

11463

5-8679

Diag. Cht. No. 6154

115-8-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

Field No. Ph-141 Office No. T-11463

LOCALITY

State Oregon

General locality Portland

Locality Swan Island

194/54

CHIEF OF PARTY

Fred Natella, Chief of Party
L.W. Swanson, Div. of Photogrammetry
Washington, D.C.

LIBRARY & ARCHIVES

DATE January 9, 1958

B-1870-1 (1)

4 20 54 11 2 15-294

54

11463

2. 1

DATA RECORD

T - 11463

Project No. (II): Ph-141 Quadrangle Name (IV):

Field Office (II): Portland, Oregon Chief of Party: Fred Natella
Division of Photogrammetry
Photogrammetric Office (III): Washington, D.C. Officer-in-Charge: L. W. Swanson

Instructions dated (II) (III): 21 July 1954 Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): Kelsh Plotter

Manuscript Scale (III): 1:5000 Stereoscopic Plotting Instrument Scale (III): 1:2000

Scale Factor (III):

Date received in Washington Office (IV): *APR - 6 1955* Date reported to Nautical Chart Branch (IV): *4-12-1955*

Applied to Chart No. Date: Date registered (IV): *4-23-57*

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): NA 1927

Vertical Datum (III): MHW (*M.H. River Level*)

**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

Reference Station (III): 39.2 (USE) 1934

Lat.: 45° 34' 19.632" Long.: 122° 43' 48.911" Adjusted
Unadjusted

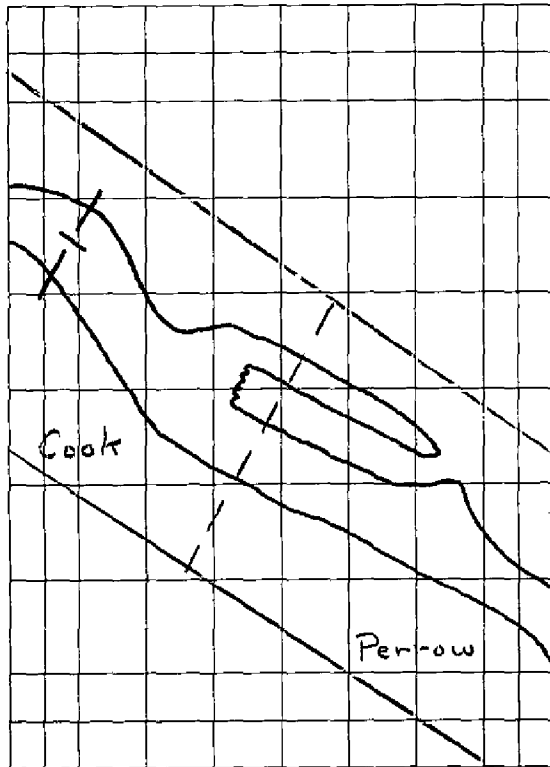
Plane Coordinates (IV): State: Zone:

Y= X=

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.

2.2



detailed
Areas ~~controlled~~ by various personnel
(Show name within area)
(II) (III)

DATA RECORD

Field Inspection by (II): James L. Harris, Southwest shore Date: 8/23-8/31/54
 Don N. Williams, Northeast shore Date: 8/23-8/31/54
 J.E. Deal & J. L. Harris (control) 8/10-8/23/54
 R. B. Melby and G.R. Combs (Shoreline) 12/3-12/8/54

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

Mean High Water Location (III) (State date and method of location):

Date of Field Inspection
 Indicated on Field Photographs

Projection and Grids ruled by (IV): A. Riley Date: 7/8/54

Projection and Grids checked by (IV): A. Riley Date: 7/8/54

Control plotted by (III): C. E. Cook Date: 1/5/55

Control checked by (III): H. Bromberg Date: 1/5/55

Radial Plot or Stereoscopic Control extension by (III): None Date:

Stereoscopic Instrument compilation (III): Planimetry C. E. Cook Date: 1/19/55
 J. D. Perrow

Contours None Date:

Manuscript delineated by (III): J. McDonald Date: 1/26/55

Photogrammetric Office Review by (III): C. E. Cook Date: 1/28/55

Elevations on Manuscript checked by (II) (III): None Date:

Camera (kind or source) (III): W. Camera

| | | PHOTOGRAPHS (III) | | | |
|-------------|---------|-------------------|----------|--------------------------|--|
| Number | Date | Time | Scale | Stage of Tide | |
| W 2140-2148 | 5/28/54 | 8:53 to 8:54 | 1:10,000 | Flood | |
| W 2155-2162 | " | 8:59 to 9:01 | " | " | |
| W 2921-2928 | 9/26/54 | 15:37 to 15:39 | " | 0.7 ft. From Tide tables | |

Field inspection photographs ratioed to 1:5,000.

Tide (III)

diurnal

Reference Station: Astoria
 Subordinate Station: Portland (Mn. Ry Normal River Level) →
 Subordinate Station:

| Ratio of Ranges | Mean Range | Spring Range |
|-----------------|------------|--------------|
| | 6.5 | 8.2 |
| | 1.8 | 2.4 |

Washington Office Review by (IV): _____ Date: _____
 Final Drafting by (IV): R. Hopkins Date: 11-20-55
 Drafting verified for reproduction by (IV): _____ Date: _____
 Proof Edit by (IV): _____ Date: _____

Land Area (Sq. Statute Miles) (III):
 Shoreline (More than 200 meters to opposite shore) (III): 11 miles
 Shoreline (Less than 200 meters to opposite shore) (III):
 Control Leveling - Miles (II):
 Number of Triangulation Stations searched for (II): 54 Recovered: 45 Identified: 18
 Number of BMs searched for (II): 9 Recovered: 9 Identified: 9
 Number of Recoverable Photo Stations established (III):
 Number of Temporary Photo Hydro Stations established (III):

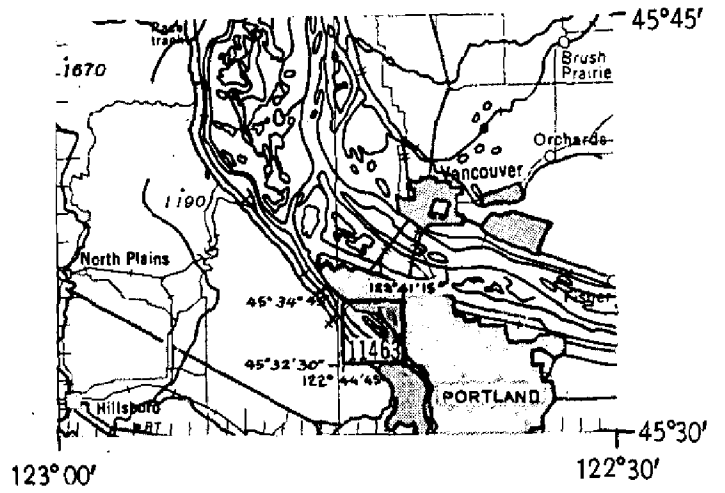
Remarks:

[Handwritten mark]

SHORELINE MAPPING PROJECT PH-141

Swan Island, Oregon

| OFFICIAL MILEAGE FOR COST ACCOUNTS | | |
|------------------------------------|-----------|----------|
| SHEET NO. | LIN. MI. | AREA |
| 11463 | SHORELINE | SQ. MI. |
| | <u>11</u> | <u>5</u> |
| TOTALS | 11 | 5 |



Summary to Accompany
T-11463

This map constitutes the whole of project Ph-141 (54), which was set up to provide a 1:5,000 scale base map for a new nautical chart.

Field inspection was performed by personnel from the Portland Photogrammetric Office and was done during two periods. The first period, August 10-31, 1954 was used for recovery of control and general shore inspection for which flood water photographs were available. In the second period, December 3-8, 1954, shoreline was delineated upon photographs taken in September 1954 when the river was at approximately mean high river level.

MAP T. 11463 PROJECT NO. Ph-141 SCALE OF MAP 1:5,000 SCALE FACTOR 2.0

| 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) | |
| Portland, Texas Oil Co. stack 1938 (d) r 41 | 436 45 | NA 1927 | 45 32 | 59.606 | 1840.2 | 12.2 | | | | |
| | | | 122 43 | 32.066 | 695.6 | 605.9 | | | | |
| Portland, Kerr- Gifford elevator flagstaff 1938 (d) r 45 | 436 (d) r 45 | | 45 33 | 15.85 | 489.3 | 1363.1 | | | | |
| | | | 122 41 | 45.06 | 977.4 | 324.0 | | | | |
| Portland UPRR , dock, flagstaff 1938 (d) r 45 | 436 | | 45 32 | 57.433 | 1773.1 | 79.3 | | | | |
| | | | 122 41 | 32.377 | 702.3 | 599.2 | | | | |
| Scott, 1882 r 1938 (dm) | 719 | | 45 33 | 22.756 | 702.5 | 1149.9 | | | | |
| | | | 122 44 | 05.915 | 128.3 | 1173.1 | | | | |
| 392 (USE 1912) | | | 45 34 | 19.632 | 606.1 | 1246.3 | | | | |
| 1934 r 1938 dm | 791 | | 122 43 | 48.911 | 1060.6 | 240.4 | | | | |
| 382 (USE 1899) | | | 45 34 | 29.102 | 898.5 | 953.9 | | | | |
| 1934 r 1938 dm | 791 | | 122 44 | 52.659 | 1141.8 | 159.1 | | | | |
| 452 (USE) 1906 nd | 798 | | 45 33 | 11.314 | 349.3 | 1503.1 | | | | |
| NPRR bridge, Lt on center of draw, 1913 nd | 801 | | 122 41 | 40.958 | 888.4 | 413.0 | | | | |
| | | | 45 34 | 37.19 | 1148.2 | 704.2 | | | | |
| Standard Oil Co. white tank 1913 (nd) | | | 122 44 | 46.12 | 1000.0 | 300.9 | | | | |
| | | | 45 33 | 51.09 | 1577.3 | 275.1 | | | | |
| UPRR Block Signal 12 R, 1954 | | | 122 44 | 34.80 | 754.7 | 546.5 | | | | |
| | | | 45 34 | 10.693 | 330.1 | 1522.3 | | | | |
| UPRR Block Signal 12 L, 1954 | | | 122 42 | 32.267 | 699.7 | 601.4 | | | | |
| | | | 45 34 | 03.661 | 113.1 | 1739.3 | | | | |
| Swan Island, lower light 1954 | | | 122 42 | 21.080 | 457.1 | 844.0 | | | | |
| | | | 45 33 | 55.682 | 1719.1 | 133.3 | | | | |
| | | | 122 43 | 29.865 | 647.6 | 653.5 | | | | |

MAP T. 111463 PROJECT NO. 72-111 SCALE OF MAP 1:5,000 SCALE FACTOR 2.0

| 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) | | FORWARD | (BACK) | | |
| Columbia (Ore.) 1935 | 320 | NA 1927 | 45 34 | 16.343 | 504.6 | 1347.8 | | | | | |
| (Portland, PRL&P White Concrete stack 1913, 1916 r'35 (ND) | 367 | | 122 43 | 24.122 | 523.1 | 777.9 | | | | | |
| (Portland, Oceanic Terminals, Tank, 1935 (d) | 367 | | 45 32 | 31.022 | 957.7 | 894.7 | | | | | |
| (Portland, Oceanic Terminals, Tank, 1935 (d) | 367 | | 122 41 | 39.176 | 849.9 | 451.8 | | | | | |
| (Portland, Oceanic Terminals, Tank, 1935 (d) | 367 | | 45 32 | 54.023 | 1667.9 | 184.5 | | | | | |
| (Portland, UPRR Co. elev. black tank, 1935 (d) r'38, r'45 | 368 | | 122 42 | 08.205 | 178.0 | 1123.5 | | | | | |
| (Portland, UPRR Co. elev. black tank, 1935 (d) r'38, r'45 | 368 | | 45 33 | 19.577 | 604.4 | 1248.0 | | | | | |
| (Portland, UPRR Co. elev. black tank, 1935 (d) r'38, r'45 | 368 | | 122 41 | 46.504 | 1008.7 | 292.7 | | | | | |
| Kittridge 1938 (dm) r'45 | 419 | | 45 33 | 16.878 | 521.1 | 1331.3 | | | | | |
| Kittridge 1938 (dm) r'45 | 419 | | 122 44 | 17.398 | 377.3 | 924.1 | | | | | |
| Portland, Black stack nr. SP&SRR Bridge 1938 (d) | 430 | | 45 34 | 50.55 | 1560.6 | 291.8 | | | | | |
| Portland, Black stack nr. SP&SRR Bridge 1938 (d) | 430 | | 122 44 | 32.70 | 708.9 | 591.9 | | | | | |
| Portland, Concrete Stack 1913 r'1938 (d) r'45 | 430 | | 45 34 | 29.502 | 910.8 | 941.6 | | | | | |
| Portland, Concrete Stack 1913 r'1938 (d) r'45 | 430 | | 122 43 | 54.754 | 1187.2 | 113.7 | | | | | |
| Portland, Bethlehem Steel Co. stack 1938 (d) r'41 r'45 | 432 | | 45 34 | 02.776 | 85.7 | 1766.7 | | | | | |
| Portland, Bethlehem Steel Co. stack 1938 (d) r'41 r'45 | 432 | | 122 44 | 47.714 | 1034.7 | 266.4 | | | | | |
| Portland, Shell Oil Co. taller of 2 stacks 1938 (d) r'41 r'45 | 432 | | 45 33 | 55.186 | 1703.8 | 148.6 | | | | | |
| Portland, Shell Oil Co. taller of 2 stacks 1938 (d) r'41 r'45 | 432 | | 122 44 | 34.981 | 758.6 | 542.5 | | | | | |
| Portland, Stander Oil Co. dock, flag- pole, 1938 (d) r'45 | 433 | | 45 34 | 03.376 | 104.2 | 1748.2 | | | | | |
| Portland, Stander Oil Co. dock, flag- pole, 1938 (d) r'45 | 433 | | 122 44 | 09.028 | 195.8 | 1105.3 | | | | | |
| Portland, Union Oil Co. dock, flagpole, 1938 (d) r'45 | 433 | | 45 34 | 01.107 | 34.2 | 1818.2 | | | | | |
| Portland, Union Oil Co. dock, flagpole, 1938 (d) r'45 | 433 | | 122 44 | 06.091 | 132.1 | 1169.0 | | | | | |
| Portland Swen Is. Lower Lt. 1938 (d) r'46 | 434 | | 45 33 | 57.619 | 1778.9 | | | | | | |
| Portland Swen Is. Lower Lt. 1938 (d) r'46 | 434 | | 122 43 | 29.444 | 638.5 | | | | | | |

1 FT. = .3048006 METER
COMPUTED BY: C.E. Cook
CHECKED BY: L.J. Reed
DATE: 12-30-54
DATE: 30 December 1954
M-2388-12

FIELD INSPECTION REPORT

PORTLAND, OREGON

PROJECT PH-141

August 1954

2. Areal Field Inspection:

The portion of the City of Portland, Oregon located in the vicinity of Swan Island comprises much of the industrial section of the city.

The Willamette River flows northward through this area and empties into the Columbia River about five miles downstream. There is only slight tidal action in the river, but when the snows melt in the mountains in the spring the river sometimes rises to extreme heights, often causing serious flood damage such as occurred in May 1948. These floods are derived not only from its own drainage area but are also from the flood waters of the Columbia River which spread into the Willamette River. At Swan Island a normal rise in the river, in the spring, is about 18.0 ft. above the U. S. Engineers Low-water datum for the river.

Along the southwest shore, at this part of the Willamette River, is a low flat strip of land terminating abruptly about 3/4 mile inshore at the base of steep hills. Along this shoreline are many shipping facilities, large railroad yards, oil refineries, lumber companies and many other industrial operations. The Spokane, Portland and Seattle R. R. runs along this side of the river and crosses to the northeast shore at Doane Point.

Swan Island, which is actually a low flat peninsula, is the site of a former World War II shipyard. It is now occupied by several industrial enterprises consisting principally of steel, lumber and marine supplies. Excellent dry-dock facilities and repairs for ocean going ships are available at the northwest end of the island. At the southeast end or entrance to Swan Island is the U. S. Coast Guard Station and immediately across the road is the U. S. Naval and Marine Corps Reserve Training Center. The latter has wharf facilities for its training vessels at the head of Swan Island Basin, which lies along the northeast shore of Swan Island. The many other government agencies which were housed on Swan Island have recently moved to new quarters located elsewhere in the City of Portland.

Along the northeast side of Swan Island Basin is a semi-cir-

cular area known as Mocks Bottom through which runs the north-bound tracks of the Union Pacific R. R. This area is constantly being filled with river bottom material during dredging operations in the Willamette River. Several large warehouses have recently been built on the filled ground at the southeast end of Mocks Bottom. Mocks Bottom terminates inshore at a 150 ft. high bluff. Inshore from the bluff the area is chiefly residential. From Swan Island northward along the northeast shore of the Willamette River is a narrow flat strip of land terminating $\frac{1}{2}$ mile inshore at the base of a 150 ft. bluff. Several industries, chiefly lumber, are located here. In the flat area inshore from the top of the bluff are the University Park and St. Johns districts of Portland which are residential. At the southeast end of this area, facing the river, is the University of Portland. On the campus near the edge of the high bluff is a boulder monument commemorating a spot from which Lewis and Clark viewed the Willamette River. This is the farthest point upstream of the Willamette River that they reached in their journey westward.

Southeast of Swan Island along the northeast shore of the Willamette River is also a flat area terminating about $\frac{1}{2}$ mile inshore at the base of a 150 ft. bluff. Here are located the Union Pacific R. R. yards and several grain elevators and grain shipping facilities.

The photography is excellent and planimetric features are easily decernable. The photographs were taken, however, when the river was in flood stage or about 18.0 ft. above the U. S. Engineers Low-water datum and the shoreline at the desired height is covered. The inspection of the shoreline and some shoreline structures will be deferred until new photography, to be made in the fall of 1954, is received. Provision has been made in this report for later insertion of pages discussing Item 7, "Shoreline and alongshore features."

3. Horizontal Control:

A search was made for all horizontal control stations listed on the project index and appropriate recovery notes executed on Forms 526.

Stations were positively identified at all places as requested on a designated horizontal control identification copy of the project index except in the extreme southeast corner of the project where stations requested to be identified were destroyed, namely:

1. PORTLAND, EASTERN & WESTERN LUMBER CO. TANK, 1938
2. PORTLAND, EASTERN & WESTERN LUMBER CO. MORE EASTERN OF TWO STACKS, 1938

In lieu of these stations two other stations were identified, one just north and one just south of the destroyed stations.

Also to replace a destroyed intersection station located in Mocks Bottom, namely PORTLAND, MOCKS BOTTOM R.R. SIGNAL, 1938, there were located intersection stations as follows:

PORTLAND, UNION PACIFIC R.R. BLOCK SIGNAL, 12 L, 1954
 PORTLAND, UNION PACIFIC R.R. BLOCK SIGNAL, 12 R, 1954

One other intersection station was located, namely:

SWAN ISLAND LOWER LIGHT, 1954

4. Vertical Control:

Not applicable except that several tidal bench marks were recovered and identified.

5. Contours and Drainage:

Contours are not applicable. Drainage was indicated on the field photographs with the proper symbol.

6. Woodland Cover:

Not applicable.

7. Shoreline and Alongshore Features:

The alongshore detail and shoreline datum plane includes the Willamette River and the Swan Island Basin, commencing about 0.3 mile south-east of the highway bridge at St. Johns and extending upstream for about 4.5 miles.

The shore sediments are mostly sand and mud except in the fill areas which are usually of a stone-boulder composition, with occasional concrete revetments, piling bulkheads and riprap.

The foreshore consists chiefly of sand and mud sediments.

The datum plane of the shoreline indicated on the photographs is 5.0 feet above the low water datum of the U. S. Army Engineers. The 0 / 00 of the U. S. Army Engineers gauge at St. Johns Mooring is 1.29 feet above mean sea level.

When determining the shoreline on the photographs the daily readings were obtained from the above gauge and corrections were made.

Photography for the shoreline inspection was flown the 26th of September 1954. The water level at the time of photography was 3.1 feet above U. S. Army Engineers low water datum. Earlier photography was inadequate due to the extreme high water level. (*actual river level*)

Measurements from identifiable objects were used to aid in the establishing of the indicated shoreline.

Low water line is not applicable. It was not delineated. Fore-shore areas visible on the photographs were labeled.

The steep river banks that are generally found along the major portion of the shore rise 15 to 25 feet. These are composed of sand or sand-gravel, reinforced in some places by riprap, pile bulkheads and concrete revetments.

Piers, wharves, floating catwalks, marine ways and moorings are found along the length of both shores of the river and the northeast shore of Swan Island, except in the southeast project area which is highly industrialized and along the unprotected southwest side of Swan Island. Numerous piling and dolphins are found offshore that serve as moorings for log rafts. All of these are clearly visible on the photographs.

There is a double cable crossing located just south of the Spokane, Portland and Seattle R.R. Bridge. This double crossing is indicated on photograph No. 54-W-2927. There are no overhead cable crossings spanning the Willamette River or the Swan Island Basin within the limits of the shoreline inspection. (*511 @ 9:45 AM Dec 8, 1954 at about 6 ft range of river levels or opposite M.H. Riv. Dam.*)

The clearance for the Spokane, Portland and Seattle R.R. Bridge was redetermined. This is the only bridge within the limits of the shoreline inspection.

Other shoreline features are the abandoned ferry slip offshore and near the southwest tip of Swan Island and a line of houseboats moored on the north side of the mouth of Swan Island Basin, which have been under discussion in this area as being an obstruction to navigation into the Swan Island Dry Docks and Basin.

Since the time of photography a new pier and several dolphins were constructed on the west shore of the Willamette River opposite the northwest end of Swan Island. These are shown on photograph No. 54-W-2925. *L*

8. Offshore Features:

There are no offshore features.

9. Landmarks and Aids:

Landmarks were selected by the hydrographic party during the hydrographic survey in the spring of 1954. All of these were verified and those which did not have a triangulation geographic position were identified on the photographs.

Fixed aids to navigation were verified and identified on the photographs. SWAN ISLAND LOWER LIGHT, 1954 was located as an intersection station. Only one direction was observed on SWAN ISLAND MIDDLE LIGHT.

10. Boundaries, Monuments and Lines:

Not applicable.

11. Other Control:

During the hydrographic survey in the spring of 1954 the location of several recoverable topographic stations, not reported on Forms 567, were submitted on Forms 524. All but one of these were identified on the field photographs and a sketch was made for each on the applicable Form 524. They are as follows:

BOO, DON, MADRONA, ORE, POD, ROW, TEX, TOW, VER, WALL,
and WAN

There was no photograph coverage for WALL.

12. Other Interior Features:

Buildings were classified and indicated on the field photographs in an area at least 300 meters wide along both shorelines to the extent of photograph coverage. In the interior public and landmark buildings were indicated.

All roads are (D.F.L.) double full lines unless otherwise indicated on the field photographs.

The bridge clearances of the Spokane, Portland and Seattle R.R. bridge were not measured because there has been no change since they were last obtained. If desired they may be measured at the time of shoreline inspection. *Was done — see page 10*

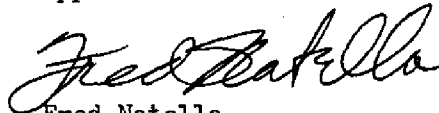
13. Geographic Names:

Not applicable.

14. Special Reports and Supplemental Data:

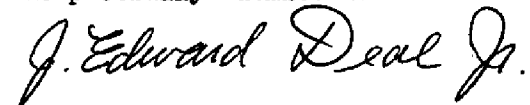
There are none.

Approved:



Fred Natella
Comdr., USC&G Survey
Chief of Party

Respectfully submitted:



J. Edward Deal, Jr.
Cartographer

Compilation Report
T-11463

31. Delineation. Both Kelsh plotters in the Washington office were used in compilation of this sheet.
32. Control
- a. All recovered control in the area covered by the photography was well identified and usable.
- b. Control was well located in the end models of the flight. The two new stations established near "Portland, Mocks Bottom RR Signal, 1938", could not be reached in the models in the center of the area to be mapped because of excessive tilt. By working from the ends of the strip toward the center with pass points left on adjacent models, the center models were satisfactorily oriented.
- c. Several field identified control points on the south west side of the strip were not used because they were outside of the area covered by the photographs.

Viking, 1938
Kittridge, 1938
Portland, Texas Oil Co. Stack, 1938
American Can Co., Elevated Tank, 1935

33. Not applicable.
34. Not applicable.
35. Shoreline and alongshore details - One pier not on existing photographs was added from a field sketch by holding to adjacent detail.
36. Not applicable.
37. Landmarks and aids to navigation - All landmarks and aids to navigation were located by planetable and submitted in Chart Letter 587 (54) except Shaver Dock Light. *check*
The position for this light was added to the original chart letter during compilation.

Positions obtained by Kelsh Plotter for all landmarks and aids to navigation were added to the original chart letter in red. These positions varied from the planetable positions as much as four meters.

38. Recoverable Topographic Stations.- Topo Station HID 1954 (WCFP-B-54) was misidentified on the phtos. A position was obtained for the flagpole identified on the photo and described on Form 524. Station HID was office identified and the planetable position checked.

39. Not applicable.
40. Not applicable
41. Bridge Clearance - S. P. and S. Railway bridge vertical clearance is to be considered approximate. The tidal reference station is not close enough to give accurate data at bridge location.
46. Comparison with existing maps - T-8679, 1947, Scale 1:9600 was used for comparison.
47. Comparison with nautical charts. -

Chart No. 6155, 1:20,000
1951, 4/12/54

48. Geographic Names list:

Swan Island ✓
Swan Island Basin ✓
Willamette River ✓

*Names approved.
4-18-55
agw*

49. Notes for Hydrographer:

Topographic Stations Tripod (Pod) 1954
Building (Wan) 1954
Building (Ver) 1954
Booth (Boo) 1954
Chimney (Tow) 1954
Firebox (Tex) 1954
Pumphouse (Ore) 1954
Gable (Don) 1954
Flagpole 1954

Other stations reported on Form 567

*Lum ✓ Ack ✓ Red ✓
sta ✓ Ron ✓
Yar ✓ Air ✓
Lit ✓ Skel ✓*

Approved by:

Submitted by:

Charles Theurer
C. Theurer
Supervisory Cartographer

Charles E. Cook
Charles E. Cook
Cartographic Photogrammetric Aid

*Lum
sta
Yar
Lit
Ack
Ron
Air
Skel
Red*

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

South Bend, Washington 16 June 1954 19

I recommend that the following objects which have ~~(been noted)~~ been inspected from seaward to determine their value as landmarks to be charted on ~~(selected from)~~ the charts indicated.

The positions given have been checked after listing by

G. E. Haraden

Copy Chart Letter 587 (54)

G. A. George Chief of Party

| CHARTING NAME | STATE | DESCRIPTION | SIGNAL NAME | POSITION | | | | DATUM | METHOD OF LOCATION AND SURVEY NO. | DATE OF LOCATION | HARBOR CHART | INSHORE CHART | OFFSHORE CHART | CHAR AFFE |
|----------------|--------|---|-------------|----------|-----------|--------------|--------------|---------|-----------------------------------|------------------|--------------|---------------|----------------|-----------|
| | | | | LATITUDE | LONGITUDE | D. M. METERS | D. P. METERS | | | | | | | |
| * STACK | Oregon | Concrete stack | Con ✓ | 45 34 | 122 43 | (941.6) | (113.7) | NA 1927 | Triangulation | 1913 | X | | 6166 | |
| FLAGPOLE | | Flagpole | Len ✓ | 45 34 | 122 43 | (1361) | (716) | " | Planetable | 1938 | X | | 6166 | |
| SKELETON TOWER | | To be charted as Swan Island Skeleton tower | Stel ✓ | 45 34 | 122 43 | (1670) | (671) | " | WSP-B-54 | 1954 | X | | 6166 | |
| FLAGPOLE | | Flagpole | HA ✓ | 45 34 | 122 43 | (1735) | (1098) | " | " | 1954 | X | | 6166 | |
| STACK | | Black stack | Sta ✓ | 45 33 | 122 42 | (212) | (234) | " | " | 1954 | X | | 6166 | |
| CHIMNEY | | Red brick chimney | Ack ✓ | 45 33 | 122 42 | (556) | (1242) | " | " | 1954 | X | | 6166 | |
| RADIO MAST | | Orange and white radio mast | Red ✓ | 45 33 | 122 41 | (1037) | (100) | " | " | 1954 | X | | 6166 | |
| RADIO MAST | | Orange and white radio mast | May ✓ | 45 33 | 122 41 | (1035) | (172) | " | " | 1954 | X | | 6166 | |
| RADIO MAST | | Orange and white radio mast | June ✓ | 45 33 | 122 41 | (1058) | (196) | " | " | 1954 | X | | 6166 | |
| RADIO MAST | | Orange and white radio mast | Wed ✓ | 45 33 | 122 41 | (1111) | (181) | " | " | 1954 | X | | 6166 | |
| FLAGPOLE | | Flagpole | Taf ✓ | 45 33 | 122 41 | (1118) | (207) | " | " | 1954 | X | | 6166 | |
| FLAGPOLE | | Flagpole with yardarm | Yar ✓ | 45 33 | 122 41 | (1137) | (368) | " | " | 1954 | X | | 6166 | |
| TANK | | Elevated tank | Ker ✓ | 45 33 | 122 41 | (1248.0) | (292.7) | " | Triangulation | 1935 | X | | 6166 | |
| TANK | | Elevated tank | Sen ✓ | 45 32 | 122 42 | (184.5) | (1123.6) | " | " | 1935 | X | | 6166 | |

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR~~ LANDMARKS FOR CHARTS

TO BE CHARTED

STRIKE OUT ONE

~~TO BE DELETED~~

South Bend, Washington

1954
16 June 1954

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

G. E. Maraden

G. A. George Chief of Party

| STATE | CHARTING NAME | DESCRIPTION | SIGNAL NAME | POSITION | | | | METHOD OF LOCATION SURVEY NO. | DATE OF LOCATION | HARBOR CHART | INSHORE CHART | OFFSHORE CHART | CHAR AFFEC |
|--------|---|--------------------|-------------|--------------------------|-------------------------|---------|------------------------|-------------------------------|------------------|--------------|---------------|----------------|------------|
| | | | | LATITUDE # | LONGITUDE # | DATUM | D. P. METERS | | | | | | |
| Oregon | Swan Island Pier A Light | Flashing red light | Red ✓ | 45 34 (1608) 217.5 | 122 43 (840) 461 | NA 1927 | Planotable MFF-B-54 | 1954 | X | | | 6155 6166 | |
| | Sunn Island Middle Light | | Lat ✓ | 45 33 (729) 1123 | 122 42 (178) 1123 | NA 1927 | Planotable MFF-B-54 | 1954 | X | | | 6155 6166 | |
| | Sunn Island Lower Light | | Flas ✓ | 45 33 (1718) 1123 | 122 43 (654) 667 | NA 1927 | Planotable MFF-B-54 | 1954 | X | | | 6155 6166 | |
| | Shaver Dock Light Swan Island Pier C Light | | Sket | 45 35 149 | 122 42 535 | | | | | | | | |
| | XX - Chart 6166 is proposed chart | | | | | | | | | | | | |
| | The positions listed herein have been plotted on the original survey sheet or compared with triangulation data. | | | | | | | | | | | | |
| | Gorard E. Maraden | | | | | | | | | | | | |
| | Copy of Chart Letter 587 (5-4) | | | | | | | | | | | | |

PHOTOGRAMMETRIC OFFICE REVIEW

T- 11463

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

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy CCS 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) CCS 7. Photo hydro stations _____ 8. Bench marks CCS 9. Plotting of sextant fixes _____ 10. Photogrammetric plot report _____ 11. Detail points CCS

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline CCS 13. Low-water line CCS 14. Rocks, shoals, etc. CCS 15. Bridges CCS 16. Aids to navigation CCS 17. Landmarks CCS 18. Other alongshore physical features CCS 19. Other along-shore cultural features CCS

PHYSICAL FEATURES

20. Water features CCS 21. Natural ground cover _____ 22. Planetable contours _____ 23. Stereoscopic instrument contours _____ 24. Contours in general _____ 25. Spot elevations _____ 26. Other physical features _____

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines _____ 32. Public land lines _____

MISCELLANEOUS

33. Geographic names CCS 34. Junctions CCS 35. Legibility of the manuscript CCS 36. Discrepancy overlay _____ 37. Descriptive Report CCS 38. Field inspection photographs CCS 39. Forms CCS40. Charles E. Cook Charles L. Lauer
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.

Complier_____
Supervisor

43. Remarks:

Review Report T-11463
Shoreline Map
18 April, 1955

62. Comparison with Registered Surveys:

| | | |
|-------------|----------|------|
| T-1562 | 1:20,000 | 1884 |
| T-6618a, b, | 1:10,000 | 1938 |
| T-8679 | 1:9,600 | 1945 |
| T-8680 | " | " |
| T-8686 | " | " |
| T-8687 | " | " |

The present survey supersedes the older surveys for shoreline, shore structures, piling and dolphins.

63. Comparison with Maps of Other Agencies:

USGS Fairview, Washington-Oregon
USGS Portland NE, Washington-Oregon

These quadrangles are in the "advance proof" stage, and were not available for comparison.

64. Comparison with Contemporary Hydrographic Surveys:

| | | |
|--------|---------|------|
| H-8113 | 1:5,000 | 1954 |
|--------|---------|------|

Not available for comparison.

65. Comparison with Nautical Charts:

| | | |
|------|----------|------|
| 6155 | 1:20,000 | 1951 |
|------|----------|------|

Charted but not mapped:

1. Wreck: South shore Wellamette River and west of Pennsylvania Salt Co.'s plant.
2. Wreck: South shore Wellamette River opposite Swan Island Lower Light.

The bridge clearance on the manuscript was changed to 51 ft. during review because the field measurement 51.1 ft. was secured when the river level was at approximately MH River level according to predicted tide data.

Changes during review:

Many piles and dolphins
Shaver Dock
Abd. pier between Shaver Dock and Pacific Oceanic Terminal.
Several building class changes.

66. Accuracy:

This survey complies with project instructions and meets the National Standards of Accuracy.

Reviewed by:

Lena T. Stevens
Lena T. Stevens

APPROVED:

H. C. Lundy
Chief, Review Section
Photogrammetry Division

Max Blacketts
Chief, Nautical Chart Branch
Charts Division

W. J. Swenson
Chief, Photogrammetry Division

[Signature]
Chief, Coastal Surveys Division

Dec 11, 1957