

# 10873

*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-10873
LOCALITY	
State	Oregon and Washington
General locality	Columbia River
Locality	Heppner Junction
1959	
CHIEF OF PARTY	
Lorne G. Taylor, Photogrammetric Office	
LIBRARY & ARCHIVES	
DATE	May 1962

USCOMM-DC 5087

# 10873

DESCRIPTIVE REPORT - DATA RECORD

T - 10873

Project No. (II): Ph-5807

Quadrangle Name (IV):

Field Office (II): Arlington, 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  
Field and Office

Copy filed in Division of  
Photogrammetry (IV)

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

Viewing Scale

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): 1:6000

Pantograph Scale

Scale Factor (III): None

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 (5) 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): LOWS (USE) 1942

Lat.: 45° 46' 57.425"

Long.: 120° 02' 49.248"

Adjusted X  
Unadjusted

Plane Coordinates (IV):

State: Oregon

Zone: North

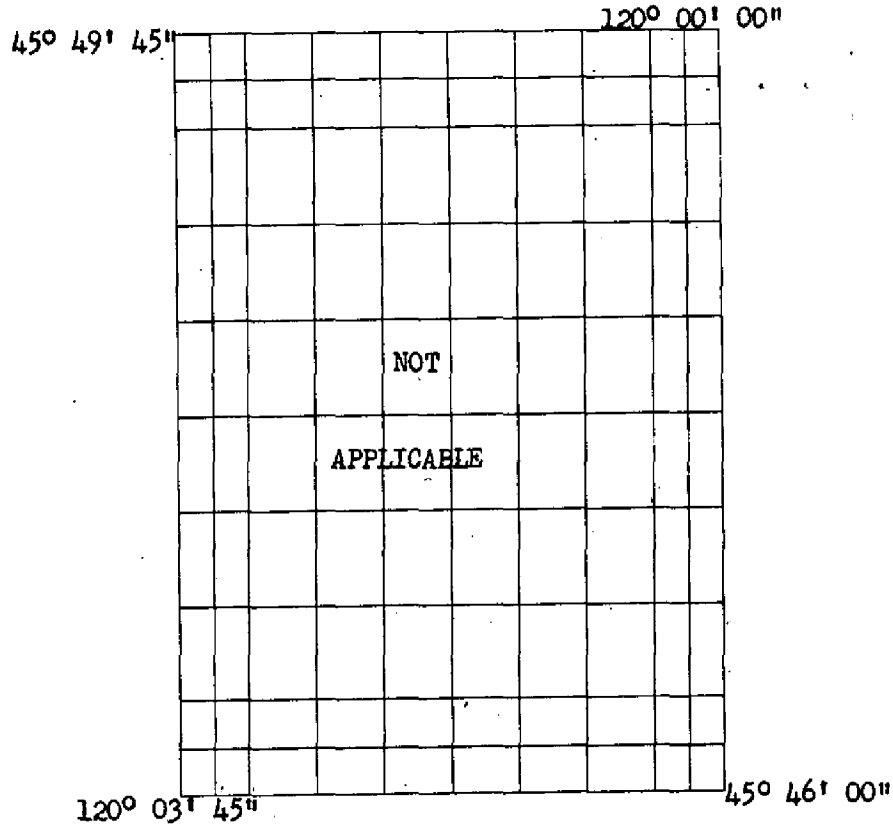
Y= 773,751.22

X= 2,115,571.24

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  
W. V. Hull

Date: 4-10-59  
Sept. 1959

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Shoreline

~~Water Edge~~ Location (III) (State date and method of location): Located by field inspection on 4-10-59 on single lens ratio prints taken 8-28-58 and delineated by Kelsh Stereoscopic Instrument on this photography. The shoreline is the normal gradient of the Columbia River at 110,000 cfs.

Projection and Grids ruled by (IV):

P. Dempsey

Date: 6-30-59

Projection and Grids checked by (IV):

Shoup

Date: 8-3-59

Control plotted by (III):

J. L. Harriid (Pass Points)

Date: 8-24-59

Control checked by (III):

C. C. Harris

Date: 9-25-59

Radial Plot or Stereoscopic  
Control extension by (III):

John D. Perrow, Jr.

Date: June 1959

Stereoscopic Instrument compilation (III):

Planimetry D. N. Williams

Date: 9-29-59

Contours None

Date:

Manuscript delineated by (III):

W. V. Hull (Scribing)  
D. N. Williams (Stick-up)

Date: 12-21-59  
1-25-60

Photogrammetric Office Review by (III):

C. C. Harris (Rough Draft)  
J. E. Deal (Advance)

Date: 10-6-59  
3-31-60

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

None

Date:

DESCRIPTIVE REPORT - DATA RECORD

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

The Dalles Dam  
(Forebay)  
~~Stage of Tide~~

Number	Date	PHOTOGRAPHS (III) Time	Scale	
58-S-7637A & 7638A	8-28-58	9:30	1:30,000 Contact 1:10,000 Ratio	159.8' above M.S.L. Flow at Arlington Gage was 107,000 cfs.
*58-S-7653A & 7654A	8-28-58	9:30	DO	

\*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 Photogram. 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): **6 Statute miles**

Shoreline (Less than 200 meters to opposite shore) (III): **0.5 " "**

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): **3** Recovered: **2** Identified: **1**

Number of BMs searched for (II): **None** Recovered: Identified:

Number of Recoverable Photo Stations established (III): **2**

Number of Temporary Photo Hydro Stations established (III): **None**

Remarks:

6

**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 coronar 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 Manuscript T-10873

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-10873

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).



U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
DESCRIPTIVE REPORT  
CONTROL RECORD

MAP T-10873 PROJECT NO. Ph-5807 SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
LOWS (USE) 1942	Oreg. N1	N.A.	771,751.22	1751.22	(3248.78)		533.8	(990.2)	
	Pg. 73	1927	2,115,571.24	571.24	(4428.76)		174.1	(1349.9)	
DO		"	771,843.71	1843.71	(3156.29)		562.0	(962.0)	
Sub Station "A"		"	2,115,459.57	459.57	(4540.43)		140.1	(1383.9)	
DO		"	771,734.05	1734.05	(3265.95)		528.5	(995.5)	
Sub Station "B"		"	2,115,589.41	589.41	(4410.59)		179.7	(1344.3)	
WILLOWS (USE) 1942		"	764,497.36	4497.36	(502.64)		1370.8	(153.2)	
			2,121,221.74	1221.74	(3778.26)		372.4	(1151.6)	
									9.
									copy of data

## COMPILATION REPORT

Map Manuscript T-10873

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:

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 12 October 1959 listing the scaled geographic position of one fixed aid to navigation. There are no aeronautical aids or landmarks within the area of this manuscript.

38. Control for Future Surveys:

One object was located by Kelsh Instrument as a recoverable topographic station. The aid to navigation mentioned in Item 37 and this object are listed in Item 49: Notes to the Hydrographer.

39. Junctions:

A satisfactory junction was made on the west with T-10872 and on the east with T-10874. There are no contemporary surveys to the north and south.

40. Horizontal and Vertical Control:

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

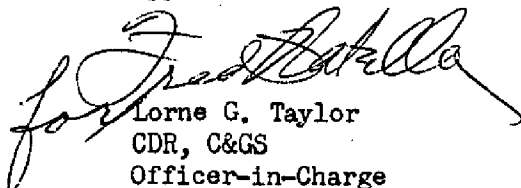
46. Comparison with Existing Maps:

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

Alder Ridge

\*Columbia River  
Columbia River Hwy.

Gilliam County

<sup>e</sup>Happner Junction

Klickitat County

Oregon

Spokane, Portland & Seattle R.R.

Union Pacific R.R.

Washington  
Willows  
Willow Creek

\* B.G.N. Decision

*George M. Ball*  
GEOGRAPHIC NAMES SECTION

47 May 1960

49. Notes to the Hydrographer:

Form 567 has been submitted listing the scaled geographic position of one fixed aid to navigation which was located by Kelsh Instrument:

Pine Creek Range 1 Rear Light, 1959

One other object was located by Kelsh Instrument:

West Gable; maroon roofed shack, 1959

PHOTOGRAMMETRIC OFFICE REVIEW

T-10873

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.

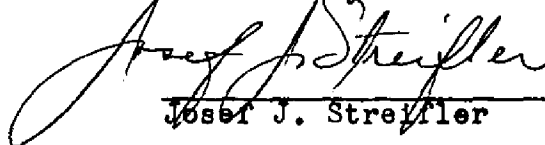
65. Comparison with Nautical Charts:

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

Approved by:

  
Chief, Review & Drafting Sec.  
Photogrammetry Division

  
Chief, Nautical Chart Division

  
Chief, Photogrammetry Div.

  
Chief, Operations Division

# NAUTICAL CHARTS BRANCH

SURVEY NO. T-10873

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review

M-2168-1

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.