

# 8815

Diag'd. on diag. ch. No. 6154

Form 504

## U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

### DESCRIPTIVE REPORT

Type of Survey Planimetric Air Photographic

Field No. \_\_\_\_\_ Office No. T-8815

#### LOCALITY

State OREGON

General locality Willamette River

Locality Lincoln, Polk County, Oregon

1947

#### CHIEF OF PARTY

R. A. Earle

#### LIBRARY & ARCHIVES

DATE January 28, 1948

B-1870-1 (1)++

8815

# RECORD SHEET

Div. of Photogrammetry  
Graphic Compilation Sect.

GENERAL LOCALITY WILLAMETTE RIVER, OREGON

SHEET NO. T-8815

LOCALITY Lincoln, Polk County, Oregon

PROJECT NO. Ph-13(46)

PHOTOS ORDERED Dec., 1946 REC'D 14 Jan. 1947

SCALE 1:10,000

PROJECTION ORDERED Dec. '46 REC'D 3 Feb. 1947

Joins T-8814 Ck. ☒

## CONTROL:

COMPUTED Harris VERIFIED Davidson

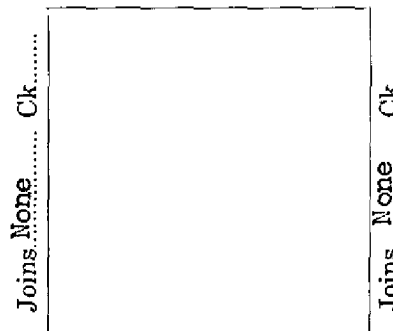
PLOTTED Harris VERIFIED Barron

## PHOTO PREPARATION:

CONTROL Harris

AZIMUTHS Davidson

PASS POINTS Letson



TEMPLATES Barron VERIFIED Harris

DATE OF PHOTOS 8-9-46

## RADIAL PLOT:

PLOTTED BY Harris DATE 5-9-47

TIME OF PHOTOS 12:32 to 13:10

VERIFIED Deal DATE 5-12-47

Pacific Standard Time

## COMPILATION:

DETAIL POINTS Elrod DATE 5-27-47  
M. Elrod, Interior

DETAIL BY F. Elrod, Shore DATE 8-5-47  
line

VERIFIED BY R. H. Barron DATE 8-26-47

STAGE OF TIDE Water Level is a  
gradient between the elevations  
above M.S.L. of the zero of the  
U.S.E. river gages.

## COMPARISON WITH PREVIOUS SURVEYS; TOPO., HYDRO., AND CHARTS:

Due to a scale difference only a visual comparison was made with portions of the USGS McMinnville, Mount Angel, Salem and Stayton, Oregon 15 min. quadrangles, Scale, 1:62500. In general the planimetry which is common to the map manuscripts and quadrangle map is in good agreement. The water level of the quadrangle maps is higher than that of the map manuscript. Several unimproved roads shown (over)

## REMARKS

Complete planimetric detail along both shores of the Willamette River and within a zone averaging 300 meters in width on each side of the river has been compiled. Inshore from the area only skeleton details are shown.

FORWARDED TO Washington Office DATE 24 September 1947

*R. A. Earle*  
R. A. Earle  
Chief of Party

## COMPARISONS (CONTINUED)

on the quadrangle maps were deleted on the field photographs by the field unit and therefore, do not appear on the map manuscript. The eastern part of an improved road, which lies southeast of Keizer School and was shown on the <sup>USE</sup> Salem, Oregon Quadrangle Map, was not found by the field unit and cannot be identified on the photograph. The Salem, Oregon Quadrangle Map erroneously shows Oregon State Highways No. 219 and 221 as U. S. Highways.

There are no nautical charts of the area.

## DATA RECORD

T- 8815

McMinnville, Mount Angel,  
 Quadrangle (II): Salem, and Stayton, Oregon  
 (USGS 15 min.)

Project No. (II): Ph-13(46)

Field Office: Portland, Oregon Chief of Party: R. A. Earle

Compilation Office: Portland, Ore. Chief of Party: R. A. Earle

Instructions dated (II III): 8 October 1946  
 Supplemental Instructions: 4 November 1946

Copy filed in Descriptive  
 Report No. T- (VI) Div of Photo-  
 grammetry Office Files

Completed survey received in office: 9/29/47

Reported to Nautical Chart Section: 10/1/47

Reviewed: 11/13/47

Applied to chart No. —

Date: —

Redrafting Completed:

Registered: 12/26/47

Published:

Compilation Scale: 1:10,000

Published Scale:

Scale Factor (III): None

Geographic Datum (III): N.A. 1927

Datum Plane (III): \* See below

Reference Station (III): CURLY, 1940 r 1946

Lat.:  $44^{\circ} 59' 56.585''$  (1747.1) Long.:  $123^{\circ} 04' 36.496''$  (799.4) Adjusted X  
 Unadjusted

State Plane Coordinates (VI): OREGON NORTH ZONE (ruled in red on the  
 manuscript)

X =

Y =

## Military Grid Zone (VI)

The adopted water plane is a gradient between 97.6 ft. above M.S.L. (the zero of the river gage at Middle River Island) and 105.2 ft. above M.S.L. (the zero of the river gage at Upper Mosquito Bar). All bench mark elevations are referenced to M.S.L. and are on the Standard 1929 general adjustment of leveling in the U.S.A.

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
NINE LENS				WATER LEVEL
17287 & 17288	8-9-46	12:33 P.S.T.	1:10000	The water level of the photographs is believed to be close to the adopted water plane.
17296 to 17298 Inc.	"	12:47	"	
17314 & 17315	"	13:10	"	

Tide from (III): None

Mean Range: None

Spring Range: None

Camera: (Kind or source) U.S.C. & G.S. Nine lens,  
Focal length 8.25 inches

Field Inspection by: J. C. LaJoye (Shoreline) date: April, 1947  
J. Winniford (Interior & March, 1947  
Geographic Names) Feb., 1947

Field Edit by: None

date:

Date of Mean High-Water Line Location (III): April, 1947

Projection and Grids ruled by (III) Washington Office date: January, 1947

" " " checked by: Washington Office date: January, 1947

Control plotted by: James L. Harris date: April, 1947

Control checked by: Ree H. Barron date: April, 1947

Radial Plot by: J.L. Harris & J.E. Deal date: May 12, 1947

Frank Elrod, Shoreline  
Detailed by: Marie Elrod, Interior date: August 5, 1947

Reviewed in compilation office by: Ree H. Barron date: August 26, 1947

Elevations on Field Edit Sheet  
checked by: None

date:

985

STATISTICS (III)

Land Area (Sq. Statute Miles):      6.0 sq. mi. (complete detail)  
   21.6      "      (skeleton detail)

Shoreline (More than 200 meters to opposite shore): None

Shoreline (Less than 200 meters to opposite shore): 7.0 statute mi. (measured along centerline of rivers)

Number of Recoverable Topographic Stations established:    7

Number of Temporary Hydrographic Stations located by radial plot: 35

Leveling (to control contours) - miles:

Roman numerals indicate whether the item is to be entered by, (II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks:

8/14

MAP T. 8815 PROJECT NO. Ph-13(46) SCALE OF MAP 1:10,000 SCALE FACTOR None

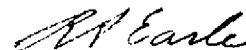
STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\nu$ -COORDINATE LONGITUDE OR $x$ -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	REMARKS - FOR SIGNATURE FROM GRID OR PROJECTION LINE IN METERS - - FORWARD - - - (BACK) -
ASH (USE), 1935							Not searched for
PTS 25 RESET USGS, 1936-37	USE Adj. in Comp. Office	N.A. 1927	45° 01' 10.988" 123 05 06.457	339.2 (1513.0) 141.4 (1172.3)			Used in Rad. Pl.
PTS 2 (USGS) 1924							Not searched for
IDL (USE), 1935							Not searched for
HEP (USE), 1935							Not searched for
JAT (USE), 1936	USE Adj. in Comp. Office	N.A. 1927	45° 02' 07.211" 122 59 57.857	222.6 (1629.6) 1266.4 (46.9)			Used in Rad. Pl.
CURLY, 1940	G 4774 page 534	"	44° 59' 56.585" 123 04 36.496	1747.1 (105.4) 799.4 (514.8)			Used in Rad. Pl.
CAL (USE), 1936							Not searched for
PTS 24 (USGS) (USE), 1936							Not searched for
PTS 1 (USGS) 1924	USE Adj. in Comp. Office	"	44° 59' 49.242" 123 01 31.966	1520.1 (332.1) 700.2 (614.1)			Used in Rad. Pl.
KEIZER, 1946	G 6734 page 879	"	44° 59' 28.166" 123 00 43.857	869.5 (982.7) 960.7 (353.6)			Used in Rad. Pl.
URLE (USE), 1936							Not searched for





FIELD INSPECTION REPORT  
Sheet T-8815 Project Ph-13(46)

1 to 25: All information that is applicable to these side headings is given in the "Field Inspection Report Sheets T-8812 to T-8816 inclusive, Project Ph-13 (46)." This report was included in the "Descriptive Report" for Sheet T-8812, which has been forwarded.



R. A. Earle  
Chief of Party

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COMPIATION REPORT  
Map Manuscript T-8815  
Project Ph-13(46)

26. Control:

Eight horizontal control stations were recovered and satisfactorily identified by the field unit in the area of this map manuscript. They were well spaced and were adequate for use in controlling the photographs during the running of the radial plot.

The geographic positions of several traverse stations in the area which had been established or relocated by the U. S. Engineers, were readjusted in the following manner:

The differences between the positions published by the U.S. Engineers and that determined by the U. S. Coast & Geodetic Survey for other stations in the same lines were computed. These differences were then proportioned according to distances between stations and a correction applied to the original position of each traverse station.

The horizontal control stations of all federal agencies which fall in the area of this map manuscript, have been tabulated on two sheets of Form M-2388-12 which are attached to this descriptive report. A special column headed "Remarks", has been added to the form. In this column a short note has been entered which explains the manner in which the station was used.

The published positions, of the U. S. Engineer and U. S. Geological Survey stations which were not searched for by the field unit, have not been shown in the tabulation. These stations were not plotted on the map manuscript.

27. Radial Plot:

This map manuscript is part of Radial Plot No. 2, Project Ph-13(46), which includes Map Manuscripts T-8812 to T-8816 inclusive.

The radial plot was completed in the same manner as described for Radial Plot No. 1 of this project. The methods and a complete discussion of the various operations relative to work on the photographs, templates, and map manuscripts can be found in paragraph 27 of the Descriptive Report for Map Manuscript T-8809.

28. Detailing:

Compilation was done in accordance with instructions for Project Ph-13(46). Special care was taken to see that the requirements of paragraph 34 of the instructions were met.

The transforming printer at the Washington Office was not in proper adjustment at the time the photographs were printed and they could not be orient-

ed in their entirety at the compilation table when radially plotting various types of pass points. Enough pass points had, however, been established during the radial plot so that each chamber of each photograph could be separately oriented. For at least two of the chambers on each photograph, it was found necessary to de-center the photograph radially, to or from the chamber being oriented, so that the radials to the pass points and horizontal control stations in the chamber would pass through their positions on the map manuscript.

Due to shadows and overhanging trees along the banks of the rivers, it was often impossible to get more than a two radial intersection, on some of the detail pass points which were used to compile the shorelines. These two radial intersection points have been shown with a small circle in green ink on the reverse side of the map manuscript.

The photograph coverage was adequate and very little trouble was encountered in interpreting the planimetric details.

All planimetric features have been compiled, within a zone averaging 300 meters in width, along both shores of the Willamette River. Inshore from this zone only skeleton planimetric details have been shown. The detailing limits of the map manuscript were taken from the index map furnished the compilation office and are shown with a light full line in green acid ink.

This map manuscript is relatively a smooth drawing and all symbols have been drafted to conform with samples furnished the compilation office or with symbols shown on similar planimetric maps which have recently been published by the U. S. Coast & Geodetic Survey.

The heights of bluffs were indicated by the field inspector. Their location was interpreted by the compiler with the aid of the stereoscope. Shoreline features and drainage were also delineated by extensive use of the stereoscope, however, it was often necessary to detail the field inspector's interpretation of drainage through thickly wooded areas. This was done only when it was impossible to determine the location of drainage by stereoscopic examination of the photographs.

29. Supplemental Data:

No supplemental data was used in the area of this map manuscript.

30. Mean High-Water Line: (River shoreline at the adopted plane of reference)

A complete discussion of this feature can be found in paragraph 7 of the Field Inspection Report, Sheets T-8812 to T-8816 inclusive. (T-8812)

The mean high-water line (River shoreline at the adopted plane of reference) is shown by a continuous black acid ink line .008" in thickness at a plane that is a gradient between 97.6 ft above M.S.L. (the elevation of the zero of the U.S.E. river gage at Middle Windsor Bar) and 105.2 ft. above M.S.L. (the elevation of the zero of the U.S.E. river gage at Upper Mosquito Bar).

There are no marsh areas immediately bordering the shoreline.

31. Low-Water and Shoal Lines:

The approximate limits of several small shoal areas have been detailed as indicated by the field inspection unit.

The field inspection unit did not indicate any low-water lines within the area of this map manuscript.

32. Details Offshore from the Mean High-Water Line:

Several very small islands are the only details offshore from the mean high water line. All of these small islands are covered when the river is at flood stage.

33. Wharves and Shoreline Structures:

A low pile jetty, an overhead cable crossing, and a small dam have been shown as indicated by the field inspection unit.

34. Landmarks and Aids to Navigation:

Form 567 is being submitted recommending the charting as nautical landmarks of the following:

TOWER, east tower Bonneville Power Admn., Lincoln Rocks.

TOWER, west tower Bonneville Power Admn., Lincoln Rocks.

There are no fixed aids to navigation within the limits of this map manuscript.

35. Hydrographic Control:

A complete discussion of this subject can be found in paragraph 12 of the Field Inspection Report, Sheets T-8812 to T-8816 inclusive, Project Ph-13 (46) which was forwarded with the Descriptive Report for T-8812.

A question mark (?) has been lettered after hydrographic signal No. 1505 to indicate that the location of the station is doubtful. Hydrographic signal No. 1509 has been rejected because the resulting location, by use of the field data, does not agree with the location as shown on the field photographs. Deleted from map manuscript

It is believed that a sufficient number of well located signals have been established which may be used by the hydrographic party for establishing additional signals at the time the hydrographic survey is made.

A list of thirty-five hydrographic signal sites, which fall in the area of this map manuscript, is attached to the Field Inspection Report, Sheets T-8812 to T-8816 inclusive, Project Ph-13(46). (T-8812)

36. Landing Fields and Aeronautical Aids:

There are no landing fields or aeronautical aids within the limits of this map manuscript.

37. Geographic Names: *✓*

Geographic names are the subject of a special report, Investigation of Geographic Names, Sheets T-8812 to T-8816 inclusive, Project Ph-13(46), which has been submitted. All undisputed and recommended names have been shown on the map manuscript. *Geographic Names Section, Division of Charts*

38. Recoverable Topographic Stations:

Copies of Forms 524 are being submitted for the following: *Photogrammetry Files*

MARY, 1947  
NIRA, 1947

OTIS, 1947  
PHIL, 1947

QUIN, 1947  
ROSE, 1947

SOME, 1947

39. Junctions:

Complete and satisfactory junctions have been made between map manuscripts T-8814 and T-8815 and between T-8815 and T-8816.

40. Bench Marks:

Bench marks have been detailed as identified by the field inspection units. Each bench mark shown is indicated by a black acid ink cross with the name and elevation to the nearest 1/10 ft. lettered nearby.

44. Comparison with Existing Topographic Surveys: *Quadrangles*

See record sheet which accompanies each map manuscript.

45. Comparison with Nautical Charts:

There are no nautical charts of the area.

Approved and forwarded:

*Robert A. Earle*

Robert A. Earle  
Chief of Party

Respectfully submitted:  
10 September 1947

*J. Edward Deal, Jr.*

J. Edward Deal, Jr.  
Photogrammetric Engineer

Project T-8815 13(46) 1-6-83

TO BE CHARTED } STRIKE OUT ONE  
TO BE DELETED } \*\*

## LANDMARKS FOR CHARTS

**Portland, Oregon**

**7 September**

I recommend that the following objects which have ~~(not been)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing. *Medical*

**R. A. Parlo**

**Chief of Party.**

[illegible]

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

Division of Photogrammetry  
Review Report of  
Shoreline Map Manuscript T-8815

Subject numbers not used in this report have been adequately covered in other parts of the descriptive report.

28. Detailing.

Major changes made by the reviewer were limited to the shoreline of the Willamette River. The shoreline of numerous lakes and ponds was changed to a thin line to agree with Field Memorandum No. 1, (1938).

A number of field inspection notes that were omitted on the map manuscript have been added by the reviewer.

35. Hydrographic Control.

Temporary hydrographic station No. 1505 was removed from the map manuscript, its position being doubtful.

44. Comparison with Existing Topographic Quadrangles.

U.S.G.S., McMinnville, Ore., 15' quadrangle,  
1924, scale 1:62,500  
U.S.E., McMinnville, Ore., 15' quadrangle, 1947,  
scale 1:50,000  
U.S.G.S., Mt. Angel, Ore., 15' quadrangle, 1921,  
scale 1:62,500  
U.S.E., Mt. Angel, Ore., 15' quadrangle, 1947  
scale 1:50,000  
U.S.G.S., Salem, Ore., 15' quadrangle, 1913-5,  
scale 1:62,500  
U.S.E., Salem, Ore., 15' quadrangle, 1939,  
scale 1:62,500  
U.S.E., Salem, Ore., 15' quadrangle, 1947, scale  
1:50,000  
U.S.G.S., Stayton, Ore., 15' quadrangle, 1923,  
scale 1:62,500  
U.S.E., Stayton, Ore., 15' quadrangle, 1939,  
scale 1:62,500  
U.S.E., Stayton, Ore., 15' quadrangle, 1947,  
scale 1:50,000

The shoreline of the Willamette River on these quadrangles is superseded by that on the map manuscript.

For further information see the Record Sheet.

45. Comparison with Nautical Charts.

There are no nautical charts in this area.

Reviewed by:

Reviewed under direction of:

B. Thomas Hynson  
B. Thomas Hynson  
11-13-47

S. V. Griffith  
S. V. Griffith  
Chief, Review Section

APPROVED:

B. J. Gore 12/47  
Technical Assistant to the  
Chief, Div. of Photogrammetry

J. R. Rutterling  
Chief, Nautical Chart Br.  
Division of Charts

K. T. Adams  
Chief, Div. of Photogrammetry

C. G. H. H. H.  
Chief, Div. of Coastal  
Surveys



# GEOGRAPHIC NAMES

Survey No. T-8815

Lincoln, Oregon

1	Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
	<u>Oregon</u>								USGB		1
	<u>Polk County</u>										2
	<u>Marion County</u>										3
	<u>Willamette River</u>								USGB		4
	<u>Southern Pacific</u>										5
	<u>Oregon Electric</u>										6
	<u>U.S. 99E Pacific Highway East</u>										7
	<u>State 219 Salem Newberg Highway</u>										8
	<u>State 221 Dayton Salem Highway</u>										9
	<u>Bonneville Power Administration Transmission Line</u>										10
											11
											12
	<u>Lancaster Drive</u>										13
	<u>Hayesville</u>										14
	<u>Claxter</u>										15
	<u>Chemawa</u>										16
	<u>U.S. Indian School</u>										17
	<u>Lake Labish Ditch</u>										18
	<u>Keizer Grange Hall</u>										19
	<u>Keizer School Dist. No. 88</u>										20
	<u>Keizer Bottom</u>										21
	<u>Keizer Bar</u>										22
	<u>Mosquito Bar</u>										23
	<u>Wallace Hill</u>										24
	<u>Spring Valley Road</u>										25
	<u>Beardsley Bar</u>										26
	<u>Rices Rocks</u>										27
	<u>Darrow Bar</u>										28

# GEOGRAPHIC NAMES

Survey No.

T-8815

2

Name on Survey

	A	B	C	D	E	F	G	H	K	
	On Chart No.	On previous survey No.	On U. S. quadangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
Darrow Rocks										1
Spongs Landing										2
Lincoln Rocks										3
Lincoln										4
Lincoln School										5
Spring Valley										6
Spring Valley Creek										7
Oak Knoll Road										8
Spongs Bar										9
Lincoln Bar										10
McCall Bar										11
Windsor Island										12
Clear Lake										13
Clear Lake										14
Clear Lake School										15
Clear Lake Evangelical Church										16
Wheatland Road										17
Quinaby										18
										19
Lakebrook Hop Farm										20
H.L. Peach Nursery Co.										21
										22
										23
										24
										25
										26
										27

Names underlined and red are approved. 2/9/48. L. Heck