**Form 504**

**U. S. DEPARTMENT OF COMMERCE**

**COAST AND GEODETIC SURVEY**

## DESCRIPTIVE REPORT

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Shoreline (Photogrammetric)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field No.</td>
<td>Ph-5905</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-11633</td>
</tr>
</tbody>
</table>

### LOCALITY

<table>
<thead>
<tr>
<th>State</th>
<th>Washington</th>
</tr>
</thead>
<tbody>
<tr>
<td>General locality</td>
<td>Whidbey Island</td>
</tr>
<tr>
<td>Locality</td>
<td>Deer Lake</td>
</tr>
</tbody>
</table>

1960 - 1961

**CHIEF OF PARTY**

Fred Natella

### LIBRARY & ARCHIVES

**DATE**

April 1964
DESCRIPCIVE REPORT - DATA RECORD

T - 11633

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

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

Chief of Party: Lorne G. Taylor
Unit Chief: L. F. Van Scoy
Officer-in-Charge: Fred Natella

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

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Kelsh Stereoscopic 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): Date reported to Nautical Chart Branch (IV):

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

Publication Scale (IV):
Publication date (IV):

Geographic Datum (III): N.A., 1927
Vertical Datum (III):
Mean sea level except as follows: X
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): GLENDALE, 1954

Lat.: 47° 57' 21.044"
Long.: 122° 22' 41.889"

Adjusted X
Unadjusted

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

\[ Y = 352,461.93 \quad X = 1,621,451.25 \]

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

Field Inspection by (II): L. F. Van Scoy & R. B. Melby Date: April 1961

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

Mean High Water Location (III) (State date and method of location): There is no shoreline within limits of map manuscript.

Projection and Grids ruled by (IV): R.A.C. Date: 10-11-60

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

Control plotted by (III): L. L. Graves Date: 6-8-61

Control checked by (III): J. L. Harris Date: 7-20-61

Radial Plot or Stereoscopic Control extension by (III): J. D. Perrow Date: July 1961

Planimetry D. N. Williams Date: 8-4-61

Stereoscopic instrument compilation (III): Contours Date:

Manuscript delineated by (III): C. C. Harris, Scribing Date: 2-7-62
C. C. Harris, Stick-up 4-19-62

Photogrammetric Office Review by (III): J. L. Harris, Rough Draft Date: 10-24-61
J. E. Deal, Advance 6-21-62

Elevations on Manuscript checked by (II) (III): Date:
Camera (kind or source) (III): C&GS Camera "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-W-2156</td>
<td>9-21-60</td>
<td>13:40</td>
<td>1:30,000</td>
<td>Not applicable to this manuscript.</td>
</tr>
<tr>
<td>thru 2158</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tide (III)

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
</tr>
</thead>
</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): 13
Shoreline (More than 200 meters to opposite shore) (III): None
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 1 Recovered: 1 Identified: 1
Number of BMs searched for (II): None Recovered: None Identified: None
Number of Recoverable Photo Stations established (III): None
Number of Temporary Photo Hydro Stations established (III): None

Remarks:
FIELD INSPECTION REPORT
Map Manuscript T-11633
Project Ph-5905

21. Area Covered

The area covered in this report is in the vicinity of Possession Sound from Edmonds to Everett, Washington. Plani-metric surveys at 1:10,000 scale which cover this area are listed below.

T-11626 through T-11629
T-11633 through T-11636
T-11638, T-11639 and T-12073

22. Method

Horizontal control bridging was accomplished with the Zeiss Stereoplanigraph C-8. Bridge and tie points were established in each strip to facilitate Kelsh compilation and also tie adjacent or cross strips together. All strips were adjusted on the IBM 650 computer. See paragraph 26 for a discussion of the adjustment of each strip and list of photographs used.

23. Adequacy of Control

All horizontal control except Edmonds Holy Rosary Catholic Church Spire, 1961 was field identified. The horizontal control complied with the project instructions. All control held in the bridge adjustments.

24. Supplemental Data

Triangulation station Edmonds Holy Rosary Catholic Church Spire 1961 was office identified. An advance position and description of this station was obtained from the Portland field office and verified by selected quad points from a 1:24,000 scale quad.

25. Photography

The photography met all requirements as to coverage, overlap and definition.
Discussion of each Strip Adjustment

Strip # 12 (60-W-2116 through 2123)

A seven model bridge was adjusted using a four point solution with 3 stations as checks. The adjustment had a maximum error of 4.4 feet and an average error of 2.0 feet.

Strip # 13 (60-S-2530 through 2538)

A five model bridge was adjusted using a three point solution with 2 stations and 3 tie points as checks. The adjustment had a maximum error of 6.5 feet and an average error of 2.6 feet.

Strip # 14 (60-W-2153 through 2159)

A six model bridge was adjusted on a 3 point solution with 6 stations and 3 tie points as checks. The adjustment had a maximum error of 6.7 feet and an average error of 3.1 feet.

Submitted by:

John D. Ferrow, Jr.

Approved:

Everett H. Ramsey, Chief
Aerotriangulation Section
Puget Sound
PH 5905 - 6101
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION</th>
<th>DATUM</th>
<th>LATITUDE OR Y-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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Wash. N.</td>
<td>352,461.93</td>
<td>2461.93 (2538.07)</td>
<td>750.4</td>
<td>773.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-269</td>
<td>1,621,451.25</td>
<td>1451.25 (3548.75)</td>
<td>442.3</td>
<td>1081.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Office</td>
<td>352,546.61</td>
<td>2546.61 (2453.39)</td>
<td>776.2</td>
<td>747.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sub Sta. &quot;A&quot;</td>
<td>1,621,421.67</td>
<td>1421.67 (3578.33)</td>
<td>433.3</td>
<td>1090.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>352,719.94</td>
<td>2719.94 (2280.06)</td>
<td>829.0</td>
<td>695.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,621,363.25</td>
<td>1363.25 (3636.75)</td>
<td>415.5</td>
<td>1108.5</td>
</tr>
</tbody>
</table>

1 FT. = .3048006 METER

COMPUTED BY: J. E. D.  DATE: 5-4-61  CHECKED BY: C. H. B.  DATE: 5-4-61
COMPILATION REPORT
Map Manuscript T-11633
Project Ph-5905

31. Delineation:

The Kelsh Stereoscopic Instrument was used to compile the planimetry.

The entire area consists of interior details.

Field inspection was satisfactory, except for secondary roads and drainage. Any road that may have appeared visually to be private was completely disregarded without investigation. Reference to the U.S.G.S. quadrangle Maxwellton, Washington, will verify this condition. Intersections were added by the compiler to show that the roads do exist.

32. Control:

The identified horizontal control stations supplemented by the pass points located in the stereoplanigraph bridge were adequate for compilation on the Kelsh Instrument.

33. Supplemental Data:

Map of Island County, Washington, dated March 1958, Scale 1" = 1 mile, compiled by Island County Engineer, March 1958.

34. Contours and Drainage:

Contours are not applicable.

Drainage was partly field inspected. Additional drainage was delineated by the compiler with reference to the U.S.G.S. Maxwellton, Washington, quadrangle.

Items 35 thru 38:

Not applicable.

39. Junctions:

Satisfactory junctions were made with T-11626 on the north, T-11632 on the west, T-11634 on the east and T-11638 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 Maxwellton, 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, C&GS
49. Notes to the Hydrographer:

Not applicable.
<table>
<thead>
<tr>
<th>COMPILED RECORD</th>
<th>COMPLETION DATE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alongshore area for hydro</td>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td>4. Interior details added Compilation complete</td>
<td>4-19-62</td>
<td></td>
</tr>
</tbody>
</table>
PHOTOGRAMMETRIC OFFICE REVIEW
T. 11633

1. Projection and grids  
2. Title  
3. Manuscript numbers  
4. Manuscript size  

CONTROL STATIONS
5. Horizontal control stations of third-order or higher accuracy  
6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) None  
7. Photo hydro stations None  
8. Bench marks None  
9. Plotting of sextant fixes None  
10. Photogrammetric plot report  
11. Detail points  

ALONGSHORE AREAS
(Nautical Chart Data)
12. Shoreline None  
13. Low-water line None  
14. Rocks, shoals, etc. None  
15. Bridges None  
16. Aids to navigation None  
17. Landmarks None  
18. Other alongshore physical features None  
19. Other alongshore cultural features None  

PHYSICAL FEATURES
20. Water features  
21. Natural ground cover  
22. Planetary contours None  
23. Stereoscopic instrument contours None  
24. Contours in general None  
25. Spot elevations None  
26. Other physical features  

CULTURAL FEATURES
27. Roads  
28. Buildings  
29. Railroads None  
30. Other cultural features  

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

MISCELLANEOUS
33. Geographic names  
34. Junctions  
35. Legibility of the manuscript  
36. Discrepancy overlay None  
37. Descriptive/Report  
38. Field inspection photographs  
39. Forms  

40. James L. Harris  
(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:

M-2622-12
48. Geographic Names:
   Deer Lake
   Midvale Corner
   Miller Lake
   Whidbey Island

Geographic Names Section
30 January 1963
61. General Statement

There are nine (9) shoreline maps of Project PH-5905, Puget Sound, Washington. These maps were prepared primarily to provide basic maps, including the location of all nonfloating 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>Map Number</th>
<th>Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-1388 b</td>
<td>1:10,000</td>
<td>1872</td>
</tr>
<tr>
<td>T-1389 a &amp; b</td>
<td>1:10,000</td>
<td>1872</td>
</tr>
<tr>
<td>T-1552</td>
<td>1:20,000</td>
<td>1884</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-4276</td>
<td>1:10,000</td>
<td>1927</td>
</tr>
</tbody>
</table>

There are cultural and shoreline differences due to time interval. These maps are to supersede the above surveys of common area 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>Maxwelton, WA</td>
<td>1:24,000</td>
<td>1953</td>
</tr>
<tr>
<td>Mukileto, WA</td>
<td>1:24,000</td>
<td>1953</td>
</tr>
<tr>
<td>Everett, WA</td>
<td>1:24,000</td>
<td>1953</td>
</tr>
<tr>
<td>Hansville, WA</td>
<td>1:24,000</td>
<td>1953</td>
</tr>
</tbody>
</table>

There are cultural and shoreline changes due to the difference in survey dates.

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Nautical Charts

<table>
<thead>
<tr>
<th>Chart Number</th>
<th>Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>6448</td>
<td>1:40,000</td>
<td>Revised to Oct. 1959</td>
</tr>
<tr>
<td>6450</td>
<td>1:80,000</td>
<td>Revised to June 1963</td>
</tr>
<tr>
<td>184 S. C.</td>
<td>1:80,000</td>
<td>1963</td>
</tr>
</tbody>
</table>

There are no differences of importance between the charts and the subject manuscripts.
66. Adequacy 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

(Handwritten date: 4/8/4)
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>6448</td>
<td>1-18-65</td>
<td></td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
</tr>
<tr>
<td>185 5C</td>
<td>11-26-73</td>
<td>Cheadle</td>
<td>PART Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
</tr>
<tr>
<td>6448</td>
<td>10-4-78</td>
<td>Cortés</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. Consider fully applied</td>
</tr>
<tr>
<td>185 5C</td>
<td>12-7-78</td>
<td>Larson</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. 15</td>
</tr>
<tr>
<td>18411</td>
<td>4-24-80</td>
<td>R.A. Lillo</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. 49</td>
</tr>
<tr>
<td>18443</td>
<td>7-4-80</td>
<td>Bismar</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. Exam on the spot</td>
</tr>
<tr>
<td>18423</td>
<td>2-15-81</td>
<td>D.C. Larson</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. 21</td>
</tr>
<tr>
<td>18440</td>
<td>3-12-81</td>
<td>D. C. Larson</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. 33</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
</tr>
</tbody>
</table>

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.