### Descriptive Report

**Type of Survey**: Shoreline  
**Field No.**: Ph-5911  
**Office No.**: T-10890

### Locality
- **State**: U.S. Possession  
- **General Locality**: Caribbean Sea  
- **Locality**: Swan Islands

**1959-60**

**Chief of Party**  
E.L. Jones, Chief of Party  
L.W. Swanson, Div. of Photo., Wash., D.C.

### Library & Archives

**Date**: August 3, 1962
DESCRIPTIVE REPORT - DATA RECORD

T - 10890

Project No. (II): PH-5911 Quadrangle Name (IV):

Field Office (II): Ship EXPLORER Chief of Party: E. L. Jones

Instructions dated (II) (III): 19 January 1960 Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): Stereoplanigraph

Manuscript Scale (III): 1:10,000 Stereoscopic Plotting Instrument Scale (III): Approx. 1:12,000

Scale Factor (III):

Date received in Washington Office (IV): Date reported to Nautical Chart Branch (IV):

Applied. to Chart No. Date: Date registered (IV): 3/11/62

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): NA 1927 Vertical Datum (III):

Mean sea level except as follows:
Elevations shown as (2) refer to mean high water
Elevations shown as (6) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): Swan Island (USAF 1959) 1960 Adjusted

Lat: 17 24 15.295 Long: 83 56 24.080

Plane Coordinates (IV): UTM State: Zone: 17

Y= X=

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.
Areas contoured by various personnel
(Show name within area)

Inapplicable
Field Inspection by (II): James B. Allen
Date: 12-15 March 1960

Planetable contouring by (II): Inapplicable
Date:

Completion Surveys by (II): Inapplicable
Date:

Mean High Water Location (III) (State date and method of location):
Office interpretation of photographs using field inspection notes as guide

Projection and Grids ruled by (IV): Washington Office
Date: January 1960

Projection and Grids checked by (IV): ""
Date: ""

Control plotted by (III): R. Puhl
Date: Sept. 1960

Control checked by (III): R. Kelly
Date: Sept. 1960

Radial Plot or Stereoscopic
Control extension by (III): W. A. Kuncis
Date: Feb. 1960

Stereoscopic Instrument compilation (III):
Planimetry W. A. Kuncis
Date: ""

Manuscript delineated by (III):
R. Puechse & R. Kelly - Graphic Method
Date: Sept. 1960

Photogrammetric Office Review by (III): E. H. Ramey
Date: ""

Elevations on Manuscript
checked by (II) (III):
Date:
DESCRIPTION REPORT - DATA RECORD

Camera (kind or source) (III): U.S. Air Force - Single-lens - Metrogon

PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>314, AST61370</td>
<td>1 thru 10</td>
<td>24 Nov.1959</td>
<td>1813-1822</td>
<td>1:10,000</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>(Approx.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>at MHW</td>
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<td></td>
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<td>(Greenwich)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>(Approx.)</td>
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Tide (III)*

Ratio of Ranges | Mean Range | Spring Range |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>0.46</td>
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<td></td>
</tr>
</tbody>
</table>

Reference Station:
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV):
Final Drafting by (IV):
Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III):
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):
Number of BMs searched for (II):
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

Remarks: * Tides observed simultaneously with field operations.
FIELD INSPECTION REPORT
Swan Islands
Project CS-08700 (Ph-5911)
1960

Instructions

Director's Instructions, reference 22 MEK, dated 4 Dec. 1959.

Photographs

U.S. Air Force photography taken 24 November 1959 at stage
of tide near high water.

Manuscript

Preliminary manuscripts were furnished the ship at Pan-
ama while enroute to Swan Islands as follows:

Sheet A, West and Great Swan Island, scale about 1/10,000.
Sheet T-19869, Swan Islands, scale about 1/10,000.

These manuscripts provided excellent hydrographic control
and shoreline information. There were no discrepancies found in
the field. The limited time schedule (seven days) for all field
operations precluded regular hydrographic development of the area.
Consequently, only about half of the photo points located on the
manuscript were field-used. The depths determined by stereo-
scopic means and shown by the Washington Office on the manuscripts
gave only a very general indication of the depths. On this par-
ticular project this information was little used and not believed
warranted.
The photogrammetric work on Swan Islands was limited by necessity to the field identification of photo points for hydrographic signal sites and such shoreline information as could be easily obtained in the vicinity of the station.

The field inspection was done 12-15 march 1960 by Ensign James B. Allen, assisted by Captain Edmund E. Jones, during the first 1½ days of field work. Pricking cards are submitted for the following hydrographic signals and control stations:

<table>
<thead>
<tr>
<th>Station Name</th>
<th>Photo Point</th>
<th>Photo Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ace</td>
<td>&quot;A&quot;</td>
<td>Subs. sta. from photo pt. #810 Direct</td>
</tr>
<tr>
<td>Air</td>
<td>#815</td>
<td>Direct</td>
</tr>
<tr>
<td>Arm</td>
<td>#807</td>
<td>Direct</td>
</tr>
<tr>
<td>Bid</td>
<td>#826</td>
<td>Direct</td>
</tr>
<tr>
<td>Bud</td>
<td>#901</td>
<td>Direct</td>
</tr>
<tr>
<td>Bug</td>
<td></td>
<td>Sextant cuts.</td>
</tr>
<tr>
<td>Cry</td>
<td></td>
<td>Subs. sta. from photo pt #829</td>
</tr>
<tr>
<td>Cut</td>
<td></td>
<td>&quot; &quot; &quot; &quot; &quot; 813.</td>
</tr>
<tr>
<td>Dar</td>
<td></td>
<td>&quot; &quot; &quot; &quot; &quot; 817.</td>
</tr>
<tr>
<td>Dog</td>
<td></td>
<td>&quot; &quot; &quot; &quot; &quot; 704.</td>
</tr>
<tr>
<td>End</td>
<td></td>
<td>&quot; &quot; &quot; &quot; &quot; 711.</td>
</tr>
<tr>
<td>Est</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eva</td>
<td>#709</td>
<td>Direct</td>
</tr>
<tr>
<td>Fin</td>
<td>#713</td>
<td>Direct</td>
</tr>
<tr>
<td>Out</td>
<td>#822</td>
<td>Direct</td>
</tr>
<tr>
<td>Mat</td>
<td></td>
<td>Subs. sta. from photo pt. 805 Sextant cuts.</td>
</tr>
<tr>
<td>Nig</td>
<td>#710</td>
<td>Located from End.</td>
</tr>
<tr>
<td>Tip</td>
<td></td>
<td>Direct</td>
</tr>
<tr>
<td>Win</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yam</td>
<td>#824</td>
<td>Direct</td>
</tr>
<tr>
<td>Zip</td>
<td>#706</td>
<td></td>
</tr>
<tr>
<td>Swan I</td>
<td></td>
<td>Distances</td>
</tr>
<tr>
<td>AZ MK</td>
<td></td>
<td>Distances</td>
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<tr>
<td>Swan I,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td></td>
<td>Subs. Sta. from photo pt #901 or Bee.</td>
</tr>
</tbody>
</table>

Photo Interpretation

The attached four by five inch photos were taken by Mr. Bryan Hale and are intended to show shoreline conditions and assist
PHOTOGRAMMETRIC PLOT REPORT
PROJECT PH-5911
SWAN ISLANDS
February-September 1960

21. Area Covered:

T-10890 at a scale of 1:10,000 which covers all of Swan Islands in the Caribbean Sea.

22. Method:

In February 1960 a three-model bridge was set for horizontal control using U.S. Air Force photographs taken November 1959 and office identified control. Compilation was completed simultaneously with the bridging operations. This compilation, not tied to datum and without projection lines, served as a base for hydrographic work during the 1960 season.

Only two of the six horizontal control stations established by the hydrographic party were used to fix the datum of the bridge. See # 23. These stations were referenced to the original bridge pass points and mathematically adjusted. The adjusted positions were then plotted on a new manuscript and used in the revised compilation.

23. Adequacy of Control:

The field party established six unchecked horizontal positions by tellurometer traverse methods. This traverse was referenced to a horizontal position and an azimuth station established by the U.S. Air Force. As stated above, only two of these stations, "BOO" and "WIN", could be referenced to photo points to control the photogrammetric bridge. Thus the bridge is unchecked.

24. Supplemental Data:

None.
25. Photography:

The diapositives were made from duplicate copy of the original film. The quality as to definition and accuracy was thus poor with a prevalence of residual parallax. Sketch and Control List are attached.

Submitted by:

[Signature]
Willard A. Kuncis
1/29/60

Approved:

[Signature]
Everett H. Ramsey, 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 IN FEET OR PROJECTION LINE IN METERS</th>
<th>DATUM CORRECTION</th>
<th>N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
</tr>
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<tbody>
<tr>
<td>Swan Island</td>
<td>GP's</td>
<td>NA 1927</td>
<td>17° 24' 15&quot;.295</td>
<td>83° 56' 24&quot;.080</td>
<td>170.2 (1374.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(USAF 1959)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Swan Id. Az.</td>
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<td>17° 24' 15&quot;.234</td>
<td>83° 56' 24&quot;.080</td>
<td>170.2 (1374.3)</td>
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<td>Mark (USAF 1959)</td>
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<tr>
<td>Boo</td>
<td></td>
<td>1960</td>
<td>17° 24' 15&quot;.295</td>
<td>83° 56' 24&quot;.080</td>
<td>170.2 (1374.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dog</td>
<td></td>
<td>1960</td>
<td>17° 24' 15&quot;.295</td>
<td>83° 56' 24&quot;.080</td>
<td>170.2 (1374.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hot</td>
<td></td>
<td>1960</td>
<td>17° 24' 15&quot;.295</td>
<td>83° 56' 24&quot;.080</td>
<td>170.2 (1374.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Win</td>
<td></td>
<td>1960</td>
<td>17° 24' 15&quot;.295</td>
<td>83° 56' 24&quot;.080</td>
<td>170.2 (1374.3)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Gay</td>
<td></td>
<td>1960</td>
<td>17° 24' 15&quot;.295</td>
<td>83° 56' 24&quot;.080</td>
<td>170.2 (1374.3)</td>
<td></td>
<td></td>
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</tbody>
</table>

1 FT. = 0.304806 METER
COMPUTED BY: R. Puhl
DATE: Sept. 15, 1960
CHECKED BY: R. B. Kelly
DATE: Sept. 16, 1960
31. **Delineation:**

A preliminary manuscript was compiled by stereoplanigraph in February 1960 to serve as a base for hydrographic surveys (Item 22, Photogrammetric Plot Report). This manuscript included some approximate depths determined by stereoplanigraph. These were added only to serve as an accuracy comparison on the method used. **See Field Inspection Report Under Manuscript Area.**

With the addition of some new control and limited field inspection of shoreline features, the manuscript was redescribed. Graphic methods were used for this using ratioed prints of the original photographs. Pass point positions were used to control the delineation.

32. **Control:**

Discussion of basic horizontal control is under Item 23, Photogrammetric Plot Report. The delineation of the new manuscript was referenced to pass point positions as computed from the photogrammetric bridge.

33. **Supplemental Data:**

None

35. **Shoreline and Alongshore Details:**

All shoreline and alongshore features were based on data furnished by the field party. The field inspection of the shoreline and alongshore features was limited because of time. It was sufficient to compile a manuscript adequate for charting needs. **Very little shoreline was field inspected. Most of it is office integrated.**

36. **Offshore Details:**

Offshore details were delineated in accordance with field-inspected photographs. Interpretation of some areas could not be made because of poor contrast. Rock heights were corrected by tidal observations made by the hydrographic survey. Offshore features are subject to verification by hydrographic surveys.
37. Landmarks and Aids:

Prominent objects such as radio tower, skeleton tower, elevated dome and a square tower were compiled on the west end of Great Swan Island.

46. Comparison with Existing Maps:

* Due to the incompleteness of the prior survey, no detailed comparison was made.

47. Comparison with Nautical Charts:

As this is the first complete controlled mapping of the shoreline and adjacent features of these islands, the entire compilation should be applied to charts.

Items to be carried forward: None.

Submitted by:

\[Signature\]

Robert Kelly

Approved:

\[Signature\]

Everett H. Ramey, Chief
Aerotriangulation Section
48. Geographic Name List:

BOGUE
BOOBY CAY
BOOBY POINT
BUTTONWOOD BAY
CARIBBEAN SEA
EMERSON BAY
FOSTER POINT
FOWLERS BAY
FOWLERS POINT
GOATS BAY
GREAT SWAN ISLAND
HARBOR BAY
JACOBS BAY
JAMES BAY
JAMES POINT
JIM DUFF HOLE
LITTLE SWAN ISLAND
MACK POINT
SANDY BEACH
SMITH BAY
STEAMER HEAD ROCK
SWAN ISLANDS

49. Notes for the Hydrographer:

Tabulation of photo-hydro points:

<table>
<thead>
<tr>
<th>Great Swan Island</th>
<th>Little Swan Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-825</td>
<td>701-714</td>
</tr>
<tr>
<td>901-902</td>
<td></td>
</tr>
<tr>
<td>CUT</td>
<td>Shown on Photo No. 9</td>
</tr>
<tr>
<td>DAR</td>
<td>&quot; &quot; &quot;</td>
</tr>
<tr>
<td>MAT</td>
<td>&quot; &quot; &quot;</td>
</tr>
<tr>
<td>ACE</td>
<td>&quot; &quot; &quot;</td>
</tr>
<tr>
<td>BOO</td>
<td>&quot; &quot; &quot;</td>
</tr>
<tr>
<td>BID</td>
<td>&quot; &quot; &quot;</td>
</tr>
</tbody>
</table>

- Handwritten note: George Holley 16 Sept 1960
61. General Statement

This project, containing one manuscript, covers all of Great Swan Island and Little Swan Island. These islands are situated approximately 100 miles N.W. of Honduras in the Caribbean Sea. The project was initiated in 1959 hydrographic and photogrammetric field work being assigned to the Ship EXPLORER on her transfer run from Seattle to Norfolk. There is no recent topographic or hydrographic survey of the islands. Hydrography for the West Coast of Great Swan Island was completed by the Hydrographic Office in 1913 by U.S.S. HANNIBAL at a scale of 1:10,000. Shoreline of the island is complete on this chart but little interior detail. The chart number is 5170.

62. Comparison with Registered Topographic Surveys

There are no previous Bureau surveys of this area.

63. Comparison with Existing Maps

Hydrographic Survey No. 5170. This survey dated 1913 was of little use in comparison. There is no information available on the reliability of its datum. Office examination revealed it to be erroneous being 400 m S in Latitude and 160 m E in Longitude.

64. Comparison with Contemporary Hydrographic Surveys

Two surveys H-8515 at scale 1:10,000 and H-8516 scale 1:100,000 dated 1960 were used during review. There are no discrepancies.

65. Comparison with Nautical Charts

Inapplicable.

66. Adequacy of Results and Future Surveys

See Plot Report item 23 and the paragraph under "Manuscript" beginning with "The photogrammetric work; etc," of the field inspection report.
Datum of the islands was established by Hiran methods. At the time of final review these stations were unadjusted.

Since the MHW line was office interpreted for the most part and only two field established positions were used in aerotriangulation (resulting in no check) this survey cannot be considered as meeting National Standards of Map Accuracy.

Respectfully submitted:

A. K. Heywood

Approved:

L. O. Lande
Chief, Review and Edit

Maurice T. Stumbo
Chief, Chart Division

J. W. Waugh 8/2/62
Chief, Photogrammetry Div.

Harriett Stowers
Chief, Coastal Survey - Div. Operations
<table>
<thead>
<tr>
<th>DATE</th>
<th>CHART</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before</td>
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<tr>
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<td></td>
<td>Verification and Review</td>
</tr>
</tbody>
</table>

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.