<table>
<thead>
<tr>
<th>SHORELINE</th>
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<tbody>
<tr>
<td>Type of Survey</td>
</tr>
<tr>
<td>Job No.</td>
</tr>
<tr>
<td>Map No.</td>
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<tr>
<td>Classification No.</td>
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<td>FIELD EDITED</td>
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<th>LOCALITY</th>
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<td>State</td>
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<tr>
<td>General Locality</td>
</tr>
<tr>
<td>Locality</td>
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</tbody>
</table>

1961 TO 1970
Alfred C. Holmes, Director, AMC

REGISTRY IN ARCHIVES

DATE
MAP NOT INSPECTED IN QUALITY CONTROL PRIOR TO REGISTRATION
DESCRIPTIVE REPORT - DATA RECORD
T - 12224

PROJECT NO. (III):
PH-6206

FIELD OFFICE (III):
NONE

PHOTOMGRAMMETRIC OFFICE (III):
ATLANTIC MARINE CENTER, Norfolk, VA

CHIEF OF PARTY

OFFICER-IN-CHARGE
Alfred C. Holmes, Director

INSTRUCTIONS DATED (II) (III):
Office Supplement III, December 19, 1967
Office Supplement IV, April 14, 1970

METHOD OF COMPILATION (III):
Wild B-8 Stereoplotter and graphic

MANUSCRIPT SCALE (III):
1:10,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):
1:20,000 Pantographed to 1:10,000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:
1975

DATE REGISTERED (IV):

GEOGRAPHIC DATUM (III):
NA 1927

REFERENCE STATION (III):
TROUBLE, 1927

LAT.:
56°27'50.426" (1559.7 M)

LONG.:
133°41'03.454" (59.1 M)

X ADJUSTED

UNADJUSTED

PLANE COORDINATES (IV):

Y = 1,691,396.39 ft.
X = 2,682,079.62 ft.

STATE
Alaska

ZONE
1

HIGHEST LOW WATER

Remarks:

MAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (III) FIELD PARTY, (III) PHOTOMGRAMMETRIC OFFICE, OR (IV) WASHINGTON OFFICE.

WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.
<table>
<thead>
<tr>
<th>Field Inspection by (II):</th>
<th>None</th>
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</thead>
<tbody>
<tr>
<td>Mean High Water Location (III) [State Date and Method of Location]:</td>
<td>Air Photo Compilation</td>
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<tr>
<td>Date of Photography:</td>
<td>Aug. 5, 1969</td>
</tr>
<tr>
<td>Projection and Grids Ruled By (IV):</td>
<td>J. Dempsey</td>
</tr>
<tr>
<td>Date:</td>
<td>April 10, 1970</td>
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<tr>
<td>Projection and Grids Checked By (IV):</td>
<td>E. Homick</td>
</tr>
<tr>
<td>Date:</td>
<td>April 10, 1970</td>
</tr>
<tr>
<td>Control Plotted By (III):</td>
<td>Coradomat</td>
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<tr>
<td>Date:</td>
<td>June 4, 1970</td>
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<td>Control Checked By (III):</td>
<td>Coradomat</td>
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<tr>
<td>Date:</td>
<td>June 4, 1970</td>
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<tr>
<td>Radial Plot or Stereoscopic Control Extension By (III):</td>
<td>Robert E. Fisher</td>
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<tr>
<td>Date:</td>
<td>Feb. 19, 1970</td>
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<tr>
<td>Reviewed By: A. Shands</td>
<td>Date:</td>
</tr>
<tr>
<td>Contours</td>
<td>Inapplicable</td>
</tr>
<tr>
<td>Date:</td>
<td></td>
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<tr>
<td>Manuscript Delineated By (III):</td>
<td>B. Wilson</td>
</tr>
<tr>
<td>Date:</td>
<td>July 16, 1970</td>
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<tr>
<td>Scribing By (III):</td>
<td>F. Margiotta</td>
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<tr>
<td>Date:</td>
<td>May 8, 1972</td>
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<tr>
<td>Photogrammetric Office Review By (III):</td>
<td>L.L. Graves</td>
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<tr>
<td>Date:</td>
<td>July 24, 1970</td>
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<tr>
<td>Remarks:</td>
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### DESCRIPTIVE REPORT - DATA RECORD

**T-12224**

#### PHOTOGRAPIHS (III)

<table>
<thead>
<tr>
<th>NUMBER</th>
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<th>TIME</th>
<th>SCALE</th>
<th>STAGE OF TIDE</th>
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<tbody>
<tr>
<td>61W-9523 thru 9525</td>
<td>July 16, 61</td>
<td>10:25</td>
<td>1:20,000</td>
<td>0.2 ft. below MLW</td>
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<tr>
<td>61W-9532 thru 9536</td>
<td>July 16, 61</td>
<td>10:32</td>
<td>1:20,000</td>
<td>0.0 ft. at MLW</td>
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<tr>
<td>69E(c)-954 thru 956</td>
<td>Aug. 5, 69</td>
<td>12:02</td>
<td>1:40,000</td>
<td>4.5 ft. above MLW</td>
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#### Predicted Tide (III)

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<th>REFERENCE STATION</th>
<th>Diurnal</th>
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<tbody>
<tr>
<td>Ketchikan, Alaska</td>
<td>13.0 15.4</td>
</tr>
<tr>
<td>Monte Carlo Island</td>
<td>10.3 12.5</td>
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</table>

#### Atlantic Marine Center

<table>
<thead>
<tr>
<th>PROOF EDIT BY (IV):</th>
<th>DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.H. Bishop</td>
<td>April 1973</td>
</tr>
</tbody>
</table>

#### NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 1

#### NUMBER OF BM(S) SEARCHED FOR (II): None

#### NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): None

#### NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): None

**REMARKS:**

*These centers are on T-12225*
<table>
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<tr>
<th>Compilation Record</th>
<th>Completion Date</th>
<th>Remarks</th>
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<tr>
<td>Compilation Complete</td>
<td>July 16, 1970</td>
<td>Superseded</td>
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<tr>
<td>Pending Field Edit</td>
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<tr>
<td>Field Edit Applied</td>
<td>July 1971</td>
<td>Superseded</td>
</tr>
<tr>
<td>Final Review</td>
<td>April 1973</td>
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</table>
SHORELINE MAPPING PROJECT
Ph-6206
KEKU STRAITS, ALASKA
SCALE 1:10,000
SUMMARY TO ACCOMPANY

DESCRIPTIVE REPORT T-12224

This 1:10,000 scale shoreline manuscript is one of 53 maps that comprise Project PH-6206, Keku Strait, Alaska. The project diagram indicates the location of T-12224 in the project.

There was no field work prior to compilation.

Compilation was by Wild B-8 plotter, using color photography taken in August, 1969. Low-water photographs taken in 1961 were used to compile graphically rocks, reefs, and kelp limits. Control was based on a stereoplanigraph bridge. Stable transparent copies of the map manuscript, ozalids, and specially prepared photographs were furnished for transfer of shoreline to the boat sheet, location of photo-hydro signals, and field edit.

Field edit was done in October, 1970 by the Ship DAVIDSON. After application of field edit data to the map, it was scribed and reproduced on cronaflex.

Final review was done at the Atlantic Marine Center in April, 1973.

The compilation manuscript was a vinylite sheet 3 minutes 45 seconds in latitude by 5 minutes in longitude.

A cronaflex copy of the final reviewed manuscript and a negative have been forwarded for record and registry.
FIELD INSPECTION REPORT
PH-6206
T-12224

There was no field inspection prior to compilation.
Aerotriangulation Report
PH-6206
Keku Strait, Alaska

February 19, 1970

21. Area Covered

This project covers areas in the vicinity of Keku Strait - Kulu Island, Alaska. T-sheets covered are as follows:

T-12203 thru T-12225
all T-sheets are at 1:10,000 scale

22. Method

Five strips were bridged to provide horizontal positions of pass points needed for compilation. Strip #12 was bridged in two parts, 12a and 12b, because of open water. Strip #14 was not bridged due to satisfactory pass point coverage from Strips 13, 15 and 16.

Strip #11 was bridged on the C-5. Strips 12a, 12b, 13, 15 and 16 were bridged on the C-8. All were adjusted by electronic computer.

Strip #11 used seven control points and a tie point in a third degree adjustment.

Strip #12a used a first degree adjustment with two control points. One tie point was available for a check.

Strip #12b used a third degree adjustment with five control points.

Strip #13 used three control points in a second degree adjustment.

Strips 15 and 16 used four control points in third degree adjustments.

All pass points, except one in Strip #16, were drilled.

Corresponding tie point values were averaged.

This project was tied through common control stations with the 1966 project in this area.
23. Adequacy of Control

Horizontal control was adequate in all strips. However, station "SPIT 1927" and its subpoint appearing in both Strip #11 of this project and in Strip #1 of the adjacent "Sumner Strait" project had residual errors on the order of 15 feet in X. These errors were similar in direction and magnitude for both points and in both strips. The reason for not obtaining a better check with these points is not known.

Many control stations in this project were recovered in 1965 and pricked on 1964, 1:20,000 scale photography. The 1970 bridge was run with new 1:40,000 scale photography, therefore, much of the old control was not visible in these bridges. All 1969 identified control used in this project was targeted.

The RMS errors in fit to control for the 1969 identified control (except "SPIT 1927") and including the 1965 identified control "ALL 1927" and "CEN 1927" were 2.5 feet in X and 1.2 feet in Y. The maximum errors were 6.8 feet in X and 3.3 feet in Y.

24. Supplemental Data

U. S. Geological Survey quadrangles were used to provide elevations for vertical adjustment of the bridges.

25. Photography

Photography was satisfactory with regards to coverage, overlap and definition.

Submitted by,

[Signature]
Robert E. Fisher
Cartographer (Photo)

Approved and forwarded,

[Signature]
Henry P. Eichert
Chief, Aerotriangulation Section
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR Y COORDINATE</th>
<th>LONGITUDE OR X COORDINATE</th>
<th>DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 304.8006 meter)</th>
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<tr>
<td>TROUBLE 1927</td>
<td>Vol. 2, pg. 363</td>
<td></td>
<td>56° 27' 50.426&quot;</td>
<td></td>
<td>1559.7</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>133° 41' 03.454&quot;</td>
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<td>(296.1)</td>
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<td></td>
<td></td>
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<td>59.1</td>
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<td></td>
<td></td>
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<td>(688.35)</td>
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</table>

COMPUTED BY B. Wilson       DATE June 27, 1970   CHECKED BY C.H. Bishop   DATE 6/27/70
31. **DELINEATION**

The Wild B-8 plotter was used, supplemented with graphic compilation of foreshore detail from photos at mean lower low water.

There was no field inspection prior to compilation.

Loss of definition and defects, causing confusion with photographic detail resulted from the many times enlargement from the 1:40,000 scale negatives.

There was no photo coverage west of 133°43'30".

32. **CONTROL**


33. **SUPPLEMENTAL DATA**

None

34. **CONTOURS AND DRAINAGE**

Contours are inapplicable.

There is no drainage within the limits of this manuscript.

35. **SHORELINE AND ALONGSHORE DETAILS**

The mean high water line was delineated from office interpretation of photographs taken in 1969. The foreshore details, mean lower low water line, and rocks awash were compiled graphically from 1961 photography taken at low water. There was more penetration of the water on the 1969 photos, the higher tide and "fuzziness", not withstanding, than on the 1961 photos, so both were considered in delineation of the foul limits.

36. **OFFSHORE DETAILS**

The foul area south of the neat line was not covered by the 1961 photos.

Numerous rocks, small islands foul, reef and ledge areas were delineated as under item 35.
37. **LANDMARKS AND AIDS**

None

38. **CONTROL FOR FUTURE SURVEYS**

None

39. **JUNCTIONS**

Satisfactory junctions were made with T-12223 to the west, T-12220 to the north, and T-12225 to the east. There is no contemporary survey to the south.

40. **HORIZONTAL AND VERTICAL ACCURACY**

No statement.

41. **COMPARISON WITH PREVIOUS BUREAU SURVEYS**

A comparison was made with previous bureau survey Reg. No. 4330, South End of Keku Strait, Date Sept 1 - Oct 15, 1927, scale 1:20,000.

42 through 45. Are inapplicable.

46. **COMPARISON WITH EXISTING MAPS**

Comparison was made with USGS Quadrangle PETERSBURG (B-6), ALASKA, scale 1:63,360, dated 1948.

47. **COMPARISON WITH NAUTICAL CHARTS**


**ITEMS TO BE APPLIED TO CHARTS IMMEDIATELY**

None
ITEMS TO BE CARRIED FORWARD

None

Respectfully submitted:

Charles N. Bishop

for B. Wilson
Cartographic Technician
July 16, 1970

Approved for forwarding:

Melvin J. Ubbach, CDR, NOAA
Chief, Coastal Mapping Division, AMC

Approved:

Alfred C. Holmes
RADM, NOAA
Director, Atlantic Marine Center
August 28, 1972

GEOGRAPHIC NAMES
FINAL NAME SHEET
PH-6206

T-12224

Keku Strait
Kupreanof Island
Meadow Island
Trouble Island

Approved by:
A. Joseph Wraight
Chief Geographer

Prepared by:
F. W. Pickett (GaU)
Cartographic Technician
49. **NOTES FOR THE HYDROGRAPHER**

None
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<td>3.</td>
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<td>Recoverable Horizontal Stations of less than Third-order Accuracy (Topographic stations)</td>
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<td>7.</td>
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<td>Bench Marks</td>
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<td>Plotting of Sextant Fixes</td>
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<td>Photogrammetric Plot Report</td>
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<td>11.</td>
<td>Detail Points</td>
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<td>12.</td>
<td>Alongshore Areas (Nautical Chart Data)</td>
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<td>13.</td>
<td>Shoreline</td>
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<td>14.</td>
<td>Rocks, Shoals, Etc.</td>
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<td>15.</td>
<td>Bridges</td>
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<td>16.</td>
<td>Aids to Navigation</td>
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<td>17.</td>
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<td>18.</td>
<td>Other Alongshore Physical Features</td>
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<td>19.</td>
<td>Other Alongshore Cultural Features</td>
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<td>26.</td>
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<td>Other Cultural Features</td>
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<td>Discrepancy Overlay</td>
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<td>Reviewer</td>
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<td>L.L. Graves</td>
</tr>
<tr>
<td></td>
<td>Supervisor, Review Section or Unit</td>
</tr>
<tr>
<td></td>
<td>Albert C. Rauck, Jr.</td>
</tr>
</tbody>
</table>

**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**


**Remarks**

Field Edit Applied From: Field Edit Ozalid and Photo 69-E-(c)-955
FIELD EDIT REPORT
Keku Strait
Southeast Alaska
OPR-448

June - October 1970

INTRODUCTION
Field edit reports are attached for the following maps:

T-12205 (TP-00205)
T-12206 (TP-00206)
T-12209 (TP-00209)
T-12210
T-12216
T-12220
T-12224
T-12225

Field photographs and copies of the field edit ozalids were taken into the field. The mean high water line was verified by visual inspection of the shoreline and ozalids in the field. Isolated rocks, high points of ledges, ledge limits, and some shoreline were located by three-point fixes with check angles. Fixes were plotted on boat sheets:

DA-10-4-70
DA-10-5-70
DA-10-6-70
DA-10-7-70

and then transferred to the T-sheets and ozalids for comparison.

Notes have been made in red on the field photographs and have been cross referenced on the Field Edit Ozalids by photograph number. All times are based on 105° West meridian. Individual reports by manuscripts are attached.

TIDE NOTES

The following tide stations were used for hydrography in the Keku Strait area:

Pup Island
High Island
Eagle Island
Monte Carlo Island

Manuscripts T-12201 and T-12202 were inspected. Since no field edit was requested by the compilers the inspection was to check the manuscript in general. The manuscripts agreed quite well with the field inspection.
FIELD EDIT REPORT
MAP T-12224
Southeast Alaska
Keku Strait - Point Barrie

The field edit was performed by LCdr. F.T. Smith from a small boat.

METHOD
The field edit ozalids and field photographs were taken into the field. All verification was done by visual observations. The specific items in question were visited for verification. Field work was performed the first week in October 1970. The 69 E photographs were difficult to use in the field because of the large size and poor resolution. Reference was made to PA-10-65 for the location of some offshore reefs, rocks and foul areas. Notes were made on the ozalid concerning the field edit information and cross referenced to the photograph 69 E 955.

ADEQUACY OF COMPILATION
The compilation of the map appears to be adequate.

RECOMMENDATIONS
It is recommended that the manuscript be revised in accordance with the notes on the ozalid and photographs and that the map be accepted as an advance manuscript.

Respectfully submitted,

F.T. Smith
LCdr. NOAA
APPROVAL SHEET FOR FIELD EDIT

The field edit of the following manuscripts was accomplished under my supervision:

T-12205........TP-00205
T-12206........TP-00206
T-12209........TP-00207
T-12210
T-12216
T-12220
T-12224
T-12225

Inspection of the work was made.

Ray E. Moses
CDR, NOAA
Commanding Officer
NOAA Ship DAVIDSON
REVIEW REPORT T-12224

SHORELINE

April 27, 1973

61. GENERAL STATEMENT

See Summary which is page 6 of this Descriptive Report.

It was very difficult to identify rocks and small reefs in several large kelp areas on this map because of floating debris lodged in the kelp. The fact that numerous rocks awash and small reefs were not verified by the field editor or shown on the hydrographic surveys, and a study of all the photographs covering the map area, led to the decision that the images on the photographs which were previously mapped as rocks or reefs were actually kelp. Therefore, these features were removed from Map T-12224.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

A comparison was made with Survey No. 4330, Scale 1:20,000, dated Sept. 1 - Oct. 15, 1927. Differences between this survey and T-12224 were shown in blue on the comparison print.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A visual comparison was made with U.S.G.S. Quadrangle PETERSBURG (B-6), ALASKA, scale 1:63,360, dated 1948. No significant differences were noted.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

North of Lat. 56°27'15" a comparison was made with a copy of the boat sheet for H-9160 (DA-10-6-70), scale 1:10,000, dated 1970, and south of Lat. 56°27'15", with a verified copy of the smooth sheet for H-8861 (PA-10-1-65), scale 1:10,000, dated 1965. Several rocks and small reefs in kelp areas not mapped on the hydrographic surveys were removed from T-12224. See Item 61. Differences between the hydrographic surveys and T-12224 were shown in purple on the comparison print.

65. COMPARISON WITH NAUTICAL CHARTS

A visual comparison was made with Chart 8201, scale 1:217,828, 16th edition, dated 7 November 1970. The scale was too small for an adequate comparison. No significant differences were noted.
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This survey complies with job instructions and meets the requirements of the National Standards for Map Accuracy.

Reviewed by:
Charles H. Bishop
Cartographer

Approved for forwarding:
Melvin J. Unbach, CDR, NOAA
Chief, Coastal Mapping Division, AMC

Approved:
Alfred C. Holmes
RADM, NOAA
Director, Atlantic Marine Center

Approved:
Chief, Photogrammetric Branch  Chief, Coastal Mapping Division
COMPARISON PRINT

Purple = H-9160
Blue = T-4330
Dense kelp; rocks not identifiable on photos 61W 9532, 9533

COMPARISON PRINT
Purple = H-8861
Blue = T-4330

NATIONAL OCEAN SURVEY
SHORELINE MANUSCRIPT
T-12224
ALASKA
KEKU STRAIT
TROUBLE ISLAND
SCALE 1:10,000
(1 inch = 833.33 ft.)
CONTROL DATA
Polyconic projection: 1927 North American datum
5,000 ft. grid based on Alaska plane coordinate system (Zone 1)
Datum plane: Mean High Water