td>Poowoooliak Camp</td>
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<td></td>
<td></td>
<td>(Not permanent village but summer and occasional camp site)</td>
</tr>
</tbody>
</table>

Names underlined in red are approved. 11-12-52

/l. Heck
50. Notes for The Hydrographer:

T-9509

a Hydro Stations:

* Aim identified on photo No 68, STL-6
  * Wit  "  "  "  No 68, STL-6
  Min  "  "  "  No 88, STL-5
  Pop  "  "  "  No 91, STL-5

b Topo Stations (add)

CELT, 1950 identified on photo No 91, STL-5

T-9600

a Hydro Stations:

  Zoo identified on photo No 92, STL-5
  Saw  "  "  "  No 73, STL-5
  Pip  "  "  "  No 95, STL-5
  Tor  "  "  "  No 147, STL-12
  Gam  "  "  "  No 147, STL-12

b Topo Stations:

  JACK, 1950 identified on photo No 92, STL-5
  GAIN, 1950 "  "  "  No 94,95, STL-5
  DUST, 1950 "  "  "  No 94, STL-5

Descriptions of all Topo Stations will be found on forms 524, one for each station. They are marked with standard disks.

Hydro stations are described on the field identification photos listed above, and can be better identified in the field by use of Part II of the field inspection report where "620" photos of these points are filed.

* See Form 567, dated Nov 10, 1957, included as p.17 herein.

* Nero, 1950 identified on photo No. 6-067
  Cold, 1950 "  "  "  No. 12-159
  Zemo, 1950 "  "  "  No. 5-089
I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.

The positions given have been checked after listing by KVM.

<table>
<thead>
<tr>
<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>DATUM</th>
<th>METHOD OF LOCATION AND SURVEY NO.</th>
<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
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<tbody>
<tr>
<td>CABIN</td>
<td>South gable of cabin (easterly of 2)</td>
<td>WIT</td>
<td>63 20</td>
<td>171 34</td>
<td>7/5.0</td>
<td>T-9598</td>
<td>T-9598</td>
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</tr>
<tr>
<td>CABIN</td>
<td>South gable of cabin (southeasterly of 3)</td>
<td>NH</td>
<td>63 41</td>
<td>171 16</td>
<td></td>
<td>T-9500</td>
<td>T-9500</td>
<td></td>
</tr>
<tr>
<td>ROCK</td>
<td>Black round shaped outcrop</td>
<td>NH</td>
<td>63 41</td>
<td>171 26</td>
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<td>T-9500</td>
<td>T-9500</td>
<td></td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating...
62. Comparison with Registered Topographic Surveys.

   T-2337                                  1898

   The above is without scale or projection. 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-9599 and T-9600 are the first large scale surveys of this area.

63. Comparison with Maps of Other Agencies.

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

   Although contours, drainage and other features generalized at the scale of the above reconnaissance survey preclude detailed comparison, one particular difference is to be noted. In the area between the OKOK RIVER and POOWOOLIAK POINT, T-9600 shows no elevations exceeding 250 feet, while on the above listed survey this area shows several contours exceeding 250 feet with the highest elevations indicated by an index contour at 1000 feet.

   The difference in the spelling of the geographic names and the addition of many new ones for this island have been approved by the Board of Geographic Names, Decision List No. 5102 of March 1951.

64. Comparison with Contemporary Hydrographic Surveys.

   None

65. Comparison with Nautical Charts.

   Chart 9302  1:1,534,076, October 1951

   Changes in elevations and geographic names for St. Lawrence Island should be noted for inclusion in any new printings or revisions of this chart.

66. Miscellaneous.

   (a) DATUMS - the original compilations were based on the St. Lawrence Island (Gambell) Astrolabe Datum.

   After review and during final drafting these compilations will be transferred to North American 1927 Datum.

   (b) CONTOURS - the original compilation instructions for this project required supplementary contours at 25-foot intervals in addition to the regular contours at 50-foot intervals.
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 otherwise evident. The first 25-foot contour in from the shoreline, except along steep rocky bluffs where contours tend to merge, is shown throughout the island.

(c) FIELD EDIT and ACCURACY TESTS - since there was no field edit for any of the surveys in this project, there was no opportunity to run accuracy tests usually included in that field operation.

(d) SECURITY INFORMATION - geographic positions of triangulation stations in this area are "CONFIDENTIAL" and Form M-2388-12 listing such information have been removed from this report to permit all other data for T-9599 and T-9600 to carry the lower classification "RESTRICTED".

67. Adequacy of Manuscripts.- Except for the limitations noted in Item 66(c) above, no discrepancies were apparent in the usual field and office operations and procedures and there is sufficient horizontal and vertical control in the area to indicate probable conformance to the National Standards of Map Accuracy.

Reviewed by:

L. Martin Gazik

APPROVED

L. E. Land
Chief, Review Section
Div. of Photogrammetry

Chief, Div. of Photogrammetry

Chief, Nautical Chart Branch
Division of Charts

Chief, Div. of Coastal Surveys