## Descriptive Report

**Type of Survey:** Shoreline  
**Field No.:** Ph-5807  
**Office No.:** T-10851  

### Locality

- **State:** Oregon & Washington  
- **General locality:** Columbia River  
- **Locality:** Fivemile Creek  

### Chief of Party

Lorne G. Taylor, Photogrammetric Office  
K.W. Jeffers, Portland Photo. Office  
LIBRARY & ARCHIVES  

**Date:** May 1962
DESCRIPTIVE REPORT - DATA RECORD

T - 10851

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

Field Office (II): The Dalles, Oregon  Chief of Party: Lorne G. Taylor
Photogrammetric Office (III): Portland, Oregon  Unit Chief: K. W. Jeffers
Instructions dated (II) (III): Undated  Officer-in-Charge: Lorne G. Taylor
Field and Office  Copy filed in Division of Photogrammetry (IV)
Modification: Letter 73/rrj dated 9 March 1959
Letter 83/es dated 12 March 1959
Letter 732/rrj dated 21 May 1959

Method of Compilation (III): Kelsh Stereoscopic Instrument
Viewing Scale 1:6000
Stereoscopic Plotting Instrument Scale (III): 1:10,000
Pantograph Scale 1:10,000

Manuscript Scale (III): 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: Date registered (IV): 22 Aug 1961

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927
Vertical Datum (III): There is no river area within limit of this manuscript
Elevations shown as (25) refer to mean high water
Elevations shown as (6) refer to mean low water
I.e., mean high water=mean high water of this manuscript

Reference Station (III): UTHE, 1939

Lat.: 45° 39' 48.305"  Long.: 121° 09' 53.167"
Adjusted x
Unadjusted

Plane Coordinates (IV): State: Oregon  Zone: North
Y = 728,662.87  X = 1,830,039.88

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): K. W. Jeffers
Date: June 1959

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 the limits of this manuscript.

Projection and Grids ruled by (IV): P. Dempsey
Date: 4-1-59

Projection and Grids checked by (IV): Shoup
Date: 4-10-59

Control plotted by (III): L. L. Graves
Date: 5-6-59

Control checked by (III): J. L. Harris
Date: 5-7-59

Radial Plot or Stereoscopic Control extension by (III):
Robert Feuschel
Date: May 1959

Stereoscopic Instrument compilation (III):
Planimetry D. N. Williams
Date: 7-7-59
Contours
Date:

Manuscript delineated by (III): J. L. Harris (Scribing)
Date: 11-23-59
L. L. Graves (Stick-up)
1-21-60

Photogrammetric Office Review by (III): J. L. Harris (Rough Draft)
Date: 7-9-59
J. E. Deal (Advance)
1-25-60

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

COMM-DC-57842
**DESRIPTIVE REPORT - DATA RECORD**

**Camera (kind or source) (III):** U.S.C. & G.S. Single lens 58-S

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Tide (III)</th>
</tr>
</thead>
<tbody>
<tr>
<td>58-S-7792A,</td>
<td>8-28-58</td>
<td>11:20</td>
<td>1:30,000 (contact)</td>
<td>Not applicable on this manuscript</td>
</tr>
<tr>
<td>7816A &amp; 7817A</td>
<td>8-28-58</td>
<td>11:40</td>
<td>1:10,000 (ratio)</td>
<td></td>
</tr>
</tbody>
</table>

**Reference Station:** Not applicable

**Subordinate Station:**

<table>
<thead>
<tr>
<th>Subordinate Station</th>
<th>Washington Office Review by (IV):</th>
<th>Final Drafting by (IV):</th>
<th>Drafting verified for reproduction by (IV):</th>
<th>Proof Edit by (IV):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Streifler</td>
</tr>
</tbody>
</table>

**Land Area (Sq. Statute Miles) (III):** 12

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): 4

Recovered: 1

Identified: None

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:
These eleven (11) shoreline surveys are a part of EE-5207.

The project covers the Columbia River and adjacent land areas of Oregon and Washington from Bonsallville southward to Umatilla. It was designed to aid in the revision of present navigational charts and in the construction of new charts from the Dalles Dam upstream to the Walla Walla Dam. Subject Tidemarks extend from the vicinity of Mount Hood Island southward to Miller Island.

A stereoplanigraphic bridging plot of T-10047 through T-10057 was done in the Washington Office in February 1959 (see separate report). They were compiled by stereoscopic instruments (Hillocks Plotter) in the Portland Photogrammetric Office in the latter part of 1959 from photography of August 1958 and field inspection information of March and May 1959.

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

A premium film positive at the compilation scale of 1:10,000 and the Descriptive Report of each will be registered and filed in the Bureau Archives.

FIELD INSPECTION REPORT

Sheets 10851, 10853 & 10855
Project Ph-5807

2. Areal Field Inspection:

The area covered by this report includes a portion of the Columbia River from just east of The Dalles Dam to just west of the railroad bridge at Celilo, Oregon. Both shores of the Columbia River are in the area, but most of the interior coverage is on the Washington side.

Woodland cover is almost entirely lacking throughout the area. Some of the more gentle slopes are under cultivation, but most of the area is grazing land.


There are no incorporated towns within the area. Two unincorporated communities in the area are Murdock and Smithville in Washington.

Photo coverage was complete and adequate for the entire area.

3. Horizontal Control:

(a) Five supplemental third order control stations were established at this time:

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>10853</td>
<td>Big Eddy Light</td>
</tr>
<tr>
<td>10853</td>
<td>Five Mile Rapids Light</td>
</tr>
<tr>
<td>10853</td>
<td>Five Mile Locks Light</td>
</tr>
<tr>
<td>10853</td>
<td>Memaloose Island Light</td>
</tr>
<tr>
<td>10855</td>
<td>Mile 7 Light</td>
</tr>
</tbody>
</table>

(b) No datum adjustments were made in the field.

(c) Stations of other agencies were not recovered. The recovery done in 1958 met the minimum requirements in project instructions for the control of compilation.
(d) A search was made for all triangulation stations shown on the control diagram, with the exception of the following two stations which were recovered and occupied by an airport survey party in the area:

UTE, 1939
T2N, R13E, SECTIONS 27 AND 34 QUARTER CORNER (U.S.E.)

(e) The following stations have been reported as destroyed:

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>10851</td>
<td>Dalles Radio Range, Center Antenna Pole, 1939</td>
</tr>
<tr>
<td>10851</td>
<td>Flagpole on Small Butte, 1939</td>
</tr>
<tr>
<td>10851</td>
<td>Portland-Spokane Airway Beacon No. 7-B, 1939</td>
</tr>
<tr>
<td>10853</td>
<td>White Tank with Green Roof, 1939, Apex</td>
</tr>
</tbody>
</table>

4. Vertical Control:
   Not applicable.

5. Contours and Drainage:
   Contours are not applicable.

   Drainage has been delineated on the photographs wherever it is obscure in interior regions that were accessible by truck, and along the Columbia River where visible from a skiff.

6. Woodland Cover:

   Woodland cover is almost entirely lacking. Some trees are found along streams and have been noted on the photographs.

7. Shoreline and Alongshore Features:
   (a) through (c) Water Levels and Shoreline

   The river level and shoreline depend on the volume of runoff and the rate of flow controlled at The Dalles Dam.

   The photographs were taken on 28 and 30 August 1958. Listed below are actual river levels at two locations in or near the area at the time of photographs.

<table>
<thead>
<tr>
<th>Location</th>
<th>Normal River Level on 28 &amp; 30 Aug. 1958</th>
<th>Actual River Level on 28 &amp; 30 Aug. 1958</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Dalles Forebay Gage</td>
<td>160.0 feet</td>
<td>159.8 feet</td>
</tr>
<tr>
<td>Celilo Gage</td>
<td>160.4 feet</td>
<td>160.2 feet</td>
</tr>
</tbody>
</table>
Because of the steep gradient of the shore in most of the area, a 0.2 foot change in the river level causes negligible displacement of the shoreline so the shoreline at the time of photography may be considered the same as that of normal river level.

Low gradient features such as mud flats, sand bars, and shoals have been noted on the photographs. Foul areas have been sketched on the photographs.

(d) Bluffs and cliffs along both shores of the Columbia River have been noted on the photographs and estimated heights given.

(e) There are no docks, wharves, or piers in the area. There is one small boat launching site on the Columbia River at the south end of Horse Thief Lake as indicated on photograph 58-S-7802A.

(f) There are no submarine cables in the area.

(g) There are no other shoreline structures in the area.

8. Offshore Features:

Estimated heights along with time and date of inspection are noted on the photographs for all offshore rocks. The limits of offshore foul areas have also been sketched on the photographs.

9. Landmarks and Aids:

(a) No landmarks for nautical charts were selected.
(b) No interior landmarks were selected.
(c) There are no aeronautical aids in the area.
(d) There are five fixed aids to navigation in the area.

<table>
<thead>
<tr>
<th>Aid</th>
<th>Photographs</th>
<th>Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Eddy Light (triangl 1959)</td>
<td>58-S-7801A</td>
<td>10853</td>
</tr>
<tr>
<td>Five Mile Lock Light</td>
<td>58-S-7802A</td>
<td>10853</td>
</tr>
<tr>
<td>(triangl., 1959)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five Mile Rapids Light</td>
<td>58-S-7801A</td>
<td>10853</td>
</tr>
<tr>
<td>(triangl., 1959)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memaloose Island Light</td>
<td>58-S-7783A</td>
<td>10853</td>
</tr>
<tr>
<td>(triangl., 1959)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mile 7 Light (triangl., 1959)</td>
<td>58-S-7782A</td>
<td>10855</td>
</tr>
</tbody>
</table>
(e) There are six floating aids to navigation in the area.

<table>
<thead>
<tr>
<th>Aid</th>
<th>Photographs</th>
<th>Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memaloose Island Buoy 2</td>
<td>58-S-7802A</td>
<td>10853</td>
</tr>
<tr>
<td>Memaloose Island Buoy 4</td>
<td>58-S-7783A</td>
<td>10853</td>
</tr>
<tr>
<td>Avery Buoy 5</td>
<td>58-S-7782A</td>
<td>10855</td>
</tr>
<tr>
<td>Browns Island Buoy 6</td>
<td>58-S-7782A</td>
<td>10855</td>
</tr>
<tr>
<td>Avery Lighted Buoy 7</td>
<td>58-S-7781A</td>
<td>10855</td>
</tr>
<tr>
<td>Dillon Buoy 8</td>
<td>58-S-7781A</td>
<td>10855</td>
</tr>
</tbody>
</table>

10. **Boundaries, Monuments, and Lines:**

The area falls entirely within Klickitat County on the Washington side and Wasco County on the Oregon side.

There are no incorporated towns within the area. Two unincorporated communities are Murdock and Smithville, Washington.

11. **Other Control:**

Five objects were pricked on the photographs as photo-topo stations for use in locating buoys by sextant fixes:

<table>
<thead>
<tr>
<th>Station</th>
<th>Photographs</th>
<th>Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. P. &amp; S. Railway Signal Control Box</td>
<td>58-S-7802A</td>
<td>10853</td>
</tr>
<tr>
<td>S. P. &amp; S. Railway Signal Control Box</td>
<td>58-S-7782A</td>
<td>10855</td>
</tr>
<tr>
<td>Top of Concrete Drainage Flume</td>
<td>58-S-7782A</td>
<td>10855</td>
</tr>
<tr>
<td>U. P. R. R. Signal 916 Control Box</td>
<td>58-S-7782A</td>
<td>10855</td>
</tr>
<tr>
<td>U. P. R. R. Signal 941 Control Box</td>
<td>58-S-7781A</td>
<td>10855</td>
</tr>
</tbody>
</table>

12. **Other Interior Features:**

There are no other interior features in the area.

13. **Geographic Names:**

Geographic names are the subject of two special reports: Geographic Names Report, Part 1, Columbia River, Bonneville to The Dalles; Geographic Names Report, Part 2, Columbia River, The Dalles to Umatilla.

14. **Special Reports and Supplemental Data:**

(a) Geographic Names Report, Part 1, Columbia River, Bonneville To The Dalles, forwarded in March, 1959.

Approved:

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

Respectfully submitted:

K. William Jeffers
LTJG, C&GS
PHOTOGRAMMETRIC PLOT REPORT

Map Manuscript T-10851

Project Ph-5807

Refer to the Photogrammetric Plot Report (Stereoplanigraph Bridge) for T-10847 thru T-10857 which is included in the Descriptive Report for T-10847 (1959).
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</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>UTHE, 1939</td>
<td>Oreg. N.</td>
<td>N.A.</td>
<td>728,662.87</td>
<td>3662.87 (1337.13)</td>
<td>1116.4 (407.6)</td>
</tr>
<tr>
<td></td>
<td>Pg. 29</td>
<td>1927</td>
<td>1,830,039.88</td>
<td>39.88 (4960.12)</td>
<td>12.2 (1551.8)</td>
</tr>
</tbody>
</table>

1 FT = 0.3048006 METER

COMPUTED BY: J.E.D.  DATE: 7-2-59  CHECKED BY: J.L.H.  DATE: 7-2-59
COMPILATION REPORT
Map Manuscript T-10851
Project Ph-5807

31. **Delineation:**

The Kelsh Stereoscopic Instrument was used to compile the planimetry.

The C&GS photography was adequate to compile the planimetry to the limits indicated on the project index.


32. **Control:**

Refer to remarks in the Photogrammetric Plot Report (Stereoplanigraph Bridge) T-10847 thru T-10857 which is included in the Descriptive Report for T-10847 (1959).

33. **Supplemental Data:**

None.

34. **Contours and Drainage:**

The drainage shown on the manuscript was delineated from field inspection notes supplemented by minute examination of the Kelsh model for drainage and by visual inspection of the U.S.G.S. 15 minute topographic quadrangle "The Dalles, Oreg. - Wash." Scale 1:62,500, published 1957.

35. **Shoreline and Alongshore Details:**

Not applicable.

36. **Offshore Details:**

Not applicable.

37. **Landmarks and Aids:**

None.
38. Control for Future Surveys:
   None.

39. Junctions:
   Satisfactory junctions were made on the east with T-10853, on the south with T-10852 and on the west with T-10849 and a portion of T-10850. There is no contemporary survey to the north.

40. Horizontal and Vertical Accuracy:
   Refer to remarks under this heading in the Descriptive Report for T-10837 (1959) page 22.

46. Comparison with Existing Maps:
   Comparison was made with U.S.G.S. 15 minute "The Dalles" Wash - Oreg. quadrangle, Scale 1:62,500, published 1957.

47. Comparison with Nautical Charts:
   Not applicable.

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

Respectfully submitted:  
J. Edward Deal  
Cartographer  
C&GS
GEOGRAPHIC NAMES LIST

Fivemile Creek
Lewis & Clark Highway
Murdock
Smithville

George M. Baer

GEOGRAPHIC NAMES SECTION
MARCH 1960
PHOTOGRAMMETRIC OFFICE REVIEW
T-10851


CONTROL STATIONS

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

CULTURAL FEATURES

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

MISCELLANEOUS

40. 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:

COAD-OC 34529
63. Comparison with Registered Topographic Surveys

There are no registered topographic surveys of this area.

64. Comparison with Maps of Other Agencies


A detailed comparison is impractical because of scale difference. However, several disagreements in shoreline delineation are apparent.

66. Comparison with Contemporary Hydrographic Surveys

There are no contemporary hydrographic surveys of subject area.

65. Comparison with Nautical Charts

6197  1:60,000  Revised to March 1961

There are shoreline differences between these surveys, which should be considered in the future revision of chart 6197. Additional navigational aids have been installed since the field inspection of the T-charts in 1959 and that are shown on the nautical chart. The surveys, however, are in agreement with their accompanying light lists.

The eastern portion of this group of T-charts is not covered by existing nautical charts. A new series of nautical charts of the upper Columbia River is being constructed now and at the time of the Washington Office Review, not available for comparison.

66. Accuracy of Results and Future Surveys

T-1057 through T-10897 have been compiled according to instructions and meet the adequacy and accuracy requirements for this type of survey.
<table>
<thead>
<tr>
<th>DATE</th>
<th>CHART</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1962</td>
<td>6157</td>
<td>J. W. Daily</td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td>1-21-66</td>
<td>6158</td>
<td>H. Lockman</td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td>3/21/79</td>
<td>8531B</td>
<td>B. James</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.