
Form 804
U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey
Shoreline

Field No. Pn-5807 Office No. T-10871

LOCALITY
State Oregon & Washington
General locality Columbia River
Locality Arlington Airport

1959
CHIEF OF PARTY
Lorne G. Taylor, Photogrammetric Office

LIBRARY & ARCHIVES
DATE May 1962
DESCRIPTIVE REPORT - DATA RECORD

T - 10871

Project No. (II): Ph-5807  Quadrangle Name (IV):

Field Office (II): Arlington, Oregon  Chief of Party: Lorne G. Taylor
Photogrammetric Office (III): Bortland, Oregon  Unit Chief: K. W. Jeffers
Instructions dated (II) (III): Undated  Officer-in-Charge: Lorne G. Taylor
Field and Office Modification: Letter 73/rrj dated 9 March 1959
Letter 831/es dated 12 March 1959
Letter 732/rrj dated 21 May 1959

Method of Compilation (III): Kelsh Stereoscopic Instrument

Manuscript Scale (III): 1:10,000  Stereoscopic Plotting Instrument Scale (III): 1:6,000
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): 23 June 1961

Publication Scale (IV):

Geographic Datum (III): N.A. 1927

Reference Station (III): ARLE (USE) 1942

Lat.: 45° 44' 48.874"  Long.: 120° 09' 05.021"  Adjusted X
Unadjusted

Plane Coordinates (IV):

Y = 758,598.70  X = 2,088,996.62

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.
DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II):
C. H. Bishop (Shoreline)  Date: 4-9-59
W. V. Hull (Interior)  Sept. 1959

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 on 4-9-59 on single lens ratio prints taken 8-28-58 and delineated by Kelsh Stereoscopic Instrument on models of same photography. The shoreline is the normal gradient of the Columbia River at 110,000 cfs.

Projection and Grids ruled by (IV):  P. Dempsey  Date: 8-4-59
Projection and Grids checked by (IV):
Shoup

Control plotted by (III):
J. L. Harris  Date: 8-19-59

Control checked by (III):
C. C. Harris  Date: 9-14-59

Radial Plot or Stereoscopic
Control extension by (III):
John D. Perrou, Jr.  Date: June 1959

Stereoscopic Instrument compilation (III):
Planimetry  D. N. Williams  Date: 9-28-59
Contours

Manuscript delineated by (III):
D. N. Williams (Scribing)  Date: 12-15-59
L. L. Graves (Stick-up)  2-1-60

Photogrammetric Office Review by (III):
J. L. Harris (rough draft)  Date: 10-6-59
J. E. Deal (advance)  3-30-60

Elevations on Manuscript checked by (II) (III):
None  Date:
Camera (kind or source) (III): U.S.C.&.GS. Single lens 58 S

PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage or Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>58 S 7702A &amp; 7703A</td>
<td>8-28-58</td>
<td>10:22</td>
<td>1:30,000 contact, 1:10,000 ratio</td>
<td>159.8' above M.S.L. Arlington Gage was 107,000 cfs.</td>
</tr>
</tbody>
</table>

Reference Station:
Subordinate Station: Not Applicable
Subordinate Station:

Washington Office Review by (IV): J. Streifler
Final Drafting by (IV): Portland Photogrammetric Office
Drafting verified for reproduction by (IV): J. Streifler
Proof Edit by (IV): J. Streifler

Land Area (Sq. Statute Miles) (III): 10
Shoreline (More than 200 meters to opposite shore) (III): 2 statute miles
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): None

Remarks:
SUMMARY

to accompany Shoreline Map Manuscripts
T-10870 through T-10885

The sixteen (16) subject surveys represent the eastern portion of project Ph-5807. The project consists of forty-nine (49) shoreline surveys of the Columbia River (Ore.-Wash.) from Bonneville eastward to Umatilla and was designed to aid in the construction of a new series of nautical charts. T-10870 thru T-10885 extend from Arlington to Umatilla, which are covered by a stereoplaniograph bridging plot done in the Washington Office in June 1959.

The map manuscripts were compiled by Kelsh stereoscopic instruments in the Portland Photogrammetric Office from photography of August 1958 and field inspection information (shoreline - April 59, interior - September 59).

The completed compilations as submitted to the Washington Office are the result of adequately scribed sheets and suitable for the direct reproduction of registration copies.

A cronar film positive at the compilation scale of 1:100,000 and the Descriptive Report of each will be registered and filed in the Bureau Archives.

May 1961
FIELD INSPECTION REPORT

Map Manuscript T010871

Project Ph-5807

Refer to Field Inspection Report for T-10870 thru T-10875 which is included in the Descriptive Report for T-10870 (1959).
PHOTOGRAMMETRIC PLOT REPORT

Map Manuscript T-10871

Project Ph-5807

Refer to the Photogrammetric Plot Report (Stereoplanigraph Bridge) for T-10870 thru T-10885 which is included in the Descriptive Report for T-10870 (1959).
**STATION** | **SOURCE OF INFORMATION (INDEX)** | **DATUM** | **LATITUDE OR y-COORDINATE** | **DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS** | **DISTANCE CORRECTION** | **N.A. 1927 - DATUM** | **FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS** |
---|---|---|---|---|---|---|---|
Arlington Airport | Oreg. N. | N.A. | 746,759,52 | 3759,52 (1260,48) | 1145,9 (378,1) | 1412 (1382,8) |
Beacon, 1942 | Pg. 73 | 1927 | 2080,463,28 | 463,28 (4536,72) | 141,2 (1382,8) |
ARLE (USE) 1942 | " | " | 758,598,70 | 3598,70 (1401,30) | 1096,9 (427,1) |
DO | " | " | 2088,996,62 | 3996,62 (1003,38) | 1218,2 (305,8) |
Sub Station "A" | " | " | 758,711,38 | 3711,38 (1288,62) | 1131,2 (392,8) |
DO | " | " | 2088,969,08 | 3969,08 (1030,92) | 1209,8 (314,2) |
Sub Station "B" | " | " | 758,754,54 | 3754,54 (1265,46) | 1144,4 (379,6) |
AVIS (USE) 1942 ** | " | " | 2089,053,81 | 4053,81 (946,19) | 1235,6 (288,4) |
AVIS (USE) 1942 ** | " | " | 769,112,03 | 4912,03 (87,97) | 1497,2 (26,8) |
AVIS (USE) 1942 ** | " | " | 2085,536,25 | 536,25 (4463,75) | 163,4 (1360,6) |

**Note:** This station was inadvertently omitted from the manuscript when the triangulation was plotted.
31. **Delineation:**

The Kelsh Stereoscopic Instrument was used to compile the planimetry.

The C&GS photography of 8-28-58 was adequate to compile the planimetry to the detail limits indicated on the project index.

Refer to last paragraph Item 31, Delineation of the Descriptive Report for T-10837 (1959).

32. **Control:**

Refer to the Photogrammetric Plot Report (Stereoplanigraph Bridge) T-10870 thru T-10885 which is included in the Descriptive Report for T-10870 (1959).

33. **Supplemental Data:**

None.

34. **Contours and Drainage:**

Contours are not applicable.

The drainage shown on the manuscript was delineated from field inspection notes supplemented by minute examination of the Kelsh models for drainage and by visual inspection of the U.S.G.S. topographic quadrangle, "Arlington", Oreg. - Wash., Scale 1:125,000, published 1948.

35. **Shoreline and Alongshore Details:**

The shoreline shown on this map manuscript is at the normal river gradient of 110,000 cfs flow. A graph showing this gradient from which the elevation of the shoreline may be determined for any place along the river is shown on the manuscript.

Refer to correspondence included in the Descriptive Report for T-10837 (1959) for a detailed report on this feature.
36. **Offshore Details:**

Refer to remarks under this heading in the Descriptive Report for T-10865 (1959).

37. **Landmarks and Aids:**

Form 567 was submitted to Washington on 1 Dec. 1959 for one aeronautical aid. There are no nautical aids or landmarks within the area of this manuscript.

38. **Control for Future Surveys:**

None.

39. **Junctions:**

A satisfactory junction was made on the west with T-10869 and on the north with T-10870. There are no contemporary surveys to the south and east.

40. **Horizontal and Vertical Accuracy:**

Refer to remarks under this item in the Descriptive Report for T-10837 (1959).

46. **Comparison with Existing Maps:**

Comparison was made with U.S.G.S. 30 minute "Arlington", Oreg. - Wash., quadrangle, Scale 1:125,000, edited 1916 reprinted 1948.

47. **Comparison with Nautical Charts:**

Refer to remarks under this heading in the Descriptive Report for T-10853 (1959).

---

Approved:

Lorne G. Taylor
CDR, C&GS
Officer-in-Charge

Respectfully submitted:

J. Edward Deal
Cartographer
C&GS
48. GEOGRAPHIC NAMES LIST

Arlington Municipal Airport
*Columbia River
Columbia River Hwy.
Gilliam County
Klickitat County
Oregon
Union Pacific R.R.
Washington
*B.G.N. Decision

George M. Lee
GEOGRAPHIC NAMES SECTION
17 MAY 1960
49. Notes to the Hydrographer:

No recoverable topographic stations or photo-hydro stations were located.
PHOTOGRAMMETRIC OFFICE REVIEW
T-10871

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)  
7. Photo hydro stations  
8. Bench marks  
9. Plotting of sextant fixes  
10. Photogrammetric plot report  
11. Detail points  

ALONGSHORE AREAS
(Nautical Chart Data)
12. Shoreline  
13. Low-water line  
14. Rocks, shoals, etc.  
15. Bridges  
16. Aids to navigation  
17. Landmarks  
18. Other alongshore physical features  
19. Other along-shore cultural features  

PHYSICAL FEATURES
20. Water features  
21. Natural ground cover  
22. Planetary contours  
23. Stereoscopic instrument contours  
24. Contours in general  
25. Spot elevations  
26. Other physical features  

CULTURAL FEATURES
27. Roads  
28. Buildings  
29. Railroads  
30. Other cultural features  

BOUNDARIES
31. Boundary lines  
32. Public land lines  

MISCELLANEOUS
33. Geographic names  
34. Junctions  
35. Legibility of the manuscript  
36. Discrepancy overlay  
37. Descriptive Report  
38. Field inspection photographs  
39. Forms  
40. 

Reviewer 

J. EDWARD DAVIS
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:
REVIEW REPORT OF
SHORELINE MAP MANUSCRIPTS T-10870 through T-10885
May 1961

62. Comparison with Registered Topographic Surveys:
There are no registered topographic surveys of this area.

63. Comparison with Maps of Other Agencies:
BLALOCK IS., ORE.–WASH. 1:125,000, 1906, U.S. Geological Survey
UMATILLA, ORE.–WASH. 1:125,000, 1908, U.S. Geological Survey

Because of scale difference a detailed comparison is impractical.

64. Comparison with Contemporary Hydrographic Surveys:
There are no contemporary hydrographic surveys of subject area.

65. Comparison with Nautical Charts:
The first nautical charts of this portion of the Columbia River are
being constructed now. Incomplete compilations are not available
for comparison.

66. Adequacy of Results and Future Surveys:
T-10870 through T-10885 have been compiled according to instructions
and meet the adequacy and accuracy requirements for this type of
survey.

Reviewed by:

Josef J. Streiffer

Approved by:

K. Lande
Chief, Review & Drafting Sec.
Photogrammetry Division

Maurice T. Paulson
Chief, Nautical Chart Division

Chief, Photogrammetry Div.

Chief, Operations Division
### Record of Application to Charts

<table>
<thead>
<tr>
<th>DATE</th>
<th>CHART</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Before After Verification and Review</td>
</tr>
</tbody>
</table>

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

**Give reasons for deviations, if any, from recommendations made under “Comparison with Charts” in the Review.**