NOAA FORM 76-35
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Shoreline (Photogrammetric)
Type of Survey ...........................................

Job No. PH-6206 .......... Map No. T-12214 .......

Classification No. ......... Edition No. ............

Field Edited

LOCALITY

State: Alaska ..................

General Locality: Keku Strait ...

Locality: Three Mile Arm, Head Of

1961 TO 1971

Alfred C. Holmes, Director, AMC

REGISTRY IN ARCHIVES

DATE ..................................................

* U.S. GOVERNMENT PRINTING OFFICE: 1972-780-595
MAP NOT INSPECTED IN QUALITY CONTROL PRIOR TO REGISTRATION
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<th>PROJECT NO. (III):</th>
<th>FIELD OFFICE (III):</th>
<th>CHIEF OF PARTY</th>
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<td>PH-6206</td>
<td>None</td>
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<th>PHOTOGRAMMETRIC OFFICE (III):</th>
<th>OFFICER-IN-CHARGE</th>
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<tr>
<td>Atlantic Marine Center, Norfolk, VA</td>
<td>Alfred C. Holmes, Director, AMC</td>
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**INSTRUCTIONS DATED (II) (III):**
- OFFICE SUPPLEMENT III December 19, 1967
- OFFICE IV April 14, 1970
- FIELD INSTRUCTIONS - February 11, 1969
- OFFICE INSTRUCTIONS - January 18, 1965

**METHOD OF COMPILATION (III):**
Wild B-8 Stereo Plotter and Graphic

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<th>STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):</th>
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<tbody>
<tr>
<td>1:10,000</td>
<td>1:20,000 Pantographed to 1:10,000</td>
</tr>
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**LAT.:** 56°36'24.225" (749.3)M  
**LONG.:** 133°53'1 36.363 (620.3)M

**GEOGRAPHIC DATUM (III):**
N.A. 1927

**REFERENCE STATION (III):**
Hap, 1929

**PLANE COORDINATES (IV):**
\[ y = 1,743,607.27 \text{ Ft.} \]
\[ x = 2,639,956.22 \text{ Ft.} \]

**STATE:** Alaska  
**ZONE:** 1

**DATE REGISTERED (IV):** 4/1925

**ADJUSTED**  
**UNADJUSTED**
DESCRIPTIVE REPORT - DATA RECORD
T-12214

FIELD INSPECTION BY (III):
None

DATE:

MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):

Air Photo Compilation
Date Of Photography: Aug. 24, 1969

DATE:

PROJECTION AND GRIDS RULED BY (IV):

J. Dempsey

DATE
April 10, 1970

PROJECTION AND GRIDS CHECKED BY (IV):

E. Homick

DATE
April 10, 1970

CONTROL PLOTTED BY (III):

Coradomat

DATE
May 7, 1970

CONTROL CHECKED BY (III):

Coradomat

DATE
May 7, 1970

RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):

Robert E. Fisher

DATE
Feb. 1970

STEREOSCOPIC INSTRUMENT COMPIATION (III):

PLANIMETRY By: L.O. Neterer
Reviewed By: A.L. Shands

DATE
July 15, 1970

CONTOURS
Inapplicable

DATE

MANUSCRIPT DELINEATED BY (III):

L.O. Neterer, Jr.

DATE
July 31, 1970

SCIBING BY (III):

H. Gann

DATE
Sept. 24, 1971

PHOTOGRAMMETRIC OFFICE REVIEW BY (III):

L.L. Graves

DATE
August 13, 1970

REMARKS:
### DESCRIPTIVE REPORT - DATA RECORD

#### T-12214

**KIND OR SOURCE (III):**
Wild RC-8 "E"

#### PHOTOGRAPHS (III)

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<th>STAGE OF TIDE</th>
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<td>Aug. 24, 69</td>
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<td>July 16, 61</td>
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<td>July 16, 61</td>
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<td>July 16, 61</td>
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<tr>
<td>61-W-9513 thru 9515</td>
<td>July 16, 61</td>
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#### Predicted Tide (III)

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<th>REFERENCE STATION:</th>
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<th>Diurnal</th>
<th>RATIO OF RANGES</th>
<th>MEAN RANGE</th>
<th>RANGE</th>
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<td>SUBORDINATE STATION:</td>
<td>Seclusion Harbor, Alaska</td>
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<td>12.3</td>
<td>13.0</td>
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#### Atlantic Marine Center: C.H. Bishop

**DATE:**
April 1973

**PROOF EDIT BY (IV):**

**NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (III):**
8

**RECOVERED:**
8

**IDENTIFIED:**
1

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

**RECOVERED:**
None

**IDENTIFIED:**
None

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

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

**REMARKS:**

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**USCO/MA-DC 38392C-P66**
<table>
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<th>Compilation Record</th>
<th>Completion Date</th>
<th>Remarks</th>
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<td>July 1970</td>
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<tr>
<td>Pending Field Edit</td>
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<td></td>
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<tr>
<td>Field Edit Applied</td>
<td>Sept. 1971</td>
<td>Superseded</td>
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<tr>
<td>Final Review</td>
<td>April 1973</td>
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</table>
This 1:10,000 scale shoreline manuscript is one of 53 maps that comprise Project PH-5206, Keku Strait, Alaska. The project diagram indicates the location of T-12214 in the project.

There was no field work before compilation, except the identification of horizontal control for aerotriangulation. Compilation was by Wild B-8 methods with control based on a stereoplanigraph bridge using color photographs taken above half tide on August 24, 1969. Panchromatic photographs taken in July 1961 near low water were used to compile graphically the mean lower low water line, rocks and reefs. 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 conjunction with hydrography in 1971. 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 7 minutes in longitude.

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

Project PH-6206

T-12214

There was no field inspection prior to compilation.
21. Area Covered

This project covers areas in the vicinity of Keku Strait - Kuiu 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,
Robert E. Fisher
Cartographer (Photo)

Approved and forwarded,
Henry P. Eichert
Chief, Aerotriangulation Section
<table>
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<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>SCALE OF MAP</th>
<th>SCALE FACTOR</th>
<th>DISTANCE FROM GRID OR PROJECTION LINE</th>
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<tr>
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<td>Horizontal Control Data Bank 56133 Pg. 5</td>
<td>NA 1927</td>
<td>56° 36' 35.296&quot;</td>
<td>133° 52' 55.048&quot;</td>
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<td>FOR, 1929</td>
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<td>MILE, 1929</td>
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<td>56° 35' 08.484&quot;</td>
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<td>133° 50' 08.424&quot;</td>
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**Computed by:** L.O. Neterer, Jr. 7/13/70  **Checked by:** A.C. Rauck, Jr. July 13, 1970
COMPILATION REPORT

T-12214

31. Delineation

The mean high water line and all details above it were compiled from the 1:40,000 scale color photography of August, 1969 using the Wild B-8 stereoplotter. All details below the mean high water line were compiled graphically from the 1:20,000 scale panchromatic photography of July, 1961.

There was no field inspection prior to compilation.

32. Control


33. Supplemental Data

None

34. Contours and Drainage

Contours are inapplicable. Drainage was compiled from office interpretation of the photographs.

35. Shoreline and Alongshore Details

The mean high water line and all alongshore area details were compiled from office interpretation of the photographs. See Item #31.

36. Offshore Detail

All offshore details were compiled from office interpretation of the photographs.

37. Landmarks and Aids

None
38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTION

Satisfactory junctions have been made with T-12212 to the North, T-12215 to the East and T-12217 & T-12218 to the South. There is no contemporary survey to the West.

40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

41-45. Inapplicable.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with USGS Quadrangle Petersburg (C-6), Alaska dated 1948, minor revision 1953, scale 1:63,360.

47. COMPARISON WITH NAUTICAL CHARTS


ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted:

[Signature]
Lowell O. Menter, Jr.
Cartographic Technician
Aug. 4, 1970
Approved for forwarding:

Melvin J. Lambach, 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-12214

Kuiu Island
Salt Lagoon
Threemile Arm

Approved by:

A. Joseph Wright
Chief Geographer

Prepared by:

F. W. Pickett
Cartographic Technician
49. NOTES FOR THE HYDROGRAPHER

None
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**Control Stations**

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<th>6. Recoverable Horizontal Stations of Less Than Third-Order Accuracy (Topographic stations)</th>
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**Alongshore Areas (Nautical Chart Data)**

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**Cultural Features**

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**Boundaries**

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**Miscellaneous**

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<th>34. Junctions</th>
<th>35. Legibility of the Manuscript</th>
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**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** B. Wilson Sept. 15, 1971


43. Remarks

Field Edit Applied From: One ozalid and Matte Ratio Photos, 61-W-(c)-9434, 61-W-(c)-9499, and 9500.
FIELD EDIT REPORT
SOUTH KEKU STRAIT
SOUTHEAST ALASKA
OPR - 448
APRIL 1971

INTRODUCTION

Field edit reports are attached for the following T-sheets:

T-12214  Mouth of Three Mile Arm
T-12215  Head of Three Mile Arm
T-12217  Keku Strait - No Name Bay
T-12218  Seclusion Harbor
T-12219  Monte Carlo Island
T-12221  No Name Bay
T-12222  Alvin Bay
T-12223  West End of Conclusion Island

Inspection for field edit of the shoreline, the foreshore and the offshore areas were performed in April and May 1971 by the NOAA Ship DAVIDSON's personnel with the assistance of Mr. Lowell O. Waterer Jr. from the photogrammetry branch of the Atlantic Marine Center in Norfolk.

Notes have been made on the field photographs and have been cross referenced on the field edit ozalids by photograph number. All times are on the 105° W Meridian. Reports for each individual sheet is enclosed.

Respectfully submitted,

[Signature]

Fidel T. Smith
LCDR. NOAA
FIELD EDIT REPORT
MAP T-12214
KEKU STRAIT - HEAD OF THREE MILE ARM
SOUTHEAST ALASKA
APRIL 1971

The field edit of map T-12214 was done by Ens. Russel C. Arnold with the assistance of Lowell O. Neterer Jr. on April 29, 1971.

The inspection was done by carefully using the photographs while walking the beach and using a small boat to determine the accuracy of the map and to answer field edit questions.

METHOD

Field photographs and a copy of the field ozalid were taken into the field. The MHWL was visually inspected with particularly careful attention to the areas in question on the field edit ozalid and any changes are indicated on the field edit ozalid. Rocks, high points of ledges, ledge and foul area which showed extremely well on the 61-W photographs were inspected thoroughly for completeness and accuracy and any changes which could not be indicated on the 61-W photographs were referred to the Boat Sheet DA-10-1-71. A copy of DA-10-1-71 will be forwarded to AMC when available. All times are on 105° W meridian. Notes are on the following photographs:

61-W-9434
61-W-9499
61-W-9500

ADEQUACY OF COMPILATION

The compilation of this map is very good. The hydrographic location of ledge and rocks compares well to the photogrammetric location of the same areas. The MHWL appears to be accurate in both shape and location. There are no aids to navigation, land marks or cultural detail on this map. The logging operations in this vicinity have ceased and the temporary buildings and floating docks have been removed. Field edit of this map is complete.

RECOMMENDATIONS

It is recommended the map be revised in accordance with the notes on the Field Edit Ozalid, photographs and the Boat Sheet and the map be accepted as an advance manuscript.

Respectfully submitted,

Russell C. Arnold
Ens. NOAA

Lowell O. Neterer Jr.
Photogrammetrist
APPROVAL SHEET

Field Edit
South Keku Strait
Southeast Alaska
OPR - 448
April 1971

The field work on this edit was accomplished under my supervision.

Ray E. Moses
CDR. NOAA
Commanding Officer
NOAA Ship DAVIDSON
REA R VIEW REPORT T-12214

SHORELINE

April 6, 1973

61. GENERAL STATEMENT

See Summary which is page 6 of the Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

No registered topographic surveys were available for comparison. T-12214 supersedes all previous surveys for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

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

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with a copy of the boat sheet for Survey H-9213. Significant differences between this survey and T-12214 are shown in purple on the comparison print. The mean lower low water line was left on T-12214 for what ever use it may be to the nautical chart compiler.

65. COMPARISON WITH NAUTICAL CHARTS

A visual comparison was made with Chart 8201, scale 1:217,828, 16th edition, dated November 7, 1970. The chart scale was too small for 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. Umbach, 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
NOTE:
"The photogrammetric location and delineation of features offshore from the mean high-water line on this survey may not be complete or final. The contemporary reviewed hydrographic survey of the area where available, should be consulted for the final delineation.