

10876

Orig.

Diag. Cht. No. 6157 Inset.

Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY DESCRIPTIVE REPORT	
Type of Survey	Shoreline
Field No.	Ph-5807
Office No.	T-10876
LOCALITY	
State	Oregon & Washington
General locality	Columbia River
Locality	Crow Butte
<u>1959</u> CHIEF OF PARTY Lorne G. Taylor, Photogrammetric Office	
LIBRARY & ARCHIVES	
DATE	May 1962

USCOMM-DC 5087

10876
92801

DESCRIPTIVE REPORT - DATA RECORD

T- 10876

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

Field Office (II): Umatilla, Oregon Chief of Party: Lorne G. Taylor

Unit Chief: K. W. Jeffers

Photogrammetric Office (III): Portland, Oregon Officer-in-Charge: Lorne G. Taylor

Instructions dated (II) (III): Undated Copy filed in Division of
Field and Office Photogrammetry (IV)

Modification: Letter 73/rrj dated 9 March 1959

Letter 83les 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): 1:6000

Viewing Scale

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): Publication date (IV):

Geographic Datum (III): N.A. 1927

Refer to datum pro-

Vertical Datum (III): file on manuscript

Mean sea level except as follows:

Elevations shown as (25) refer to mean-high-water

Elevations shown as (2) refer to sounding datum

i.e., mean-low-water or mean-lower-low-water

U. S. Engineers Columbia River
Low-Water Profile

Reference Station (III): ROCK (USE) 1942

Lat.: 45° 50' 02.546"

Long.: 119° 51' 17.656"

Adjusted X
Unadjusted

Plane Coordinates (IV):

State: Oregon Zone: North

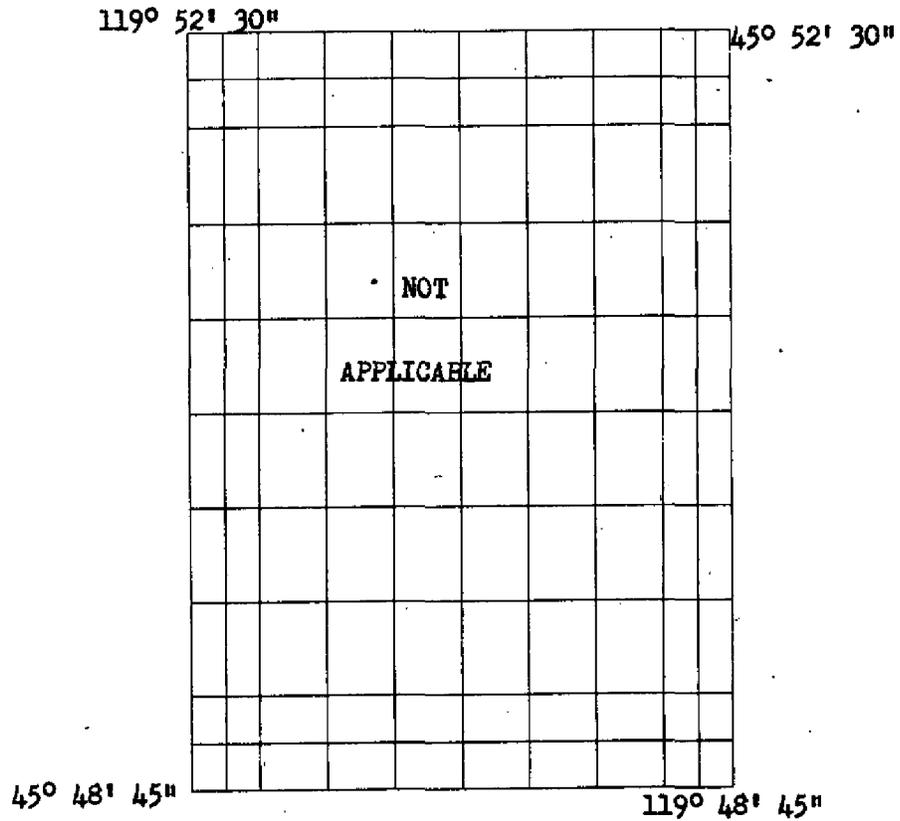
Y= 790,834.33

X= 2,164,433.69

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



Areas contoured by various personnel
(Show name within area)
(II) (III)

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): R. B. Melby (Shoreline) Date: 4-13-59
W. V. Hull (Interior) Sept. 1959

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

~~Mean High Water~~ **Shoreline** Location (III) (State date and method of location): Located by field inspection on 4-13-59 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. J. Dempsey Date: 8-1-59

Projection and Grids checked by (IV): Shoup Date: 8-3-59

Control plotted by (III): J. L. Harris Date: 8-25-59

Control checked by (III): C. C. Harris Date: 9-28-59

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

Stereoscopic Instrument compilation (III): Planimetry L. L. Graves Date: 10-8-59

Contours Date:

Manuscript delineated by (III): J. L. Harris (Scribing) Date: 12-24-59
D. N. Williams (Stick-up) 1-28-60

Photogrammetric Office Review by (III): J. L. Harris (Rough Draft) Date: 10-13-59
J. E. Deal (Advance Complete) 3-31-60

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

DESCRIPTIVE REPORT - DATA RECORD

5.

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

Number	Date	PHOTOGRAPHS (III)		Scale	The Dalles Dam Stage of Tide (forebay)
		Time			
58-S-7629A thru 7631A	8-28-58	9:25		1:30,000 contact 1:10,000 ratio	159.8 ft above M.S.L.
*58-S-7660	8-28-58	9:41		DO	Flow at Arlington Gage & Paterson Gage was 107,000 cfs.

*Used for field inspection only

Tide (III)

Reference Station:
Subordinate Station: **Not Applicable.**
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV):

S. Streifler

Date: *March 1961*

Final Drafting by (IV):

Portland Paterson Office

Date: *Dec. 59 - March 60*

Drafting verified for reproduction by (IV):

S. Streifler

Date: *March 1961*

Proof Edit by (IV):

S. Streifler

Date: *June 1961*

Land Area (Sq. Statute Miles) (III): **11**
 Shoreline (More than 200 meters to opposite shore) (III): **7 statute miles**
 Shoreline (Less than 200 meters to opposite shore) (III): **None**
 Control Leveling - Miles (II):
 Number of Triangulation Stations searched for (II): **3** Recovered: **3** Identified: **1**
 Number of BMs searched for (II): **None** Recovered:
 Number of Recoverable Photo Stations established (III): **1** Identified:
 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 stereoplanigraph 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 1:40,000 and the Descriptive Report of each will be registered and filed in the Bureau Archives.

May 1961

FIELD INSPECTION REPORT

Map Manuscripts T-10876 thru T-10881

Project Ph-5807

2. Areal Field Inspection:

The area covered by this report includes a portion of the Columbia River from about two miles west of Castle, Oregon to a point about one mile west of Paterson, Washington. Interior coverage is about equally divided between the Oregon and Washington sides of the river.

There is no woodland cover within the area with the exception of a few trees along the banks of the Columbia River and along other drainage features. There are numerous truck farms on the flat irrigated lands along the Columbia River and the remainder of the area is grazing land.

The major transportation routes on the Oregon side are the Union Pacific Railroad and U. S. Highway 30. In the vicinity of Messner these routes turn inland and vehicular traffic can continue up the river on U. S. Highway 730 and Oregon State Highway 32. The major routes on the Washington side are the Spokane, Portland and Seattle Railway and Washington State Highway 8.

Boardman, Oregon is the only incorporated town in the area. Three unincorporated communities in the area are as follows:

Castle and Messner, Oregon
Whitcomb, Washington

Photo coverage was not complete for the interior on sheets 10878, 10879 and 10881. However, photo coverage did span both sides of the Columbia River and extended inland for sufficient distance to be considered adequate.

3. Horizontal Control:

- (a) No supplemental control was established at this time.
- (b) No datum adjustments were made in the field.
- (c) Stations of other agencies were not recovered.

(d) The recovery done in 1958 met the minimum requirements in project instructions for the control of compilation.

One additional station was identified on the photographs at this time:

<u>Station</u>	<u>Photo</u>	<u>Sheet</u>
COYOTE, 1947	58-S-7611A	10878

(e) All Coast and Geodetic Survey stations were searched for.

The following station is listed as destroyed:

BOARDMAN (U.S.E.) 1942

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 the skiff.

The main irrigation canal for the Oregon Land and Water Company has been indicated on the photographs. There is a myriad of small canals leading off the main canal in the vicinity of Boardman, Oregon. The larger and more prominent of these have been indicated on the photographs.

6. Woodland Cover:

There is no woodland cover within the area with the exception of a few trees along the banks of the Columbia River and along other drainage features.

7. Shoreline and Alongshore Features:

(a) through (c) - Water Levels and Shoreline

The level and shoreline of the river depend on the volume of runoff.

The photographs were taken on 28 August 1958 when the rate of flow at Paterson was 107,000 cfs. Since the adopted normal river level is that corresponding to a rate of flow of 110,000 cfs, 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 a graded beach, small boat launching site shown on photo 58-S-7629A. There is a stone jetty and small boat concrete launching ramp at Boardman. These features are shown on photo 58-S-7664A.

(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 the time and date of inspection are noted on the photographs for all offshore rocks and sand bars. The limits of offshore foul areas and rapids have also been sketched on the photographs.

9. Landmarks and Aids:

(a) No landmarks for charts were selected at this time.

(b) No interior landmarks were selected. Buildings have been circled and classified on the photographs in accordance with Photogrammetric Instructions 54, dated 2 January 1958.

(c) There are no aeronautical aids in the area.

(d) There are twenty fixed aids to navigation in the area.

<u>Aid</u>	<u>Photograph</u>	<u>Sheet</u>
Canoe Encampment Rapids Range 2 Front Light 1959 (Permanent Structure)	58-S-7629A	10876
Canoe Encampment Rapids Range 2 Rear Light 1959 (Permanent Structure)	"	"
Alderdale Range 4 Front Light 1959 (Temporary Structure)	58-S-7627A	10877

<u>Aid</u>	<u>Photograph</u>	<u>Sheet</u>
Alderdale Range 4 Rear Light 1959 (Permanent Structure)	58-S-7627A	10877
Canoe Encampment Rapids Range 1 Front Light 1959 (Temporary Structure)	"	"
Canoe Encampment Rapids Range 1 Rear Light 1959 (Temporary Structure)	"	"
Mile 65 Range Front Light 1959 (Permanent Structure)	"	"
Mile 65 Range Rear Light 1959 (Temporary Structure)	"	"
Mile 66 Range Front Light 1959 (Permanent Structure)	" "	"
Mile 66 Range Rear Light 1959 (Temporary Structure)	"	"
Miller Drift Range 1 Front Light 1959 (Temporary Structure)	58-S-7663A	"
Miller Drift Range 1 Rear Light 1959 (Temporary Structure)	"	"
Miller Drift Range 2 Front Light 1959 (Temporary Structure)	"	10879
Miller Drift Range 2 Rear Light 1959 (Temporary Structure)	"	"
Canoe Encampment Rapids Range 2.5 Front Light 1959 (Temporary Structure)	"	"
Canoe Encampment Rapids Range 2.5 Rear Light 1959 (Temporary Structure)	"	"
Canoe Encampment Rapids Range 3 F Front Light 1959 (Permanent Structure)	"	"
Canoe Encampment Rapids Range 3 Rear Light 1959 (Temporary Structure)	"	"
Messner Range Front Light 1959 (Temporary Structure)	58-S-7666A	10881
Messner Range Rear Light 1959 (Temporary Structure)	"	"

The elevation of some of the fixed aids have been determined by rough measurement with a handlevel. Those values have been noted on the photographs.

(e) There are two floating aids to navigation in the area:

<u>Aid</u>	<u>Photograph</u>	<u>Sheet</u>
Canoe Encampment Cut Buoy 28	58-S-7663A	10877
Canoe Encampment Cut Buoy 30	"	"

10. Boundaries, Monuments and Lines:

The area falls entirely within Morrow County, Oregon and Klickitat and Benton Counties in Washington.

Boardman, Oregon is the only incorporated town in the area. The corporate limits are shown on photograph 58-S-7664A. Three unincorporated communities in the area are as follows: Castle and Messner in Oregon and Whitcomb in Washington.

The approximate boundary of the bombing and gunnery range near Castle, Oregon has been shown on photographs 58-S-7631A and 7629A. This conforms closely to the limits as posted on the ground.

Two sets of limits are shown on U.S.G.S. Blalock Island Quadrangle sheet. Those in red follow section lines as shown on a map at the control office at the bombing range. We believe these limits to be offset one mile to the south from the correct geographic position. The limits in blue are those believed to be correct.

11. Other Control:

Four photo-topo stations were selected and pricked on the photographs:

<u>Station</u>	<u>Photograph</u>	<u>Sheet</u>
Point A 1959	58-S-7664A	10879
Point B 1959	"	"
Point C 1959	"	"
North Gable, Pump House at Cemetery, 1959	"	"

Azimuth points for all ranges were located by sextant fix. The fix for each azimuth point is recorded on the back of the photograph on which the corresponding range has been pricked.

12. Other Interior Features:

There is an air strip on the bombing and gunnery range near Castle. This strip is restricted to use by the U. S. Air Force and U. S. Navy. No beacons or other aids to air navigation are evident.

13. Geographic Names:

Geographic names are the subject of a special report: Geographic Names Report, Part 2, Columbia River, The Dalles to Umatilla, forwarded in June, 1959.

14. Special Reports and Supplemental Data:

Geographic Names Report, Part 2, Columbia River, The Dalles to Umatilla, forwarded in June 1959.

Approved:

for Fred Hatalla
Lorne G. Taylor
CDR, C&GS
Officer in Charge

Respectfully submitted:

for Edward Neal
K. William Jeffers
LTJG, C&GS
Unit Chief

PHOTOGRAMMETRIC PLOT REPORT

Map Manuscript T-10876

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).

COMPILATION REPORT

Map Manuscript T-10876

Project Ph-5807

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:

Refer to copy of U.S.G.S. Blalock Island, Oreg.-Wash. 30 minute quadrangle, Scale 1:125,000, published 1906 for U. S. Bombing Range boundary.

Refer to county maps of Klickitat County and Benton County, Washington; and Morrow County, Oregon for county boundaries.

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, "Blalock Island", Oreg.-Wash., Scale 1:125,000, published 1906.

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 December 1959 for one fixed aid to navigation.

38. Control for Future Surveys:

One fixed aid to navigation located by Kelsh Instrument is listed under Item 49, Notes to the Hydrographer.

39. Junctions:

A satisfactory junction was made with T-10875 on the west and T-10877 on the east. There are no contemporary surveys to the north and south.

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 "Blalock Island" Oreg.-Wash. quadrangle, Scale 1:125,000, published 1906.

47. Comparison with Nautical Charts:

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

Approved:

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

Respectfully submitted:

J. Edward Deal
J. Edward Deal
Cartographer
C&GS

48. GEOGRAPHIC NAMES LIST

Benton County

Castle

Castle Rock

*Columbia River

Columbia River Hwy.

Crow Butte

Klickitat County

Morrow County

Oregon

Spokane, Portland & Seattle R..R.

Union Pacific R.R.

Washington

* B.G.N. Decision

George D. Baker
GEOGRAPHIC NAMES SECTION
17 MAY 1960

PHOTOGRAMMETRIC OFFICE REVIEW

T-10876

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

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) X 7. Photo hydro stations None 8. Bench marks None 9. Plotting of sextant fixes None 10. Photogrammetric plot report X 11. Detail points X

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

27. Roads X 28. Buildings X 29. Railroads X 30. Other cultural features X

BOUNDARIES

31. Boundary lines X 32. Public land lines None

MISCELLANEOUS

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

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:

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:

ARLINGTON, ORE.-WASH. 1:125,000, 1916, U.S. Geological Survey
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. Streifler
Josef J. Streifler

Approved by:

L.C. Lande
Chief, Review & Drafting Sec.
Photogrammetry Division

Merritt T. Paulson
Chief, Nautical Chart Division

J. E. Waugh 4/26/62
Chief, Photogrammetry Div.

G. E. Mast 6/19/62
Chief, Operations Division

