**NOAA FORM 76-35**

**U.S. DEPARTMENT OF COMMERCE**
**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**
**NATIONAL OCEAN SURVEY**

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Shoreline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job No.</td>
<td>PH-5502</td>
</tr>
<tr>
<td>Map No.</td>
<td>T-12764</td>
</tr>
<tr>
<td>Classification No.</td>
<td></td>
</tr>
<tr>
<td>Edition No.</td>
<td>1</td>
</tr>
<tr>
<td>Field Edited</td>
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**LOCALITY**

<table>
<thead>
<tr>
<th>State</th>
<th>Alaska</th>
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<tbody>
<tr>
<td>General Locality</td>
<td>Glacier Bay</td>
</tr>
<tr>
<td>Locality</td>
<td>Adams Inlet</td>
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**1970 TO 1972**

**REGISTRY IN ARCHIVES**

<table>
<thead>
<tr>
<th>Date</th>
<th></th>
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© U.S. GOVERNMENT PRINTING OFFICE: 1973-761-778
MAP NOT INSPECTED IN QUALITY CONTROL PRIOR TO REGISTRATION
NOAA FORM 76-36A
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

DESCRIPTIVE REPORT - DATA RECORD

PHOTOGRAMMETRIC OFFICE
Coastal Mapping Division (Rockville)
Coastal Mapping Division (Norfolk)

OFFICER-IN-CHARGE
Wesley V. Hull
Jeffrey G. Carlén

1. INSTRUCTIONS DATED

1. OFFICE

May 17, 1972

2. FIELD


II. DATUMS

1. HORIZONTAL:
   - [X] 1927 North American
   - OTHER (Specify)

2. VERTICAL:
   - [X] Mean High Water
   - Mean Low Water
   - Mean Lower Low Water
   - Other (Specify)

3. MAP PROJECTION
   - Polyconic Projection

4. GRID(S)
   - State: Alaska
   - Zone: No. 1

5. SCALE
   - 1:10,000

III. HISTORY OF OFFICE OPERATIONS

<table>
<thead>
<tr>
<th>OPERATIONS</th>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AEROTRIANGULATION</td>
<td>R. Kelly</td>
<td>May, 1972</td>
</tr>
<tr>
<td>METHOD: Analytical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LANDMARKS AND AIDS BY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. CONTROL AND BRIDGE POINTS</td>
<td>D. Phillips</td>
<td>June, 1972</td>
</tr>
<tr>
<td>METHOD: Coradamat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLOTTED BY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHECKED BY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. STEREOSCOPIC INSTRUMENT</td>
<td>J.C. Richter</td>
<td>June, 1972</td>
</tr>
<tr>
<td>COMPILATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTRUMENT: B-8</td>
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<td>SCALE: 1:10,000</td>
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<td></td>
</tr>
<tr>
<td>4. MANUSCRIPT Delineation</td>
<td>R. Richter</td>
<td>June, 1972</td>
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<tr>
<td>METHOD: Graphic Worksheets</td>
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<td></td>
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<tr>
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<td>CHECKED BY</td>
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</tr>
<tr>
<td>CONTOURS BY</td>
<td></td>
<td></td>
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<tr>
<td>CHECKED BY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDRO SUPPORT DATA BY</td>
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<td>CHECKED BY</td>
<td></td>
<td></td>
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<td>5. OFFICE INSPECTION PRIOR TO FIELD EDIT</td>
<td>H. Lucas</td>
<td>June, 1974</td>
</tr>
<tr>
<td>BY</td>
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<td>6. APPLICATION OF FIELD EDIT DATA</td>
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<td>CHECKED BY</td>
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<tr>
<td>7. COMPILATION SECTION REVIEW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. FINAL REVIEW</td>
<td></td>
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<tr>
<td>BY</td>
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<tr>
<td>9. DATA forwarded to PHOTOGRAMMETRIC BRANCH</td>
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<tr>
<td>BY</td>
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<td>10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH</td>
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<td>BY</td>
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<tr>
<td>11. MAP REGISTERED - COASTAL SURVEY SECTION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.J. Frances</td>
<td>Aug 24, 1972</td>
<td></td>
</tr>
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</table>

NOAA FORM 76-36A
SUPERSEDES FORM C&GS 181 SERIES

* U.S. G.P.O. 1972-769382/582 REG. #6
1. COMPILATION PHOTOGRAPHY

<table>
<thead>
<tr>
<th>NUMBER AND TYPE</th>
<th>DATE</th>
<th>TIME</th>
<th>SCALE</th>
<th>STAGE OF TIDE</th>
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<tbody>
<tr>
<td>70 E(C) 7725 - 7726</td>
<td>7/27/70</td>
<td>12:07</td>
<td>1:40,000</td>
<td>10.2 ft. above MLLW</td>
</tr>
<tr>
<td>71 E(C) 4516 - 4518</td>
<td>6/5/71</td>
<td>8:52</td>
<td>1:20,000</td>
<td>5.2 ft. above MLLW</td>
</tr>
<tr>
<td>71 E(C) 4495</td>
<td>6/5/71</td>
<td>8:33</td>
<td>1:20,000</td>
<td>4.6 ft. above MLLW</td>
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REMARKS
1:20,000 scale photography ratioed to 1:10,000 scale for hydro support.

2. SOURCE OF MEAN HIGH-WATER LINE:
Office interpretation from 1:40,000 scale color photography dated 27 July 1970.

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:
Office interpretation of 1:20,000 scale photographs listed above. The line is approximate and shown only where it is not in conflict with soundings.

4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

<table>
<thead>
<tr>
<th>SURVEY NUMBER</th>
<th>DATE(S)</th>
<th>SURVEY COPY USED</th>
<th>SURVEY NUMBER</th>
<th>DATE(S)</th>
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5. FINAL JUNCTIONS

<table>
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<tr>
<th>NORTH</th>
<th>EAST</th>
<th>SOUTH</th>
<th>WEST</th>
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<tbody>
<tr>
<td>T-12750</td>
<td>T-12765</td>
<td>Contemporary Survey</td>
<td>T-12763</td>
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</table>

REMARKS
**HISTORY OF FIELD OPERATIONS**

<table>
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<tr>
<th>OPERATION</th>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CHIEF OF FIELD PARTY</td>
<td>George M. Poor</td>
<td>June - Sept. 1972</td>
</tr>
<tr>
<td>2. HORIZONTAL CONTROL</td>
<td>RECOVERED BY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ESTABLISHED BY</td>
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<td>3. VERTICAL CONTROL</td>
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<td></td>
<td>ESTABLISHED BY N.A.</td>
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<tr>
<td>4. LANDMARKS AND AIDS TO NAVIGATION</td>
<td>RECOVERED (Triangulation Stations) by None</td>
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</tr>
<tr>
<td></td>
<td>LOCATED (Field Methods) by N.A.</td>
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</tr>
<tr>
<td>5. GEOGRAPHIC NAMES INVESTIGATION</td>
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<td></td>
<td>NO INVESTIGATION</td>
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</tr>
<tr>
<td>6. PHOTO INSPECTION</td>
<td>CLARIFICATION OF DETAILS BY None</td>
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<tr>
<td>7. BOUNDARIES AND LIMITS</td>
<td>SURVEYED OR IDENTIFIED BY N.A.</td>
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**SOURCE DATA**

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**PHOTO NUMBER** | **STATION NAME** | **PHOTO NUMBER** | **STATION DESIGNATION** |
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<tbody>
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**PHOTO NUMBERS (Clarification of details)**

None

**LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED**

None

**PHOTO NUMBER** | **OBJECT NAME** | **PHOTO NUMBER** | **OBJECT NAME** |
<table>
<thead>
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<tbody>
<tr>
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</table>

**GEOGRAPHIC NAMES:**

- REPORT
- NONE

**BOUNDARY AND LIMITS:**

- REPORT
- NONE

**SUPPLEMENTAL MAPS AND PLANS**

Field Edit Ozalid and Report.

**OTHER FIELD RECORDS** (Sketch books, etc. DO NOT list data submitted to the Geodetic Division)
### RECORD OF SURVEY USE

#### MANUSCRIPT COPIES

<table>
<thead>
<tr>
<th>DATA COMPILED</th>
<th>COMPILATION STAGES</th>
<th>DATE MANUSCRIPT FORWARDED</th>
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<tbody>
<tr>
<td>Shoreline and along-shore features</td>
<td>June, 1971</td>
<td>Class III Map, March, 1973</td>
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<tr>
<td>Field edit partially applied</td>
<td>June, 1974</td>
<td>Class III Manuscript</td>
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<tr>
<td>Application of field edit completed</td>
<td>March, 1975</td>
<td>3/11/75</td>
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#### LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>CHART LETTER NUMBER ASSIGNED</th>
<th>DATE FORWARD ED</th>
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<td></td>
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</table>

2. □ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARD ED: 

3. □ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARD ED: 

#### FEDERAL RECORDS CENTER DATA

1. □ BRIDGING PHOTOGRAPHS; □ DUPLICATE BRIDGING REPORT; □ COMPUTER READOUTS.

2. □ CONTROL STATION IDENTIFICATION CARDS; □ FORM NOS 567 SUBMITTED BY FIELD PARTIES.

3. □ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.

ACCOUNT FOR EXCEPTIONS:

4. □ DATA TO FEDERAL RECORDS CENTER. DATE FORWARD ED: 

#### SURVEY EDITIONS

**SECOND EDITION**

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<th>JOB NUMBER</th>
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**THIRD EDITION**

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**FOURTH EDITION**

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</tbody>
</table>

NOAA FORM 76-36D
JOB PH-6502
GLACIER BAY
ALASKA

Shoreline Mapping
SCALE 1:10,000
SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-12764

This 1:10,000 scale shoreline manuscript is one of 80 maps that comprise Project PH-6502 which covers Glacier Bay and its numerous tributaries. For convenience of compilation the project is divided into five parts, according to aerotriangulation bridges. This map is one of 10 maps that comprise Part III, Muir Inlet. The job diagram shows its location in the project.

No field work was done before compilation except pre-marking of horizontal control for bridging.

Aerotriangulation was done in the Rockville Office in May, 1972. The report could not be located at the time of final review and is not bound with this Descriptive Report.

Compilation was done in the Rockville Office, using the B-8 stereoplotter and 1:40,000 scale color photography taken in July, 1970. Photo-hydro support color photographs taken in June, 1971 were ratioed from 1:20,000 scale to 1:10,000 scale and furnished for the hydrographer's and field editor's use.

Field edit was done in conjunction with hydrography in September, 1972. Two rocks and one reef were located by sextant fixes. The MHWL was checked by measurements from hydrographic signals. The edit was applied in the Rockville Office and the maps were forwarded to the Atlantic Marine Center for final review as Class III Manuscripts. Comments on this application follow the Compilation Report.

Final review was done at the Atlantic Marine Center in March, 1975. The map was upgraded and should be registered as a Class I Manuscript.

The original manuscript was a stabilene sheet 3 minutes 45 seconds in latitude by 5 minutes in longitude.

A stable base negative and a positive copy of the final reviewed manuscript were forwarded for record and registry.
AEROTRIANGULATION REPORT

GLACIER BAY - PART III

Maps T-12738, T-12748 thru T-12752, T-12752 thru T-12765

No aerotriangulation report for this part of Project PH-6502 was available to the final reviewer at the time of final review, nor could one be located at the Atlantic Marine Center or in the Rockville Office.
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR Y COORDINATE</th>
<th>DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 ft = 304.8006 meters)</th>
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</thead>
<tbody>
<tr>
<td>UPPER, 1939</td>
<td>GP Vol. 3</td>
<td>N.A.</td>
<td>58° 51' 50.630&quot;</td>
<td>1566.6 (290.0)</td>
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<tr>
<td></td>
<td>Pg. 793</td>
<td>1927</td>
<td>135° 58' 52.092&quot;</td>
<td>835.0 (126.8)</td>
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<tr>
<td>ADAMS, 1939</td>
<td>GP Vol. 3</td>
<td>N.A.</td>
<td>58° 52' 19.601&quot;</td>
<td>606.5 (1250.1)</td>
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<td>Pg. 794</td>
<td>1927</td>
<td>135° 57' 10.091&quot;</td>
<td>161.7 (799.8)</td>
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</tbody>
</table>
COMPILATION REPORT
T-12764

31. **DELINEATION**

1:40,000 scale color photography was set on the B-8 stereoplotter to delineate the MHW line, features offshore and approximately 800 feet back of the shoreline.

The photography was hazy and it was difficult to see rocks along the shoreline.

1:20,000 scale color photography ratioed to 1:10,000 scale for hydro support were used to try and locate as many rocks as possible but a combination of lower tide level and chunks of ice on the shoreline made it difficult to see rocks and many may have been missed and will have to be located by hydro.

Points common on the 1:40,000 scale with the 1:10,000 scale ratio were pricked for hydro support.

32. **CONTROL**

Control was adequate for density and placement.

33. **SUPPLEMENTAL DATA**

None

34. **CONTOURS AND DRAINAGE**

N.A.

35. **SHORELINE AND ALONGSHORE DETAIL**

The MHW line is from office interpretation. The low water line is from the lowest tide photography and is only approximate.

36. **OFFSHORE DETAILS**

The compilation photography was hazy and the difference in the tide level between the 1:40,000 scale and the 1:10,000 scale
along with chunks of ice along the shoreline made it difficult to locate rocks.

37. **LANDMARKS AND AIDS**

   None

38. **CONTROL FOR FUTURE SURVEYS**

   None

39. **JUNCTIONS**

   To the North with T-12750
   To the East with T-12765
   To the West with T-12763
   To the South no contemporary survey.

40. **HORIZONTAL AND VERTICAL ACCURACY**

   Refer to "Photogrammetric Plot Report."  

41. - 45.

   Inapplicable.

46. **COMPARISON WITH EXISTING MAPS**

   Comparison was made with U.S.G.S. Quadrangle JUNEAU (D-6), ALASKA, scale 1:63,360, edition 1949.

47. **COMPARISON WITH NAUTICAL CHARTS**


**ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY**

None

**ITEMS TO BE CARRIED FORWARD**

None

Respectfully Submitted:

John C. Richter
GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6502 (Glacier Bay-Muir Inlet, Alaska)

T-12764

Adams Inlet

Glacier Bay National Monument

Approved by:

C. E. Harrington
Staff Geographer-C51x2
Notes on application of field edit:

A review of Field Edit Report, (OPR-460) was made to determine the extent of field edit application required. The following conclusions were made:

After compiling the manuscripts at 1:10,000 scale, the hydrographic survey was conducted at 1:20,000 scale.

The ratio prints prepared for photo-hydro support and field edit were not utilized.

All hydro signals were located by traverse methods, positions computed and plotted on the boat sheet.

Sextant and T-2 fixes to foreshore rocks, the NHML and other shoreline features were taken from these signals, plotted on the 1:20,000 scale boat sheets & transferred by proportional dividers to the 1:10,000 scale ozalid copy of the manuscripts.

The "spot" points transferred from the 1:20,000 scale boatsheets to the 1:10,000 scale manuscripts for the NHML were inadequate to do revisions to the shoreline as compiled.

This project thus became a field hydrographic survey only.

All rocks and other foreshore features not visible on the photography that were plotted directly on the boat sheets from field fixes were not duplicated on the shoreline manuscripts as these were applied by hydrographic processing to the smooth sheet.

These conclusions were discussed with the Marine Chart Division and agreement was reached on the method of completing this project as far as the Coastal Mapping Division is concerned.

The ten manuscripts will be registered as a "Class III" map and is to be used as a source for shoreline compilation only.

Limited use was made of the field edit data. Corrections that could be applied on the 1:12,000 scale manuscripts were the removal of surplus rocks that were in error, the labeling of "rocks beach" and the addition of a few shore areas.
A comparison was made between H-9317 and H-9318 (1:20,000) and the ten shoreline manuscripts. There was no conflict between the shoreline as compiled on the manuscripts and the hydrographic data.

Submitted by,

J. P. Battley, Jr.
Chief, Coastal Mapping
Section
Field Edit Report, OPR-460
Glacier Bay, Alaska
NOAA Ship McARTHUR
June - September, 1972

In accordance with project instructions OPR-460, Glacier Bay, Alaska, all shoreline of the Glacier Bay area within the project limits was inspected. All significant rocks were noted and the mean high water line was delineated. All questions on the field edit oxalids were answered.

Three-point sextant fixes on signals established for hydrography were most commonly used to locate positions. Photos were used on occasion; however, with the abundance of signals it was more expedient to use sextant fixes. Check angles were provided when possible. A list of the signals and their geographic positions accompanies this report.

Rocks were noted with their height above water and the time and date of observation. In some cases, where it was more convenient, rocks were noted with height above the apparent mean high water line. Only larger, more prominent and/or navigationally significant rocks were noted, since the area as a whole is quite rocky. All times are given in PDT, which is 105°W time meridian.

No attempt was made to delineate the MHWL (mean high water line) in low flat tidal areas. Areas of this nature possess very little relief and the mean high water line is characteristically obscure. In such areas, a sextant fix at the water’s edge was obtained at the time of inspection and noted on the field edit oxalid.

The seaward faces of glaciers are subject to constant change and for obvious reasons are not delineated by the editor.

There are no cultural objects in Glacier Bay except for the obscure ruins of a cabin on Reid Inlet. There is nothing of particular landmark value in the survey area. Bluffs of a precipitous and extensive nature were often cited by the compiler as potential landmarks. In a less primitive and stark environment replete with vegetation and soft contours, such bluffs might appear distinctive. However, Glacier Bay, in its upper regions, is a land devoid of vegetation, rich in bold relief, and characteristically monochromatic.

None of the fixes on the field edit oxalids were plotted directly. Compilation of T-sheets was accomplished at 1:10,000 scale and the boat sheets containing the plotted hydro signals, were at 1:20,000
scale; therefore, it was impractical to plot positions directly on the field edit ozalid. All three-point fixes were plotted on the boat-
sheets (1:20,000 scale) and then transferred to the ozalid with pro-
portional dividers.

Purple ink was used on the ozalid to mark positions and to note
comments. Photos that were used in field edit have been annotated
with orange-red ink. A commentary on the editing of individual T-
sheets follows.

T-12740

There are many large rocks shown that are probably rock and dirt
laden icebergs. On inspection of the areas where these rocks were
said to be, no evidence of their existence was found. The misident-
ified icebergs have been noted on the field edit ozalid.

T-12741

An islet (58°54.0'N, 136°55.2'W) shown on USCGS Chart 8202 (17th.
Ed. 11/71) is not detached from the mainland. A gorge in the rocky
promontory might lead to this interpretation; however, the base of the
gorge is well above MHW. A small extension of this same promontory
at 58°54.05'N, 136°55.3'W forms an islet at MHW and has been delineated
on the field edit ozalid.

T-12742

Compilation of this manuscript below 58°54'15"N is incomplete;
however, a foul area replete with rocks and a reef were located at
58°53.0'N, 136°50.3'W. The area should be considered a hazard to
navigation.

A cove is shown on the manuscript at 58°53.7'N, 136°54.8'W that does
not exist. The true MHWL throughout this area is further to the
seaward than is drawn on the manuscript. The MHWL is correctly de-
lineated on the field edit ozalid.

T-12743

There is a dangerous reef at 58°55.3'N, 136°46.1'W which might prove
especially hazardous to safe navigation. The reef is below the MHWL
and near favorable sites for the anchorage of large vessels.

A large foul area is found in the vicinity of 58°55'20"N, 136°47'45"W.
The many rocks and reefs in this area have been delineated on the
field edit ozalid.

T-12744

An object suspected to be a rock at 58°53.8'N, 136°41.0'W is in all
probability a dirt and rock laden iceberg. No rock was found on inspecting the area. This misidentification of icebergs is a common problem in this area of Glacier Bay.

In the area around Joan Rocks (incorrect name, see Geographic Names Report, OPR-460), two reefs were delineated. A reef compiled at 58°54.4'N, 136°41.7'W on the manuscript does not exist.

T-12745

A rock (58°52.9'N, 136°37.95'W) shown on the manuscript was not found on inspection. See previous discussions on rock and dirt laden icebergs. Rendu Inlet was not inspected by the field editor. Its distance from the project area and the inefficient use of time attendant upon the establishment of hydrographic control in the area argued against inspection.

T-12754

The limits of Hoonah Glacier have been inked on photo 4685. The southern half of the face of this glacier hangs on a precipitous slope far above the water's edge. It is to be expected that this precarious position subjects the face to frequent changes in this area.

T-12755

(not in McARTHUR's inventory)

As noted, this manuscript was not transmitted to McARTHUR. Aerial photography for Reid Inlet was flown in June 1972. Presumably the manuscript will be compiled on receipt of the photographs from this flight. McARTHUR surveyed Reid Inlet in July 1972. The following list of field edit positions in Reid Inlet is appended for the convenience of the compiler.

REID INLET
ROCKS

August 10, 1972

* denotes check angle

<table>
<thead>
<tr>
<th>No.</th>
<th>Angles</th>
<th>Signal Nos.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9744</td>
<td>41°56'</td>
<td>100</td>
<td>Rock bares 10'; 15'</td>
</tr>
<tr>
<td></td>
<td>53°56'</td>
<td>59</td>
<td>diameter. 0900 PDT</td>
</tr>
<tr>
<td></td>
<td>*70°28'</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*114/59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9745</td>
<td>31°48'</td>
<td></td>
<td>Rock bares 2'; 4'</td>
</tr>
<tr>
<td></td>
<td>67°12'</td>
<td>same</td>
<td>diameter. 0909 PDT</td>
</tr>
<tr>
<td></td>
<td>*58°56'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
T-12757

The field editor's inspection for rocks at 58°30.75’N, 136°38.8’W and 58°50.8’N, 136°30.3’W indicates that they probably do not exist. Many icebergs were observed to congregate in the area, and such bergs were most probably misidentified as rocks.

The area south of 58°50’00” was not inspected. Its distance from the hydrographic survey area, and the inefficient use of time attendant upon the establishment of hydrographic control in the area argued against inspection.

T-12748

Two isolated rocks at 58°54.85’N, 136°06.3’W are an especially noteworthy hazard to navigation. Both are below the MHWL and lie near favorable anchorage sites for large vessels.

A reef lies inside the mouth of Machuset Inlet at 58°56.2’N, 136°10.0’W that is hazardous to the safe navigation of the inlet. The area between the reef and the south shore of the inlet is shallow (see boatsheet NA-20-3-72, H-9317).

T-12749

The large alluvial fan between latitudes 58°53.7’N, and 58°54.7’W possesses a particularly extensive network of offshore sand bars. The bars are composed of loose sand and are subject to frequent change.

ADAMS INLET

Verification of the tree line in Adams Inlet was not accomplished by the field editor. The predominant tree in the inlet is the Sitka Alder. The Alder's overwhelming abundance and phenomenal growth rate argue against any constructive purpose being served by a description of Alder forest boundaries.

T-12750

A shoal at 58°53.25’N, 135°55.9’W was confirmed by indirect methods. Launch AR-1 struck the rocky shoal shortly after (10-20 seconds) a position fix at 1441 PDT, 24 September. As the launch was on a heading that would carry it directly over the shoal, the shoal's position is confirmed. The launches outdrives struck the shoal. They project approximately 2 feet below the waters' surface.

T-12751

The narrow channel at 58°54.3’N, 135°51.5’W is a potentially hazardous passage because of the rocks (delineated on the field edit ozalid) and the strong tidal current.
Two shoals near 58°54.3'N, 135°54.6'W are composed of water-saturated mud and are hazardous for the unwary boater. The light grey color at lower stages of the tide blends well with the water. And one may speedily run firmly aground before being aware of it.

The shoal at 58°52.7'N, 135°53.9'W is composed of rock and because of its mid-channel location it is particularly noteworthy.

T-12764

A large mid-channel rock at 58°51.7'N, 135°59.1'W is the most distinctive hazard to navigation in Adams Inlet and the most impressive shoal in all of upper Glacier Bay. During periods of ebb and flood, the tidal velocity is greatly increased in the vicinity of this rock because of the constriction in the channel. Whirlpools occur in the vicinity of this rock as large whirlpools are shed from its sides.

Prepared by:

Steven R. Birkey
LT(jg), NOAA

Approved by:

George M. Poar
CDR, NOAA
Commanding Officer
NOAA Ship McArthur
REVIEW REPORT T-12764
SHORELINE
March 4, 1975

61. GENERAL STATEMENT:

See Summary, which is page 6 of this Descriptive Report.

A comparison print, showing differences noted in Par. 62 and 64 is bound with the original of this Descriptive Report.

An overlay sheet was made in the electronic plotting section at the Atlantic Marine Center, showing field edit fix and signal positions. The mean high water line was corrected to agree with fixes taken on that line, except at Signal 56. The final reviewer believes that the field editor reversed the direction of measurement and meant "seaward" rather than "shoreward" as noted on the field edit ozalid. The "shallow" line was removed, except on the north side of Adams Inlet. The approximate mean lower low water line was mapped on the north side of Adams Inlet where it did not disagree with the hydrographer's MLLWL and on the south side of Adams Inlet southwestward from Long. 135° 58.3'. In all other places, soundings disprove what is apparent on the photographs as the approximate MLLWL. Tree lines were removed. See Memorandums dated October 18, 1965 and October 27, 1965.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

A comparison was made with a copy of Survey T-6757, 1:20,000 scale, dated July-August, 1940. Significant shoreline differences are shown on the Comparison Print in blue.

In the area compared, T-12764 supersedes T-6757 for nautical chart construction purposes. T-6757 is the latest prior survey of the area.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A visual comparison was made with U.S.G.S. Quadrangle JUNEAU (D-6), ALASKA, 1:63,360 scale, dated 1949. More tidal
flat west of Station UPPER, 1939 is shown on the quadrangle than on T-12764. The reef 400 meters south-southwest of Station UPPER is shown as an island on the quadrangle.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

A comparison was made with a verified copy of the smooth sheet for Survey H-9318, scale 1:20,000, dated 1972. Significant differences are shown in purple on the comparison print. In many places soundings fall in the foreshore area that was bare when the photographs were taken at a tide stage of approximately 5 feet above MLLW (Predicted). No MLLWL was mapped in these areas.

The hydrographer's elevation on the reef at Lat. 58° 51.7', Long. 135° 59.1' is 2 feet less than the field edit elevation; at Lat. 58° 52.75', Long 135° 58.4' the hydrographer's elevation on a rock is 11 feet less than the field edit elevation. Field edit elevations were referred to MLLW by using hourly heights on the Adams Inlet gage at the time of field edit (Sept. 26-27, 1972).

65. COMPARISON WITH NAUTICAL CHARTS:

A visual comparison was made with Chart 8202, scale 1:209, 978, 18th edition, dated Nov. 3, 1973. No significant differences were noted. The chart scale is too small for adequate comparison.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

Although there is no Aerotriangulation Report with this section of PH-6502, this reviewer was assured by Mr. John Perrow, Chief of Bridging Section, by telephone conversation on January 21, 1975, that this job complies with Bureau standards and meets requirements for National Standards of Map Accuracy.

Reviewed by:

Charles H. Bishop
Cartographer
Approved for forwarding:

Victor E. Serena  
Chief, Photogrammetric Branch, AMC

Approved:

Chief, Photogrammetric Branch  Chief, Coastal Mapping Division
NOTE:
"The photogrammetric location and delineation offshore from the mean high-water line on the chart may not be complete or final. The contracted reviewed hydrographic survey of the area will be consulted for the final delineation.

MLLWL on H-9318.
This area is bare on photos taken at 5 ft above MLLW.

COMPARISON PRINT
Purple = H-9318
Blue = T-6757
T-12764
1:10,000
MLLW or H-9318. This area is bare on photos taken at 5 ft above MLLW.

\[ y = 2.575,000 \text{ ft} \]

Comparison Print

Purple = H-9318
Blue = T-6757

T-12764
1:10,000