**Form 504**

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

**DESCRIPTIVE REPORT**

**Type of Survey** Shoreline (Photogrammetric)

**Field No.** Ph-5905  **Office No.** T-11628

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**LOCALITY**

**State** Washington  
**General locality** Possession Sound  
**Locality** Tulalip Bay

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1959–1960  
**CHIEF OF PARTY**  
Lorne G. Taylor and Fred Natella

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**LIBRARY & ARCHIVES**

**DATE**  
April 1964
# Descriptive Report - Data Record

**T 11628**

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

**Field Office (II):** Mt. Vernon, Washington  
**Chief of Party:** Lorne G. Taylor  
**Unit Chief:** W. V. Hull  
**Officer-in-Charge:** Lorne G. Taylor  
& Fred Natella  
**Instructions dated (II) (III):** 10 Feb 1960 II  
**Supplement 1:** 5 May 1960 II & III  
**Copy filed in Division of Photogrammetry (IV):**

**Method of Compilation (III):** Graphic  
**Manuscript Scale (III):** 1:10,000  
**Stereoscopic Plotting Instrument Scale (III):**

**Scale Factor (III):** None  
**Date received in Washington Office (IV):**  
**NOV 6 1961**  
**Date reported to Nautical Chart Branch (IV):**

**Applied to Chart No.**

**Publication Scale (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 (5) refer to sounding datum  
i.e., mean low water or mean lower low water

**Reference Station (III):** ERODE, 1954

**Lat.:** 48° 02' 33.956"  
**Long.:** 122° 15' 39.288"  
**Adjusted X**

**Unadjusted**

**Plane Coordinates (IV):**

**Y =** 383,607.30  
**X =** 1,650,798.67  
**State:** Washington  
**Zone:** North

**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)
DESCRIPTIVE REPORT - DATA RECORD


Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

Mean High Water Location (III) (State date and method of location): 7-14-60 and 8-20-60 by field inspection and graphic compilation.

Projection and Grids ruled by (IV): R. A. C. Date: 10-7-60

Projection and Grids checked by (IV): J. D. C. Date: 10-14-60

Control plotted by (III): J. L. Harris Date: 1-13-61

Control checked by (III): L. L. Graves Date: 1-13-61

Radial Plot or Stereoscopic Control extension by (III):

Stereoscopic Instrument compilation (III): J. L. Harris Date: 2-14-61

Planimetry

Contours

Manuscript delineated by (III): J. L. Harris, Rough Draft Date: 2-27-61
D. N. Williams, Scribing 5-3-61
E. C. Harris, Stick-up 8-29-61

Photogrammetric Office Review by (III): C. C. Harris, Rough Draft Date: 3-13-61
J. E. Deal, Advance 10-5-61

Elevations on Manuscript checked by (II) (III):

Date:
DESCRIPTIVE REPORT - DATA RECORD

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

<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-L-9510</td>
<td>4-16-60</td>
<td>13:16</td>
<td>1:20,000</td>
<td>1.3' above M.L.L.W.</td>
</tr>
<tr>
<td>60199 and</td>
<td>60200</td>
<td>9-9-59</td>
<td>11:05</td>
<td>1:10,000</td>
</tr>
</tbody>
</table>

Note:
Infra-red photography was taken simultaneously with the nine-lens photographs.

Tide (III)

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

<table>
<thead>
<tr>
<th>Ratio of</th>
<th>Mean</th>
<th>Diurnal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranges</td>
<td>Range</td>
<td>Spring</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Range</td>
</tr>
<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):

Date:       

Final Drafting by (IV):

Date:       

Drafting verified for reproduction by (IV):

Date:       

Proof Edit by (IV):

Date:       

Land Area (Sq. Statute Miles) (III): 1.6
Shoreline (More than 200 meters to opposite shore) (III): 5.0
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 5
Number of BMs searched for (II): None
Number of Recoverable Photo Stations established (III): None
Number of Temporary Photo Hydro Stations established (III): 3

Remarks:

COMM. DC. 57842
FIELD INSPECTION REPORT
Map Manuscript T-11628
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-11554
PHOTOGRAPIETRIC PLOT REPORT

Map Manuscript T-11629

Project Ph-5905

Refer to the combined radial plot for T-11621, T-11622 and T-11628 thru T-11630 which is included in the Descriptive Report for T-11621.

Refer to Item 31, Delineation, of the Descriptive Report for T-11627 (1960) relative to horizontal control and methods used for the compilation Gedney Island.
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION</th>
<th>LATITUDE OR y-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>FORWARD</td>
<td>BACK</td>
</tr>
<tr>
<td>ERODE, 1954</td>
<td>Wash.N. P-317</td>
<td>383,607.30</td>
<td>3607.30 (1392.70)</td>
<td>1099.5 (424.5)</td>
</tr>
<tr>
<td>GEDNEY EAST 2, 1924</td>
<td>P-128</td>
<td>370,452.76</td>
<td>452.76 (4547.24)</td>
<td>138.0 (1386.0)</td>
</tr>
<tr>
<td></td>
<td>Office Comp.</td>
<td>1,660,457.81</td>
<td>457.81 (4542.19)</td>
<td>110.3 (1413.7)</td>
</tr>
<tr>
<td>Sub Station &quot;A&quot;</td>
<td></td>
<td>370,361.93</td>
<td>361.93 (4638.07)</td>
<td>110.3 (1413.7)</td>
</tr>
<tr>
<td>Sub Station &quot;B&quot;</td>
<td></td>
<td>1,660,240.20</td>
<td>240.20 (14759.80)</td>
<td>73.2 (1450.8)</td>
</tr>
<tr>
<td>RBN PAINE AFB EV, 1954</td>
<td>Wash.N. P-276</td>
<td>387,442.59</td>
<td>2442.59 (2557.41)</td>
<td>731.9 (192.1)</td>
</tr>
</tbody>
</table>

1 FT = 0.3048006 METER

COMPUTED BY: J.L.H. DATE 9-23-60 CHECKED BY: L.L.G. DATE 1-12-61
31. **Delineation:**

Graphic methods were used to compile the planimetry. Nine lens photographs were used for the shoreline and interior details in the northeast portion of the manuscript. Infrared single lens photographs were used for the compilation of Gedney Island. Refer to remarks under this heading in the Descriptive Report for T-11627 (1960).

32. **Control:**

Horizontal control was adequate.

33. **Supplemental Data:**

None.

34. **Contours and Drainage:**

Contours are not applicable.

Drainage was not field inspected. The location of Mission Creek was delineated by the compiler with reference to the U.S. G.S. Tulalip, Washington, 7½ minute quadrangle.

35. **Shoreline and Alongshore Details:**

The mean high-water line was spot located by field inspection and delineated by the compiler.

Foreshore areas could not be delineated for the northeast portion of the manuscript which was compiled from nine lens photographs taken when the tide was 9.4 ft. above M.L.L.W. The character of the foreshore area was furnished by field inspection and has been indicated by notes along the shoreline. The foreshore area and shallow area around Gedney Island were compiled from infrared photographs taken when the tide was 1.3 ft. above M.L.L.W.

Infrared photography was available which was taken simultaneously with the nine lens photography at 9.4 ft. above M.L.L.W. and was of no value for the interpretation of low-water areas.

No approximate low-water lines or shoal lines were compiled.
36. **Offshore Details:**

Numerous piling and dolphins are offshore in Tulalip Bay.

Data on rocks baring along the shoreline was furnished by the field inspector for the time of field inspection and was transcribed to the vertical datum of the manuscript by the compiler. The baring of the rock at triangulation station ERODE, 1924 was obtained from the description of the station.

37. **Landmarks and Aids:**

There are no aids to navigation.

Forms 567 are submitted recommending the charting of one nautical landmark.

38. **Control for Future Surveys:**

Three photo-hydro stations were selected and located at the compilation office. They are listed under Item 49. Notes to the Hydrographer.

39. **Junctions:**

Satisfactory junctions were made with T-11622 on the north, T-11627 on the west and T-11629 on the east. To the south is Possession Sound.

**Items 40, 46 and 47:**

Refer to the Descriptive Report for T-11627 (1960).

Approved:  
Respectfully submitted:

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

Three photo-hydro stations were selected and located during compilation.

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Field Photo No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2801</td>
<td>West corner bulkhead</td>
<td>60-L-9511</td>
</tr>
<tr>
<td>2802</td>
<td>Rock bares 6 ft. M.L.L.W.</td>
<td>&quot;</td>
</tr>
<tr>
<td>2803</td>
<td>Rock bares 7 ft. M.L.L.W.</td>
<td>&quot;</td>
</tr>
<tr>
<td>COMPILATION RECORD</td>
<td>COMPLETION DATE</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
PHOTOGRAMMETRIC OFFICE REVIEW

T. 11628


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. C.C. Harris Reviewer 41. J. Edward Deal Supervisor

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:**

- Gedney Island
- Hermosa Point
- Mission Creek
- Mission Beach
- Possession Sound
- Tulalip Bay
- Tulalip Indian Reservation
- White Bluff

[Signature]

*Geographic Names Section*

1 February 1963
61. **General Statement**

There are eight (8) 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>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-1388a</td>
<td>1:10,000</td>
<td>1872</td>
</tr>
<tr>
<td>T-1681</td>
<td>1:20,000</td>
<td>1885</td>
</tr>
<tr>
<td>T-1682</td>
<td>1:20,000</td>
<td>1885</td>
</tr>
<tr>
<td>T-1994</td>
<td>1:20,000</td>
<td>1886</td>
</tr>
</tbody>
</table>

Cultural and shoreline changes have been continuous with extensive cultural changes in the urban areas. These maps are supersede the above surveys for common area for nautical charting.

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

<table>
<thead>
<tr>
<th>Agency</th>
<th>Scale</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeland, Washington</td>
<td>1:24,000</td>
<td>1953</td>
</tr>
<tr>
<td>Langley, Washington</td>
<td>1:24,000</td>
<td>1956</td>
</tr>
<tr>
<td>Tulalip, Washington</td>
<td>1:24,000</td>
<td>1956</td>
</tr>
<tr>
<td>Marysville, Washington</td>
<td>1:24,000</td>
<td>1956</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>Year</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>
<tr>
<td>H-8753</td>
<td>1:10,000</td>
<td>1963</td>
</tr>
</tbody>
</table>

Shoreline and control of subject surveys was furnished prior to hydrography and 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>Year</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>1452</td>
<td>1:80,000</td>
<td>1963</td>
</tr>
</tbody>
</table>

There are only minor differences between the charts and the subject 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

[Signature]

Chief, Photogrammetry Division

[Signature]

4/7/64
## 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.

### CHART | DATE | CARTOGRAPHER | REMARKS
---|---|---|---
6445 | 1-16-65 | J. Hageac | Full Part Before After Verification Review Inspection Signed Via Drawing No. 


18449 | 2-14-80 | C. Jerome | Full Part Before After Verification Review Inspection Signed Via Drawing No. 

18433 | 2-14-80 | C. Jerome | Full Part Before After Verification Review Inspection Signed Via Drawing No. 


18410 | 3/12/81 | D.C. Larson | Full Part Before After Verification Review Inspection Signed Via Drawing No. 

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**Form C&GS-8352 Supercedes All Editions of Form C&GS-975.**