**Diagram Cht. No. 9302**

**U. S. COAST AND GEODETIC SURVEY**
**DEPARTMENT OF COMMERCE**

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Topographic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys Nos.</td>
<td>T9581, 82</td>
</tr>
<tr>
<td>Field No. Ph-52 (49)</td>
<td>Office Nos. 83, 84, 85, 89, 90, 91, 92, &amp; 93</td>
</tr>
</tbody>
</table>

**LOCALITY**

- State: Territory of Alaska
- General locality: St. Lawrence Island
- Locality: Vicinity of Poovoot Range

**19450**

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

**LIBRARY & ARCHIVES**

**DATE** MARCH 25, 1955
DATA RECORD

9581  9589
9582  9590
T -  9583  9591
9584  9592
9585  9593

Project No. (II): Ph-53(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)
Office Files

Method of Compilation (III): Air Photographic (Multiples, Stereoplanigraph and
Kelsh Plotter)
Manuscript Scale (III): 1:20,000  Stereoscopic Plotting Instrument Scale (III): 1:10,000
Scale Factor (III): 1.000

Date received in Washington Office (IV): 1952  Date reported to Nautical Chart Branch (IV): 1952
Applied to Chart No.  Date:  Date registered (IV): 12-28-54

Publication Scale (IV): 1:25,000  Publication date (IV):

• Geographic Datum (III):  NA 1927 [unclear]

• See Item 67, Review Report

Reference Station (III):
Lat.:  Long.:  [unclear]

Plane Coordinates (IV): UTM grid  State: Alaska Zone: Z

Y=  X=  [unclear]

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.

Form T-Page 1  M:26:18-12(4)
DATA RECORD

Field inspection by (II):
RAY H. SKELTON II
JACK S. CHAMBERLAIN
VICTOR E. SERENA
SHERIDAN D. JONES
ROBERT S. TIBBETTS

Planetable contouring by (II):
None

Completion Surveys by (II):
None

Mean High Water Location (III) (State date and method of location):
August 1948 (Same as date of photography)

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

Projection and Grids checked by (IV):
R.L.W.
W.L. Lineweaver – Feb. 1950
S.W. Trow
B. Wilson
A.K. Heywood

Control plotted by (III):
R.L.S.
L.J.R.
S.W. Trow
B. Wilson

Control checked by (III):
R.L.S.
L.J.R.
S.W. Trow
B. Wilson

Stereoscopic Instrument compilation (III):
A.K. Heywood (Multiplex, Hor. & Vert. Bridging)
M. Misulka (Steropeplanigraph, Hor. & Vert. Bridging)

Planimetry –(E. Rolle, D. Brant)

Contours – (W. Eisinger, J. Richter) 1950, 1951

Work sheets
B. Kurs
D. LaFermer
C. Lipscomb

Photogrammetric Office Review by (III):
J. Councill

A.K. Heywood
D.M. Brant

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

Date: June 1950

Date: Nov. 1950

Date: Dec. 1950

Date: Oct. 1950

Date: Apr. 1950

Date: Oct. 1951

Date: 1950, 1951

Date: 1951

Date: 1951
PHOTOGRAPHS (III)

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<th>Date</th>
<th>Scale</th>
<th>Stage of Tide</th>
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<tr>
<td>STL 6-118 thru STL 6-141 Aug. 1948</td>
<td>Time of photo exposure not available</td>
<td>1:20,000</td>
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<td>7-26</td>
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<td>7-62</td>
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<td>8-32</td>
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Tide (III)

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

Washington Office Review by (IV): L. Martin Gazi, K. N. Maki

Diurnal

<table>
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<tr>
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<th>2.2</th>
<th>3.7</th>
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<td>Range</td>
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Date: 3 Sept 1953

Land Area (Sq. Statute Miles) (III): 480
Shoreline (More than 200 meters to opposite shore) (III): 73
Shoreline (Less than 200 meters to opposite shore) (III): none
Control Leveling - Miles (II): Recovered:
Number of Triangulation Stations searched for (II): Identified: 68
Number of BMs searched for (II):
Number of Recoverable Photo Stations established (III): 15
Number of Temporary Photo Hydro Stations established (III): 8

Remarks:
* This figure furnished 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-9581-85, T-9589-93

These topographic surveys are ten of a series of 49 quadrangles, each 71/2 minutes in latitude and 15 minutes in longitude at 1:20,000 scale that cover ST. LAWRENCE ISLAND, ALASKA.

This BERING 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 CAFE NOKE 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 these maps will include a cloth-mounted lithographic print of each 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.
PHOTOGRAMMETRIC PLOT REPORT

FIELD INSPECTION REPORT

See project report of Fred. A. Riddell for season June-September 1950, under separate cover.

21. AREA COVERED


22. METHOD

Both horizontal and vertical control was bridged in the area by multiplex. This work was done on the 1:10,000 work sheets. See attached sketch of control which shows several base strips furnished by the Washington Office from work done on the stereoplanigraph. These additional horizontal and vertical pass points were used as starting points for the multiplex bridging. Refer also to Photogrammetric Plot Report for T-9575, item 22, paragraphs 1, 2, and 3.

23. ADEQUACY OF CONTROL

Control complied with project instructions and was adequate.

24. SUPPLEMENTAL DATA

None.

25. PHOTOGRAPHY

See Photogrammetric Plot Report for T-9575, item 25.

26. ACCURACY

It is believed that the requirements for horizontal accuracy of the Coast and Geodetic Survey have been met.

It is very difficult to state what vertical accuracy was obtained in an assignment of this kind. For a normal mapping project, at the scale compiled, with vertical control in each model it could be expected that 90% of the contours would be
26. ACCURACY (continued)

within 10 feet. In view of the necessity for vertical bridging in the first place plus the inadequacies of the photography which adversely affected the accuracy of the work, it is felt that if the contours are within 25 feet it is as good as could be expected in some instances the error may be as much as 50 feet.

Respectfully submitted
29 February 1952.

Henry P. Eichert
Supervisory Cartographer
PH-53(49)

HORIZONTAL CONTROL

1. EMBER, 1950
2. CABIN, 1950
3. PALOK, 1950
4. BANJO, 1950
5. LAGOON, 1950
6. FLASH, 1950
7. BACON, 1950
8. ALLOOK, 1950
9. ROCKY, 1950
10. HVO01, 1950
11. HVO02, 1950
12. BARGE, 1950
13. MIDDLE, 1950
14. KIWOAK, 1950
15. TAP, 1950
16. HVO04, 1950
17. HVO05, 1950
18. HVO03, 1950
19. HOOK, 1950
20. MOUND, 1950
21. OZONE, 1950
22. LINEN, 1950
23. MARCH, 1950
24. HVO12, 1950
25. HVO13, 1950
26. HVO16, 1950
27. HVO17, 1950
28. OMAR, 1950(TOPO STA)
29. HVO18, 1950
30. NIGGER, 1950
31. KASAL, 1950
32. COLLIER, 1950
33. WEST CAPE, 1950
34. CENTER, 1950
35. MAGOG, 1950
36. TVIKAN, 1950
37. TVIKAN, 1950
38. DRAPE, 1950
39. POOVOOK, 1950
40. EAGLE, 1950
41. HVO20, 1950
42. HVO21, 1950
43. HVO06, 1950
44. HVO07, 1950
45. HVO08, 1950
46. HVO09, 1950
47. PAULT, 1950
48. BLAZE, 1950
49. HVO10, 1950
50. LIMEO, 1950
51. OLIVE, 1950
52. PATCH, 1950
53. HVO11, 1950
54. HVO1A, 1950
55. HVO15, 1950
56. GREEK, 1950
57. HVO19, 1950
58. GYPSY, 1950
59. GLASS, 1950
60. GRACE, 1950
61. BENCH, 1950
62. SINGIK, 1950
63. MINE, 1950
64. BOXER, 1950
65. ANVIL, 1950
66. SW CAPE, 1950
67. ANNEX, 1950
68. WATCH, 1950
69. CHECK, 1950
31. **DELINEATION**

Most of the topography, including shoreline and photo points, was plotted by multiplex except for those areas done at the Washington Office using the stereoplanigraph and Kelsh Flotter. See sketch of control accompanying Photogrammetric Plot Report. Multiplex work was done on 1:10,000 work sheets. The shoreline was later refined using ratio prints furnished by the Washington Office. These work sheets were submitted to the Washington Office for photographic reduction and assembly into 1:20,000 scale manuscripts.

32. **CONTROL**

See Photogrammetric Plot Report, item 23.

33. **SUPPLEMENTAL DATA**

None.

34. **CONTOURS AND DRAINAGE**

The drainage pattern did not always seem well-defined. The compilation office tried to show this as accurately as possible with a minimum of confusing details.

35. **SHORELINE AND ALONGSHORE DETAILS**

The MHWL line except for areas compiled at the Washington Office was established by multiplex with the aid of a limited amount of field inspection.

36. **OFFSHORE DETAILS**

None.

37. **LANDMARKS AND AIDS**

Data believed to be complete. Forms 567 submitted with this report.
38. **CONTROL FOR FUTURE SURVEYS**

Forms 524, submitted herewith, are for topographic stations established by instrument compilation. These are as follows:

<table>
<thead>
<tr>
<th>T-9581</th>
<th>T-9582</th>
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<tbody>
<tr>
<td>ARGO, 1950</td>
<td>EBON, 1950</td>
</tr>
<tr>
<td>DUCK, 1950</td>
<td>MAGI, 1950</td>
</tr>
<tr>
<td>ROCK, 1950</td>
<td>ONUS, 1950</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>T-9583</th>
<th>T-9591</th>
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</thead>
<tbody>
<tr>
<td>SOOT, 1950</td>
<td>RIFF, 1950</td>
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<table>
<thead>
<tr>
<th>T-9584</th>
<th>T-9592</th>
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<tbody>
<tr>
<td>CAPE, 1950</td>
<td>CLUB, 1950</td>
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<tr>
<td>RUNT, 1950</td>
<td>DAVE, 1950</td>
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<tr>
<td><strong>Omar</strong>, 1950</td>
<td><strong>Buzz</strong>, 1950</td>
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<table>
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<th>T-9585</th>
<th>T-9593</th>
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<tbody>
<tr>
<td>CABIN, 1950</td>
<td>FISH, 1950</td>
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</tbody>
</table>

One topographic station, **Omar**, 1950, for which form 524 is also submitted was established by theodolite. This is on manuscript T-9584.

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

39. **JUNCTIONS**

Junctions have been made between all work sheets and where the work at the Baltimore Office joined work done at the Washington Office. Thus, when work sheets are assembled into manuscripts, junction between manuscripts is assured.

A tie has been transferred from our work sheets at the east (T-9585 and T-9593) to work sheets in the 1951 seasons work and a datum shift has been applied (NA 1927) so that a tie will be effected with our new work.

40. **HORIZONTAL AND VERTICAL ACCURACY**

See item 6 of Photogrammetric Plot Report.

41. thru 45.

Inapplicable.

46. **COMPARISON WITH EXISTING MAPS**

Comparison was made with USGS map, scale 1:250,000, printed in 1949.
47. **COMPARISON WITH NAUTICAL CHARTS**

Chart No. 9302, scale 1:1,524,076 at lat. 60° 00' published July 1945 (16 edition), 8-29-49.

Items to be applied to nautical charts immediately:

None.

Items to be carried forward:

None.

After completion of the hydrographic surveys, these quadrangles should supersede all previously charted information.

Respectfully submitted
3 March 1952.

Henry P. Eichert
Supervisory Cartographer

Approved and forwarded

Hubert A. Paton
Comdr., C&GS
Officer in Charge
PHOTOGRAFMETRIC 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 fixes
10. Photogrammetric plot report
11. Detail points

ALONGSHORE AREAS
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:

* This applies to work sheets only.
48. GEOGRAPHIC NAMES LIST

Aghnaghak Lagoon
Aghnuk River
Aghsit Pt.
Akfayegak Cr.
Apsiki Camp

Bering Sea
Booshu Camp
Boxer Bay
Boxer River
Bunnell Cape

Byghinak Pt.

Ikalooksik River
Impaghuk Pt.
Ivekan Mtn
Iwoonut Pt

Kaghkusak Pt.
Kaklongegek Cr.
Kangee Camp
Kangik River
Kavalghak Cr.
Keelaghunuk Valley
Kewagek Cr.
Kitnegaakok Cr.
Kiwook Pass
Kongkok Basin
Kongkok Bay
Kookoolitook River
Koopangoomuk Cr.
Koozata Lagoon
Kunaghak Cr.

Makigniyeek Bay
Mamagnak Mts.
Moghewayik River
Mt. Taphook
Mugum Peak
Niyakpak Lagoon

Ohlegek Cr.
Oklighiat
Okok River
Olingooseenuk Mtn.
Oongayuk Hill
Owalit Mtn.
48. **GEOGRAPHIC NAMES** (continued)

Poovookpak Mtn
Povoot Range
Powooiliak Camp
Powooiliak Pt.

Savukahuk Pt. († 1/15/61)
Shlokoviak Pt. († 9/12/61)
Singikpak Pt.
Siteeluk Bay
Southwest Cape

Taphook Pt.
Tareeluk Pt.
Tatik Pt.
Tikaghapuk Pt.
Tikuga Pt.

Vngyat Pt.

Wanmayee Cr.

Yaghelngak Mt.
Ynveeghik H.

See individual lists.

T-9581-T-9582 10-6-62
49. **NOTES FOR THE HYDROGRAPHER**

The following is a list of recoverable topographic stations:

**T-9581**
- ARGO, 1950
- DUCK, 1950
- ROCK, 1950

**T-9583**
- SOOF, 1950

**T-9584**
- CAPE, 1950
- RUN, 1950
- OMAR, 1950

**T-9585**
- CABIN, 1950

**T-9589**
- EBOG, 1950
- MAGI, 1950
- ONUS, 1950

**T-9591**
- BIZZ, 1950

**T-9592**
- CLUE, 1950
- DAVE, 1950
- BUZZ, 1950

**T-9593**
- FISH, 1950

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

**T-9581**
- IRA - Center of rock outcrop.

**T-9584**
- BIG - North gable of cabin.

**T-9589**
- CRY - Top of rock
- GAG - Center of rock
- HOG - Face of bluff at pt. of break in grade
- NOB - Top of pinnacle rock
- ROC - Center of rock outdrop
- YAP - Part of break in grade.

Special attention is called to the special volume Part 2 of the Project Report containing "jumbo" size prints of topographic and hydrographic stations prepared for the use of the hydrographic party.
I recommend that the following objects which **are** (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

**Albert K. Heywood**

*Chief of Party, U.S. Coast & Geodetic Survey*

<table>
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<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>Northing</th>
<th>Easting</th>
<th>SIGNAL NAME</th>
<th>METHOD OF LOCATION AND SURVEY NO.</th>
<th>DATE OF LOCATION</th>
<th>HARBOR CHART</th>
<th>VESSELS CHART</th>
<th>OTHERS</th>
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<td>(GAB)</td>
<td>Northwest Gable of Cabin (Westerly of two)</td>
<td>7,949,835</td>
<td>504,475</td>
<td>Prelim Air Photo Mult</td>
<td>T-9585</td>
<td>1950</td>
<td>9302</td>
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</table>

This landmark has little value on a chart the scale of 9302 and should be shown only on large scale charts.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and individual field survey sheets. Information under each column heading should be given.
I recommend that the following objects which have not been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

Albert K. Heywood

Hubert A. Paton
Chief of Party.

| CHARTING NAME | DESCRIPTION       | SIGNAL NAME | LATITUDE | LONGITUDE | DATUM      | METHOD OF LOCATION AND SURVEY NO. | DATE OF LOCATION | CHARTS AFFECTED |
|---------------|-------------------|-------------|----------|-----------|-----------|-----------------------------------|------------------|----------------|}
| ROCK          | BLACK ROCK OUTCROP| Meters      | 7049.012 | 158.149   | Prelim    | Air Photo Mult. T-9581             | 1950             | 9302           |}

This landmark has little value on a chart the scale of 9302 and should be shown only on large scale charts.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by motion under each column heading should be given.
Geographic Names

Alaska
St. Lawrence Island
Bering Sea

- Kitnelup Creek
- Savukahuk Point
- Shlokovik Point
- Kintnepelok (locality)
- Vngyat Point
- Kunaghak Creek

Names underlined in red are approved.
10-6-52 L. Heck
T-9582. Geographic Names

Alaska
   St. Lawrence Island
   Kangik River
   Aghnuk River
   Nakhfayegak Creek
   Kiamagnak Mountains
   Niyakpak Lagoon
   Ikalooksik River

Names underlined in red are approved. 10-6-52

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12-9-52

L. Heck
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Names approved: 12-18-53
Review Report
Topographic Maps T-9581-85 and T-9589-93
3 September 1953

62. Comparison with Registered Topographic Surveys:
   There are no prior surveys for the area covered by these maps.

63. Comparison with Maps of other Agencies:
   St. Lawrence, Alaska, U.S.G.S., 1:250,000 Reconnaissance Map, 1949. Contours, drainage and other features generalized at the scale of the above reconnaissance survey preclude detailed comparison.

64. Comparison with Contemporary Hydrographic Surveys:
   None

65. Comparison with Nautical Charts:
   9302 1:1,534,075, corrected to 12/8/52
   No effective comparison can be made between the chart and the maps because of the lack of detail on the very small scale chart.

66. Adequacy of Results and Future Surveys:
   These maps are adequate for use in hydrographic surveys and the construction of nautical charts. It is concluded from the amount and distribution of horizontal and vertical control that these maps meet the National Standards of Map Accuracy.

67. 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 the North American 1927 Datum. (unadjusted)

68. Contours:
   Supplemental contours at 25-foot intervals, in addition to the regular or intermediate contours at 50-foot intervals, are shown. With reference to supplemental contours, only those contours that give significant information or express certain topographic features not otherwise evident are shown. The first 25-foot contour in from the shoreline, except along steep, rocky bluffs where contours tend to merge, is shown throughout the island.
Reviewed by:
K. N. Maki

APPROVED:

L. C. Lundy 13 Jan 1954
Chief, Review Section
Acting Chief, Nautical Chart Branch
Div. of Photogrammetry
Div. of Charts and

Wallace R. Bruder
Chief, Div. of Photogrammetry

May 1954
Chief, Div. of Photogrammetry

Earl O. Hatten
Chief, Div. of Coastal Surveys