**Diag. Ch. No.** 6450-2

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

**DESCRIPTIVE REPORT**

**Type of Survey:** Shoreline (Photogrammetric)

**Field No.:** Ph-5905  
**Office No.:** T-11620

**LOCALITY**

**State:** Washington

**General locality:** Puget Sound - Camano Island

**Locality:** Nubana

**1960**

**CHIEF OF PARTY**

Lorne G. Taylor & Fred Natella

**LIBRARY & ARCHIVES**

**DATE:** September 1964
DESCRIPTIVE REPORT - DATA RECORD

T - 11620

Project No. (II): Ph-5905
Quadrangle Name (IV):

Field Office (II): Mt. Vernon, Washington
Photogrammetric Office (III): Portland, Oregon

Instructions dated (II) (III): 10 Feb. 1960 II
Supplement 1 5 May 1960 II & III

Chief of Party: Lorne G. Taylor
Unit Chief: J. C. Lajoye & W. V. Hull
Officer-in-Charge: Lorne G. Taylor & Fred Natella
Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Kelsh Instrument
Manuscript Scale (III): 1:10,000
Stereoscopic Plotting Instrument Scale (III): 1:6000
Scale Factor (III): None
Pantograph Scale 1:10,000

Date received in Washington Office (IV): NOV 6 1961
Date reported to Nautical Chart Branch (IV):

Applied to Chart No.
Date: Date registered (IV):

Publication Scale (IV):
Geographic Datum (III): N.A. 1927

Publication date (IV):
Vertical Datum (III): X
Mean sea level except as follows:
Elevations shown as (26) refer to mean high water
Elevations shown as (2) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): CAMANO 2, 1924 R.M 2

Lat.: 48° 06' 43.436"
Long.: 122° 24' 33.304"

Adjusted X
Unadjusted

Plane Coordinates (IV):
State: Washington Zone: North

Y = 409,589.40
X = 1,615,036.36

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)
(II) (III)
DESCRIPTION REPORT - DATA RECORD

Field Inspection by (II): L. F. Van Scy & J. D. Ulven Date: June to Aug. 1960

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

Mean High Water Location (III) (State date and method of location): Located by field inspection 6-12-60; 6-13-60 and 7-26-60. Compiled by Kelsh Instrument.

Projection and Grids ruled by (IV): W. S. Date: 6-9-60

Projection and Grids checked by (IV): J. Keefer Date: 6-9-60

Control plotted by (III): C. C. Harris Date: 10-10-60

Control checked by (III): L. L. Graves Date: 10-11-60

Radial Plot or Stereoscopic W. A. Kuncis Date: July 1960

Control extension by (III):

Stereoscopic Instrument compilation (III): D. N. Williams Date: 11-17-60

Planimetry

Contours

Manuscript delineated by (III): L. L. Graves, Scribing Date: 12-1-60

C. C. Harris, Stick-up 5-10-61

Photogrammetric Office Review by (III): J. L. Harris, Rough Draft Date: 11-8-60

J. E. Deal, Advance 9-21-61

Elevations on Manuscript None Date:

checked by (II) (III):
Camera (kind or source) (III): C&GS Single lens "S".

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>60-8-2483</td>
<td>4-25-60</td>
<td>13:04</td>
<td>1:30,000</td>
<td>3.0 Ft. above M.L.L.W.</td>
</tr>
<tr>
<td>thru 2485</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tide (III)

Reference Station: Seattle, Washington
Subordinate Station: Tulalip, Washington

Diurnal

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.6</td>
<td>11.3</td>
<td></td>
</tr>
<tr>
<td>7.6</td>
<td>11.2</td>
<td></td>
</tr>
</tbody>
</table>

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): 5,6
Shoreline (More than 200 meters to opposite shore) (III): 8.0
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 8
Number of BMs searched for (II): None

Number of Recoverable Photo Stations established (III): None
Number of Temporary Photo Hydro Stations established (III): 5

Remarks:
FIELD INSPECTION REPORT
Map Manuscript T-11620
Project Ph-5905

Refer to the Field Inspection Report for the entire Project Ph-5905 by Wesley V. Hull, February 1960 to September 1960.

Filed with Desc. Report T-11594
PHOTOGRAHMTRIC PLOT REPORT

Map Manuscript T-11620

Project Ph-5905

Refer to the combined Photogrammetric Plot Report (Stereoplanigraph Bridge) for Strips 1, 3, 4, 5, 6, 7, 8, 9, 10 and 11 by Willard A. Runcis, July 1960.

Filed with Desc Report T-11584
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION</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 CONNECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMANO 2, 1924</td>
<td>Office</td>
<td>409,589.40</td>
<td>1,615,036.36</td>
<td>4589.40 (410.60)</td>
<td></td>
</tr>
<tr>
<td>R.M. 2</td>
<td>Comp.</td>
<td></td>
<td></td>
<td>36.36 (4963.64)</td>
<td></td>
</tr>
<tr>
<td>Sub Station</td>
<td></td>
<td>409,967.00</td>
<td>1,614,803.42</td>
<td>4967.00 (33.00)</td>
<td></td>
</tr>
<tr>
<td>SHELL 2, 1924 RM</td>
<td></td>
<td>392,078.76</td>
<td>1,620,280.91</td>
<td>2078.76 (2921.24)</td>
<td></td>
</tr>
<tr>
<td>SOUCAM, 1954</td>
<td></td>
<td>397,793.44</td>
<td>1,622,935.61</td>
<td>2793.44 (2206.56)</td>
<td></td>
</tr>
<tr>
<td>Sub Station &quot;A&quot;</td>
<td></td>
<td>397,850.87</td>
<td>1,622,927.83</td>
<td>2850.87 (2149.13)</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- 1 FT = 304.8006 METER
- COMPUTED BY: J.L.H. DATE: 9-22-60
- CHECKED BY: J.E.D. DATE: 10-10-60
COMPILATION REPORT
Map Manuscript T-11620
Project Ph-5905

Items 31 and 32:
Refer to the Descriptive Report for T-11617 (1960).

33. Supplemental Data:
Map of Island County, Washington, Scale 1" = 1 Mile, compiled by Island County Engineer, March 1958.

34. Contours and Drainage:
Contours are not applicable.
No drainage was delineated by field inspection and none is indicated by reference to U.S.G.S. quadrangle.

35. Shoreline and Alongshore Details:
The mean high-water line was spot located by field inspection and delineated by the Kelsh operator during compilation.

Foreshore areas were indicated by field inspection and these were compiled as seen on photography taken at 3.0 ft. above M.L.L.W. Shallow areas adjacent to and along the Saratoga Passage shoreline were also compiled.

Photography did not permit a delineation of definite or approximate low-water and shoal lines.

36. Offshore Details:
Refer to the Descriptive Report for T-11617 (1960).

37. Landmarks and Aids:
None.
38. Control for Future Surveys:

Five photo-hydro stations were located by Kelsh Instrument. They are listed under Item 49, Notes to the Hydrographer.

39. Junctions:

Satisfactory junctions were made with T-11615 on the north, T-11619 on the west, T-11621 on the east and T-11626 on the south.

40. Horizontal and Vertical Accuracy:

There are no areas of the map manuscript believed to be of sub-normal horizontal accuracy. Vertical accuracy is not applicable.

46. Comparison with Existing Maps:

Comparison was made with U.S.G.S. 7½ minute Langley, Washington, quadrangle, Scale 1:24,000, Edition 1956.

47. Comparison with Nautical Charts:

Comparison was made with Nautical Chart No. 6450, Scale 1:80,000, 11th Edition, corrected 7-27-59.

Items to be Applied to Nautical Charts Immediately.

None.

Items to be Carried Forward.

None.

Approved:  Respectfully submitted:

Fred Natella, CAPT, C&GS  J. Edward Deal
Portland District Officer  Cartographer
49. **Notes to the Hydrographer:**

Five photo-hydro stations were located by Kelsh Instrument:

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Field Photo No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Pole in center of red roof on white enclosed lookout tower on small square building.</td>
<td>60-S-2482</td>
</tr>
<tr>
<td>2002</td>
<td>East gable on brown shingle boat house.</td>
<td>60-S-2482</td>
</tr>
<tr>
<td>2003</td>
<td>Large Flagstone chimney on dark brown house with green trim. (Chimney at right angle to shoreline.)</td>
<td>60-S-2484</td>
</tr>
<tr>
<td>2004</td>
<td>Corner 9 foot bulkhead.</td>
<td>60-S-2484</td>
</tr>
<tr>
<td>2005</td>
<td>Boulder 15 feet in diameter awash at mean high-water.</td>
<td>60-S-2484</td>
</tr>
<tr>
<td>Compilation Record</td>
<td>Completion Date</td>
<td>Remarks</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------</td>
<td>---------</td>
</tr>
<tr>
<td>1. Alongshore area for hydro</td>
<td>Feb. 28, 1961</td>
<td></td>
</tr>
<tr>
<td>4. Interior details added</td>
<td>Sept. 21, 1961</td>
<td>Compilation complete</td>
</tr>
</tbody>
</table>
PHOTOGRAMMETRIC OFFICE REVIEW
T. 11620


CONTROL STATIONS
5. Horizontal control stations of third-order or higher accuracy X  6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) None  7. Photo hydro stations X  8. Bench marks None

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES

BOUNDARIES
31. Boundary lines None  32. Public land lines None

MISCELLANEOUS

40. J.L. Harris
Reviewer

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:
49. Geographic Names:

Camano Island
Camp Diana
Cornell
Mabana
Pebble Beach
Fort Susan
Saratoga Passage
Sunny Shore Acres
Tyee Beach

Geographic Names Section
February 1963
61. **General Statement**

There are six (6) shoreline maps of Project PH 5905, Puget Sound, Washington. These maps were prepared primarily to provide basic maps, including the location of all non-floating aids and landmarks for use in revising our nautical charts and for control of proposed hydrographic surveys.

62. **Comparison with Registered Topographic Surveys**

<table>
<thead>
<tr>
<th></th>
<th>Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-1164</td>
<td>1:10,000</td>
<td>1870</td>
</tr>
<tr>
<td>T-1388a</td>
<td>1:10,000</td>
<td>1872</td>
</tr>
<tr>
<td>T-1682</td>
<td>1:20,000</td>
<td>1885</td>
</tr>
<tr>
<td>T-1775</td>
<td>1:20,000</td>
<td>1886</td>
</tr>
<tr>
<td>T-1994</td>
<td>1:20,000</td>
<td>1888</td>
</tr>
</tbody>
</table>

These surveys agree with subject manuscripts as well as could be expected under consideration of the time interval. These map manuscripts are to supersede the above listed surveys of common areas for nautical charting.

63. **Comparison with Maps of Other Agencies**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeland</td>
<td>1:24,000</td>
<td>1953</td>
</tr>
<tr>
<td>Langely</td>
<td>1:24,000</td>
<td>1953</td>
</tr>
<tr>
<td>Tulalip</td>
<td>1:24,000</td>
<td>1958</td>
</tr>
</tbody>
</table>

There are cultural and shoreline differences but in general the agreement is good.

64. **Comparison with Contemporary Hydrographic Surveys**

<table>
<thead>
<tr>
<th></th>
<th>Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-8609</td>
<td>1:10,000</td>
<td>1960</td>
</tr>
<tr>
<td>H-8699</td>
<td>1:10,000</td>
<td>1961</td>
</tr>
</tbody>
</table>

Shoreline and control of the subject surveys was furnished prior to the hydrography and as no changes of importance have been made there is good agreement.

65. **Comparison with Nautical Charts**

<table>
<thead>
<tr>
<th></th>
<th>Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>6448</td>
<td>1:40,000</td>
<td>1935 revised to 1962</td>
</tr>
<tr>
<td>6450</td>
<td>1:80,000</td>
<td>1961 revised to 1963</td>
</tr>
<tr>
<td>1845.c.</td>
<td>1:80,000</td>
<td>1963</td>
</tr>
</tbody>
</table>

There are no differences of importance between the charts and the manuscripts.
66. **Accuracy of Results and Future Surveys**

These surveys were prepared according to project instructions, and are within the required accuracy for nautical charting.

Reviewed by:

[Signature]

L. C. Lande

Approved by:

[Signature]

Chief, Photogrammetric Branch  Chief, Nautical Chart Division

[Signature]

Chief, Photogrammetry Division  Acting
### INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

<table>
<thead>
<tr>
<th>CHART</th>
<th>DATE</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6300</td>
<td>8-20-65</td>
<td>G.P. Johnson</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
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<tr>
<td>18441</td>
<td>4-23-68</td>
<td>R.C. Lillig</td>
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<td>18443</td>
<td>2/18/61</td>
<td>O.C. Larson</td>
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<td>2/18/61</td>
<td>O.C. Larson</td>
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<td>18440</td>
<td>3/12/61</td>
<td>O.C. Larson</td>
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