8654
8655

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.* CS-322 *Office No.* T-8654 & T-8655

Horiz. Acc'y Test.

LOCALITY

*State* Oregon

*General locality* Columbia County

*Locality* Warren and Scappoose Bay

1947

CHIEF OF PARTY

R.A. Earle

LIBRARY & ARCHIVES

DATE Dec 4 - 1947

8-1870-1 (1)

8654
8655

# RECORD SHEET

Div. of Photogrammetry
Graphic Compilation Sect.

GENERAL LOCALITY Columbia County, Oregon

LOCALITY Warren, Oregon

SHEET NO. T-8654

PROJECT NO. CS-322

SCALE 1:8000

PHOTOS ORDERED Aug. 1945 REC'D 9-24, 26-45 1-21-46

PROJECTION ORDERED June '46 REC'D 7-23-46

Joins None Ck

Joins None Ck

Joins T-8655 Ck

Joins T-8658 Ck ✓

CONTROL:
COMPUTED Bunce VERIFIED Harris

PLOTTED Bunce VERIFIED Davidson

PHOTO PREPARATION:
CONTROL Sherwood, Harris

AZIMUTHS Davidson

PASS POINTS Bunce, Harris

TEMPLETS Elrod VERIFIED Bunce

RADIAL PLOT: Harris
PLOTTED BY Davidson DATE 11-18-46

VERIFIED Deal DATE 11-19-46

COMPILATION:
DETAIL POINTS Elrod DATE 12-12-46

DETAIL BY Elrod DATE 1-15-47

VERIFIED BY Davidson DATE 1-24-47

DATE OF PHOTOS See reverse side

TIME OF PHOTOS "

STAGE OF TIDE "

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

Due to a scale difference only a visual comparison was made with the USE St. Helens, Oreg.-Wash., 15 min. quadrangle scale: 1:62500. In general the planimetry which is common to the map manuscript and quadrangle map is in agreement. Scappoose Bay, as shown on the quadrangle map, is at a higher water level than that shown on the map manuscript. Nautical Chart No. 6154 does not include the small portion of (over)

REMARKS

All corrections and additions which were found during the field edit were applied to the map manuscript and a final compilation office review was then made.

FORWARDED TO Washington Office DATE 19 March 1947

R. A. Earle
Chief of Party

M-2305-12

COMPARISONS (cont'd.)

Scappoose Bay which falls within the limits of this map manuscript.

PHOTOGRAPH DATA

| Number | Date | Time | Scale | Stage of Tide |
|---|---|---|---|---|
| 365 to 369 Inc. | 6-30-45 | 10:20 | 1: 8000 ratio 1:17000 contact | 11.9 ft. above M. L. W. |
| 1379 to 1382 " | 7-10-45 | 10:30 | " | 9.9 ft. " |
| 1387 to 1390 " | 7-10-45 | 10:30 | " | 9.9 ft. " |
| 3589 to 3592 " | 11-21-45 | 14:45 | " | 4.9 ft. " |

Form T-1

DATA RECORD

T- 8654

Quadrangle (II): WARREN, COLUMBIA CO., ORE. (3 minute) Project No. (II): CS-322

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

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

Instructions dated (II III): 12 July 1945
Supplemental Instructions: Aug. 29, Sept. 10, Oct. 25, Nov. 30 & Dec. 6, 1945

Copy filed in ~~Descriptive Report No. T-~~ (VI)
Div. Photogram. Office Files

Completed survey received in office: 24 Mar. 1947

Reported to Nautical Chart Section: ✓

Reviewed: 5 June 1947 Applied to chart No. Date:

Redrafting Completed: 19 Aug. 1947

Registered: 11/47 Published: 1947

Compilation Scale: 1:8000 Published Scale: 1:9600

Scale Factor (III): None

Geographic Datum (III): N. A. 1927 Datum Plane (III): * See below

Reference Station (III): WARREN (OREGON), 1903 r 1934, 1946

Lat.: 45° 48' 32.145" (992.4m) Long.: 122° 52' 07.398" (159.7m) Adjusted X Unadjusted

State Plane Coordinates (VI): Oregon, North Zone

X = 1,396,028.77 feet Y = 789,875.83 feet

Military Grid Zone (VI)

*(M.H.W. = 6.29 ft. above Mean Sea Level, M.L.W. = .129 ft. above Mean Sea Level). All elevations are on the Standard 1929 general adjustment of leveling in the U.S.A.

PHOTOGRAPHS (III)

| Number | Date | Time | Scale | Stage of Tide |
|---|---|---|---|---|
| | | | 1:17000 contact | |
| 365 to 369 Inc. | 6-30-45 | 10:20 | 1: 8000 ratio | 11.9 ft. above M.L.W.* |
| 1379 to 1382 " | 7-10-45 | 10:30 | " | 9.9 ft. " |
| 1387 to 1390 " | 7-10-45 | 10:30 | " | 9.9 ft. " |
| 3589 to 3592 " | 11-21-45 | 14:45 | " | 4.9 ft. " |

Tide from (III): Daily readings of the U. S. Engineers tide gauge located at Government Moorings on the west shore of the Willamette River just south of St Johns Bridge. The 0+00 of the gauge is M.L.W., Columbia River, which is 1.29 ft. above Mean Sea Level.

Mean Range: Spring Range:

Camera: (Kind or source) K 17, focal length 12 inches

Field Inspection by: See remarks, page 3 date:

Field Edit by: F. H. Elrod, Prin. Photo. Aid date: Feb., 1947

Date of Mean High-Water Line Location (III): 21 November, 1945

Note: According to supplemental instructions dated 10 September 1945, a high-water line of 5.0 ft. above Mean Low-Water is to be shown on the Map Manuscripts. Photographs made on 21 November 1945, were taken when the water level was 4.9 ft. above M.L.W.

Projection and Grids ruled by (III) Washington Office date: July, 1946

" " " checked by: Washington Office date: July, 1946

Control plotted by: Eda H. Bunce date: October, 1946

Control checked by: Roy A. Davidson date: October, 1946

Radial Plot by: James L. Harris, Roy A. Davidson date: 18 Nov. 1946

Detailed by: Marie B. Elrod date: 15 Jan. 1947

Reviewed in compilation office by: Roy A. Davidson date: 24 Jan. 1947

Corrections and changes after field edit by: Ree H. Barron date: 17 March 1947

Review after changes due to field edit by: J. E. Deal date: 18 March 1947

Elevations on Field Edit Sheet checked by: None date:

STATISTICS (III)

Land Area (Sq. Statute Miles): 5.9

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

Shoreline (Less than 200 meters to opposite shore): 1.0 statute miles

Number of Recoverable Topographic Stations established: 1 section corner

Number of Temporary Hydrographic Stations located by radial plot: None

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:

| | | |
|---|---|---|
| Field Inspection by: | J. H. Winniford, Photo. Aid | date: May, 1946 |
| Shoreline Inspection by: | J. C. LaJoye, Prin. Photo. Aid | date: April, 1946 |
| Recovery of Horizontal Control by: | J. C. LaJoye | date: June, 1946 |
| Recovery of Vertical Control by: | J. H. Winniford | date: October, 1945 |
| Investigation of Geographic Names and Civil Bounderies by: | L. E. Ervast, Photo. Aid | date: June, 1946 |

# RECORD SHEET

Div. of Photogrammetry
Graphic Compilation Sect.

GENERAL LOCALITY Multnomah Channel, Oregon

LOCALITY Scappoose Bay

SHEET NO. T-8655

PROJECT NO. CS-322

SCALE 1:8000

PHOTOS ORDERED Aug. 1945 REC'D 9-24,26-45 1-21-46

PROJECTION ORDERED June 1946 REC'D 7-23-46

Joins T-8651 Ck ✓

Joins T-8654 Ck ✓

Joins T-8656 Ck ✓

Joins T-8659 Ck ✓

CONTROL:
COMPUTED Bunce VERIFIED Harris

PLOTTED Bunce VERIFIED Davidson

PHOTO PREPARATION:
CONTROL Harris

AZIMUTHS Davidson

PASS POINTS Bunce, Harris

TEMPLETS Elrod VERIFIED Davidson

RADIAL PLOT: Harris
PLOTTED BY Davidson DATE 11-18-46

VERIFIED Deal DATE 11-19-46

COMPILATION:
DETAIL POINTS Letson DATE 1-16-47

DETAIL BY Letson DATE 2-28-47

VERIFIED BY Barron DATE 3-5-47

DATE OF PHOTOS See reverse side

TIME OF PHOTOS "

STAGE OF TIDE "

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

Due to a scale difference only a visual comparison was made with the USE St. Helens Oreg.-Wash. 15 min. quadrangle, scale 1:62500. In general, planimetry which is common to the quadrangle map and the map manuscript is in agreement. Many minor differences were noted, between the map manuscript and quadrangle map, in the delineation of the shorelines, sloughs, and marsh areas.. (over)

REMARKS

All corrections and additions which were found during the field edit were applied to the map manuscript and a final compilation office review was then made.

FORWARDED TO Washington Office DATE 19 March 1947

R. A. Earle
Chief of Party

M-2305-12

## COMPARISONS (cont'd.)

Comparison was made with black line prints on clear acetate of Topographic Surveys No's. 6570b and 6571a of October 1937, scale 1:10,000 enlarged to a scale of 1:8000. The shorelines which were common to the surveys and the map manuscript are in excellent agreement.

Comparison was made with Nautical Chart No. 6154, scale 1:40,000 by use of the vertical projector. In general the shorelines of Multnomah Channel and Scappoose Bay are in agreement. In the area of this map manuscript the chart is in error in the location of many of the inland sloughs, ponds, and roads.

## PHOTOGRAPH DATA

| Number | Date | Time | Scale | Stage of Tide |
|---|---|---|---|---|
| | | | 1:17000 contact | |
| 324 to 327 | Inc. 6-30-45 | 9:50 | 1: 8000 ratio | 11.9 ft. above M.L.W. |
| 442 to 445 | " 6-30-45 | 11:30 | " | 11.9 ft. " |
| 538 to 541 | " 6-30-45 | 13:00 | " | 11.9 ft. " |
| 3508 to 3510 | " 11-21-45 | 13:45 | " | 4.9 ft. " |
| 3514 to 3517 | " 11-21-45 | 13:45 | " | 4.9 ft. " |

Form T-1

DATA RECORD

T- 8655

Quadrangle (II): SCAPPOOSE BAY, OREGON (3 minute) Project No. (II): CS-322

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

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

Instructions dated (II III): 12 July 1945
Supplemental Instructions: Aug. 29, Sept. 10, Oct. 25, Nov. 30 & Dec. 6, 1945

Copy filed in ~~Descriptive Report No. T-~~ (VI)
Div. Photogram. Office files

Completed survey received in office: 24 Mar. 1947

Reported to Nautical Chart Section: ✓

Reviewed: 17 June 1947 Applied to chart No. Date:

Redrafting Completed: 25 July 1947

Registered: ~~22 Oct.~~ Nov 1947 Published: 1947

Compilation Scale: 1:8000 Published Scale: 1:9600

Scale Factor (III): None

Geographic Datum (III): N. A. 1927 Datum Plane (III): * See below

Reference Station (III): ST. HELENS FIRTEX STACK (ØRE.) 1937 r 1946.

Lat.: 45° 50 23.572" (727.8m) Long.: 122° 48' 57.153" (1233.4m) Adjusted X
Unadjusted

State Plane Coordinates (VI): Oregon, North Zone

X = 1,409,823.04 feet Y = 800,766.88 feet

Military Grid Zone (VI)

*(M.H.W. = 6.29 ft. above Mean Sea Level, M.L.W. = 1.29 ft. above Mean Sea Level).
All elevations are on the Standard 1929 general adjustment of leveling in the U.S.A.

PHOTOGRAPHS (III)

| Number | Date | Time | Scale | Stage of Tide |
|---|---|---|---|---|
| | | | 1:17000 contact | |
| 324 to 327 Inc. | 6-30-45 | 9:50 | 1: 8000 ratio | 11.9 ft. above M.L.W.* |
| 442 to 445 " | 6-30-45 | 11:30 | " | 11.9 ft. " |
| 538 to 541 " | 6-30-45 | 13:00 | " | 11.9 ft. " |
| 3508 to 3510 " | 11-21-45 | 13:45 | " | 4.9 ft. " |
| 3514 to 3517 " | 11-21-45 | 13:45 | " | 4.9 ft. " |

Tide from (III): Daily readings of the U. S. Engineers tide gauge located at Government Moorings on the west shore of the Willamette River just south of St. Johns Bridge. The 0+00 of the gauge is M.L.W., Columbia River, which is 1.29 ft. above Mean Sea Level.

Mean Range: Spring Range:

Camera: (Kind or source) K 17, focal length 12 inches

Field Inspection by: See remarks page 3 date:

Field Edit by: F. H. Elrod, Prin. Photo. Aid date: March, 1947

Date of Mean High-Water Line Location (III): 21 November 1945

Note: According to supplemental instructions dated 10 September 1945, a high-water line of 5.0 ft. above Mean Low Water is to be shown on the map manuscripts. Photographs made on 21 November 1945, were taken when the water level was 4.9 ft. above M.L.W.

Projection and Grids ruled by (III) Washington Office date: June, 1946

" " " checked by: Washington Office date: June, 1946

Control plotted by: Eda H. Bunce date: October, 1946

Control checked by: Roy A. Davidson date: October, 1946

Radial Plot by: James L. Harris, Roy A. Davidson date: November 19, 1946

Detailed by: Helen L. Letson date: February 28, 1947

Reviewed in compilation office by: Ree H. Barron date: March 5, 1947

Corrections and changes after field edit by: Ree H. Barron date: March 17, 1947

Review after changes due to field eidt by: J. E. Deal date: March 18, 1947

Elevations on Field Edit Sheet checked by: Charles Hanavich, Topo. Engr. date: March, 1947

STATISTICS (III)

Land Area (Sq. Statute Miles): 7.5

Shoreline (More than 200 meters to opposite shore): 17.0 statute miles

Shoreline (Less than 200 meters to opposite shore): 20.0 statute miles

Number of Recoverable Topographic Stations established: 11
(1 landmark, 4 topographic stations, 2 aids to navigation)(1 topo. sta. recovered)(3 topo. sta. recovered and reported lost).
Number of Temporary Hydrographic Stations located by radial plot: None

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:

| | | |
|---|---|---|
| Field Inspection by: | J. H. Winniford, Photo. Aid | date: July, 1946 |
| Shoreline Inspection by: | J. C. LaJoye, Prin. Photo. Aid | date: May, 1946 |
| Recovery of Horizontal Control by: | J. C. LaJoye | date: June, 1946 |
| Recovery of Vertical Control by: | J. H. Winniford Photo. Aid | date: October, 1945 |
| Investigation of Geographic Names and Civil Boundaries by: | L. E. Ervast, Photo. Aid | date: June, 1946 |

FIELD INSPECTION REPORT
T-8654 and T-8655
Project CS-322

1 to 25: All the information that is applicable to these side headings is given in the "Field Inspection Report, Project CS-322, Area of the Fourth Radial Plot", which was enclosed with the Descriptive Report for Quadrangles T-8669 and T-8670. This Descriptive Report has been submitted.

Approved by:

Robert A. Earle
Chief of Party

Respectfully submitted:

Charles Hanavich
Topographic Engineer

## Amendment to File Data

Since project CS-322 was reviewed and registered, it was decided that a Completion Report for each project would be written and filed in the Bureau of Archives. This Completion Report should include all special reports, correspondence of probable future interest or importance, a project layout, a photo index, and a copy of the initial and supplementary project instructions.

A special file has been set up in the library for Division of Photogrammetry projects. The Completion Report and other special reports will be filed under the project number, and these will be arranged in numerical order.

The following reports and records for project CS-322 are now filed in the Bureau Archives, rather than according to the red notes in the Descriptive Reports:

| | | Access No. |
|---|---|---|
| A. | Special Reports: | |
| | 1. Investigation of Boundary Monuments and Land Lines for Radial Plots 1, 2, 3, and 4 | CS-322 Rept. 1 |
| | 2. Radial Plots 1, 2, 3, and 4 | " " 2 |
| | 3. Legal descriptions of boundaries | " " 3 |
| | 4. Field Inspection for plots 1, 2, 3, and 4 | " " 4 |
| B. | Computations: Triangulation and Traverse | 943/GTZ G-6785 |
| C. | Field records: | |
| | 1. Horizontal Angles (form 250) 12 vol. | 943/GH G-7082 |
| | 2. Traverse Measurements (form 590) 9 vol. | 943/GB G-7083 |
| | 3. Descriptions (form 525) and recoveries (form 526) | 943/GA G-6786 |
| | 4. Pricking cards (form M-982-1) for tri. and Trav. | Div. of Photogrammetr. General File |
| | 5. Recoverable Topographic stations (form 524) | Div. of Photogrammetr. General File |
| D. | Recovery of bench marks (form 685) | Filed in Leveling Sec |
| E. | Supplemental data: maps, plans<br>These were transferred to the Map Section (Mr. Stanley, Chief), Division of Charts, to be selectively filed or discarded. | |

LTS

January 1951

COMPILATION REPORT
Map Manuscripts T-8654 and T-8655
Project CS-322

26. Control:

At the time this project was started there were five horizontal control stations within the area of these two map manuscripts. All were recovered and identified for use in the radial plot.

In addition the field inspection unit recovered and identified four unmonumented 29th Engineers traverse stations. In general these traverse stations, as identified on the photographs, could be held during the running of the radial plot.

In the area of Map Manuscript T-8654, the field inspection unit established one temporary and one permanent triangulation station so that the photographs might be firmly fixed along the western limits of this part of the project.

A complete tabulation of the horizontal control stations which were originally in the area of these two map manuscripts is attached to the "Field Inspection Report, Project CS-322, Area of the Fourth Radial Plot". This report was included with the descriptive report for Map Manuscripts T-8669 and T-8670, which was forwarded on 8 January 1947.
→ Filed in Div. Photogram. General Files, under "Special Reports"

The supplemental horizontal control stations which were established in this area are listed in a tabulation attached to a special report, "Third-Order Triangulation and Traverse, Project CS-322, Area of the Fourth Radial Plot", which has been forwarded.
Filed in Library under G-6785

27. Radial Plot:

The facts concerning the radial plot for the area of these two map manuscripts have been fully covered in the "Descriptive Report, Fourth Radial Plot, Project CS-322". This radial plot report was included with the descriptive report for Map Manuscripts T-8669 and T-8670, which was submitted to the Washington Office on 8 January 1947.
→ Filed in Div. Photogram. General Files, under "Special Reports"

28. Detailing:

Compilation was done in accordance with instructions for Project CS-322 and special instructions applicable to planimetric mapping.

The photography was adequate. The re-flight photographs made on 21 November 1945, were helpful in determining the high-water line and other shoreline details. During the running of the radial plot, for this part of the project, it was found necessary to substitute re-flight photographs for many of the original photographs which were found to be tilted.

Though the detail on these re-flight photographs was not as sharp and clear as that on the original photographs, it was possible to select and radially plot enough pass points, which were common to both sets of photographs, to enable the compiler to satisfactorily detail the map manuscripts. Where the detail on the re-flight photographs was not clear the tilted photographs were used for interpreting the planimetry which has been shown on the map manuscripts. In some cases it was difficult to delineate from the ratio print, the correct shape and size of buildings. This was attributed to the loss of sharpness when the contact prints were enlarged.

When any item relative to the field inspection data was doubtful, it could be clarified by consultation with the field man who had done the inspection work. It was, therefore, unnecessary to make descrepancy overlays for the field edit work.

The classification symbols for tree or brush areas are placed on the inside of the curled line which denotes the limits of said areas. These curled lines and the letter symbols are in green acid ink.

All boundary and land claim lines are shown by appropriate symbols in red acid ink. A legend shown in the margin of each map manuscript identifies these lines.

Pertinent notes, relative to various items, have been lettered in the margins of the map manuscripts.

29. Supplemental Data:

There was no supplemental data used in the area of these two map manuscripts.

30. Mean High-Water Line:

The mean high-water line was detailed from information submitted by the field parties and from stereoscopic examination of the photographs. Most of the shoreline data is shown on field photographs taken on 21 November 1945. The mean high-water line, bordering firm ground, is shown by a continuous heavy-weight black acid ink line, at a plane five feet above the U. S. Engineers low-water datum, which is 1.29 feet above mean sea level. The mean high-water line bordering marsh or mud is shown with a continuous light-weight black acid ink line at the same plane.

31. Low-Water and Shoal Lines:

The field inspection unit did not indicate any low-water or shoal lines within the limits of these two map manuscripts.

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

There are no details offshore from the mean high-water line.

Special Report: Investigation of Boundary Monuments & Land Lines . . .
Area Fourth Radial Plat.
Filed in Div. Photogram. General Files under "Sp'l. Rep'ts."

39. Junctions:

Complete and satisfactory junctions have been made between Map Manuscripts T-8654 and T-8655 and with adjoining map manuscripts.

40. Bench Marks:

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

41. Donation Land Claim and Section Lines:

Filed in map manuscript envelope.

Donation land claim and section lines were located on ozalid prints of the map manuscripts after the initial compilation had been completed. These lines, with pertinent explanatory notes, were placed on the prints in red and purple ink respectively, by the field party, and were then traced on the map manuscripts by the compilers. The ozalid prints containing these lines are being forwarded.

44. Comparison with Existing Topographic Surveys:

See record sheet which accompanies each map manuscript.

45. Comparison with Nautical Charts:

See record sheet which accompanies each map manuscript.

Approved and forwarded:

Robert A. Earle

Robert A. Earle
Chief of Party

Respectfully submitted:
13 March 1947

J. Edward Deal Jr.

J. Edward Deal, Jr.
Photogrammetric Engineer

FIELD EDIT REPORT
Quadrangles T-8654 and T-8655
Project CS-322

46. Methods:

These map manuscripts were field edited in accordance with the Field Edit Instructions dated 24 August 1945. All corrections and additions have been made accurately on the field edit prints in colored ink, or the place where a correction or addition is to be made has been indicated by a note which refers to a field photograph. All features which are to be deleted have been crossed out in colored ink.

New buildings were located either by pacing or taping and are shown on the field edit prints. A legend on each of these prints will furnish a key to all the symbols and to the different colored inks used.

47. Adequacy of the Compilation:

The planimetry as delineated on the map manuscripts may be considered as complete and adequate with respect to the corresponding ground detail. Except for the deletions, corrections, additions, and notations made on the field edit prints, it is accurate, also in regard to relative position.

Any omissions or drafting of detail that seemed to be questionable was called to the attention of the Compilation Office. Additional names of roads and public buildings were first obtained from signs and then verified by reliable authorities. Planetable methods were used in some instances to locate new cultural detail. Several drainage revisions were made in T-8654. Other minor changes, corrections, and omissions were noted and corrected on both sheets during the field edit.

All shoreline and offshore detail was carefully checked. Several dolphins and pile areas were added. The numerous inland wooded marsh, pond and slough areas appear to have been delineated correctly. These low land areas, unprotected by dikes or terrain relief, become flooded during the annual freshets. For additional information refer to side headings 1 and 7 of the "Field Inspection Report, Area of the Fourth Radial Plot, Project CS-322".

In accordance with the field edit instructions, these map manuscripts were examined for completeness and accuracy in regard to geographic names, boundaries, public land lines, and detail by Mr. D. C. Slaght, City and County Engineer, St. Helens, Oregon. The geographic names in this area have been reviewed by Mr. Lewis A. McArthur, Collaborator for the U. S. Coast and Geodetic Survey.

Special Report: Investigation of Boundary Monuments & Land Lines ...
Area of the Fourth Radial Plat.
Filed in Div. Photogram. General Files under "Sp'l Rep'ts."

48. Accuracy Tests:

Results of the horizontal accuracy test on these map manuscripts are attached to the back of this report. For data on this traverse refer to "Special Report Third-Order Traverse, HEDGES, 1946 - WARREN, 1903, Quadrangles T-8651, T-8654, and T-8655, Project CS-322".

49. Bench Mark Elevations:

There were no bench marks in T-8654. In T-8655, all bench marks were checked; however, some of the elevations of the USC&GS bench marks are unadjusted and subject to correction when adjusted.

50. Donation Land Claims and Section Lines:

Donation land claims and section lines were located on additional ozalid prints of the map manuscripts by a special field party after the initial compilation had been completed. These lines were indicated in red and purple ink, respectively, and supplemented, if necessary, by explanatory notes. These additional ozalid prints will be submitted with the field edit sheets. ℄ Filed in map manuscript envelope.

51. Geographic Names: (Listed in Geographic Names Report) 814

LEMONT HILL: In T-8651 just north of St. Helens

Although this report does not deal with T-8651, attention is called to the correct spelling of this name. Through a typographical error this name was listed as LAMONT HILL in the geographic names report for the fourth radial plot. The correct spelling is: LEMONT HILL.

Field Edit reviewed by:

Charles Hanavich
Charles Hanavich
Topo. Engineer

Field Edit by:

F. H. Elrod
F. H. Elrod
Prin. Photo. Aid

Approved by:

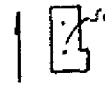
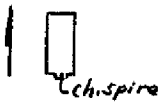
R. A. Earle
R. A. Earle
Chief of Party

HORIZONTAL ACCURACY TEST
Map Manuscripts T-8654 and T-8655
Project CS-322

This test consists of a check traverse between triangulation stations HEDGES, 1946 and WARREN, 1903. The traverse is 6.0 statute miles in length and the probable error is one part in 9,400. There are 45 test points available and 29 of them are within the limits of these map manuscripts.

In the tabulation, the geographic position from the traverse computations is referred to as T.P.No., and the scaled position from the map manuscripts (scale 1:8000) is referred to as M.M.No.

TABULATION OF TEST POINTS

| Description of Point | Test Point Number | Latitude | Longitude | Displacement in mm |
|---|---|---|---|---|
| | | T-8654 | | |
| Inter. of rd., 90 degrees | T.P.No.20 | 45 48 1807.4 | 122 51 24.4 | |
| | M.M.No.20 | 1807.0 | 25.6 | .13 |
| Inter. of T-rd., 75 degrees | T.P.No.20B | 45 48 1451.4 | 122 51 174.2 | |
| | M.M.No.20B | 1452.2 | 174.0 | .08 |
|  | T.P.No.B | 45 48 1525.8 | 122 51 682.9 | |
| | M.M.No.B | 1527.6 | 682.1 | .20 |
| Inter. of T-rd., 50 degrees | T.P.No.20C | 45 48 1447.7 | 122 51 339.2 | |
| | M.M.No.20C | 1448.2 | 338.6 | .08 |
| Center of ho. | T.P.No.21 | 45 48 1423.3 | 122 51 704.9 | |
| | M.M.No.21 | 1422.5 | 703.8 | .14 |
| Center of ho. | T.P.No.22 | 45 48 1420.5 | 122 51 1175.8 | |
| | M.M.No.22 | 1421.3 | 1174.3 | .17 |
| Ch. spire | T.P.Ch.spire | 45 49 312.1 | 122 51 104.7 | |
| | M.M.Ch.spire | 312.8 | 106.2 | .16 |
|  | | T-8655 | | |
| Inter. of rd. & RR, 80 degrees | T.P.No.9A | 45 50 1709.8 | 122 49 1040.4 | |
| | M.M.No.9A | 1708.3 | 1046.0 | .58 |
| Inter. of X-rds., 80 degrees | T.P.No.9B | 45 50 1722.2 | 122 49 1061.1 | |
| | M.M.No.9B | 1720.4 | 1065.0 | .43 |
| Inter. of T-rd., 70 degrees | T.P.No.10 | 45 50 1581.0 | 122 49 1146.6 | |
| | M.M.No.10 | 1579.0 | 1151.3 | .51 |
| Center of bldg. | T.P.No.10A | 45 50 1505.1 | 122 49 1185.8 | |
| | M.M.No.10A | 1505.1 | 1185.4 | .04 |
| Center of bldg. | T.P.No.11 | 45 50 1025.0 | 122 50 102.7 | |
| | M.M.No.11 | 1022.1 | 103.2 | .29 |

| | | | | |
|---|---|---|---|---|
| Inter. of T-rd., | T.P.No.12 | 45 50 882.4 | 122 50 134.9 | . |
| 45 degrees | M.M.No.12 | 882.9 | 137.6 | .27 |
| Bench mark | T.P.No.X-116 | 45 50 1501.1 | 122 49 1191.0 | |
| | M.M.No.X-116 | 1498.5 | 1193.7 | .37 |
| Inter. of X-rds., | T.P.No.13 | 45 50 629.8 | 122 50 232.2 | |
| 45 degrees | M.M.No.13 | 628.7 | 235.5 | .35 |
| Inter. of rd.& RR, | T.P.No.13A | 45 50 603.0 | 122 50 216.2 | |
| 45 degrees | M.M.No.13A | 601.4 | 220.0 | .41 |
| Bench mark | T.P.No.H-30 | 45 50 616.0 | 122 50 219.7 | |
| | M.M.No.H-30 | 613.5 | 220.0 | .25 |
| Inter. of T-rd., | T.P.No.14 | 45 50 280.3 | 122 50 365.8 | |
| 90 degrees | M.M.No.14 | 278.8 | 369.4 | .39 |
| Inter. of T-rd. | T.P.No.15 | 45 50 148.5 | 122 50 416.6 | |
| 90 degrees | M.M.No.15 | 147.2 | 419.1 | .28 |
| Cupola, center | T.P.No.A | 45 50 195.4 | 122 50 184.3 | |
| of barn | M.M.No.A | 192.8 | 186.8 | .36 |
| Inter. of T-rd. | T.P.No.16 | 45 49 1592.5 | 122 50 573.3 | |
| 85 degrees | M.M.No.16 | 1592.0 | 576.0 | .27 |
| Center of ho. | T.P.No.16A | 45 49 1292.4 | 122 50 732.2 | |
| | M.M.No.16A | 1293.3 | 733.8 | .18 |
| | T.P.No.17 | 45 49 958.3 | 122 50 817.5 | |
| | M.M.No.17 | Field road - not compiled | | |
| Inter. of rd.& RR, | T.P.No.17A | 45 49 737.3 | 122 50 877.3 | |
| 85 degrees | M.M.No.17A | 737.4 | 879.6 | .23 |
| Inter. of X-rds., | T.P.No.17B | 45 49 747.8 | 122 50 899.7 | |
| 90 degrees | M.M.No.17B | 747.1 | 901.2 | .16 |
| Inter. of rd& RR, | T.P.No.18 | 45 49 289.3 | 122 50 1093.2 | |
| 80 degrees | M.M.No.18 | 290.4 | 1097.2 | .41 |
| Inter. of X-rds., | T.P.No.19 | 45 49 286.5 | 122 50 1121.7 | |
| 80 degrees | M.M.No.19 | 287.6 | 1124.5 | .30 |
| Bench mark | T.P.No.V-102 | 45 49 235.2 | 122 50 1133.1 | |
| | M.M.No.V-102 | 234.4 | 1135.0 | .21 |
| Inter. of rd.& RR, | T.P.No.20A | 45 48 1783.9 | 122 50 1273.5 | |
| 90 degrees | M.M.No.20A | 1783.4 | 1275.1 | .17 |

Bench marks H-30(USC&GS), V-102(OSHD), and X-116(OSHD) were established as marked traverse stations; they were used as test points and were scaled as such prior to submitting the geographic positions for them to the Compilation Office for plotting. This was also true of the test point church spire which was established as an intersection station. These marked traverse stations and the intersection station, and test points B, 21, 22, 10A,11, A, and 16A

are less well defined. The remaining test points are well defined. The map manuscripts are believed to be well within the accuracy requirements since the only test points that exceeded .5 mm were 9A, and 10. The displacement of these points was found in the detailing.

Approved by:
R. A. Earle
Chief of Party

Respectfully submitted:
Charles Hanavich
Topo. Engr.

Division of Photogrammetry

Review Report of

Planimetric Map Manuscript T-8654

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

26. Control.

Four control stations shown on the map manuscript by a triangulation symbol are not to be smooth drafted. These stations are picture points. An explanatory note has been added to the drafting overlay.

28. Detailing.

Corrections made to the manuscript, during review, are shown in brown acid ink.

The detailed area of this manuscript follows the irregular pattern indicated on the project layout.

The offshore limits of wooded marsh have been changed from a dashed line to a thin solid line.

41. Donation Land Claim and Section Lines.

A small portion of the J. Stoughton D. L. C. boundary line omitted from this map manuscript by the compilation office was added during review. The eastern line of the Phillip Laffer D. L. C. was moved to the west. The names of four claims have been shown in red crayon on an ozalid print for the purpose of verification as original claims, by the Portland Office. One of these claims, Seth Pope, is listed in the Tabulation of Donation Land Claim Lines as an original claim but was not shown on the manuscript.

Section corner 11-12-13-14 was shown in the Special Report, Investigation of Boundary Monuments and Lines, Area of the Fourth Radial Plot and indicated on the land line field edit print, submitted by the compilation office, as an unrecovered corner. A pricking card and Form 524 card were submitted for this corner and it is mentioned as a recoverable topographic station in the Compilation Report. The reviewer has reclassified this corner as a recovered monumented corner on the manuscript, ozalid print and in the Special Report.

44. Comparison with Existing Topographic Surveys.

Comparison was made with the following 15' quadrangle and the planimetry in all common areas is superseded by T-8654:

U. S. E. St. Helens, Ore.-Wash. 1:62,500 1943

Division of Photogrammetry

Review Report of

Planimetric Map Manuscript T-8655

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

28. Detailing

Corrections made to the manuscript, during review, are shown in brown acid ink.

The offshore limits of wooded marsh have been changed from a dashed line to a thin solid line.

41. Donation Land Claim and Section Lines.

Corrections made to the section lines consisted of a relegation to a position approximating their original layout on the General Land Office plats.

Adjustments to one Donation Land Claim boundary were effected.

44. Comparison with Existing Topographic Surveys.

Comparisons were made with the following (A) Previous Surveys and (B) Quadrangle and the planimetry in all common areas is superseded by T-8655.

A. Previous Surveys

| | | |
|---|---|---|
| T-1542 | 1:10,000 | 1882 |
| T-1563 | 1:10,000 | 1880 |
| T-6570 | 1:10,000 | 1937 |
| T-6571 | 1:10,000 | 1937 |

B. Quadrangle

U.S.E. St. Helens, Ore.-Wash. 15' 1:62,500

An adequate description of these comparisons appears on the Record Sheet attached to this Descriptive Report.

45. Comparison with Nautical Charts

This manuscript has not been applied to nautical charts. It was compared with Chart 6154 1:40,000 1945 and it supersedes that chart in all common features in the same area.

Reviewed by:

Harold R. Brooks
Harold R. Brooks
Photogrammetrist
17 June 1947

Reviewed under direction of:

S. V. Griffith
S. V. Griffith 6/17/47
Chief, Review Section

APPROVED BY:

B.J. Jones 11/47
Technical Assistant to the
Chief, Div. of Photogrammetry

K.T. Adams
Chief, Div. of Photogrammetry

Chief, Nautical Chart Br.
Division of Charts

E.F. Green
Chief, Div. of Coastal Surveys

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Project CS-322 T-8655

# NONFLOATING AIDS OR LANDMARKS FOR CHARTS

~~TO BE CHARTED~~ } STRIKE OUT ONE
~~TO BE DELETED~~ }

Portland, Oregon 11 March, 1947

The following aids to navigation and landmarks ~~I recommend that the following objects which~~ have *(have not)* 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 by J.W. Neal

R. A. Earle *Chief of Party.*

STATE OREGON

| CHARTING NAME | DESCRIPTION | SIGNAL NAME | POSITION LATITUDE ° ′ | LATITUDE D.M. METERS | LONGITUDE ° ′ | LONGITUDE D.P. METERS | DATUM | METHOD OF LOCATION AND SURVEY No. | DATE OF LOCATION | HARBOR CHART | INSHORE CHART | OFFSHORE CHART | CHARTS AFFECTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STACK | ST. HELENS PULP & PAPER COMPANY Tall stack. | STACK | 45 50 | (249.3) 1603.1 | 122 48 | (1172.3) 122.3 | N.A. 1927 | Triangulation | 1937 | | X | | 6154 |
| TANK | ST. HELENS PULP & PAPER COMPANY | TANK | 45 50 | (47.2) 1805.3 | 122 48 | (1146.6) 148.0 | " | Radial Plot | 3-6-47 | | X | | " |
| STACK | ST. HELENS FIRTEX STACK | STACK | 45 50 | (1124.7) 727.8 | 122 48 | (61.4) 1233.4 | " | Triangulation | 1937 | | X | | " |
| LIGHT | MULTNOMAH CHANNEL LIGHT Fl. R. 4 Sec. | LIGHT | 45 50 | (1666.3) 186.2 | 122 48 | (558.3) 736.7 | " | Radial Plot | 3-28-46 | | X | | " |
| LIGHT | HENRICI LANDING RANGE REAR LIGHT Occ. W., 6 Sec. | LIGHT | 45 48 | (252.4) 1600.0 | 122 48 | (1235.4) 60.0 | " | " | 4-4-46 | | X | | " |

Letter 451 (1947)

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. 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.

# GEOGRAPHIC NAMES

Survey No. T-8654 & T-8655

| 1 Name on Survey | On Chart No. A | On previous survey No. B | On U. S. quadrangle Maps C | From local information D | On local Maps E | P. O. Guide or Map F | Rand McNally Atlas G | U. S. Light List H | K | |
|---|---|---|---|---|---|---|---|---|---|---|
| Both sheets: | | | | | | | | | | 1 |
| Oregon | | | ✓ | | | | | | | 2 |
| Columbia County | | | ✓ | | | | | | | 3 |
| Spokane, Portland & Seattle | | | ✓ | | | | | | | 4 |
| U.S. No. 30 Columbia River Highway | | | ✓ | | | | | | | 5 |
| Warren | ✓ | | ✓ | | | | | | | 6 |
| Scappoose Bay | ✓ | | | | | | | | | 7 |
| Church Road | ✓ | | | | | | | | | 8 |
| Morse Road | ✓ | | | | | | | | | 9 |
| Bachelor Flat Road | ✓ | | | | | | | | | 10 |
| Millard Road | ✓ | | | | | | | | | 11 |
| McNulty Creek | ✓ | | | | | | | | | 12 |
| P.G.E. Co. Power Line | ✓ | | | | | | | | | 13 |
| Bennet Road | ✓ | | | | | | | | | 14 |
| | | | | | | | | | | 15 |
| | | | | | | | | | | 16 |
| | | | | | | | | | | 17 |
| T-8654: | | | | | | | | | | 18 |
| Bethany Lutheran Church | | | | | | | | | | 19 |
| Warren School | | | | | | | | | | 20 |
| Slaven Road | | | | | | | | | | 21 |
| Berg Road | | | | | | | | | | 22 |
| Honeyman Creek | | | | | | | | | | 23 |
| Sly Creek | | | | | | | | | | 24 |
| Oester Road | | | | | | | | | | 25 |
| Fullerton Road | | | | | | | | | | 26 |
| Hazen Road | | | | | | | | | | 27 |

M 234

GEOGRAPHIC NAMES

Survey No. T-8654 & T-8655

| | 2 Name on Survey | On Chart No. A | On previous survey No. B | On U. S. quadrangle Maps C | From local information D | On local Maps E | P. O. Guide or Map F | Rand McNally Atlas G | U. S. Light List H | K | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | T-8654 (continued): | | | | | | | | | | 1 |
| ✓ | Bonneville Power Administration Transmission Line | | | | | | | | | | 2 |
| ✓ | Stone Road | | | | | | | | | | 3 |
| ✓ | Bachelor Flat School | | | | | | | | | | 4 |
| ✓ | Saulser Road | | | | | | | | | | 5 |
| | | | | | | | | | | | 6 |
| | T-8655: | | | | | | | | | | 7 |
| ✓ | Multnomah Channel | | | | | | | | | | 8 |
| ✓ | Sauvie Island | | | | | | | | | | 9 |
| ✓ | Cunningham Slough | | | | | | | | | | 10 |
| ✓ | Henrici Landing Range Rear Light | | | | | | | | | | 11 |
| ✓ | Jackson Slough | | | | | | | | | | 12 |
| ✓ | Scappoose Creek | | | | | | | | | | 13 |
| ✓ | Old Portland Road | | | | | | | | | | 14 |
| ✓ | Warren P.O. | | | | | | | | | | 15 |
| ✓ | Warren Baptist Church | | | | | | | | | | 16 |
| ✓ | Warren Lutheran Cemetery | | | | | | | | | | 17 |
| ✓ | Oddfellows Cemetery | | | | | | | | | | 18 |
| ✓ | Achilles Road | | | | | | | | | | 19 |
| ✓ | McNulty School | | | | | | | | | | 20 |
| ✓ | McNulty | | | | | | | | | | 21 |
| ✓ | Milton Creek | | | | | | | | | | 22 |
| ✓ | Kaster Road | | | | | | | | | | 23 |
| ✓ | Multnomah Channel Light | | | | | | | | | | 24 |
| ✓ | Fir-Tex Company | | | | | | | | | | 25 |
| ✓ | St. Helens Wood Products Company | | | | | | | | | | 26 |
| ✓ | St. Helens Pulp and Paper Company | | | | | | | | | | 27 |

Names underlined in red approved by L. Heck 4/29/47

M 234

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: c/o Swan Island Postal Station,
Portland 18, Oregon

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

78

29 July 1947

To: Chief, Division of Photogrammetry,
U.S. Coast & Geodetic Survey,
Washington 25, D.C.

Subject: Review of Map Manuscript T-8654.

Reference: Your Letter 78-aar dated 9 June 1947

The recommended changes by the Washington Office in the position of land lines, in the area of Map Manuscript No. T-8654, have been investigated. The original land line data which had been furnished the compilation office was not complete, and in order to obtain the correct information on the land lines, it was necessary to peruse the copies of the original deeds on file in the Columbia County Court House at St. Helens, Oregon. The results of the investigation are as follows:

The claim Ziopher Perkins is listed as the Zopher Perkins D.L.C. in the original deed and in the records of Columbia County. It has been added to the map manuscript and drafted on the smooth draft sheet. The name Zopher Perkins should be added to the smooth draft sheet at the Washington Office by use of stick-up. The land lines and notes of explanation regarding this claim have been shown on an ozalid print with green crayon pencil.

The Kerno claim is listed as the James A. Kerns D.L.C. in the original deed and in the record of Columbia County. It has been added to the map manuscript and drafted on the smooth draft sheet. The name James A. Kerns should be added to the smooth draft sheet at the Washington Office by use of stick-up. The land lines and notes of explanation regarding this claim have been shown on an ozalid print of T-8654 with green crayon pencil.

The Seth Pope claim should not be considered a D.L.C. and is not recognized as such in Columbia County, Oregon. The land was originally granted by President Abraham Lincoln to John Bird as a veteran of the Black Hawk War. He sold the claim to Seth Pope some time after the original grant. This name should not appear on the published maps as it is not a donation land claim.

B 8/7/47

The J. G. Martin D.L.C. has been added to the map manuscript and drafted on the smooth draft map. The name J. G. Martin should be added to the smooth draft map at the Washington Office by use of stick-up. The land lines and notes of explanation have been shown on an ozalid print of T-8654 with green crayon pencil.

The east line of the Phillip Laffer D.L.C. has been moved as suggested by the reviewer. The new position is shown on the smooth draft map and the map manuscript has been corrected.

While investigating the above claims, it was found that a claim known as the N. Hoyt D.L.C. falls in the southeast part of this map manuscript east of the Jacob G. Nessley and the Phillip Laffer donation land claims. It has been added to the map manuscript. This name should be added to the smooth draft map at the Washington Office by use of stick-up.

It was also noticed that the claim of Jacob A. Wessley is listed as Jacob G. Nessley in the record of Columbia County. Mr. Fred Watkins, Assessor of Columbia County states that this name is known as and listed in many deeds in the county as Nessley. This name should be shown on the published maps as Jacob G. Nessley. It has been corrected on the map manuscript and smooth draft sheet.

R. A. Earle,
Lt. Comdr., U.S.C.&G.S.,
Chief of Party

# NAUTICAL CHARTS BRANCH

SURVEY NO. 8654, 8655

## Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| 5/20/48 | 6154 | Risegari | ~~Before~~ After Verification and Review Partially appld. |
| | | | Before After Verification and Review |
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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.