**DESCRIPTIVE REPORT**

**Type of Survey** Shoreline (Photogrammetric)

**Field No.** Ph-5905  **Office No.** T-11590

<table>
<thead>
<tr>
<th>LOCALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State</strong></td>
</tr>
<tr>
<td><strong>General locality</strong></td>
</tr>
<tr>
<td><strong>Locality</strong></td>
</tr>
</tbody>
</table>

**-1959-60**

**CHIEF OF PARTY**

Lorne G. Taylor & Fred Natella

**LIBRARY & ARCHIVES**

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

T - 11590

Project No. (II): Ph-5905

Quadrange Name (IV):

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

Chief of Party: Lorne G. Taylor
Unit Chief: W. V. Hull
Officer-in-Charge: Lorne G. Taylor & Fred Natella

Copy filed in Division of Photogrammetry (IV)

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

Method of Compilation (III): Kelsh Instrument

Manuscript Scale (III): 1:10,000
Stereoscopic Plotting Instrument Scale (III): 1:6000

Pantograph Scale: 1:10,000

Scale Factor (III):
None

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date: NOV 5 1961

Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): X
Mean sea level except as follows:
Elevations shown as (2) 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): NUTS, 1939

Lat.: 48° 19' 55.559"
Long.: 122° 32' 01.622"

Adjusted
Unadjusted

Plane Coordinates (IV):

State: Washington
Zone: North

Y= 490,483,62
X= 1,586,393.57

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)

(li) (iii)
**DESCRIPTIVE REPORT - DATA RECORD**

Field Inspection by (II): W. V. Hull & R. B. Melby  
Date: April & June 1960

Planetable contouring by (II):  
Date:

Completion Surveys by (II):  
Date:

Mean High Water Location (III) (State date and method of location): By field inspection on 6-30-60.  
Compilation by Kelsh Instrument and graphic methods.

Projection and Grids ruled by (IV): Souders  
Date: 6-16-60

Projection and Grids checked by (IV): J. Keefer  
Date: 8-18-60

Control plotted by (III): C. C. Harris  
Date: 9-30-60

Control checked by (III): L. L. Graves  
Date: 10-7-60

Radial Plot or Stereoscopic Control extension by (III): J. L. Harris, radial plot  
Date: 4-1-61
W. A. Kuncis, Stereoplanigraph Bridge  
Date: July 1960

Planimetry D. N. Williams  
Date: 12-29-60

Stereoscopic Instrument compilation (III): Contours

Manuscript delineated by (III): J. L. Harris, rough draft  
Date: 4-20-61
C. H. Bishop, scribing  
Date: 7-12-61
C. C. Harris, stick-up  
Date: 9-14-61

Photogrammetric Office Review by (III): C. C. Harris, rough draft  
Date: 4-26-61
J. E. Deal, advance  
Date: 9-18-61

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

Camera (kind or source) (III): C&GS 9-lens and Single lens "5"

<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-S-2717</td>
<td>4-26-60</td>
<td>11:24</td>
<td>1:30,000</td>
<td>0.2' below M.L.L.W.</td>
</tr>
<tr>
<td>60-S-2767</td>
<td>4-27-60</td>
<td>09:09</td>
<td>1:30,000</td>
<td>3.4' above M.L.L.W.</td>
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<tr>
<td>thru 2769</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>60007</td>
<td>9-9-59</td>
<td>08:56</td>
<td>1:10,000</td>
<td>7.4' above M.L.L.W.</td>
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<tr>
<td>60216 &amp; 60217</td>
<td>9-9-59</td>
<td>11:12</td>
<td>1:10,000</td>
<td>8.7' above M.L.L.W.</td>
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</table>

Tide (III)

Reference Station: Seattle, Washington
Subordinate Station: Ala Spits, Washington

Diurnal

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<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
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<tbody>
<tr>
<td>7.6</td>
<td>11.3</td>
<td></td>
</tr>
<tr>
<td>5.4</td>
<td>10.5</td>
<td></td>
</tr>
</tbody>
</table>

Washington Office Review by (IV):

Date:

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 3.6
Shoreline (More than 200 meters to opposite shore) (III): 6
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 21
Recovered: 11
Identified: 2

Number of BMs searched for (II): 2
Recovered: 2
Identified: 2

Number of Recoverable Photo Stations established (III): 4
Number of Temporary Photo Hydro Stations established (III): None

Remarks:
FIELD INSPECTION REPORT

Map Manuscript T-11590

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 Descriptive Report T11594
PHOTOGRAMMETRIC PLOT REPORT

Map Manuscript T-11590

Project Ph-5905

Refer to the Photogrammetric Plot Report (Stereoplanigraph Bridge) Puget Sound, Washington, Strip No. 1 by W. A. Kuncis, July 1960.Filed with Descriptive Report T11584

Refer to Photogrammetric Plot Report (Radial Plot) for Manuscripts T-11584 thru T-11586 and T-11589 thru T-11593 which is included in the Descriptive Report for T-11584.
| STATION          | SOURCE OF INFORMATION (INDEX) | LATITUDE OR ø-COORDINATE | LONGITUDE OR x-COORDINATE | DISTANCE FROM GRID OR PROJECTION LINE IN METERS (BACK) | Datum Correction (Forward) | SCALE OF MAP | SCALE FACTOR
|------------------|--------------------------------|--------------------------|---------------------------|------------------------------------------------------|-----------------------------|---------------|--------------
| La Conner Jetty  | Office                         | 502,718.18               | 2718.18                   | 828.5 (695.5)                                        |                             | 1:10,000      | None         |
|                  | Comp.                          | 1,58,6,505.43            | 605,43                    | 144.5 (133.5)                                        |                             |               |              |
| Sub. Station     | "                              | 502,714.31               | 2714.31                   | 827.3 (696.7)                                        |                             |               |              |
|                  | "                              | 1,585,610.27            | 610.27                    | 146.0 (133.8)                                        |                             |               |              |
| Seal Rocks Light | "                              | 505,903.42               | 903.42                    | 275.4 (124.8)                                        |                             |               |              |
| 1960             | "                              | 1,579,884.74            | 488.74                    | 1488.9 (35.1)                                        |                             |               |              |
| BRIAR, 1934      | Wash.N. 293                    | 505.904.93               | 904.93                    | 275.8 (124.8)                                        |                             |               |              |
|                  | "                              | 1,586,606.95            | 1606.95                   | 1493.8 (103.2)                                       |                             |               |              |
| FORT, 1934       | "                              | 501,816.93               | 1816.93                   | 553.8 (970.2)                                        |                             |               |              |
|                  | 293                            | 1,585,759.46            | 759.46                    | 231.5 (129.2)                                        |                             |               |              |
| GOAT, 1907       | "                              | 502,827.11               | 2827.11                   | 861.7 (662.3)                                        |                             |               |              |
|                  | 299                            | 1,587,854.57            | 2854.57                   | 870.1 (653.9)                                        |                             |               |              |
| GREY, 1934       | "                              | 494,159.05              | 1590.05                   | 1267.7 (256.3)                                       |                             |               |              |
|                  | 293                            | 1,582,546.33            | 2546.33                   | 776.1 (747.9)                                        |                             |               |              |
| IKA, 1934 R.M.   | Office                         | 500,492.46              | 492.46                    | 150.1 (1373.9)                                       |                             |               |              |
|                  | Comp.                          | 1,593,458.71            | 458.71                    | 1054.2 (469.8)                                       |                             |               |              |
| INNES, 1888      | Wash.N. 296                    | 500,771.81              | 771.81                    | 235.2 (1288.8)                                       |                             |               |              |
|                  | "                              | 1,588,695.39            | 3695.39                   | 1126.4 (397.6)                                       |                             |               |              |
| ISLE, 1907       | "                              | 504,809.60              | 809.60                    | 1166.0 (56.0)                                        |                             |               |              |
|                  | 299                            | 1,587,375.53            | 375.53                    | 784.1 (799.9)                                        |                             |               |              |
| NUTS, 1939       | "                              | 490,483.62              | 483.62                    | 147.4 (1376.6)                                       |                             |               |              |
|                  | 296                            | 1,586,392.57            | 392.57                    | 424.8 (1099.2)                                       |                             |               |              |
| WHAD, 1939       | Office                         | 486,235.42              | 235.42                    | 376.6 (1147.4)                                       |                             |               |              |
| R.M. No. 2       | Comp.                          | 1,590,842.39            | 842.39                    | 256.8 (1267.2)                                       |                             |               |              |

1 FT = 304800.6 METER
COMPUTED BY: C.H.B. DATE: 9-8-60
CHECKED BY: J.L.H. DATE: 9-19-60

COMM: DC-5743
31. **Delineation:**

Except for a small area in the northeastern part of the manuscript which was beyond the limits of the Kelsh models, the compilation was accomplished by the Kelsh Instrument. In this area the compilation was done by graphic means using nine lens photographs.

32. **Control:**

Horizontal control was adequate.

33. **Supplemental Data:**

Print, Map of Island Co., Washington, Scale 1" = 1 Mile.

34. **Contours and Drainage:**

Contours not applicable.

No drainage was field inspected and none is indicated by reference to U.S.G.S. 15 minute quadrangle, Deception Pass, Washington.

35. **Shoreline and Alongshore Features:**

The mean high-water line and alongshore features were adequately field inspected. Rocks not visible on the photographs were located by sextant fix. Also shoreline covered by shadows was located by sextant fixes furnished by the field inspection unit.

The determination of shoal lines was not extended northeast of the northwest shoreline of Whidbey Island. The last photograph covering the area taken at low-water is 60-5-2717 and it does not reach to the north and east limits of the manuscript. It would have been necessary to abruptly stop the shoal lines inside the limits of the manuscript. There is, however, much detail on shoal areas on photograph 60-5-2717 which may be of use to the hydrographer. A portion of the large mud and sand flats lying south and east of Goat Island are visible on this photograph and also some of the areas which bare at extreme low-water at the entrance to Swinomish Slough may be determined. Nine lens photographs of this area were taken at about 8.0 ft. above M.L.L.W. and other single lens at about 3.5 ft. above M.L.L.W.
Sand and mud flats which bare at low-water are an important characteristic of this area and photographs taken at low-water of the entire area would have been most desirable for complete delineation.

36. Offshore Details:

Rocks, dolphins and piling are features which have been compiled just offshore from the M.H.W.L.

37. Landmarks and Aids:

There are no landmarks.

Form 567 is submitted for six fixed aids to navigation.

38. Control for Future Surveys:

None.

39. Junctions:

Satisfactory junctions were made with T-11586 on the north, T-11589 on the west, T-11591 on the east and T-11597 on the south.

Items 40, 46 and 47:

Refer to the Descriptive Report for T-11588 (1960).

Approved:  Respectfully submitted:

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

Refer to Item 35 of the compilation report.
<table>
<thead>
<tr>
<th>Compilation Record</th>
<th>Completion Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Interior details added</td>
<td>Sept. 18, 1961</td>
<td>Compilation complete</td>
</tr>
</tbody>
</table>
PHOTOGRAMMETRIC OFFICE REVIEW
T.11590


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) X  7. Photo hydro stations None X  8. Bench marks X

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES

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

MISCELLANEOUS
40. Carita C. Harris
Reviewer
J. Edward Deal
Supervisor, Review Section or Unit

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:
48. Geographic Names:

Fidalgo Island
Goat Island
Ika Island
McGlinn Island
Seal Rocks
Skagit Bay
Swinomish Channel
Whidbey Island

Geographic Names Section
27 February 1963
61. General Statement

These are ten (10) 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>Survey</th>
<th>Scale</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-1252</td>
<td>1:10,000</td>
<td>1871</td>
</tr>
<tr>
<td>T-2156</td>
<td>1:20,000</td>
<td>1889</td>
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<td>T-2856</td>
<td>1:20,000</td>
<td>1908</td>
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<td>T-6684b</td>
<td>1:10,000</td>
<td>1939</td>
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<td>T-6685a&amp;b</td>
<td>1:10,000</td>
<td>1939</td>
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<td>T-6686</td>
<td>1:10,000</td>
<td>1939</td>
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<td>T-6687</td>
<td>1:5,000</td>
<td>1939</td>
</tr>
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<td>T-6689</td>
<td>1:5,000</td>
<td>1939</td>
</tr>
<tr>
<td>T-6769</td>
<td>1:10,000</td>
<td>1940</td>
</tr>
</tbody>
</table>

Agreement with the above surveys is in general fair. There are many differences most of which are due to natural changes, but the general picture presented by the above surveys are reasonably similar to that of the present surveys. The above surveys are to be superseded for the common area.

63. Comparison with Maps of Other Agencies

<table>
<thead>
<tr>
<th>Agency</th>
<th>Scale</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deception Pass</td>
<td>1:62,500</td>
<td>1951</td>
</tr>
<tr>
<td>Utsalady</td>
<td>1:24,000</td>
<td>1956</td>
</tr>
<tr>
<td>Conway</td>
<td>1:24,000</td>
<td>1956</td>
</tr>
</tbody>
</table>

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

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Nautical Charts

See item 47.
66. **Accuracy of Results and Future Surveys**

These surveys comply with instructions and meet the National Standard of Map Accuracy.

Reviewed by:

[Signature]

L. C. Lande

Approved by:

[Signature]

Charles Lewis

Chief, Photogrammetric Branch

[Signature]

Chief, Nautical Chart Division

[Signature]

Chief, Photogrammetry Division

7/11/64
**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>8-17-65</td>
<td>E. R. Johnson</td>
<td>Full Part Before After-Verification Review Inspection Signed Via Drawing No.</td>
</tr>
<tr>
<td>18427</td>
<td>3-24-80</td>
<td>S. M. Nielson</td>
<td>3-26-80 Rou</td>
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<td>18441</td>
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