

# 10856

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-10856

### LOCALITY

State Oregon and Washington

General locality Columbia River

Locality Wishram, Washington

19 58-59

### CHIEF OF PARTY

L.G.Taylor, Chief of Party

K.W.Jeffers, Portland Photo. Off.

### LIBRARY & ARCHIVES

DATE May 1962

USCOMM-DC 5087

# 10856

DESCRIPTIVE REPORT - DATA RECORD

T - 10856

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

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

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): 1:6000

Scale Factor (III): None

Viewing Scale  
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): 18 Aug 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~~

From 160.0 ft. above M.S.L. at the  
Dalles Dam forebay and upstream at the  
gradient of Celilo Lake Pool as of the  
date of photography, 28 Aug. 1958.

Reference Station (III): 148 L (USE) 1916

Lat.: 45° 39' 05.911"

Long.: 121° 56' 54.087"

Adjusted X  
Unadjusted

Plane Coordinates (IV):

State: Oregon

Zone: North

Y= 723,987.98

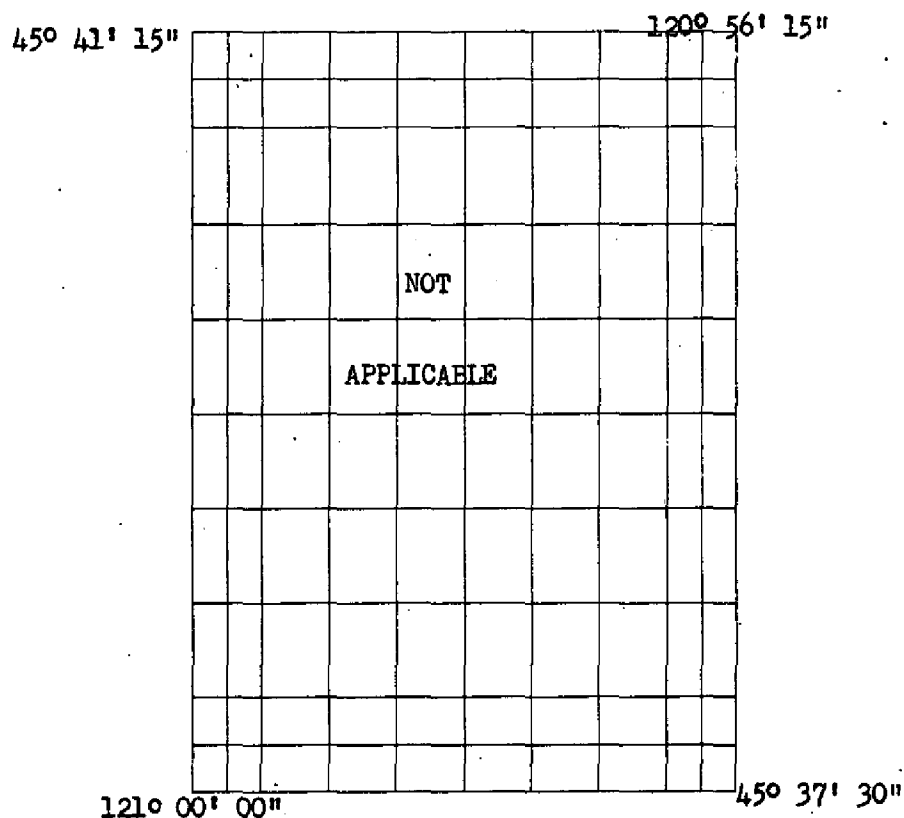
X= 1,885,344.77

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

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY



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

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): C. H. Bishop (shoreline)  
K. W. Jeffers (interior)

Date: 3-19 & 20-59  
June 1959

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Shoreline

~~Mean High Water~~ Location (III) (State date and method of location): Located by field inspection on 3-19 & 20-59 on single lens ratio prints taken 8-28-58 and delineated by Kelsh Stereoscopic Instrument on this photography. The shoreline is the gradient of Celilo Lake Pool from 160.0 ft. normal pool level at The Dalles Dam forebay and proceeding upstream at the pool gradient of 28 Aug. 1958, the date of photography.

Projection and Grids ruled by (IV): P. Dempsey

Date: 4-16-59

Projection and Grids checked by (IV): Shoup

Date: 4-20-59

Control plotted by (III): J. L. Harris

Date: 5-12-59

Control checked by (III): J. E. Deal

Date: 5-12-59

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

Date: May 1959

Planimetry L. L. Graves  
Stereoscopic Instrument compilation (III):  
Contours

Date: 7-23-59

Date:

Manuscript delineated by (III): W. V. Hull (Scribing)  
D. N. Williams (Stick-up)

Date: 11-27-59  
1-8-60

Photogrammetric Office Review by (III): J. L. Harris  
J. E. Deal

Date: 8-3-59  
1-28-60

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

Date:

## DESCRIPTIVE REPORT - DATA RECORD

5.

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

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

Number	Date	PHOTOGRAPHS (III)		Scale	The Dalles Dam Stage of Tide (forebay)
		Time			
58-S-7778A thru 7780A	8-28-58	11:10		1:30,000 (contact) 1:10,000 (ratio)	158.8' above M.S.L.

## Tide (III)

Reference Station: Not applicable  
Subordinate Station:  
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Date:

Date:

Date:

Date:

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

Shoreline (More than 200 meters to opposite shore) (III): 6

Shoreline (Less than 200 meters to opposite shore) (III): None

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 10\*

Recovered: 7

Identified: 5

Number of BMs searched for (II): None

Recovered:

Identified:

Number of Recoverable Photo Stations established (III): 4

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

## Remarks:

\* 2 are Fixed Aids to Navigation with U.S.E. positions

3 were located in 1959

6

SUMMARY  
TO ACCOMPANY SHORELINE MAP MANUSCRIPTS  
T-10847 through T-10857

These eleven (11) shoreline surveys are a part of PH-5807. The project covers the Columbia River and adjacent land areas of Oregon and Washington from Bonneville eastward to Umatilla. It was designed to aid in the revision of present nautical charts and in the construction of new charts from the Dalles Dam upstream to the McNary Dam. Subject T-sheets extend from the vicinity of Nemaloose Island eastward to Miller Island.

A stereoplanigraph bridging plot of T-10847 through T-10857 was done in the Washington Office in February 1959 (see separate report). They were compiled by stereoscopic instruments (Kelsh 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 scribed sheets and suitable for the direct reproduction of registration copies.

A cronar 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.

July 1961

## FIELD INSPECTION REPORT

Sheets 10856, 10857 &amp; 10858

Project Ph-5807

2. Areal Field Inspection:

The area covered by this report includes a portion of the Columbia River from just west of the railroad bridge at Celilo, Oregon, to Maryhill, Washington. Interior coverage is about equally divided between the Oregon and Washington sides of the river.

There is no woodland cover in the area, with the exception of a few trees growing along drainage features. Some of the more gentle slopes are under cultivation, but most of the area is grazing land.

The major transportation routes are the Spokane, Portland and Seattle Railway, U. S. Highway 830 and 197, and U. S. Highway 97 on the Washington side, and the Union Pacific Railroad, Oregon Trunk Railroad, U. S. Highway 30, and U. S. Highway 97 of the Oregon side.

There are no incorporated towns within the area. Eight unincorporated communities in the area are as follows: Wishram Heights, Wishram, and Maryhill, in Washington; Celilo, Moody, Miller, Biggs, and Biggs Junction in Oregon.

• Photo coverage was complete and adequate for the entire area.

3. Horizontal Control:

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

<u>Station</u>	<u>Sheet</u>
AVERY, 1959	10856
Horseshoe Falls Light	10856
Celilo Light	10856

(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) The following stations have been reported lost or destroyed:

<u>Station</u>	<u>Sheet</u>
WEST, 1916	10856
149 L (USE) Ecc. 1916	10856
149 L (USE) 1916	10856
EAST, 1916	10857
Portland-Pendleton Airway Beacon No. 9	10857
SOUTH, 1916	10857

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.

6. Woodland Cover:

There is no woodland cover in the area. 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 August 1958. Listed below are actual river levels at two locations in the area at the time of photography:

<u>Location</u>	<u>Normal River Level</u> <u>on 28 Aug. 1958</u>	<u>Mean of</u> <u>Actual River Level</u> <u>on 28 Aug. 1958</u>
Celilo Gage	160.4 feet	160.18 feet
Miller	160.4 feet	160.28 feet

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 are several small boat launching sites on the Deschutes River, indicated on photo 58-S-7736A, and there is a small boat ramp at Maryhill, indicated on photo 58-S-7733A.

(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) One landmark for charts was selected at this time, elevation and height determinations are given on the back of the photograph:

<u>Landmark</u>	<u>Photograph</u>	<u>Sheet</u>
Elevator 1959	58-S-7775A	10858

(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 seventeen fixed aids to navigation in the area:

<u>Aid</u>	<u>Photograph</u>	<u>Sheet</u>
Horseshoe Falls Light (triang.1959)	58 S 7779A	10856
Celilo Light (triang.1959)	58 S 7779A	10856
South Channel Range 1 Front Light (U.S.C.E. Triang., 1957)	58 S 7778A	10856
South Channel Range 1 Rear Light (U.S.C.E. Triang. 1957)	58 S 7778A	10856
Hells Gate Range 1 Front Light (U.S.C.E. Triang. 1957)	58 S 7776A	10857

<u>Aid</u>	<u>Photograph</u>	<u>Sheet</u>
Hells Gate Range 1 Rear Light (U.S.C.E. Triang., 1957)	58 S 7776A	10857
South Channel Range 2 Front Light (U.S.C.E. Triang., 1957)	58 S 7736A	10857
South Channel Range 2 Rear Light (U.S.C.E. Triangl, 1957)	58 S 7736A	10857
South Channel Range 3 Front Light (U.S.C.E. Triang., 1957)	58 S 7736A	10857
South Channel Range 3 Rear Light (U.S.C.E. Triang., 1957)	58 S 7736A	10857
South Channel Daybeacon 3	58 S 7736A	10857
South Channel Daybeacon 7	58 S 7775A	10857
Biggs Rapids Range Rear Light (U.S.C.E. Triang., 1957)	58 S 7776A	10857
Biggs Rapids Range Front Light (U.S.C.E. Triang., 1957)	58 S 7776A	10858
Hells Gate Range 2 Front Light (U.S.C.E. Triang., 1957)	58 S 7775A	10858
Hells Gate Range 2 Rear Light (U.S.C.E. Triang., 1957)	58 S 7775A	10858
Biggs Rapids Light (U.S.C.E. Triang., 1957)	58 S 7733A	10858

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

<u>Aid</u>	<u>Photograph</u>	<u>Sheet</u>
Railroad Bridge Approach Buoy 10	58 S 7780A	10856
South Channel Buoy 2	58 S 7736A	10857
South Channel Buoy 4	58 S 7736A	10857
South Channel Buoy 5	58 S 7736A	10857
Hells Gate Rapids Buoy 13	58 S 7776A	10857
Hells Gate Rapids Buoy 15	58 S 7776A	10858
Biggs Rapids Buoy 16	58 S 7775A	10858
Biggs Rapids Buoy 17	58 S 7775A	10858

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

The area falls entirely within Klickitat County on the Washington side, and Sherman and Wasco Counties on the Oregon side. The Sherman-Wasco County line follows the center of the Deschutes River.

There are no incorporated towns within the area.

11. Other Control:

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

<u>Station</u>	<u>Photograph</u>	<u>Sheet</u>
Southeast Corner, Small Buff		
Colored House	58 S 7780A	10856
West Cable Drum on North Tower		
Celilo Railroad Bridge	58 S 7779A	10856
Celilo Gage	58 S 7779A	10856
Old Celilo Gage	58 S 7779A	10856
Point on Range with South		
Channel Range 2	58 S 7784A	10857
Pump House on Miller Island	58 S 7778A	10857
Point on Line with South		
Channel Range 1	58 S 7736A	10857
Miller Gage	58 S 7736A	10857
Point on Range with		
Hells Gate Range 2	58 S 7776A	10857
East Gable, Biggs Railroad		
Depot 1959	58 S 7775A	10858
South Gable, Green-roofed Shack 1959	58 S 7775A	10858
Scale 1959	58 S 7733A	10858

Three azimuth points for ranges were located by sextant fix, and the fixes recorded on the back of the photographs:

<u>Position</u>	<u>Photograph</u>	<u>Sheet</u>
Point on Range with		
Hells Gate Range 1	58 S 7778A	10857
Point on Range with South Channel		
Range 3	58 S 7776A	10858
Point on Range with		
Biggs Rapids Range	58 S 7775A	10858

12. Other Interior Features:

The horizontal and vertical clearances of the lift span on the Spokane, Portland and Seattle Railway Bridge at Celilo were measured on 23 June 1959 and data recorded on the back of photograph 58 S 7780A:

## Lift Span Down

Vertical Clearance 19.3 ft. @ Normal Pool Level

## Lift Span Up

Vertical Clearance 75.8 ft. @ Normal Pool Level

Horizontal Clearance 307.5 ft. (conc. pier to conc. pier, along tracks)

The vertical clearance of the cable crossing just west of Celilo was determined on 23 June 1959 and the data is recorded on the back of photograph 58 S 7780A.

Vertical Clearance, Low Point on Cable is 129.3 ft.  
at Normal Pool Level.

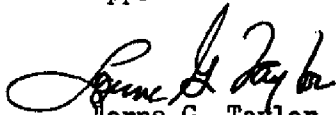
13. Geographic Names:

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:

  
Lorne G. Taylor  
CDR, C&GS

Respectfully Submitted:

K. William Jeffers  
LTJG, C&GS

## PHOTOGRAMMETRIC PLOT REPORT

Map Manuscript T-10856

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).

SCALE FACTOR

STATION

1 FT. = .3048006 METER

COMPUTED BY: J.E.D.

DATE 12-12-58

CHECKED BY: J. L. H.

DATE 1-6-59

COMM-DC-57843

## COMPILATION REPORT

Map Manuscript T-10856

Project Ph-5807

31. Delineation:

Facts are identical with those contained in the Descriptive Report for T-10855 (1959) under this heading.

32. Control:

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).

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 "Wishram" Oreg. - Wash." Scale 1:62,500, published 1957.

35. Shoreline and Alongshore Details:

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

36. Offshore Details:

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

37. Landmarks and Aids:

Facts relative to this item are the same as described under this heading in the Descriptive Report for T-10837 (1959) except that there are only nautical chart aids and the Forms 567 were forwarded to Washington on 10 Sept. 1959.

38. Control for Future Surveys:

Four objects were located by Kelsh Instrument for use by the U. S. Coast Guard in the location of floating aids to navigation. They are listed under Item 49. Notes to the Hydrographer.

39. Junctions:

A satisfactory junction was made with T-10855 on the west and T-10857 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).

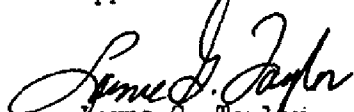
46. Comparison with Existing Maps:

Comparison was made with U.S.G.S. 15 minute "Wishram" Oreg. - Wash. quadrangle, Scale 1:62,500, published 1957.


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



## GEOGRAPHIC NAMES LIST

Celilo

\*Columbia River

Columbia River Highway

Klickitat County

\*Lake Celilo

Lewis &amp; Clark Highway

Orange Trunk Junction

Orange Trunk R.R.

\*Oregon

Spokane, Portland &amp; Seattle R.R.

Union Pacific R.R.

Wasco County

\*Washington

Wishram

Wishram Heights

\* B.G.N. Decision

  
GEOGRAPHIC NAMES SECTION  
10 MARCH 1960

49. Notes to the Hydrographer:

Two permanent fixed aids to navigation were located by triangulation methods:

Horseshoe Falls Light, 1959  
Celilo Light, 1959

Four objects were located by Kelsh Instrument as recoverable topographic stations:

Southeast Corner Small Buff Colored House, 1959  
West Cable Drum on N. Tower Celilo R. R. Bridge, 1959  
Celilo Gage, 1959  
Old Celilo Gage, 1959

One floating aid was located by sextant fix:

Railroad Bridge Approach Buoy 10

PHOTOGRAMMETRIC OFFICE REVIEW

T-10856

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 X 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 X 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 None

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. J. Edward Deal  
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.

\_\_\_\_\_  
Compiler Supervisor

43. Remarks:

REVIEW REPORT  
OF  
SHORELINE MAP MANUSCRIPTS  
T-10847 through T-10857  
July 1961

**62. Comparison with Registered Topographic Surveys**

There are no registered topographic surveys of this area.

**63. Comparison with Maps of Other Agencies**

WHITE SALMON, ORE.-WASH., 1:62,500, 1957, U.S. Geological Survey  
THE DALLAS, ORE.-WASH., 1:62,500, 1957, U.S. Geological Survey  
WISHERAM, ORE.-WASH., 1:62,500, 1957, U.S. Geological Survey

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

**64. Comparison with Contemporary Hydrographic Surveys**

There are no contemporary hydrographic surveys of subject area.

**65. Comparison with Nautical Charts**

6157	1:40,000	Revised to March 1961
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There are shoreline differences between these surveys, which should be considered in the future revision of chart 6157. Additional navigation aids have been installed since the field inspection of the T-sheets in 1959 and that are shown on the nautical chart. The surveys, however, are in agreement with their corresponding light lists.

The eastern portion of this group of T-sheets 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. Adequacy of Results and Future Surveys**

T-10847 through T-10857 have been compiled according to instructions and meet the adequacy and accuracy requirements for this type of survey.

Reviewed by:

*Joseph J. Streifler*  
Joseph J. Streifler

Approved by:

*L. C. Lande*  
Chief, Review & Editing Section  
 Photogrammetry Division

*Mervin P. Rankin*  
Chief, Nautical Chart  
 Division

*J. E. Waugh 4/17/62*  
Chief, Photogrammetry Division

*Major G. K. Little*  
Chief, Operations Division

## NAUTICAL CHARTS BRANCH

SURVEY NO. T-10856

### Record of Application to Charts

[illegible]

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.