Type of Survey: Shoreline (Photogrammetric)

Field No.: Ph-5905  Office No.: T-11591

Locality
State: Washington
General locality: Skagit Bay
Locality: North Fork Skagit River

1959-1960 CHIEF OF PARTY
Lorne G. Taylor & Fred Natella

LIBRARY & ARCHIVES
DATE: September 1964
DESCRIPTIVE REPORT - DATA RECORD

T - 11591

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

Photogrammetric Office (III): Portland, Oregon  Unit Chief: Wesley V. Hull
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): 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): X
Mean sea level except as follows:
Elevations shown as (2) refer to mean high water
Elevations shown as (g) refer to sounding datum
I.e., mean low water or mean lower low water

Reference Station (III): DELTA ROCK 3, 1939

Lat.: 48° 21' 09.968"  Long.: 122° 28' 12,576"

Adjusted X  Unadjusted

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

Y = 497,686.47  X = 1,602,927.01

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)
Field inspection by (II): W. V. Hull & R. B. Malby  
Date: April & July 1960

Planetable contouring by (II):  
Date:

Completion Surveys by (II):  
Date:

Mean High Water Location (III) (State date and method of location): 7-5-60 by field inspection, refinement by stereoscopic examination in office and compilation by 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: 10-3-60

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

Radial Plot or Stereoscopic Control extension by (III): J. L. Harris  
Date: 10-12-61

Stereoscopic Instrument compilation (III): Planimetry  
Contours  
Date:

Manuscript delineated by (III): J. I. Harris, Rough Draft  
Date: 6-9-61
J. L. Harris, Scribing  
9-19-61
C. C. Harris, Stick-up  
11-21-61

Photogrammetric Office Review by (III): C. C. Harris, Rough Draft  
Date: 6-15-61
J. E. Deal, Advance  
11-22-61

Elevations on Manuscript checked by (II) (III): None  
Date:
DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III):  C&GS Nine lens - focal length 8.25 inches.

PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
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</thead>
<tbody>
<tr>
<td>60008 thru</td>
<td>60010</td>
<td>9-9-59</td>
<td>08:56</td>
<td>1:10,000</td>
</tr>
<tr>
<td>60081 thru</td>
<td>60083</td>
<td></td>
<td>09:45</td>
<td></td>
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Note: The tide data available is not believed to be adequate for an accurate computation of tide for this part of Skagit Bay and for the North Fork Skagit River.

Tide (III)

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
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<tr>
<td></td>
<td>7.6</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>6.9</td>
<td>10.5</td>
</tr>
</tbody>
</table>

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

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): 3.6
Shoreline (More than 200 meters to opposite shore) (III): 9
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 11
Number of BMs searched for (II): 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-11591

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 11584
PHOTOGRAMMETRIC PLOT REPORT

Map Manuscript T-11591

Project Ph-5905

Refer to the combined radial plot report for T-11584 thru T-11586 and T-11589 thru T-11593 which is included in the Descriptive Report for T-11584 (1960).
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR Y-COORDINATE 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>SCALE FACTOR</th>
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</thead>
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<tr>
<td>Bald 2, 1907</td>
<td>Wash.N. Pg. 299</td>
<td>1927</td>
<td>504,468.70</td>
<td>4468.70 (531.30)</td>
<td>1362.1 (161.9)</td>
<td>910.7 (613.3)</td>
<td>None</td>
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<tr>
<td>Delta Rock 3, 1939</td>
<td>&quot; Pg. 294</td>
<td>&quot;</td>
<td>497,686.47</td>
<td>2686.47 (2313.53)</td>
<td>818.8 (705.2)</td>
<td>617.8 (906.2)</td>
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<tr>
<td>Diken, 1939</td>
<td>&quot; Pg. 294</td>
<td>&quot;</td>
<td>505,134.39</td>
<td>134.39 (4865.61)</td>
<td>41.0 (1483.0)</td>
<td>252.2 (1271.8)</td>
<td>None</td>
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<tr>
<td>Sullivan, 1939</td>
<td>&quot; Pg. 294</td>
<td>&quot;</td>
<td>504,936.77</td>
<td>4936.77 (63.23)</td>
<td>1504.7 (19.3)</td>
<td>958.1 (565.9)</td>
<td>None</td>
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<tr>
<td>Do Sub Station A</td>
<td>Office Comp.</td>
<td>&quot;</td>
<td>504,854.40</td>
<td>4854.40 (145.60)</td>
<td>1479.6 (44.4)</td>
<td>950.9 (573.1)</td>
<td>None</td>
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<tr>
<td>Do Sub Station B</td>
<td>&quot; Pg. 296</td>
<td>&quot;</td>
<td>505,027.89</td>
<td>27.89 (4972.11)</td>
<td>8.5 (1515.5)</td>
<td>984.2 (539.8)</td>
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<td>Top, 1907</td>
<td>Wash.N. Pg. 296</td>
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<td>500,950.15</td>
<td>950.15 (4049.85)</td>
<td>289.6 (1234.4)</td>
<td>1507.2 (16.8)</td>
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<tr>
<td>Kag, 1939</td>
<td>&quot; Pg. 294</td>
<td>&quot;</td>
<td>500,621.49</td>
<td>621.49 (4378.51)</td>
<td>189.4 (1334.6)</td>
<td>158.1 (1365.9)</td>
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</tbody>
</table>
31. **Delineation:**

Graphic methods were used to compile the planimetry.
Field inspection was adequate.
There are no areas incomplete.

32. **Control:**

Horizontal control was adequate.
Vertical control is not applicable.

33. **Supplemental Data:**

None.

34. **Contours and Drainage:**

Contours are not applicable.

Drainage was not field inspected. It was clearly visible on the photographs and was delineated with reference to the U.S.G.S. 7½ minute quadrangle Utsalady, Washington.

35. **Shoreline and Alongshore Details:**

These features were adequately field inspected and no difficulties were encountered. Where the mean high-water line was hidden by deep shadows on the photographs the shoreline was compiled from sextant fix locations furnished by the field unit.

The limits of the grass and water areas are detailed as they appear on photography taken close to mean high-water. They do not adequately depict the conditions in Skagit Bay. This bay, over its entire area on this manuscript, is believed to bare at low stages of tide. Refer to Nautical Charts 6450, 6376 & 6380.

The character of the foreshore is indicated by notes along the mean high-water line.
36. Offshore Details:

Numerous piling and dolphins are shown just offshore from the mean high-water line.

Several rocks which bare at mean high-water are shown in the vicinity of Ika Island and Craft Island.

37. Landmarks and Aids:

None.

38. Control for Future Surveys:

None.

39. Junctions:

Satisfactory junctions were made with T-11586 on the north, T-11590 on the west and T-11592 on the east. To the south is the water area of Skagit Bay and no junction is required.

40. Horizontal and Vertical Accuracy:

Vertical accuracy is not applicable.

There are no areas believed to be of sub-normal horizontal accuracy.

41. Comparison with Existing Maps:

Comparison was made with US.G.S. 7½ minute quadrangle Utsalady, Washington, Scale 1:24,000, edition 1956.
47. **Comparison with Nautical Charts:**

Comparison was made with Nautical Chart No. 6376, Scale 1:25,000, 1st Edition May 5th, 1945, Revised 6-27-60, hand corrected 7-29-60.

A few depths appear in the North Fork Skagit River and none in Skagit Bay. Apparently navigation in the area is confined to very shallow draft boats.

**Items to be applied to Nautical Charts Immediately:**

None.

**Items to be Carried Forward:**

None.

---

**Approved:**

Fred Natella, CAPT, C&GS
Portland District Officer

J. Edward Deal
Cartographer

**Respectfully submitted:**
49. Notes to the Hydrographer:

None.
<table>
<thead>
<tr>
<th>COMPILATION RECORD</th>
<th>COMPLETION DATE</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>4 Interior Details Added</td>
<td>11/22/61</td>
<td>Compilation complete</td>
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<tr>
<td></td>
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</tbody>
</table>
PHOTOGRAMMETRIC OFFICE REVIEW

T-11591

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 ✓
13. Low-water line ✓
14. Rocks, shoals, etc. ✓
15. Bridges None
16. Aids to navigation None
17. Landmarks None
18. Other alongshore physical features ✓
19. Other alongshore cultural features ✓

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. [Signatures]
   Reviewer
   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.

43. Remarks:
48. **Geographic Names:**

- Bald Island
- Craft Island
- Dodge Valley
- Fir Island
- Fish Town
- Ika Island
- North Fork Skagit River
- Pleasant Ridge
- Skagit Bay
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

T-1252  1:10,000  1871
T-2156  1:20,000  1889
T-2856  1:20,000  1908
T-6684b  1:10,000  1939
T-6685a&b  1:10,000  1939
T-6686  1:10,000  1939
T-6687  1:5,000   1939
T-6689  1:5,000   1939
T-6769  1:10,000  1940

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

Deception Pass  1:62,500  1951
Utsalady      1:24,000  1956
Conway        1:24,000  1956

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:
L. C. Lande

Approved by:
Charles Thompson
Chief, Photogrammetric Branch

Chief, Photogrammetry Division

Chief, Nautical Chart Division
## 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>
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</thead>
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<td>8-17-65</td>
<td>G. R. Johnson</td>
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