

7125

Diag. Cht. No. 6157

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HO-1247 Office No. H-7125

LOCALITY

State Oregon - Washington

General locality Columbia River

Locality Sheridan Point, Wash. to Wyeth, Ore.

1948

CHIEF OF PARTY

W.H. Bainbridge

LIBRARY & ARCHIVES

DATE 5 OCTOBER 1950

325
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7125

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-7125

Field No. HO-1247

State Oregon, Washington

General locality Columbia River

Locality Sheridan Point, Wash. to Wyeth, Ore.

Scale 1 : 10,000 Date of survey 26 May - 2 Aug. 1948
22 Oct. - 23 Oct. 1948

Instructions dated 7 May 1947

Vessel Ship HODGSON

Chief of party W. H. Bainbridge

Surveyed by R. M. Stone

Soundings taken by ~~Acoustic~~ graphic recorder, hand lead, wire

Fathograms scaled by E. Altizer, (Radio Tech.)

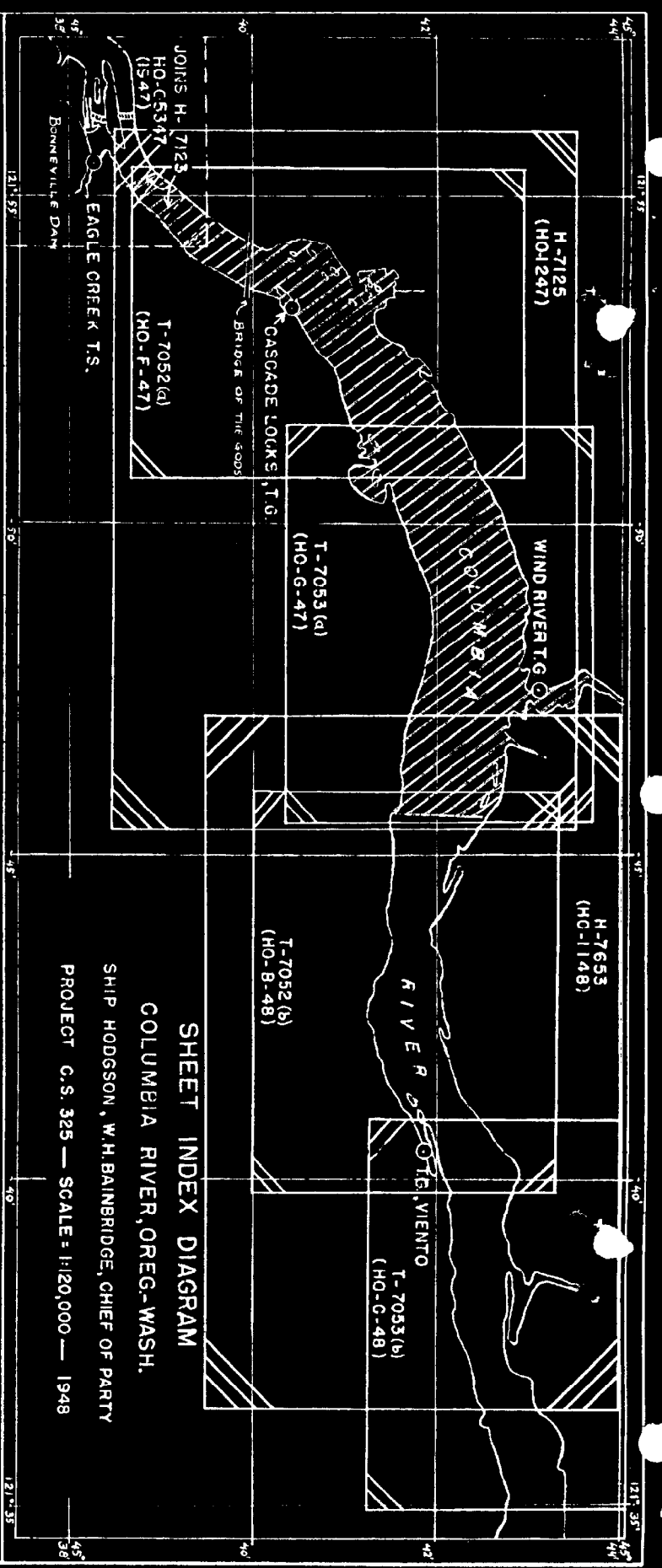
Fathograms checked by H. M. Stone

Protracted by E. M. Mason

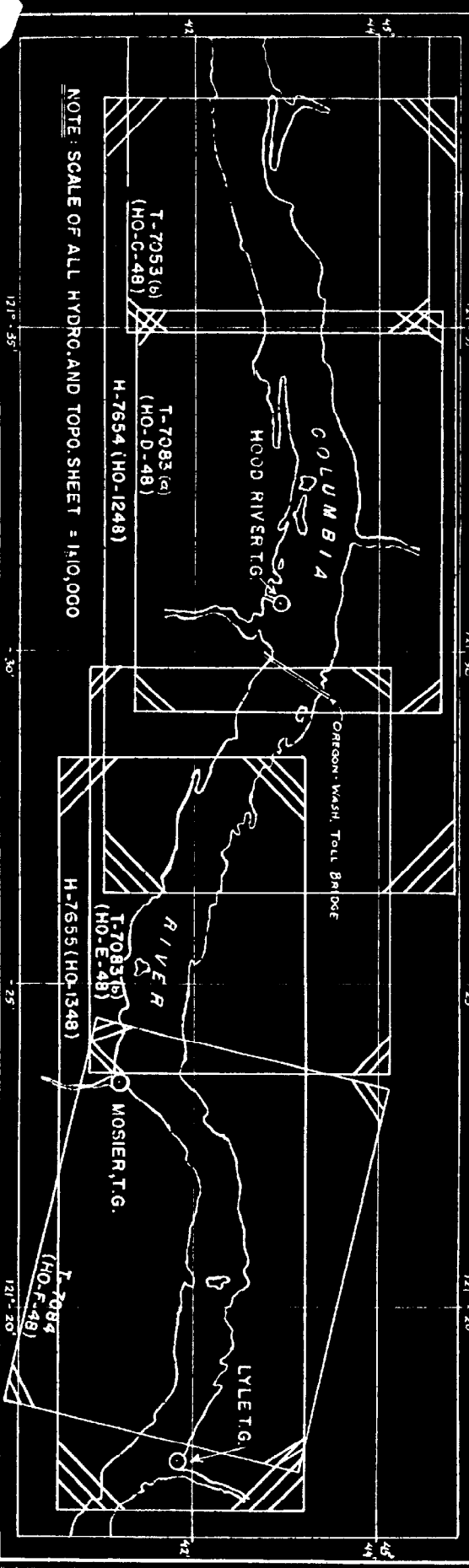
Soundings penciled by E. M. Mason

Soundings in ~~128.0000~~ feet at ~~128.00000000~~ Columbia River Datum

REMARKS: NOTE: The Columbia River Datum between Bonneville Dam
and The Dalles, Ore. is Normal Pool Level, 72.0
feet above Mean Sea Level.



SHEET INDEX DIAGRAM
 COLUMBIA RIVER, OREG.-WASH.
 SHIP HODGSON, W.H. BAINBRIDGE, CHIEF OF PARTY
 PROJECT C.S. 325 — SCALE = 1:120,000 — 1948



NOTE: SCALE OF ALL HYDRO. AND TOPO. SHEET = 1:10,000

DESCRIPTIVE REPORT

to accompany

Hydrographic Survey No. H-7125
(Field No. HO-1247)

Columbia River

Bonneville, Oregon to Wyeth, Oregon

Scale 1 : 10,000 May - Oct., 1948

Ship HODGSON W. H. Bainbridge
Chief of Party

R. M. Stone
Hydrographer

*Verifier - See Instructions - 1-1
for Prel. Verif. in back
of report.*

PROJECT:

The hydrographic survey was made in accordance with instructions dated 7 May 1947, Reference No. 22/MEK; S-2-HO, Project No. CS-325.

These instructions cover new basic hydrographic surveys of the Columbia River from Bonneville, Oregon to The Dalles, Oregon.

SURVEY LIMITS AND DATES:

This survey constitutes a new basic hydrographic survey of the Columbia River from the $121^{\circ} - 55'$ meridian, in vicinity of Sheridan Point, Wash. to Wyeth, Oregon. (Refer to "Sheet Index Diagram" appended to this report).

Field work on this sheet was begun on 26 May 1948 and concluded on 23 Oct. 1948. During the period, 3 August through 21 October, hydrography was done on adjoining sheets east of Wyeth, Oregon.

Satisfactory junction and overlap were made on Hydrographic Sheet H-7123, (Field No. HO-05347), at the $121^{\circ} - 55'$ meridian, which is the eastern limit of the HODGSON'S 1947 field seasons work.

Comparisons were made with the latest U. S. Engineer's surveys of this area. (Refer to paragraph under the heading of "Comparison With Prior Surveys"). (A list of the latest U. S. Engineering maps of this area is appended to this report, under "Applicable Data").

VESSELS AND EQUIPMENT:

Hydrography was accomplished with the following equipment:

- (a) Launch No. 141, a 36 foot landing barge (LCPR).
- (b) Launch No. 114, a 26 foot Army Mine Yawl.
- (c) A catamaran, consisting of two 16-foot dinghies lashed together and powered with a 10 horsepower outboard motor.

An 808-A type depth recorder was installed in each of the above launches and catamaran.

Depth Recorder No. 62-S was used extensively throughout the survey except on two different occasions, (26 May & 1 July), when Depth Recorder No. 77 was used in Launch No. 141.

The "Fish" was mounted outboard on all three installations.

In areas occupied by log rafts, hand lead soundings were required, which were obtained by a log walking party using Lead Line No. 5.

Least depths over shoals were also verified by using Lead Line No. 5.

Depths at bottom sample locations were taken with Lead Line No. 4, which is a leadline made with a bottomsampler attached.

Signal building and graphic control work were both accomplished during the period 7 - 26 of May, while the Ship HODGSON was secured in the old Cascade Locks. On the 26th of May hydrography was begun 1-3/4 miles NE of Cascade Locks in Government Cove using Launch No. 141 and Depth Recorder No. 77. By this time the height of the flood water in the Columbia was still on the increase. On the following day, 27 May, the Ship HODGSON moved downstream to the mouth of Eagle Creek, 0.6 mile east of Bonneville Dam, where she remained until 27 July.

VESSELS AND EQUIPMENT: (Continued)

During the period 2 - 18 June, when maximum flood waters were encountered, hydrography was accomplished with the use of the catamaran in protected areas such as:

1. Rock Cove, $\frac{1}{2}$ mile west of Stevenson, Wash.
2. Wind River
3. Government Cove, 1-3/4 miles NE of Cascade Locks, Ore.
4. and area just west of Wyeth, Oregon.

The catamaran was moored at the above places depending on where hydrography was being done. Transportation between the ship and the catamaran was done via government truck.

By 21 June, the gradient of the river's surface just downstream from Cascade Locks had decreased to such an extent that Launches 114 and 141 were able to go upstream to the Rock Cove moorage. From this moorage launch hydrography was continued as tabulated in the following table:

<u>Period</u>	<u>No. of Days</u>	<u>Launch No.</u>	<u>Boat Moorage</u>
26 May	1	141	Ship HODGSON, Cascade Locks, Ore.
2 June-18 June	12	catamaran	Various, (Refer to above paragraph).
22 June-30 June	7	114	Rock Cove, $\frac{1}{2}$ mi. W of Stevenson, Wash.
1 July-12 July	7	141	" " " " " "
13 July-26 July	7	141	Ship HODGSON, Eagle Creek, Ore.
20 July-30 July	6	catamaran	Rock Cove
28 July- 2 Aug.	3	141	Ship HODGSON, Cascade Locks, Ore.
22 Oct.-23 Oct.	2	141	Ship HODGSON, Cascade Locks, Ore.
28 May -31 July	5	log walking	(In areas occupied by log rafts, handlead sounding was required).

From 26 May to 12 July, the general area worked was from Cascade Locks to Wyeth, Ore. After 12 July, the general area included the narrow part of the river westward to the vicinity of Sheridan Point.

VESSELS AND EQUIPMENT: (Continued)

The squat and settlement of Launch No. 141 was accurately determined on 11 October 1946 and found to be negligible. No change has taken place in the construction of the launch since that time.

The squat and settlement of Launch No. 114 was accurately determined on 15 November 1948 and found to be +0.24 feet at regular sounding speed. This correction was entered and checked in the sounding records.

The squat and settlement of the catamaran was accurately determined on 15 November 1948 and found to be negligible.

A copy of each of the three observations for squat and settlement described above, is attached to this report, pages 40, 41 & 42.

Corrections to the fathometer soundings were obtained from tables prepared from the data furnished by the three daily bar tests. These tests extended to a depth of 90 feet and were made for the various scale settings of the fathometer. (Refer to "Velocity Correction Abstract" appended to this report). (Pages 15 - 32 incl.).

TIDE & CURRENT STATIONS:

(See discussion under Tide Note attached), (Pages 47 - 61 incl.).

No current stations were occupied during the time of this survey.

Numerous notes appear in the hydrographic volumes in regard to current conditions effecting speed of the launch.

SMOOTH SHEET:

The projection for the smooth sheet was not made by the field party.

Refer to the report from the Processing Office on this survey.

CONTROL STATIONS:

The area is covered by second order triangulation surveyed by W. M. Scaife, Chief of Party, Year 1939.

Topographic stations and hydrographic signals were located by graphic control on Topo. Sheets Nos. T-7052(a) and T-7053(a), (Field Nos. HO-F-47 and HO-G-47, respectively), Columbia River, W. H. Bainbridge, Chief of Party, Year 1948. *To be destroyed*

Various hydrographic signals were located by means of sextant angles. Refer to "List Of Stations" appended to this report, pg. 35.

SHORELINE AND TOPOGRAPHY:

The shoreline of the Columbia River appearing in pencil on the boat sheet was transferred from air photo compilation prints, compiled from aerial photographs taken 8 July 1939 and 3 August 1935. These photographs were compiled under the following project Nos. on a scale of 1 : 20,000:

<u>Project Number</u>	<u>West Limit of Proj.</u>	<u>East Limit of Proj.</u>
CS - 189	121° - 57.5 Merid.	121° - 41.0 Merid.
CS - 190	121 - 41.0	121 - 22.0
CS - 191	121 - 22.0	121 - 05.0

The original compilation was enlarged to the scale of the boat sheet, (1 : 10,000), in order that the shoreline could be transferred directly.

Instructions for this project states that topographic mapping is contemplated in the very near future.

The zero curve was determined wherever possible. Its entire delineation was prevented by steep-to-banks, (i.e., Sheridan Point to Cascade Locks), debris and snags accumulated along the edge of the river, log sticks forming log assorting pens at log dumps, and the danger of putting the launch hard aground with a strong river current.

SOUNDINGS:

Two days of hydrography was done with Launch No. 141, using depth recorder No. 77. The remainder of the hydrography was done with the use of depth recorder No. 62-S mounted in Launches 114 & 141 and the catamaran.

Numerous hand lead soundings were taken over shoal areas and in areas containing log rafts.

Bottom specimens were obtained at frequent intervals on this sheet.

One serial temperature and salinity observation was made during the seasons work. (Refer to Descriptive Report for Sheet H-7654).

Velocity corrections derived from the mean of the daily bar checks, and the reducers pertaining to the difference between normal pool datum and the elevation of the river surface, have been entered and checked in all hydrographic records in increments of two tenths of a foot.

An abstract of bar check comparisons and velocity corrections is attached to this report, pages 15 - 32 incl.

The hourly heights with their respective reducers are submitted on Form No. 362 under separate cover.

A correction for squat and settlement of +0.2 ft. has been applied to all soundings taken with Launch No. 114 when operating only at normal hydro speed. (Refer to "Squat and Settlement Observation of Launch No. 114" attached to this report.). (Refer pg. 41).

Lead line corrections have been entered and checked in all hydrographic records.

CONTROL OF HYDROGRAPHY:

All horizontal control was done by the three-point-fix method.

ADEQUACY OF SURVEY:

The survey is complete and should supersede all prior surveys for charting.

The junction or overlap with Hydrographic Survey H-7123, (HO-05347), (Year 1947), is satisfactory. The depth curves can be adequately drawn at the junctions.

CROSSLINES:

Eight percent of crosslines were run in addition to numerous overlaps that were brought about by the diversity of the direction of the river.

No discrepancies were noted in the crosslines.

COMPARISON WITH CHART:

*Rec'd for Standards 10/5/50
788*

A comparison was made with USC&GS Chart No. 6157, dated 12/30/46.

The following discrepancies were noted:

✓ 1. A least depth of 4.7 ft. was found on the charted 12 ft. spot at Lat. 45° 40'36, Long. 121° 54'00. Information pertaining to this shoal was submitted to our Washington Office on 7 Sept. 1948.

*6157
29 NOV 48
HW*

✓ 05

✓ 2. A least depth of 17.8 ft. was found on the charted 20 ft. spot, at Lat. 45° 40'16, Long. 121° 54'09

*6157
29 NOV 48
HW*

✓ 05

✓ 3. An uncharted depth of 19.4 ft. was found at Lat. 45° 40'08, Long. 121° 54'10.

*6157
29 NOV 48
HW*

✓ 05

✓ 4. A least depth of 8.7 ft. was found at Lat. 45° 40'87, Long. 121° 52'77, where a small island is shown on the chart. The bottom specimen indicated fine gray sand.

*6157
29 NOV 48
HW*

✓ 05

✓ 5. A least depth of 19.5 ft. was found at Lat. 45° 42'19, Long. 121° 48'28, where a 13 ft. spot is shown on the chart. The bottom specimen indicated fine gray sand. Apparently scouring action has taken place in this area.

*6157
29 NOV 48
HW*

✓ 05

COMPARISON WITH CHART: (Continued)

6. The small islands shown on the chart at Lat. 45° 42'.4, Long. 121° 46'.3, and Lat 45° 42'.25, Long 121° 45'.8, have been scoured out so that the least ^{depth} is now 4½ feet.

Not applied
6/57
29 Nov 49

✓ 05

7. An uncharted rock was found at Lat. 45° 42'.81, Long. 121° 47'.66,- height 3 feet above chart datum.

6/57
29 Nov 49

✓ 05

8. An uncharted rock was found at Lat. 45° 42'.84, Long. 121° 47'.50,- height 8 feet above chart datum.

✓ 05

9. The rock shown on the chart at Lat. 45° 42'.13, Long. 121° 50'.88 was not found. A total of one hour was spent in search for this rock,- (Refer to Vol. 8, Pg. 48, 21 July 1948, and Vol. 20, Pg. 6, 2 August 1948).

From 6/57
29 Nov 49

✓ 05

10. The 10 ft. shoal shown on the chart at Lat. 45° 42'.20, Long. 121° 50'.97, was not found. A total of fifty minutes was spent in search for this shoal. (Refer to Vol. 8; Pg. 48, 21 July 1948 and Vol. 20, Pg. 6, 2 August 1948).

From 6/57
29 Nov 49

✓ 05

11. The 9 ft. shoal shown on the chart at Lat. 45° 42'.5, Long. 121° 47'.4 was not found. A total of one hour and ten minutes were spent in search for this shoal. (Refer to Vol. 17, Pg. 8, 14 July, and Vol. 17, Pg. 35, 15 July 1948).

From 6/57
29 Nov 49

✓ 05

COMPARISON WITH PRIOR SURVEYS:

6/57 = delete

A comparison was made with the following U.S. Engineers survey prints: (Scale 1 : 5,000), "Mouth Of Willamette To The Dalles, Ore."

	& "Vancouver, Wash. To The Dalles, Ore."	
Print No. (CL-106-13/15),	dated 12/31/35,	(Sheet No. 15 of 30).
" " (CL-106-13/16),	" "	(Sheet No. 16 of 30).
" " (CL-106-13/17),	" "	(Sheet No. 17 of 30).
" " (CL-106-13/18),	" "	(Sheet No. 18 of 30).
" " (CL-106-38/ 4),	1/22/46,	(Sheet No. 4 of 6).
" " (CL-106-38/ 5),	1/22/46,	(Sheet No. 5 of 6).

The same discrepancies noted in the preceding paragraphs are applicable to the U.S.E. surveys.

DANGERS AND SHOALS:

The important danger is the 4.7 ft. shoal described as (Discrepancy No. 1) under paragraph titled "Comparison With Chart". Information pertaining to this shoal was submitted to the Washington Office, 7 Sept 1948.

COAST PILOT INFORMATION:

A coast pilot report for part of the Columbia River section of the Pacific Coast Pilot was submitted on 12 November 1948, by W. H. Bainbridge, Comdr. USC&GS, Comdg. Ship HODGSON.

A copy of the coast pilot report is as follows:

Page 222

CRIMS ISLAND TO ST. HELENS

(Chart 6153)

(Attention is called to the fact that the Coast Pilot does not mention the highway bridge between Longview, Washington and Rainier, Ore.).

Page 225: Line 24. -For "Customhouse" read "Courthouse", and add:

"at S. W. Main and Broadway."

Page 230: Line 22. -Add: "Fresh water may be obtained here, supplied through a one half inch line".

Line 34. -Add: "Shoaling on the Mitchell Point Range has reduced the depth at normal pool level to 24 feet, 0.6 mile eastward of Mitchell Point Front Range. To carry 30 feet past this section in ascending the river, proceed from a point 300 yards north of Mitchell Point Range and make good a course of $67\frac{1}{2}^{\circ}$ true for a distance of one mile, then make good a course of 90° true for 0.36 mile to intersect the Mitchell Point Range. To carry 30 feet past 18-mile Island, follow the general contour of the south shore from the small island 300 yards northwest of Wasco Light, keeping 200 yards offshore, to a point 400 yards west of 18-mile Island, then midway between the island and the south shore; from the eastern end of the island remain

COAST PILOT INFORMATION: (Continued)

about 200 yards offshore for a distance of $\frac{1}{2}$ mile, thence, to a point $\frac{1}{4}$ mile south of Straights Point Light, and from this point favor the Oregon side of the mid-channel course for a distance of one mile.

Line 35, -For "across" read "cross".

Line 37. -For "135" read "139" and after "level" substitute a comma for the period and add: "and with a horizontal clearance of 655 feet between pier cribbings".

Line 38. -Delete the remainder of the paragraph following "Bonneville" and add: "has a vertical lift span, with a vertical clearance of 69 feet with span in place, and 150 feet with span raised, at normal pool level. Vessels unable to pass under the span in place are required to give 12 hours advance notice of the time the opening is required. In case of an emergency, the span will be opened in less time if the operator is available. The bridge telephone number is Hood River 4534. The call signal for lifting the span is: one long, two short, and one long blast.

Line 42. -After sentence ending with "out" add: "At normal stages of the pool level the sides of the old chamber of the lock bare about 3 feet. This section of the lock makes a good moorage, except for small boats in easterly weather. A strong current flows through the lock, which strikes the flooded and closed lock gates, downstream from the upper chamber, and produces strong upward currents that may cause a small boat to shear to either side.

Line 42. -For "6" read "5". (The overhead cable just above the Bridge of the Gods has been removed).

Line 43. -For "131 feet" read "77 feet". (See Chart 6157 - overhead cable between The Dalles and Dallesport).

COAST PILOT INFORMATION: (Continued)

Page 231. After Line 6 add: "Currents. -From the lock at Bonneville, through Cascade Rapids, constant piloting is necessary because of the strong currents. From Cascade Rapids eastward a set of one to three degrees may be experienced depending on the angle that the course makes with the general direction of the river, the strength of the current, and direction and strength of the wind. General. -Tug boats make use of the eddy in the mouth of Eagle Creek, 0.6 mile above Bonneville lock, for mooring and shifting barges and log rafts. Small boats may find refuge in the places listed below. Entrance to these places should be made with caution, particularly until the surveys in these areas are charted. Distances are given in miles above Bonneville Dam. Access to all but two is under railroad and highway bridges. Vertical clearances are referred to normal pool level of 72 feet. At present log rafts are made up or stored in all the places except the moorage at Hood River. Alertness to movement of rafts is necessary.

Mouth of Eagle Creek, Oregon; either side of bridges, if creek is not in flood; clearance - railroad bridge 18 feet, highway bridge approx. 30 feet.

Rock Creek, Washington; 4.2 miles; between railroad and highway bridges or in pool north of highway bridge; bridge clearance, railroad - 25 feet, highway - 20½ feet.

Government Lake (Local name); Oregon; 5.6 miles; 1.6 miles east of Rock Creek; there are no bridges, but log rafts may block the entrance.

Wind River, Washington; 7.8 miles; either north or south of bridges; bridge clearance, railroad - 27 feet, highway west pier - 25 feet; highway east pier - 21 feet.

COAST PILOT INFORMATION: (Continued)

Drano Lake, Little White Salmon River, Washington; 14.5 miles; bridge clearance; railroad - 27 feet, highway - 26 feet.

Ruthton, Oregon; 17.8 miles; there are no bridges.

White Salmon River, Underwood, Washington; 20.0 miles; bridge clearances, railroad - 30 feet, highway - 28 feet.

Hood River, Oregon has a small boat moorage situated just west of the fill to highway bridge across the Columbia River. At this locality there is a small marine railway with 2 feet of water over the carriage at normal pool level. Fishing boats weighing 5 ton and 28 feet in length have been hauled out. Gasoline is available and diesel oil can be precured by arrangement. No fresh water is available. Emergency repairs can be made by various shops in town".

AIDS TO NAVIGATION:

There is one floating aid to navigation located within the limits of this hydrographic sheet,- a red nun No. "2" buoy at Lat. $45^{\circ} 40'$ 1757.0 meters (95.5), Long. $121^{\circ} 53'$ 251.0 meters (1047.5), located in 29 feet of water, however, there is an 18 ft. shoal located approx. 60 meters upstream from this buoy. This floating aid was located by graphic control on 20 May 1948 on Topo. Sheet No. T-7052(a), (HO-F-47) and verified by taking a sextant fix on 29 June 1948, Pos. 1f, Vol 12, Page 5. This floating aid is reported on Form 567, page 43, this report.

The positions of the fixed aids to navigation pertaining to this survey are reported on Form No. 567, a copy of which is appended to this report, pages 44 and 45.

Sheridan Point Light, Lat. $45^{\circ} 39'.3$, Long. $121^{\circ} 54'.6$, had been moved since it was established in 1938. Its new location is listed on Form No. 567, "Fixed Aids to Navigation".

AIDS TO NAVIGATION: (Continued)

"AERO", Ceiling Light, (Flashing every 10 seconds), "4", 2½ miles northeast of Cascade Locks, Oregon, Lat. 45° 41'38", Long. 121° 50'54", is no longer in place. It is recommended that this light be deleted from Chart 6157. This recommendation is submitted on Form 567, a copy of which is appended to this report, page 45.

Azimuths of all ranges maintained for navigation within the limits of this hydrographic sheet are as follows:

<u>Range</u>	<u>Azimuth</u>	<u>Determined By:</u>
Cascade Rapids Lower Range	356° 32 True	Topo. --T-7052(a), (HO-F-47)
Cascade Rapids Upper Range	58 00	Hydre.--H-7125 , (HO-1247)
Stevenson Range	86 31	Hydre.--H-7125 , (HO-1247)

Bridge clearances over the Columbia River and its tributaries are as follows:

<u>Location Of Bridge</u>	<u>Measured In Field</u>		<u>Published *</u>	
	<u>V.C.</u> feet	<u>H.C.</u> feet	<u>V.C.</u> feet	<u>H.C.</u> feet
Bridge Of The Gods	139.1	654.9	135	694
US Highway #830, Bridge, W of Stevenson	20.5	68.0	None	
S.P.& S. Rwy. Bridge, W of Stevenson	25.1	143.0	None	
US Highway #830, Bridge, over Wind River	23.2	277.5	None	
S.P.& S. Rwy. Bridge, over Wind River	27.4	197.0	None	

* The published data was taken from the 1936 edition of the "List Of Bridges Over The Navigable Waters Of The United States" by the U. S. Army Engineers.

A pair of overhead telephone wires cross Government Cove, at Lat. 45° 41'25", Long. 121° 50'43", - vertical clearance is 20.4 feet.

There is a Pacific Telephone and Telegraph submarine cable crossing from signal DIP, Lat. 45° 41'49", Long. 121° 52'86" to signal DOG, Lat. 45° 40'98", Long. 121° 51'86".

The overhead telephone wires were located via topo.--Sheet T-7053(a).

The submarine cable was located via topo.--Sheet T-7052(a).

AIDS TO NAVIGATION: (Continued)

The overhead cable, clearance 138 feet, approx. 100 meters NNE of the "Bridge of the Gods", at Lat. 45° 39.8, Long. 121° 54.0, is no longer in place. It is recommended that this cable be deleted from Chart 6157. This recommendation is submitted on Form 567.

LANDMARKS FOR CHARTS:

Data relative to landmarks for charts ^{are} submitted on Form 567, a copy of which is appended to this report, page 46.

A list of the recommended landmarks within the limits of this hydrographic sheet is as follows:

<u>Charting Name</u>	<u>Description</u>
CUPOLA	Stevenson, Skamania County Courthouse, Stevenson, Washington.
AERO	Portland-Spokane Airway Beacon Near Triangulation Station TROTTER, (Aero Beacon No. 4).
TANK	Union Pacific Railroad Water Tank, Wyeth, Oregon.
ROCK	Prominent Finger Rock, Approx. 1/2 mile west of Wyeth, Oregon.

GEOGRAPHIC NAMES:

A Geographic Name List is attached to this report, page 39.

SILTED AREAS:

No silted areas are involved.

VELOCITY CORRECTION ABSTRACT:

Tabulations of the three daily bar checks for each launch are shown on the following pages: (Pages 15 - 28 incl.).

Velocity corrections were derived from the mean of the daily bar checks and are listed separately for each launch. (Pages 29 - 32 incl.).

FATHOMETER CORRECTIONS

SHEET HO-1247

Launch No. 141

A Scale		15	20	30
5	+0.6	+0.7	+0.2	-1.0R
	+0.6	+0.4	+0.1	-0.1
	+0.7	+0.55	+0.15	-0.15
	0.0	-0.1	-0.1	-0.1
	+0.7	+0.45	+0.05	-0.25

TIME DAY DATE
 0930 "a" 5-26-48

MEAN ✓

21 May Correction to upright ✓
 REDUCER ✓

copy - Amel.

FATHOMETER CORRECTIONS

SHEET HO-1247

Launch No. 141

A Scale					B Scale				
5	10	15	20	30	40	50	40	50	DATE
+0.5	+0.7R	+0.1	+0.1	-0.6	-1.0	-1.8	-0.4	-1.0	7-1-48
+0.5	+0.4	0.9R	-0.1	-0.6	-1.0	-0.4	-0.4		
+0.5	+0.4	+0.1	0.0	-0.6	-1.0	-1.8R	-0.4	-1.0	MEAN ✓
0.0	+0.1	+0.2	+0.2	+0.4	+0.4		+0.4	+0.45	26 June correction to upright ✓
+0.5	+0.5	+0.3	+0.2	-0.2	-0.6		0.0	-0.55	REDUCER ✓

NOTE: At 1300 fish was set lower in water on this day (July 1)

+0.8R	+1.0	+0.8	+0.5	+0.2	0.0	-0.2	+1.0	+0.8	1319	"b"	7-1-48
+1.0	+1.0	+1.0	+0.9	+0.2	0.0		+1.0				
+1.0	+1.0	+1.0	+0.5	+0.1	0.0	-0.6	+1.2	+0.5	1520		
+1.0	+1.0	+0.6	+0.3	+0.1	0.0		+0.7				
+3.0	+4.0	+3.4	+2.2	+0.6	0.0	-0.8	+3.7	+1.3	SUM		
+1.0	+1.0	+0.85	+0.55	+0.15	0.0	-0.4	+0.98	+0.62	MEAN		
0.0	+0.1	+0.2	+0.2	+0.4	+0.4	+0.45	+0.4	+0.45			26 June correction to upright ✓
+1.0	+1.1	+1.05	+0.75	+0.55	+0.40	+0.05	+1.38	+1.07	REDUCER		

597 - Rand.

BATHYMETRIC CORRECTIONS
 SHEET HO-1247
 Launch No. 141

A Scale						B Scale			TIME	DAY	DATE
5	10	15	20	30	40	50	40	50	0845	"C"	7-2-48
+0.3	+0.2	0.0	0.0	-0.2	-0.5	-1.0	0.0	-0.1			
+0.3	+0.1	0.0	0.0	-0.2	-0.6		0.0				
+0.4	+0.3	0.0	0.0	-0.1	-0.2	-0.3	+0.8	+0.6	1304		
+0.7	+0.3	+0.1	0.0	-0.1	-0.2		+0.6				
+0.3	+0.3	0.0	0.0	-0.4	-0.6	-0.5	0.0	-0.2	1623		
+0.7	+0.3	0.0	0.0	-0.2	-0.3		+0.3				
+0.8	+0.5	+0.2	0.0	0.0	0.0		+1.0R		1327	"d"	7-6-48
+0.7	+0.4	+0.3	+0.2	0.0	0.0		+0.9R		1612		
+0.8	+0.7	+0.5	+0.3	+0.1	0.0	-0.1	+0.5	+0.2			
+0.9	+0.8	+0.5	+0.2	+0.1	0.0						
+0.7	+0.4	+0.2	0.0	-0.1	-0.1	0.0	+0.5	+0.8	0858	"e"	7-7-48
+1.0	+0.8	+0.2	0.0	0.0	-0.1		0.0				
+0.7	+0.8	+0.4	+0.1	0.0	-0.1	-0.1	+0.7	0.0	1237		
+1.0	+0.8	+0.5	+0.2	0.0	0.0		+0.8				
+0.3	+0.4	+0.3	+0.3	+0.1	0.0	0.0	+1.2R	+1.0R	1608		
+0.8	+0.6	+0.2	0.0	0.0	0.0		+0.2				
+0.6	+0.3	+0.2	0.0	+0.1	-0.6	-0.5	-0.1	-0.2	0855	"f"	7-8-48
+1.0	+0.8	+0.2	0.0	-0.1	-0.4		+0.1				
+0.4	+0.2	0.0	-0.1	-0.6	-1.0	-1.0	-0.2	-0.3	1255		
+0.7	+0.3	+0.2	0.0	-0.2	-0.3		+0.3				
+0.7	+0.1	0.0	-0.1	-0.4	-0.7	-1.0	-0.1	-0.6	1545		
+0.6	+0.2	0.0	0.0	-0.3	-0.6		+0.4				
+0.3	+0.1	0.0	-0.3	-0.8	-1.0		-0.2		0927	"g"	7-9-48
+0.7	+0.2	0.0	-0.5	-1.0	-2.0R		-1.0R				
+0.6	+0.3	+0.1	0.0	0.0	-0.7	-1.1	-0.3	-0.8	1302		
+0.5	+0.3	+0.1	0.0	-0.1	-1.0		-0.2				
+0.7	+0.4	+0.3	+0.2	-0.2					1550		
+1.0	+0.8	+0.5	+0.3	-0.1	-0.1		+0.7				
+18.2	+11.6	+5.0	+0.8	-4.9	-9.1	-5.6	+4.8	-0.6	SUM		
+0.65	+0.41	+0.18	+0.03	-0.18	-0.35	-0.51	+0.22	-0.06	MEAN		
0.0	+0.1	+0.2	+0.2	+0.4	+0.45	+0.5	+0.15	+0.5	10 July correction to upright		
+0.65	+0.51	+0.38	+0.23	+0.22	+0.10	-0.01	+0.67	+0.44	REDUCER		

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FATHOMETER CORRECTIONS
 SHEET HO-1247
 LAUNCH NO. 141

A Scale					B Scale			C Scale			TIME	DAY	DATE
5	10	15	20	30	40	50	60	70	70	70			
+0.4	+0.2	0.0	-0.2	-0.8	-1.3	-1.9	-0.8	-1.2	-2.0		0848	"R"	7-12-48
+0.6	+0.1	-0.2	-0.3	-1.1R	-1.9	+2.0	+1.2	-1.8			1306		
+0.5	0.0	-0.1	-0.1	-0.8	-1.2	-1.9	-0.6	-1.0			1536		
+0.7	+0.3	0.0	-0.1	-0.7	-1.2		-0.3				0847	"J"	7-13-48
+0.5	+0.4	0.0	-0.3	-0.8	-1.2	-1.7	-0.8	-1.2	-1.7		1310		
+0.7	+0.2	0.0	-0.1	-0.7	-1.2	-1.8	-0.8	-0.8			1626		
+1.0	+0.1	0.0	-0.1	-0.6	-1.0	-1.9	-0.7	-1.4	-2.1		0835	"K"	7-14-48
+0.7	+0.3	+0.2	-0.1	-0.7	-1.1	-1.5	-1.0	-1.7					
+0.7	+0.3	0.0	-0.4	-0.8	-1.3	-1.8	-0.6	-1.5					
+0.7	+0.2	0.0	-0.1	-0.8	-1.0		-0.9						
+0.3	+0.1	0.0	-0.2	-0.9	-1.0	-2.0	-0.3	-1.3					
+0.7	+0.2	0.0	-0.3	-1.0	-1.2		-0.9						
+0.6	+0.1	0.0	-0.3	-0.9	-1.0	+1.8	-0.8	-1.2					
+0.4	+0.1	0.0	-0.4	-0.8	-1.0		-0.8						
+0.2	+0.2	-0.3R	-0.7R	-1.1R	-1.2		-0.8				1315		
+0.6	0.0	-0.1	-0.5X	-1.2R			-1.1				1635		
+0.7	+0.1	-0.1	-0.5	-1.0	-1.6	-2.1	-0.5	-1.3	-2.0				
+0.8	+0.2	-0.1	-0.6	-1.2R	-1.9		-1.0						
+0.7	+0.2	0.0	-0.2	-0.7	-1.1	-1.7	-0.6	-1.1	-1.7	-2.0	0.0	"I"	7-15-48
+0.7	+0.4	0.0	-0.1	-0.7	-1.2	-1.7	-0.2	-1.1	-1.7				
+0.6	+0.2	0.0	-0.1	-0.6	-1.0		0.0				1315		
+0.8	+0.3	0.0	-0.2	-0.7	-1.0		-0.2				1615		
+0.8	+0.3	+0.1	-0.2	-1.0	-1.2	-1.8	-0.5	-1.0	-2.3	-3.0	-0.2		
+0.6	+0.1	-0.1	-0.3	-1.0	-1.5	-2.0	-0.7	-1.2					
+0.4	+0.2	0.0	-0.1	-0.7	-1.0	-1.6	-0.6	-1.0	-1.7	-2.0	+0.2	"M"	7-16-48
+0.7	+0.3	0.0	-0.1	-0.7	-1.3	-1.9	-0.8	-1.3					
+0.6	0.0	-0.2	-0.5	-1.0	-1.3	-2.0	-0.2	-1.3					
+0.8	+0.2	0.0	-0.1	-0.9	-1.3		-0.5						
+0.5	+0.1	0.0	-0.6	-1.0	-1.9		-0.7	-1.2	-2.0	0.0			
+0.7	+0.2	-0.1	-0.6	-1.0	-1.8		-0.8						
+0.5	+0.2	-0.1	-0.5	-0.9	-1.8	-2.3	-1.0	-1.5	-1.8		0.0	"N"	7-19-48
+0.6	+0.2	-0.1	-0.6	-1.0	-1.7		-1.0	-1.5					
+0.7	+0.2	0.0	0.0	-0.5	-1.0	-1.5	-0.3	-0.8	-1.7	-2.2	+0.2		

FATHOMETER CORRECTIONS
 LAUNCH NO. 141
 SHEET NO-1247

	A Scale							B Scale			C Scale			TIME	DAY	DATE		
	5	10	15	20	30	40	50	40	50	60	70	80	90				70	80
+0.8	+1.0	+0.8	+0.7	+0.4	+0.3	0.0	+0.8	+0.4	+0.6	0.0	0.0	0.0	+2.2	+2.7R	+2.0	1324	"p"	7-23-48
+1.0	+0.9	+0.8	+0.8	+0.4	+0.2	+0.3	+1.0		+0.8	+0.7	+0.2	+0.2	+2.8	+2.0	+2.0	1637		
+0.8	+0.7	+0.5	+0.2	+0.2	+0.3		+0.8	+0.7	+0.6	+0.2	+0.1	+0.2	+2.0	+2.0	+2.0			
+1.0	+0.8	+0.8	+0.8	+0.4	+0.4	+0.6	+0.8	+0.4	+0.6	+0.2	+0.2	+0.2	+2.0			0825	"q"	7-26-48
+0.8	+0.5	+0.4	+0.3	+0.2	+0.1	0.0	9.0	0.0	-0.3	-0.4			+2.0			0920	"r"	7-28-48
+0.8	+0.6	+0.4	+0.3	+0.1	0.0	+0.1	0.0	0.0	-0.1	-0.4			+2.0			1608		
+0.7	+0.6	+0.4	+0.2	0.0	-0.2	-0.2	+0.2	+0.2	0.0	-0.1			+2.0			0915	"s"	7-31-48
+0.9	+0.8	+0.8	+0.6	+0.1	-0.1	-0.1	+0.1	-0.1	-0.1				+2.0			1110		
+1.0	+0.7	+0.7	+0.5	+0.7			+0.6	+0.5	+0.7	+0.2			+2.0			1021	"t"	8-2-48
+0.9	+0.9	+0.7	+0.7				+0.6	+0.3	+0.2	+0.2	+0.1		+2.0			1422		
+0.8	+0.3	+0.2	+0.2	0.0	0.0	0.0	+0.6	+0.5	+0.7	+0.2			+2.0					
							+0.3	+0.7	+0.2	+0.1								
							+0.6	+0.7	+0.2	+0.2								
							+0.6	+0.7	+0.2	+0.1								
							+0.8	+0.7	+0.2	+0.7								
							+0.9	+0.7	+0.4	+0.7								
							+0.2	+0.2	0.0	0.0								
							+0.2	+0.4	+0.1	0.0								
							+0.4	+0.4	+0.1	0.0								
							+0.5	+0.5	+0.5	+0.2								
							+0.8	+0.8	+0.4	+0.5								
							+12.4	+10.7	+9.2	+4.9	+1.8	+0.7	+16.1	+13.0	+6.0	+4.0	SUM	
							+0.69	+0.59	+0.51	+0.31	+0.13	+0.06	+0.89	+2.17	+2.00	+2.00	MEAN	

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FATHOMETER CORRECTIONS
 SHEET NO. HC-1247
 Launch No. 141

	A Scale					B Scale			TIME	DAY	DATE	
	10	15	20	30	40	50	40	50				60
+0.3	+0.2	+0.1	0.0	-0.1	-0.4	-0.5	-0.4	-0.6	-0.6	1424	"U"	10-22-48
+0.3	+0.2	+0.1	0.0	-0.1	-0.1	-0.3	-0.4	-0.3		1615		
+0.3	0.0	0.0	-0.0	-0.1								
+0.4	+0.2	0.0	0.0									
0.0	0.0	0.0	-0.1	-0.6	-0.5	-1.0	-0.6	-0.9	-1.3	0820	"V"	10-23-48
+0.5	+0.1	0.0	0.0	-0.3	-1.0	-1.0	-0.9	-0.9				
+0.5	+0.1	+0.1	0.0	-0.2	-0.9	-1.0	-0.2	-0.5		1124		
+0.4	+0.2	0.0	+0.1	+0.4	+1.0	+1.2	+0.1	+0.8				
+2.7	+1.0	+0.3	-0.2	-1.8	-3.9	-5.0	-2.6	-4.0	-1.9	SUM	✓	
+0.34	+0.12	+0.04	-0.02	-0.26	-0.65	-0.83	-0.43	-0.67	-0.95	MEAN	✓	

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FATHOMETER CORRECTIONS
 SHEET HO-1247
 Launch No. 114

TIME	A Scale					B Scale					C Scale					DAY	DATE					
	5	10	15	20	30	40	50	40	50	60	70	40	50	60	70			"a"	"b"	"c"	"d"	"e"
0912	+0.5	+0.7	+0.4	+0.2	-0.1	-0.2	-0.3	-0.5	-0.9	-0.9	-0.9	-0.3	-0.5	-0.9	-0.9	"a"						6-22-48
1307	+0.5	+0.6	+0.5	+0.2	-0.1	-0.3	-0.5	-0.9	-0.9	-0.9	-0.9	-0.5	-0.5	-0.9	-0.9							
1451	+1.0	+0.7	+0.4	+0.1	-0.2	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	+0.2	0.0	0.0	0.0							
0914	+0.9	+0.8	+0.5	+0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	"b"						6-23-48
1350	+0.9	+0.7	+0.3	+0.1	-0.1	-0.5	-0.8	-0.8	-0.8	-0.8	-0.8	-0.2	-0.2	-0.5	-1.0							
1605	+0.8	+0.4	+0.2	0.0	-0.3	-0.6	-0.8	-0.8	-0.8	-0.8	-0.8	-0.3	-0.3	-0.8	-0.8							
0922	+0.7	+0.4	+0.2	-0.1	-0.5	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.3	-0.3	-0.9	-0.9							
1344	+1.0	+0.9	+0.4	+0.2	-0.2	-0.6	-0.6	-0.6	-1.0	-1.0	-1.0	0.0	0.0	-0.3	-0.3							
1545	+0.5	+0.4	+0.1	-0.2	-1.0	-1.7R	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	"c"						6-24-48
0900	+0.8	+0.6	+0.1	0.0	-0.3	-1.0	-2.0R	-2.0	-2.0	-2.0	-2.0	-1.5	-2.0	-2.0	-2.0							
1312	+0.2	+0.2	0.0	-0.5R	-0.9	-1.5	-1.7R	-1.5	-2.0	-2.0	-2.0	-1.7R	-1.2	-1.2	-1.2							
1541	+0.5	+0.3	0.0	-0.6R	-1.1	-2.0R	-1.1	-2.0R	-2.0	-2.0	-2.0	-1.7R	-1.8	-1.8	-1.8	"d"						6-25-48
0903	+0.7	+0.7	+0.2	-0.3	-1.1	-1.6R	-1.1	-1.6R	-1.0	-1.0	-1.0	-1.4R	-1.0	-1.0	-1.0							
1315	+0.8	+0.6	+0.1	0.0	-0.4	-0.6	-0.8	-0.8	-0.8	-0.8	-0.8	-0.3	-0.4	-0.4	-0.4							
1541	+0.6	+0.6	+0.3	+0.1	-0.2	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	0.0	0.0	0.0	0.0							
0903	+0.6	+0.7	+0.3	+0.1	-0.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.1	-0.1	-0.1	-0.1							
1315	+0.5	+0.3	+0.3	+0.1	-0.3	-0.7	-0.9	-0.9	-0.9	-0.9	-0.9	-0.5	-0.5	-0.9	-1.0							
1600	+1.0	+0.7	+0.4	+0.1	-0.2	-0.6	-1.0	-1.0	-1.0	-1.0	-1.0	-0.4	-1.0	-1.0	-1.2							
0855	+0.7	+0.4	+0.3	+0.2	-0.2	-0.7	-1.0	-1.0	-1.0	-1.0	-1.0	-0.8	-0.8	-0.8	-0.8							
1305	+1.0	+0.7	+0.3	+0.2	-0.2	-0.6	-1.0	-1.0	-1.0	-1.0	-1.0	-0.3	-0.3	-0.3	-0.3							
1555	+0.9	+0.5	+0.1	-0.2	-0.6	-1.0	-1.6	-1.6	-1.6	-1.6	-1.6	-0.6	-0.6	-1.0	-1.0							
	+0.9	+0.5	+0.1	-0.2	-0.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-0.2	-0.2	-0.2	-0.2							
	+0.7	+0.5	+0.1	-0.2	-0.6	-1.3	-1.8	-1.8	-1.8	-1.8	-1.8	-0.6	-0.6	-0.8	-0.8							
	+1.0	+0.5	+0.2	-0.1	-0.4	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-0.2	-0.2	-0.2	-0.2							

FATHOMETER CORRECTIONS
 SHEET HO-1247
 Catamaran

TIME	A Scale					B Scale					DATE
	5	10	15	20	25	30	40	50	50	50	
1044	0.0	0.0	-0.3	-0.4							6-2-48
1621	-0.1	-0.4	-0.3	-0.6	-1.0	-1.5R					
0923	-0.2	-0.5R	-0.9R	-1.0							6-3-48
1251	-0.5R	-0.5R	-0.8R	-1.0	-1.0						
1545	-0.4R	-0.6R	-0.8R	-1.0	-0.3R						
1400	0.0	0.0	-0.1	-0.2	-0.5						6-4-48
1525	0.0	0.0	-0.3	-0.3	-0.5	-0.9					
1115	0.0	-0.2	-0.3	-0.4	-0.6	-0.7					6-7-48
1557	-0.1	-0.2	-0.4	-0.8			-1.3	-1.4			
0944	-0.1	-0.2	-0.5	-1.0			-1.4	-1.5			
1549	-0.2	-0.3	-0.6	-1.0			-1.3	-1.0			6-8-48
1110	0.0	-0.1	-0.3	-0.4	-0.6	-0.7	-1.0	-1.6			
1521	-0.2	-0.2	-0.5	-0.6	-0.9	-1.2					6-9-48
0909	-0.1	-0.2	-0.3	-0.3	-0.5	-1.0					6-10-48
1313	-0.1	-0.2	-0.3	-0.3	-0.5	-0.9					
1545	0.0	-0.2	-0.4	-0.8			-1.0				
0935	-0.2	-0.2	-0.4	-0.5	-0.5	-1.0					6-14-48
1530	0.0	-0.1	-0.3	-0.3	-0.4	-0.6					
	-0.2	-0.2	-0.4	-0.5	-0.5	-1.2					
	0.0	-0.2	-0.5	-0.7							

FATHOMETER CORRECTIONS
 SHEET HO-1247
 Catamaran

5	10	15	20	25	30	40	50	TIME	DAY	DATE
0.0	-0.1	-0.3	-0.5	-1.0		40	50	0920	"j"	6-15-48
-0.2	-0.4	-0.4	-0.5	-1.0				1358		
-0.2	-0.2	-0.5	-0.8	-1.0				1600		
-0.1	-0.2	-0.5	-0.7	-1.2				0930	"k"	6-16-48
-0.1	-0.3	-0.7	-0.8					1130		
-0.2	-0.3	-0.7	-0.8					1423		
0.0	-0.1	-0.3	-0.4					0923	"l"	6-17-48
0.0	0.0	-0.3	-0.4					1305		
0.0	0.0	-0.2	-0.4							
0.0	0.0	-0.2	-0.4							
0.0	-0.1	-0.2	-0.3	-0.7						
0.0	-0.1	-0.3	-0.5	-0.9						
-0.1	-0.2	-0.3	-0.5	-0.9	-1.0					
-0.1	-0.2	-0.3	-0.6	-0.9	-1.0	-0.3				
	-0.2	-0.6	-0.3	-0.7	-1.0	-0.3	-0.7			
0.0	0.0	-0.1	-0.4	-0.6	-1.0			1548		
0.0	0.0	-0.2	-0.3	-0.6	-1.0					
-0.2	-0.3	-0.4	-0.6	-0.9	-1.0			0900	"m"	6-18-48
-0.1	-0.1	-0.3	-0.6	-0.8		-0.6				
-0.1	-0.1	-0.2	-0.4	-0.7				1314		
+0.1	0.0	-0.2	-0.4	-0.9	-1.0			1530		
-0.1	-0.2	-0.3	-0.4	-0.9	-1.0	-0.6				
-0.1	-0.2	-0.5	-0.7	-0.9						
-3.8	-8.2	-19.8	-33.1	-2.5	-29.2	-12.5	-1.2	SUM		
-0.07	-0.14	-0.35	-0.57	-0.83	-0.94	-1.09	-1.2	MEAN		
0.0	+0.1	+0.2	+0.3	+0.4	+0.4	+0.45	+0.45	June 26 correction to upright		
-0.07	-0.04	-0.15	-0.27	-0.43	-0.54	-0.69	-0.75	Reducer		

Handwritten:
 2.47
 1.0 m.d.

FATHOMETER CORRECTIONS
 SHEET HO-1247
 Catamaran

	TIME					DAY	DATE				
	5	10	15	20	25			30	35	40	50
	0.0	-0.3	-0.3	-0.6	-0.8		7-20-48				
	0.0	-0.2	-0.4	-0.6							
	0.0	-0.1	-0.3	-0.5	-0.9						
	+0.1	-0.1	-0.3	-0.6							
	+0.1	0.0	-0.5	-0.8	-3.0R						
	0.0	-0.2	-0.1	-0.3	-1.0						
	+0.1	-0.2	-0.4	-0.6	-1.0	"p"	7-21-48				
	+0.1	-0.2	-0.5	-0.9							
	0.0	-0.3	-0.6	-1.0							
	0.0	-0.3	-0.7	-1.0							
	0.0	-0.1	-0.3	-0.6	-0.9						
	0.0	-0.1	-0.4	-0.6							
	0.0	0.0	-0.5	-1.0							
	+0.1	-0.2	-0.5	-1.0							
	+0.2	0.0	-0.1	-0.4							
	+0.1	0.0	-0.3	-0.5							
	+0.1	0.0	-0.2	-0.6							
	+0.2	0.0	-0.2	-0.6							
	+0.1	-0.2	-0.7	-1.0							
	0.0	-0.2	-0.7	-1.0							
	0.0	-0.2	-0.6	-0.8							
	0.0	-0.2	-0.7	-1.0							
	+1.2	-3.1	-9.3	-16.0	-3.6	-17.0	-10.6	-2.5	-9.0	-3.0	SUM
	+0.05	+0.14	-0.42	-0.73	-0.9	-1.31	-1.77	-2.5	-1.45	-2.25	MEAN
	+0.1	+0.3	+0.35	+0.5	+0.6	+0.7	+1.0	+1.5	+1.0	+1.5	24 July correction to upright
	+0.15	+0.16	-0.07	-0.23	-0.3	-0.6	-0.77	-1.0	-0.45	-0.75	Reducer

5997 - Amel.

FATHOMETER CORRECTIONS
SHEET HO-1247

Catamaran

A Scale										B Scale			C Scale	TIME	DAY	DATE
5	10	15	20	25	30	40	50	60	70	40	50	60	70	0853	"s"	7-29-48
0.0	0.0	0.0	-0.2		-0.5									1341		
+0.1	0.0	-0.1	-0.1							0.0				1611		
+0.2	0.0	0.0	0.0	-0.2	-0.2	-0.3								0900	"t"	7-30-48
+0.2	0.0	0.0	-0.1	-0.2	0.0	-0.7	-0.8			0.0				1510		
+0.1	0.0	0.0	0.0	-0.2	-0.2	-0.6	-0.5	0.0R	-0.1R	-0.3						
+0.2	+0.1	0.0	-0.2	-0.2	-0.3	-0.4	-0.3	-0.1	-0.2	+1.8						
0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.4	-0.3	-0.1	-0.2							
+0.1	0.0	0.0	-0.1													
+0.1	+0.1	+0.1	0.0	-0.3												
+0.2	+0.1	0.0	0.0													
+1.2	+0.3	-0.1	-1.1	-0.7	-1.9	-2.4	-1.6	-0.5								
+0.12	+0.03	-0.01	-0.11	-0.23	-0.27	-0.48	-0.53	-0.10	-0.2	-0.3	-0.3	-0.3	+1.8			
													SUM			
													MEAN			

5977 - Round

Determination Of Velocity Corrections
For "D" Scale Of The Fathometer:

During the course of hydrography, when the fathometer was shifted from the "C" to the "D" scale, or vice versa, the difference between these two scales was tabulated as follows: (Only at times when the river bottom was relatively flat):

<u>Hydro Sheet</u>	<u>Vol.</u>	<u>Page</u>	<u>Position</u>	<u>Launch</u>	<u>Depth</u>		<u>Diff.</u>
					<u>C-scale</u>	<u>D-scale</u>	
(HO-1247)	16	64	9- 10 k	141	106.0	105.0	1.0 ft.
"	17	47	11- 12 m	"	125.5	124.2	1.3
"	18	15	158-159 m	"	110.0	109.0	1.0
(HO-1148)	1	6	8- 9 a	141	121.3	120.3	1.0
"	1	9	22- 23 a	"	110.0	109.0	1.0
"	1	10	26- 27 a	"	112.5	111.5	1.0
"	1	16	45- 46 a	"	122.6	121.7	0.9
"	9	55	79- 80 p	"	113.0	112.0	1.0
(HO-1248)	8	12	46- 47 m	141	120.0	119.0	1.0
"	8	61	223-224 m	"	118.5	117.5	1.0
"	9	18	36- 37 n	"	112.5	112.0	0.5
"	14	16	31- 32 r	"	112.5	111.5	1.0
(HO-1348)	6	25	241-242 h	141	113.0	111.8	1.2
"	7	11	191-192 k	"	121.0	120.0	1.0
"	8	51	2- 3 n	"	122.0	121.3	0.7
"	8	52	6- 7 n	"	110.2	109.3	0.9
					<u>Mean</u>		<u>1.0 ft.</u>

For the entire season's work, it was found that the "C" scale showed a depth one foot deeper than the corresponding depth on the "D" scale.

Velocity corrections were determined for the "D" scale from a curve drawn parallel to that of the "C" scale and allowing for the one foot difference described above.

Copy v. Amos

VELOCITY CORRECTIONS

for

Fathometer No. 77

Sheet No. H-7125, (HO-1247)

Launch No. 141 (a day)			Launch No. 141 (b day) (Time 1100 to 1319)		
+0.6 ft.	0.0 to 9.0 ft. "A" Scale		+0.4 ft.	0.0 to	16.0 ft. "A" Scale
+0.4	9.1	12.0	+0.2	16.1	22.5
+0.2	12.1	14.5	0.0	22.6	27.5
0.0	14.6	17.5	-0.2	27.6	32.5
-0.2	17.6	20.5	-0.4	32.6	37.5
-0.4	20.6	23.5	-0.6	37.6	42.5
-0.6	23.6	27.0	-0.8	42.6	47.0
-0.8	27.1	30.4	-1.0	47.1	52.0
-1.0	30.5	34.0	-1.2	52.1	55.0
-1.2	34.1	40.0			

+0.2 ft.	35.0 to	38.0 ft. "B" Scale
0.0	38.1	42.0
-0.2	42.1	45.0
-0.4	45.1	49.0
-0.6	49.1	53.0
-0.8	53.1	56.6
-1.0	56.7	60.0
-1.2	60.1	64.0
-1.4	64.1	68.0
-1.6	68.1	72.0
-1.8	72.1	76.0
-2.0	76.1	80.0
-2.2	80.1	84.0

Launch No. 141 (b day) (Time 1319 to 1520)		
+1.0 ft.	0.0 to	18.0 ft. "A" Scale
+0.8	18.1	23.5
+0.6	23.6	34.0
+0.4	34.1	44.0
+0.2	44.1	49.0
00.0	49.1	55.0

+1.4 ft.	35.0 to	42.0 ft. "B" Scale
+1.2	42.1	49.0
+1.0	49.1	56.5
+0.8	56.6	63.0
+0.6	63.1	70.0
+0.4	70.1	77.0
+0.2	77.1	84.0

C977 / 1948

VELOCITY CORRECTIONS

for

Fathometer No. 62-S

Sheet No. H-7125, (HO-1247)

Launch No. 141
(c - g days)

+0.6 ft.	0.0 to	10.0 ft.	"A" Scale
+0.4	10.1	17.6	
+0.2	17.7	43.0	
0.0	43.1	55.0	

+0.6 ft.	35.0 to	47.0 ft.	"B" Scale
+0.4	47.1	90.0	

+2.0 ft.	70.0 to	90.0 ft.	"C" Scale
+1.8	90.1	110.0	
+1.6	110.1	125.0	

Launch No. 141
(p - t days)

+0.8 ft.	0.0 to	10.0 ft.	"A" Scale
+0.6	10.1	19.0	
+0.4	19.1	31.0	
+0.2	31.1	45.0	
0.0	45.1	55.0	

+0.4 ft.	35.0 to	52.0 ft.	"B" Scale
+0.2	52.1	90.0	

+2.0 ft.	70.0 to	98.0 ft.	"C" Scale
+1.8	98.1	130.0	

Launch No. 141
(h - n days)

+0.6 ft.	0.0 to	10.0 ft.	"A" Scale
+0.4	10.1	17.6	
+0.2	17.7	25.0	
0.0	25.1	33.0	
-0.2	33.1	41.0	
-0.4	41.1	49.0	
-0.6	49.1	55.0	

+0.4 ft.	35.0 to	40.0 ft.	"B" Scale
+0.2	40.1	48.0	
0.0	48.1	56.0	
-0.2	56.1	90.0	

+2.0 ft.	70.0 to	90.0 ft.	"C" Scale
+1.8	90.1	110.0	
+1.6	110.1	125.0	

+2.8 ft.	105.0 to	110.0 ft.	"D" Scale
+2.6	110.1	130.0	
+2.4	130.1	150.0	
+2.2	150.1	160.0	

Launch No. 141
(u - v days)

+0.2 ft.	0.0 to	11.0 ft.	"A" Scale
0.0	11.1	24.0	
-0.2	24.1	32.0	
-0.4	32.1	36.0	
-0.6	36.1	43.0	
-0.8	43.1	52.0	
-1.0	52.1	55.0	

-0.4 ft.	35.0 to	43.0 ft.	"B" Scale
-0.6	43.1	51.5	
-0.8	51.6	59.0	
-1.0	59.1	67.0	
-1.2	67.1	75.0	
-1.4	75.1	83.0	
-1.6	83.1	90.0	

+1.4 ft.	70.0 to	72.0 ft.	"C" Scale
+1.2	72.1	78.0	
+1.0	78.1	84.0	
+0.8	84.1	90.0	
+0.6	90.1	96.0	
+0.4	96.1	102.0	
+0.2	102.1	108.0	
0.0	108.1	114.0	
-0.2	114.1	120.0	
-0.4	120.1	125.0	

copy - *[Signature]*

VELOCITY CORRECTIONS

for

Fathometer No. 62-S

Sheet No. H-7125, (HO-1247)

Launch No. 114

(a - g days)

Launch No. 114 (a - g days)		
+0.6 ft.	0.0 to	14.2 ft. "A" Scale
+0.4	14.3	19.3
+0.2	19.4	25.0
0.0	25.1	31.4
-0.2	31.5	37.5
-0.4	37.6	42.8
-0.6	42.9	47.4
-0.8	47.5	52.7
-1.0	52.8	55.0

0.0 ft.	35.0 to	41.4 ft. "B" Scale
-0.2	41.5	47.2
-0.4	47.3	53.0
-0.6	53.1	58.4
-0.8	58.5	64.4
-1.0	64.5	70.0
-1.2	70.1	76.4
-1.4	76.5	82.0
-1.6	82.1	87.7
-1.8	87.8	90.0

+1.2 ft.	70.0 to	75.0 ft. "C" Scale
+1.0	75.1	80.2
+0.8	80.3	85.0
+0.6	85.1	90.0
+0.4	90.1	95.0
+0.2	95.1	100.0
0.0	100.1	105.0
-0.2	105.1	110.0
-0.4	110.1	115.0
-0.6	115.1	120.0

Copy - Am S.

VELOCITY CORRECTIONS

for

Fathometer No. 62-S

Sheet No. H-7125, (HO-1247)

Catamaran

(a - m days)

0.0 ft.	0.0 to	13.2 ft. "A" Scale
-0.2	13.3	21.3
-0.4	21.4	28.7
-0.6	28.8	44.4
-0.8	44.5	55.0

-0.2 ft. 35.0 to 55.0 ft. "B" Scale

Catamaran

(n - r days)

0.0 ft.	0.0 to	16.3 ft. "A" Scale
-0.2	16.4	22.4
-0.4	22.5	30.2
-0.6	30.3	37.3
-0.8	37.4	45.8
-1.0	45.9	55.0

-0.4 ft. 35.0 to 41.7 ft. "B" Scale

-0.6	41.8	49.0
-0.8	49.1	56.0
-1.0	56.1	63.8
-1.2	63.9	71.2

Catamaran

(s - t days)

0.0 ft.	0.0 to	19.3 ft. "A" Scale
-0.2	19.4	31.3
-0.4	31.4	40.5
-0.6	40.6	55.0

-0.2 ft. 35.0 to 60.7 ft. "B" Scale

-0.4	60.8	80.0
-0.6	80.1	90.0

+1.8 ft. 70.0 to 75.3 ft. "C" Scale

+1.6	75.4	85.4
+1.4	85.5	90.0

C-17 - Rev. 2

STATISTICS

for

HYDROGRAPHIC SURVEY, (HO-1247), H-7125

Project CS-325
Columbia RiverYear 1948
Ship HODGSON

Vol. No.	Day Letter	DATE	No. of Pos.	No. of H.L. Soundings	Stat. Miles of Sdgs.	Launch No.
1	a	5/26/48	72		7.7	141
1	b	7/ 1/48	41	6	3.6	"
1 & 13	c	7/ 2/48	209		33.1	"
13	d	7/ 6/48	86		14.2	"
13 & 14	e	7/ 7/48	204		30.8	"
14 & 15	f	7/ 8/48	191		26.0	"
15	g	7/ 9/48	145		24.0	"
15 & 16	h	7/12/48	129		19.8	"
16	j	7/13/48	119	10	9.5	"
16 & 17	k	7/14/48	101	13	8.4	"
17	l	7/15/48	124	25	12.1	"
17 & 18	m	7/16/48	161		16.3	"
18	n	7/19/48	54		5.5	"
18	p	7/23/48	51		6.0	"
18	q	7/26/48	43	3	3.3	"
18	r	7/28/48	39	9	1.7	"
18	s	7/31/48	26	5	0.4	"
20	t	8/ 2/48	14		0.3	"
20	u	10/22/48	43	13	0.8	"
20	v	10/23/48	36	2	1.6	"
TOTAL for Launch No. 141			1888	86	225.1	
2	a	5/28/48	26	98	1.2	Log Walking
2	b	6/ 4/48	34	71	0.8	"
2	c	6/ 8/48	22	49	0.8	"
2	d	6/15/48	17	40	0.8	"
2	e	7/31/48	6	23	0.4	"
TOTAL for Log Walking			105	281	4.0	
9	a	6/22/48	117		18.9	114
9 & 10	b	6/23/48	147		23.2	"
10	c	6/24/48	146		21.6	"
10 & 11	d	6/25/48	146		14.7	"
11 & 12	e	6/28/48	174		28.8	"
12	f	6/29/48	153	1	21.4	"
12	g	6/30/48	49		4.7	"
TOTAL for Launch No. 114			932	1	133.3	

STATISTICS

for

HYDROGRAPHIC SURVEY, (HO-1247), H-7125 (Continued)

Project CS-325
Columbia River

Year 1948
Ship HODGSON

Vol. No.	Day Letter	Date	No. of Pos.	No. of H.L. Soundings	Stat. Miles of Sdgs.	Launch No.
3	a	6/ 2/48	126		7.0	Catamaran
3	b	6/ 3/48	102		5.0	"
3	c	6/ 4/48	32		1.2	"
4	d	6/ 7/48	102		6.7	"
4	e	6/ 8/48	71	1	3.4	"
4	f	6/ 9/48	77		4.2	"
4 & 5	g	6/10/48	157		9.2	"
5	h	6/14/48	140	3	8.3	"
6	j	6/15/48	101		5.5	"
6	k	6/16/48	98	1	7.4	"
6 & 7	l	6/17/48	161		10.6	"
7 & 8	m	6/18/48	171		17.6	"
8	n	7/20/48	105		6.2	"
8	p	7/21/48	90	3	3.1	"
8 & 19	q	7/22/48	98	1	5.6	"
19	r	7/26/48	33		1.4	"
19	s	7/29/48	130	4	5.1	"
19	t	7/30/48	90	1	4.8	"

TOTAL for Catamaran 1884 14 112.3

TOTAL (Sheet H-7125) - - - 4809 382 474.7 All Units

TOTAL AREA OF HYDROGRAPHY - - - 8.45 square statute miles

LIST OF STATIONS ON H-7125, (HO-1247)

<u>Name Used In</u>	<u>Origin Of Station</u>
Hydrographic Survey	
ABE	T-7052(a), (HO-F-47)
ACT	"
ADO	"
AERO	PORTLAND-SPOKANE AIRWAY BEACON NEAR TROTTER, 1939
AGO	T-7052(a), (HO-F-47)
AHA	"
AIM	"
ALP	"
AMY	"
ANM	"
ANT	"
ARM	"
ASK	"
AXE	"
AZO	"
BAG	T-7052(a), (HO-F-47), BM MN-44 1943
BAH	"
BAIL	T-7052(a), (HO-F-47), BAIL (USE) 1939
BANG	T-7052(a), (HO-F-47), CASCADE RAPIDS LOWER RANGE FRONT
BIG	"
BOB	"
BOM	"
BOX	"
BUS	"
BUT	"
CAB	"
CALL	T-7052(a), (HO-F-47), CALL (USE) 1939
CAM	"
CANAL	T-7052(a), (HO-F-47), CANAL (USE) 1939
CAR	"
CAT	"
CAW	"
COD	"
COM	"
CONTOUR	95-FOOT <u>CONTOUR</u> MONUMENT (USE), 1939
COO	"
COP	"
CORNER	T2N R7E SECS. 2 & 11 <u>MEANDER CORNER</u> (USE), 1939
COURT	STEVENSON, SKAMANIA COUNTY <u>COURTHOUSE</u> , CUPOLA, 1939
COVE	T-7052(a), (HO-F-47), COVE (USE) 1939
CON	"
CUR	"
CUT	"
DAY	"
DEB	"
DIM	"
DIP	"
DOC	"
DOG	"
DOM	T-7052(a), (HO-F-47)

LIST OF STATIONS ON H-7125, (HO-1247) (Cont'.)

<u>Name Used In</u>	<u>Hydrographic Survey</u>	<u>Origin Of Station</u>
EARL	T-7052(a), (HO-F-47),	CASCADE LOCKS LOWER LIGHT
EAT	"	
EEL	"	
EGG	"	
EGO	"	
ELM	"	
EMO	"	
END	END, 1901-1939	
EON	"	
ERA	"	
ERG	"	
EVA	"	
FAR	FARR, 1939	
FAT	T-7053(a), (HO-G-47)	
FED	T-7052(a), (HO-F-47)	
FEW	T-7053(a), (HO-G-47)	
FIG	T-7052(a), (HO-F-47)	
FIN	T-7053(a), (HO-G-47)	
FIT	"	
FIX	"	
FLUME	FLUME (USE), 1939	
FLY	T-7053(a), (HO-G-47)	
FOE	"	
FOR	"	
FOX	"	
FRY	"	
FUN	"	
GAD	"	
GAL	"	
GAM	"	
GAS	"	
GEO	"	
GET	"	
GIN	T-7052(a), (HO-F-47)	
GOB	"	
GOR	GORTON, 1939	
GUM	T-7053(a), (HO-G-47)	
GUS	"	
HAG	"	
HAT	T-7052(a), (HO-F-47)	
HEN	T-7053(a), (HO-G-47)	
HER	"	
HIGH	T-7052(a), (HO-F-47),	SHERIDAN POINT LIGHT
HOE	T-7053(a), (HO-G-47)	
HOME	HOME, 1939	
ICE	Hydro Volume 3, Page 56	
JIM	T-7053(a), (HO-G-47)	

LIST OF STATIONS ON H-7125, (HO-1247) (Cont!.)

<u>Name Used In</u>	<u>Hydrographic Survey</u>	<u>Origin Of Station</u>
LEG	T-7053(a),	(HO-G-47)
LEO	"	
LEY	T-7053(a),	(HO-G-47), FARLEY (USE) 1939
LID	SOLID,	1939
LIZ	T-7053(a),	(HO-G-47)
LOCK	LOCKS,	1901-1939
LONE	LONE,	1939
LOW	T-7053(a),	(HO-G-47)
MAN	Hydro Volume 3,	Page 38
MART	MARTIN,	1946
MAX	T-7053(a),	(HO-G-47)
MID	"	
MILL	T-7052(a),	(HO-F-47), MILL (USE) 1939
MUT	Hydro Volume 5,	Page 55
NEO	Hydro Volume 3,	Page 38
NEW	T-7053(a),	(HO-G-47)
NOR	"	
OAR	T-7052(a),	(HO-F-47), OAR (USE) 1939
OBI	T-7053(a),	(HO-G-47)
OHIO	T-7052(a),	(HO-F-47), OHIO (USE) 1939
ORA	T-7053(a),	(HO-G-47)
PAL	"	
PARK	PARK,	1939
PIE	T-7053(a),	(HO-G-47)
PIN	"	
PIPE	IRON PIPE ON PROPERTY CORNER,	1939
PIX	Hydro Volume 4,	Pages 12 and 38
POT	T-7052(a),	(HO-F-47), POT (USE) 1939
QUO	Hydro Volume 18,	Page 57
RAG	T-7053(a),	(HO-G-47)
RAPID	CASCADE RAPIDS UPPER FRONT RANGE LIGHT,	1939
REX	T-7052(a),	(HO-F-47), REX (USE) 1939
RIG	T-7053(a),	(HO-G-47)
RIM	"	
RIP	"	
RON	T-7052(a),	(HO-F-47), RON (USE) 1939
RUNT	T-7052(a),	(HO-F-47), CASCADE LOCKS LIGHT
SAX	T-7053(a),	(HO-G-47)
SHE	"	
SHELL	STEVENSON, SHELL OIL COMPANY TANK,	1939
SIP	T-7053(a),	(HO-G-47)
SIR	Hydro Volume 4,	Page 12
SIS	T-7053(a),	(HO-G-47)
SON	ANDERSON POINT LIGHT,	1939
SOUTH	T3N R7 ¹ / ₂ E DLC No. 43 SOUTHEAST CORNER (USE),	1939
SOW	T-7053(a),	(HO-G-47)
SPAN	BRIDGE OF THE GODS, MAIN SPAN, NORTHEAST PIER,	1939
STEVE	STEVENSON, FRONT RANGE LIGHT,	1939
SUB	T-7053(a),	(HO-G-47)
SUE	Hydro Volume 4,	Page 12

LIST OF STATIONS ON H-7125, (HO-1247) (Cont'.)

<u>Name Used In</u>	<u>Hydrographic Survey</u>	<u>Origin Of Station</u>
TAN	T-7053(a), (HO-G-47)	
TAX	"	
TOM	"	
TOY	"	
TROT	TROTTER, 1939	
VAN	T-7052(a), (HO-F-47)	
VEE	T-7053(a), (HO-G-47)	
VIA	"	
VOLT	T-7052(a), (HO-F-47),	VOLT (USE) 1939
WAR	T-7053(a), (HO-G-47)	
WAX	T-7052(a), (HO-F-47)	
WIT	"	
YAM	T-7053(a), (HO-G-47)	
ZIG	T-7052(a), (HO-F-47)	
ZOE	T-7053(a), (HO-G-47)	

NOTE: The following objects were shown on the Boat Sheet but were not used as hydrographic signals:

	<u>Origin</u>
Cascade Rapids Lower Range Rear	Topo. Sheet T-7052(a),
Cascade Rapids Upper Rear Range	" " T-7052(a)
Stevenson Rear Range Light, 1939	Triangulation 1939
SKY -- (Pinnacle Rock), (Aid To Navigation)	Topo. Sheet T-7053(a)

GEOGRAPHIC NAMES

to accompany

Hydrographic Survey No. H-7125
(Field No. HO-1247)

Columbia River, Bonneville, Oregon to Wyeth, Oregon

Project GS-325

GEOGRAPHIC NAMES:

- Anderson Point
- Bridge Of The Gods
- Cascade Locks, Oregon
- Government Cove (Lat. $45^{\circ} 41'.2$, Long. $121^{\circ} 50'.6$)
- Reck Cove (Lat. $45^{\circ} 41'.4$, Long. $121^{\circ} 53'.2$)
- Sheridan Point
- Stevenson, Washington
- Wind River
- Wyeth, Oregon .

These names are all well established local names in general common usage.

Government Cove and Reck Cove are the only additional names not shown on Chart No. 6157.

OBSERVATIONS FOR SQUAT

Launch No. 141

Willamette River, Vicinity of Hawthorne Bridge, Portland, Ore.

Weather: Calm

River: Calm

Launch fuel tanks approximately half full.

Observations taken with Wye Level set up on east shore of river.

Time 0900 AM

Date 11 October 1946

Observations taken with launch idle, then running slow speed
 (as used when sounding down stream), then running about 2/3 speed
 (as used when sounding up stream).

Obs. No.	Idle	Slow Speed			Squat	Fast Speed			Squat
		Going Away	App- reach	Mean		Going Away	App- reach	Mean	
1st.	1.27	1.30	1.32	1.31	0.04	1.35	1.38	1.36	0.09
2nd.	4.87	4.92	4.88	4.90	0.03	5.03	5.04	5.04	0.17
3rd.	4.67	4.70	4.72	4.71	0.04	4.82	4.79	4.80	0.13
				Mean	0.04			Mean	0.13

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10/11/46*

LAUNCH NO. 114
OBSERVATIONS FOR SQUAT
Portland, Oregon 15 Nov. 1948

Willamette River, vicinity Hawthorne Bridge.

Wye level set up, on west bank, just above bridge.

Runs were made toward and away from the level on course 45° to center line of river. Observer: W.H.B.

TIME	OBS.	IDLE	SLOW SPEED		REGULAR SDG. SPEED	
			AWAY	TOWARD	AWAY	TOWARD
1300		4.34 4.32 4.32				
	1		4.47	4.45	4.53	4.52
	2		4.43	4.46	4.55	4.55
	3		4.48	4.46	4.52	4.50
1315		4.25 4.23 4.24				
	4		4.34	4.32	4.43	4.42
	5		4.30	4.28	4.40	4.35
	6		4.28	4.26	4.39	4.35
1330		4.08 4.10 4.06				
	SUMS	37.94	26.30	26.23 26.30	26.82	26.69 26.82
	MEANS	4.22		52.53 4.38		53.51 4.46
	SQUAT			0.16 feet		0.24 feet

OBSERVATIONS ON 16 NOV. 1948

Observer: H.J.H.

TIME		IDLE	SLOW SPEED		
			AWAY	TOWARD	
1152		4.05 4.04 4.06	4.09 4.06 4.12 4.09	4.08 4.08 4.12 4.13 4.11	
	SUM	12.15	16.36	20.52	
	MEAN	4.05	4.09	4.105	Mean 4.10ft. Squat 0.05 feet
SOUNDING SPEED					
TIME		IDLE	AWAY	TOWARD	
1104		4.04 4.06 4.07 4.07	4.32 4.29 4.29 4.28	4.27 4.27 4.29	
	SUM	16.24	17.18	12.83	
	MEAN	4.06	4.295	4.28	Mean 4.29 feet Squat 0.23 ft.

Readings corrected for tide.

apf

CATAMARAN
 OBSERVATIONS FOR SQUAT
 PORTLAND, OREGON 15 NOV. 1948

Willamette River, in Coast Guard slip at foot of Columbia Street.
 Wye level was set up on bank in line with slip. Runs were made to-
 ward and away from instrument. Readings were taken on rod with
 catamaran at rest before and after the runs. Slip protected from
 wind. *WFB*

Time	Idle	Sounding Speed	
		Away	Toward
1340	4.82 ft.	4.76 ft.	4.75 ft.
	4.80 ft.	4.76 ft.	4.76 ft.
	4.81 ft.	4.77 ft.	4.75 ft.
		4.74 ft.	4.75 ft.
1350	4.73 ft.		
	4.74 ft.		
	4.72 ft.		
TOTALS	28.62 ft.	19.03 ft.	19.01 ft.
			19.03 ft.
Mean	4.77 ft.		38.04 ft.
			4.78 ft.
			4.77 ft.
Squat			-.01 ft.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Portland, Oregon

26 Nov. 1948

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

The positions given have been checked after listing by A. S. Stone

W. L. Bainbridge Chief of Party.

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE		LONGITUDE							
				°	'	°	'						
Washington, Oregon (Columbia River)													
	GOLD DUST ROCK BUOY "4" (had 1st cl. nun) (changed to "2" in 1948)		---	45-40	1757.0	121-53	(1047.5)	1927	1948	X			6157

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED

STRIKE OUT ONE

Portland, Oregon

26 Nov. 1948

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

The positions given have been checked after listing by R. M. Stone

CHARTING NAME	DESCRIPTION	Est. Rebuilt	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED	
				LATITUDE		LONGITUDE								DATUM
				°	'	°	'							
STATE Oregon and Washington, (Columbia River)														
	(F.L.W., 4 sec)	1938	HIGH	45	-39	121	-54	(564.5)	M.A. 1927	X			6156	
SHERIDAN POINT light (Rebuilt 1938)	(F.W.)	1938	BANG	45	-39	121	-53	(160.0)	"	X			6157	
CASCADE RAPIDS LOWER RANGE FRONT	(F.W.)	1938	---	45	-39	121	-53	(50.0)	"	X			6157	
CASCADE RAPIDS LOWER RANGE REAR 1947	(F.W.)	1938	---	45	-39	121	-53	(1249.0)	"	X			6157	
CASCADE RAPIDS UPPER RANGE FRONT	(F.W.)	1938	RAPID	45	-40	121	-54	(126.3)	"	X			6157	
CASCADE RAPIDS UPPER RANGE REAR	(F.W.)	1938	---	45	-40	121	-54	(839.0)	"	X			6157	
CASCADE LOCKS LOWER light	(F.L.W., 4-sec.)	1938	EARL	45	-39	121	-53	(115.0)	"	X			6157	
CASCADE LOCKS light	(F.L.W., 4-sec.)	1946	MUNT	45	-40	121	-53	(1465.0)	"	X			6157	
STEVENSON RANGE FRONT	(F.L.G.)	1938	STEVE	45	-41	121	-52	(719.4)	"	X			6157	
STEVENSON RANGE REAR	(F.L.G.)	1938	---	45	-41	121	-52	(908.1)	"	X			6157	
ANDERSON POINT light	(F.L.W., 4-sec.)	1938	SON	45	-41	121	-48	(713.6)	"	X			6157	

W. H. Bainbridge Chief of Party.

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 and not by

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

STRIKE OUT ONE

TO BE DELETED

Portland, Oregon 26 Nov. 1948

I recommend that the following objects which have ~~(have now)~~ been inspected from seaward to determine their value as landmarks be ~~charte~~ (deleted from) the charts indicated.

The positions given have been checked after listing by R. M. Stone

W. H. Bainbridge Chief of Party.

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE		LONGITUDE							
				°	'	°	'						
WASHINGTON, OREGON (Columbia River)	ARBO	(2.5 miles NE Cascade Locks, Oregon) Ceiling light (Fl. Ev. 10 sec. "M") (Ceiling light no longer in place)	--	45-11	697.7	121-50	693.7	M. A. 1927 Triang.	1939	X			6157
		Overhead cable (clearance 138 ft)	---	45-39.8		121-51.0		"	---	X			6157

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

MONITORING AIDS FOR CHARTS

TO BE CHARTED
~~TO BE CHARTED~~

STRIKE OUT ONE

Portland, Oregon 26 Nov., 1948

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

The positions given have been checked after listing by R. M. Stone

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE		LONGITUDE							
				°	'	°	'						
Oregon		Washington, (Columbia River)											
	CUPOLA	Stevenson, Steameria County Courthouse (Stevenson, Washington)	COURT	45-41	121-0.2	121-52	1268.5	N.A. 1927	1939x				6157
	AERO	Portland-Spokane Airway Beacon Near Triang. Sta. Trotter (Aero Sta. No. 4)	AERO	45-41	1501.1 (892.4)	121-48	1178.5 (340.4)	"	"				"
	TANK	Union Pacific R.R. Water Tank, Wyeth, Oreg.	TAN	45-41	960.0 (697.0)	121-45	-----	"	1948x				"
	ROCK	Prominent Finger Rock (West of Wyeth, Oregon) (Approx. 1/2 mile)	SKY	45-41	1155.4	121-46	(692.4) 606.0	"	"				"

W. H. Bainbridge Chief of Party.

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

TIDE NOTE

To Accompany

HYDROGRAPHIC SURVEY, (HO-1247), H-7125

Columbia River Proj. CS-325
Bonneville, Ore. to Wyeth, Ore, Year 1948

The section of the Columbia River from The Dalles, Oregon to Bonneville Dam is a pool formed by the water held back by Bonneville Dam. The datum of this pool, as determined by the U. S. Engineering Dept., is 72.0 feet above mean sea level.

Automatic tide gages (or river level recording gages), were established and maintained at the following locations in this pool during the progress of hydrography on this sheet, with the exception of Eagle Creek, Oregon, where only a staff was established:

Station	Latitude	Longitude	Staff Reading Corresponding To Pool Datum
Eagle Creek, Ore.	45° - 38'.44	121° - 55'.79	0.27 ft.
Cascade Locks, Ore.	45 - 40.29	121 - 53.50	6.25 (To July 18) 6.35 (After " 18)
Wind River, Wash.	45 - 43.03	121 - 47.44	-2.37
Viento, Ore.	45° - 41'.79	121° - 40'.51	14.77 ft.

Hourly heights were scaled from marigrams from each of the above gages for the period of time hydrography was done on this sheet. From these results, tide reducers (or river level corrections), showing relation between normal-pool-level and elevation of the water surface, were determined to the nearest 0.1 ft.

Zone limits were drawn approximately midway between gage sites, however, when the reducers differed by more than 0.2 ft. between adjacent zones, one or more additional zones had to be inserted to take care of this condition.

During the first week of June, maximum flood conditions prevailed. For a period of two months after the crest of the flood had passed, the gradient of the river level decreased at a very slow rate. From time to time the total number of zones had to be reduced, thus, changing the limits of each zone.

The limits of the zones used on Hydrographic Sheet (HO-1247), H-7125 are tabulated as follows: (Pages 48 - 52 incl.).

LIMITS OF ZONES USED ON HYDROGRAPHIC SHEET (HO-1247), H-7125:

NOTE: In the majority of cases, the limits of zones are lines connecting various hydrographic signals.

DATE	ZONE	DESCRIPTION
May 26	A	Cascade Locks Gage
" 28		DOC to DON
	B	TROT to MID
	C	Wind River Gage
June 2	A	Cascade Locks Gage
" 3		(Hydrography was done in vicinity of
" 4		Cascade Locks Gage on these days.)
June 7	A	Wind River Gage
" 8		(Hydrography was done in vicinity of
		Wind River Gage on these days.)
June 9	A	Cascade Locks Gage
		MILL to CAR
	B	
		DOG to STEVE
	C	
		FUN to FAT
	D	
		HER to NCR
	E	
		Meridian through FAR
	F	Wind River Gage
		Meridian through HOME
	G	
June 10	A	Cascade Locks Gage
" 14		MILL to CAR
	B	
		DOC to DON
	C	
		OHIO to FED
	D	
		GET to PIPE
	E	
		TROT to MID
	F	
		Meridian midway between FAR and LOW
	G	Wind River Gage

LIMITS OF ZONES USED ON HYDROGRAPHIC SHEET (HO-1247), H-7125: (Continued)

DATE	ZONE	DESCRIPTION
June 15	A	Cascade Locks Gage
" 16		MILL to CAR
" 17	B	DOG to STEVE
	C	FUN to FAT
	D	HER to NOR
	E	Meridian through FAR
	F	Wind River Gage
	G	Meridian through HOME
June 18	A	Cascade Locks Gage
" 22		BOX to CAP
" 23	B	ERG to COVE
" 24		
" 25	C	LEY to FLUME
	D	Meridian through FAR
	E	Wind River Gage
	F	GQR to TOY
June 28	A	Cascade Locks Gage
" 29		VOLT to DEB
" 30	B	
July 1		GAS to FIG
" 2	C	SCN to NEW
	D	Wind River Gage
July 6	A	Cascade Locks Gage
" 7		DOC to DON
	B	TROT to MID
	C	Wind River Gage
July 8	A	Cascade Locks Gage.
		HEN to GUM
	B	Wind River Gage
July 9	A	Cascade Locks Gage
" 12		DOC to DON
	B	
		TROT to MID
	C	Wind River Gage

LIMITS OF ZONES USED ON HYDROGRAPHIC SHEET (HO-1247), H-7125: (Continued)

<u>DATE</u>	<u>ZONE</u>	<u>DESCRIPTION</u>
July 13	A	Eagle Creek Staff
	B	<u>NOTE:</u> Zones A, B, & C are beyond the limits of Hydrographic Sheet (HO-1247), H-7125.
	C	Line normal to shoreline at VAN
	D	Line normal to shoreline at CALL
	E	Line normal to shoreline at OAR
	F	Line normal to shoreline at ACT
	G	Line normal to shoreline at REX
	H	Line normal to shoreline at ALP
	I	ARM to CANAL
	J	AZO to QUO and line AZO-AXE extended WSW'ly.
	K	Cascade Locks Gage DOC to DON
	L	TROT to MID
	M	Wind River Gage
July 14	A	Eagle Creek Staff
" 15	B	<u>NOTE:</u> Zones A, B, & C are beyond the limits of Hydrographic Sheet (HO-1247), H-7125.
" 16	C	Line normal to shoreline at WIT
	D	Line normal to shoreline at ABE
	E	HIGH to ACT
	F	AHA to ADO
	G	Line normal to ^{shoreline at} point midway between ALP & BANG
	H	ARM to CANAL
	I	AZO to QUO and line AZO-AXE extended WSW'ly.
	J	Cascade Locks Gage DOC to DON
	K	TROT to MID
	L	Wind River Gage

LIMITS OF ZONES USED ON HYDROGRAPHIC SHEET (HO-1247), H-7125: (Continued)

<u>DATE</u>	<u>ZONE</u>	<u>DESCRIPTION</u>
July 19	A	Eagle Creek Staff
" 20		
" 21	B	<u>NOTE</u> : Zones A, B, & C are beyond the limits
" 22		of Hydrographic Sheet (HO-1247), H-7125.
" 23	C	Line normal to shoreline at WAX
	D	Line normal to shoreline at OAR
	E	AGO to RON
	F	AIM to BANG
	G	ARM to CANAL
	H	AZO to QUO and line AZO-AXE extended WSW'ly.
	I	Cascade Locks Gage
	J	DOC to DON
	K	TROT to MID Wind River Gage
July 26	A	Eagle Creek Staff
	B	West limit of Hydrographic Sheet H-7125.
	C	Line normal to shoreline at ZIG
	D	HIGH to ACT
	E	Line normal to shoreline at point midway
	F	between BANG and REX
	G	Line normal to shoreline at point midway
	H	between CANAL and ALP
	I	AZO to QUO and line AZO-AXE extended WSW'ly.
	J	Cascade Locks Gage
	K	DOC to DON
	L	TROT to MID
	M	Wind River Gage
July 28	A	Cascade Locks Gage
" 29		DOC to DON
	B	TROT to MID
	C	Wind River Gage
July 30	A	Cascade Locks Gage
	B	HEN to GUM
	C	Wind River Gage

LIMITS OF ZONES USED ON HYDROGRAPHIC SHEET (HO-1247), H-7125: (Continued)

<u>DATE</u>	<u>ZONE</u>	<u>DESCRIPTION</u>
July 31	A	Eagle Creek Staff
	B	
	C	West limit of Hydrographic Sheet H-7125.
	D	Line normal to shoreline at ZIG
	E	HIGH to ACT
	F	Line normal to shoreline at point midway between BANG and REX
	G	Line normal to shoreline at point midway between CANAL and ALP
	H	AZO to QUO and line AZO-AXE extended WSW'ly.
	I	Cascade Locks Gage HEN to GUM Wind River Gage
Aug. 2	A	Cascade Locks Gage DOC to DON
	B	
	C	TROT to MID Wind River Gage
Oct. 16	A	Work done in vicinity of Eagle Creek Staff
Oct. 22	A	Work done in vicinity of Cascade Locks Staff
Oct. 23	A	Eagle Creek Staff
	B	
	C	Line normal to shoreline at WAX
	D	HIGH to ACT
	E	AMY to ALP
	F	AZO to QUO and line AZO-AXE extended WSW'ly. Cascade Locks Gage

NOTE: Whenever Zone "A" includes Cascade Locks Gage, the western limit of Zone "A" is a line joining AZO and QUO and line AZO-AXE extended westsouthwesterly to the Washington shore.

The eastern limit of the most easterly zone for any day in the above table is the eastern limit of the hydrographic sheet H-7125.

In the majority of cases, the limits of zones are lines connecting various hydrographic signals.

The zones progress from west to east.

TIDE NOTE: (Continued)

The zone letters (as shown in above table), were entered with a red pencil in all hydrographic record books in the column titled, "Tide Reducers", to signify what zone each sounding pertained to.

The hourly heights with their respective reducers are submitted on Form No. 362, under separate cover.

The reducers used for the intermediate zones between gage sites are tabulated as follows: (All reducers are in feet and tenths)

26 May 1948
 Cascade Wind
 Locks River- Gage
 Time A B C -- Zones
 0900 15.7 15.9 16.0
 1000 15.7 15.9 16.0
 1100 15.7 15.9 16.1
 1200 15.7 15.9 16.1

28 May 1948
 Cascade Wind
 Locks River
 A B C -- Zones
 1300 16.6 16.8 -
 1400 16.6 16.8 -
 1500 16.7 16.9 -
 1600 16.7 16.9 -

2 June 1948
 Cascade
 Locks
 A
 1000 15.8
 1100 15.9
 1200 16.0
 1300 16.1
 1400 16.2
 1500 16.3
 1600 16.4
 1700 16.5

3 June 1948
 Cascade
 Locks
 A
 1000 15.2
 1100 "
 1200 "
 1300 "
 1400 "
 1500 "
 1600 "
 1700 15.2

4 June 1948
 Cascade
 Locks
 Time A--- Zone
 0900 14.6
 1000 14.6
 1100 14.5
 1200 14.5
 1300 14.4
 1400 14.4
 1500 14.3
 1600 14.3
 1700 14.3

7 June 1948
 Wind
 River
 A
 1100 15.5
 1200 "
 1300 "
 1400 "
 1500 "
 1600 "
 1700 15.5

8 June 1948
 Wind
 River
 A
 0900 15.3
 1000 15.2
 1100 15.2
 1200 15.1
 1300 15.1
 1400 15.1
 1500 15.1
 1600 15.1
 1700 15.1

TIDE NOTE: (Continued)

9 June 1948

<u>Time</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>Wind</u>	<u>Zones</u>
	<u>Cascade</u>						<u>River</u>	
	<u>Locks</u>							
1100	14.4	14.6	14.8	15.0	15.2	15.4		
1200	14.3	14.5	14.7	14.9	15.1	15.3		
1300	14.3	14.5	14.7	14.9	15.1	15.3		
1400	14.3	14.5	14.7	14.9	15.1	15.3		
1500	14.3	14.5	14.7	14.9	15.1	15.3		

10 June 1948

<u>Time</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>Wind</u>	<u>Zones</u>
	<u>Cascade</u>						<u>River</u>	
	<u>Locks</u>							
0900	13.8	14.0	14.2	14.4	14.6	14.8	15.0	
1000	"	"	"	"	"	"	15.0	
1100	"	"	"	"	"	"	14.9	
1200	"	"	"	"	"	"	"	
1300	"	"	"	"	"	"	"	
1400	"	"	"	"	"	"	"	
1500	"	"	"	"	"	"	"	
1600	13.8	14.0	14.2	14.4	14.6	14.8	14.9	

14 June 1948

<u>Time</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>Wind</u>	<u>Zones</u>
	<u>Cascade</u>						<u>River</u>	
	<u>Locks</u>							
0900	13.5	13.7	13.9	14.1	14.3	14.5	14.6	
1000	13.6	13.8	14.0	14.2	14.4	14.6	14.7	
1100	"	"	"	"	"	"	"	
1200	"	"	"	"	"	"	"	
1300	"	"	"	"	"	"	"	
1400	"	"	"	"	"	"	"	
1500	13.6	13.8	14.0	14.2	14.4	14.6	14.7	
1600	13.7	13.9	14.1	14.3	14.5	14.7	14.8	

15 June 1948

<u>Time</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>Wind</u>	<u>Zones</u>
	<u>Cascade</u>						<u>River</u>	
	<u>Locks</u>							
0900	14.4	14.6	14.8	15.0	15.2	15.4	15.6	
1000	"	"	"	"	"	"	"	
1100	"	"	"	"	"	"	"	
1200	"	"	"	"	"	"	"	
1300	"	"	"	"	"	"	"	
1400	"	"	"	"	"	"	"	
1500	"	"	"	"	"	"	"	
1600	14.4	14.6	14.8	15.0	15.2	15.4	15.6	

TIDE NOTES: (Continued)16 June 1948

<u>Time</u>	<u>Cascade Locks</u>					<u>Wind River</u>		G -- Zones
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>		
0900	14.2	14.4	14.6	14.8	15.0	15.2	15.4	
1000	"	"	"	"	"	"	"	
1100	"	"	"	"	"	"	"	
1200	"	"	"	"	"	"	"	
1300	14.2	14.4	14.6	14.8	15.0	15.2	15.4	
1400	14.3	14.5	14.7	14.9	15.1	15.3	15.5	
1500	"	"	"	"	"	"	"	
1600	14.3	14.5	14.7	14.9	15.1	15.3	15.5	

17 June 1948

<u>Time</u>	<u>Cascade Locks</u>					<u>Wind River</u>		G -- Zones
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>		
0900	14.9	15.1	15.3	15.5	15.7	15.9	16.1	
1000	"	"	"	"	"	"	"	
1100	"	"	"	"	"	"	"	
1200	"	"	"	"	"	"	"	
1300	"	"	"	"	"	"	"	
1400	14.9	15.1	"	"	"	"	"	
1500	15.0	15.1	"	"	"	"	"	
1600	15.0	15.1	15.3	15.5	15.7	15.9	16.1	

18 June 1948

<u>Time</u>	<u>Cascade Locks</u>					<u>Wind River</u>		F -- Zones
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>		
0900	15.4	15.6	15.8	16.0	16.2	16.4		
1000	15.5	15.7	15.9	16.1	16.3	16.5		
1100	15.6	15.8	16.0	16.2	16.4	16.6		
1200	15.7	15.9	16.1	16.3	16.5	16.7		
1300	15.9	16.1	16.3	16.5	16.7	16.9		
1400	15.8	16.0	16.2	16.4	16.6	16.8		
1500	15.9	16.1	16.3	16.5	16.7	16.9		
1600	15.9	16.1	16.3	16.5	16.7	16.9		

22 June 1948

<u>Time</u>	<u>Cascade Locks</u>					<u>Wind River</u>		E -- Zones
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>			
0900	14.6	14.7	14.9	15.1	15.3			
1000	"	"	"	"	"			
1100	14.6	14.7	14.9	15.1	15.3			
1200	14.5	14.7	14.9	15.1	15.3			
1300	14.5	14.7	14.9	15.1	15.2			
1400	"	"	"	"	"			
1500	14.5	14.7	14.9	15.1	15.2			

TIDE NOTES: (Continued)23 June 1948

Time	Cascade Locks				Wind River	E -- Zones
	A	B	C	D	E	
0900	14.3	14.4	14.6	14.8	14.9	
1000	14.3	"	"	"	"	
1100	14.2	"	"	"	"	
1200	"	"	"	"	"	
1300	"	"	"	"	"	
1400	"	"	"	"	14.9	
1500	14.2	14.4	14.6	14.8	14.8	
1600	14.1	14.3	14.5	14.7	14.8	

24 June 1948

Time	Cascade Locks				Wind River	E -- Zones
	A	B	C	D	E	
0900	14.0	14.1	14.3	14.5	14.7	
1000	14.0	"	"	"	"	
1100	13.9	"	"	"	14.7	
1200	13.9	"	"	"	14.6	
1300	13.9	14.1	14.3	14.5	14.6	
1400	13.8	14.0	14.2	14.4	14.6	
1500	"	"	"	"	14.6	
1600	13.8	14.0	14.2	14.4	14.5	

25 June 1948

Time	Cascade Locks				Wind River	E -- Zones
	A	B	C	D	E	
0900	13.6	13.8	14.0	14.2	14.4	
1000	13.6	13.8	14.0	14.2	14.3	
1100	13.5	13.7	13.9	14.1	14.3	
1200	13.5	13.7	13.9	14.1	14.3	
1300	13.4	13.6	13.8	14.0	14.2	
1400	"	"	"	"	"	
1500	13.4	13.6	13.8	14.0	14.2	
1600	13.5	13.7	13.9	14.1	14.3	

28 June 1948

Time	Cascade Locks			Wind River	D -- Zones
	A	B	C	D	
0900	12.6	12.8	13.0	13.2	
1000	12.6	"	"	"	
1100	12.5	12.8	13.0	13.2	
1200	12.5	12.7	12.9	13.1	
1300	"	"	"	"	
1400	"	"	"	"	
1500	"	"	"	"	
1600	12.5	12.7	12.9	13.1	

TIDE NOTES: (Continued)

29 June 1948

Time	Cascade Locks			Wind River	Zones
	A	B	C	D	
0900	12.5	12.7	12.9	13.1	
1000	"	"	"	"	
1100	12.5	12.7	12.9	13.1	
1200	12.6	12.8	13.0	13.2	
1300	"	"	"	"	
1400	"	"	"	"	
1500	12.6	12.8	13.0	13.2	
1600	12.7	12.9	13.1	13.3	

30 June 1948

Time	Cascade Locks			Wind River	Zones
	A	B	C	D	
0900	12.8	13.0	13.2	13.4	
1000	"	"	"	"	
1100	12.8	13.0	13.2	13.4	

1 July 1948

Time	Cascade Locks			Wind River	Zones
	A	B	C	D	
1100	12.6	12.8	13.0	13.2	
1200	12.7	12.9	13.1	13.3	
1300	12.8	13.0	13.2	13.4	
1400	12.7	12.9	13.1	13.3	
1500	12.7	12.9	13.1	13.3	
1600	12.6	12.8	13.0	13.2	

2 July 1948

Time	Cascade Locks			Wind River	Zones
	A	B	C	D	
0900	12.2	12.4	12.6	12.7	
1000	"	"	"	12.7	
1100	12.2	"	"	12.8	
1200	12.3	12.4	12.6	12.8	
1300	12.3	12.5	12.7	12.9	
1400	12.3	"	"	"	
1500	12.4	"	"	"	
1600	"	"	"	"	
1700	12.4	12.5	12.7	12.9	

6 July 1948

Time	Cascade Locks			Wind River	Zones
	A	B	C		
1300	12.3	12.4	12.6		
1400	12.2	"	"		
1500	"	"	"		
1600	"	"	"		
1700	12.2	12.4	12.6		

7 July 1948

Time	Cascade Locks		Wind River
	A	B	C
0900	11.8	12.0	12.2
1000	"	"	"
1100	11.8	12.0	12.2
1200	11.7	11.9	12.1
1300	"	"	"
1400	"	"	"
1500	"	"	"
1600	11.7	11.9	12.1

8 July 1948

Time	Cascade Locks	Wind River	Zones
	A	B	
0900	11.4	11.6	
1000	"	"	
1100	"	"	
1200	"	"	
1300	"	"	
1400	11.4	11.6	
1500	11.3	11.5	
1600	11.2	11.4	
1700	11.2	11.4	

9 July 1948

Time	Cascade Locks		Wind River	Zones
	A	B	C	
0900	10.3	10.4	10.6	
1000	10.2	10.4	10.6	
1100	10.2	10.4	10.6	
1200	10.1	10.3	10.5	
1300	10.1	10.3	10.5	
1400	10.1	10.3	10.4	
1500	10.0	10.2	10.3	
1600	9.9	10.1	10.2	

12 July 1948

Time	Cascade Locks		Wind River
	A	B	C
0900	7.8	8.0	8.1
1000	"	"	"
1100	"	"	"
1200	7.8	8.0	8.1
1300	7.7	7.9	8.1
1400	"	"	"
1500	7.7	7.9	8.1

TIDE NOTE: (Continued)

13 July 1948

Time	Eagle Creek										Cascade Locks		Wind River	Gages	
	A	B	C	D	E	F	G	H	I	J	K	L	M	Zones	
0900												7.2	7.3	7.5	
1000												7.1	7.2	7.4	
1100												7.1	7.2	7.4	
1200												7.0	7.2	7.4	
1300												7.0	7.2	7.3	
1400												7.0	7.2	7.3	
1500												6.9	7.1	7.3	
1600	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9	6.9	7.0	7.2	
1700	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9	6.9	7.0	7.2	

14 July 1948

Time	Eagle Creek										Cascade Locks		Wind River	Zones
	A	B	C	D	E	F	G	H	I	J	K	L		
0900	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9		
1000					5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9		
1100										6.5	6.6	6.8		
1200										6.5	6.6	6.8		
1300										6.5	6.6	6.8		
1400										6.5	6.7	6.9		
1500										6.4	6.6	6.8		
1600	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8		
1700	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.3	6.5	6.7		

15 July 1948

Time	Eagle Creek										Cascade Locks		Wind River	Zones
	A	B	C	D	E	F	G	H	I	J	K	L		
0800	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.4	5.5	5.7		
0900	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.3	5.5	5.7		
1000	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.3	5.4	5.6		
1100		3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.2	5.4	5.6		
1200	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.2	5.3	5.5		
1300		3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.3	5.5		
1400	3.5	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.1	5.3	5.5		
1500	3.5	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.1	5.2	5.4		
1600	3.5	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.0	5.2	5.3		
1700	3.4	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.0	5.2	5.3		

7 Reduced in sanding Volume C.R.D. K.W.

16 July 1948

Time	Eagle Creek										Cascade Locks		Wind River	Zones
	A	B	C	D	E	F	G	H	I	J	K	L		
0800	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.4	5.5	5.7		
0900	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.3	5.5	5.7		
1000	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.3	5.4	5.6		
1100		3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.2	5.4	5.6		
1200	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.2	5.3	5.5		
1300		3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.3	5.5		
1400	3.5	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.1	5.3	5.5		
1500	3.5	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.1	5.2	5.4		
1600	3.5	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.0	5.2	5.3		
1700	3.4	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.0	5.2	5.3		

TIDE NOTE: (Continued)

19 July 1948

Time	Eagle Creek										Zones
	A	B	C	D	E	F	G	H	Cascade Locks I	Wind River J K	
0800		2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.4		
0900	1.9	"	"	"	"	"	"	"	"		
1000	"	"	"	"	"	"	"	"	"		
1100	1.0	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.4		
1200											
1300	- - - - - No Hydro -- This Time - - - - -										
1400											
1500	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8
1600	"	"	"	"	"	"	"	"	"	"	"
1700	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.7

20 July 1948

Time	Eagle Creek										Zones
	A	B	C	D	E	F	G	H	Cascade Locks I	Wind River J K	
0800	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4
0900	"	"	"	"	"	"	"	"	"	"	"
1000	"	"	"	"	"	"	"	"	"	"	"
1100	1.5	"	"	"	"	"	"	"	"	"	"
1200	1.4	"	"	"	"	"	"	"	"	"	"
1300	"	"	"	"	"	"	"	"	"	"	3.4
1400	"	"	"	"	"	"	"	"	"	"	3.3
1500	1.4	"	"	"	"	"	"	"	"	"	"
1600	1.5	"	"	"	"	"	"	"	"	"	"
1700	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.3

21 July 1948

Time	Eagle Creek										Zones
	A	B	C	D	E	F	G	H	Cascade Locks I	Wind River J K	
0900	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.3
1000	1.4	"	"	"	"	"	"	"	"	"	"
1100	1.5	"	"	"	"	"	"	"	"	"	"
1200	"	"	"	"	"	"	"	"	3.0	3.2	3.3
1300	1.5	"	"	"	"	"	"	"	2.9	3.1	3.3
1400	1.4	"	"	"	"	"	"	"	"	"	"
1500	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.1	3.3
1600	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3

22 July 1948

Time	Eagle Creek										Zones
	A	B	C	D	E	F	G	H	Cascade Locks I	Wind River J K	
1000	1.3	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2
1100	1.2	"	"	"	"	"	"	"	"	"	3.2
1200	"	"	"	"	"	"	"	"	"	"	3.1
1300	"	"	"	"	"	"	"	"	"	"	"
1400	"	"	"	"	"	"	"	"	"	"	"
1500	1.2	"	"	"	"	"	"	"	"	"	"
1600	1.3	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.1

TIDE NOTE: (Continued)

23 July 1948

Time	Eagle Creek										Wind River - Gages
	A	B	C	D	E	F	G	H	I	J	
1400	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.3	2.4	2.6
1500	"	"	"	"	"	"	"	"	"	"	2.6
1600	"	"	"	"	"	"	"	"	"	"	2.5
1700	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.3	2.4	2.5

26 July 1948

Time	Eagle Creek										Wind River - Gages
	A	B	C	D	E	F	G	H	I	J	
0800		0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	
0900	0.7	"	"	"	"	"	"	"	"	"	
1000	0.7	"	"	"	"	"	"	"	"	"	
1100	0.6	"	"	"	"	"	"	"	"	2.4	
1200	"	"	"	"	"	"	"	"	"	2.3	
1300	0.6	"	"	"	"	"	"	"	"	"	
1400	0.7	"	"	"	"	"	"	"	"	"	
1500	"	"	"	"	"	"	"	"	"	"	
1600	"	"	"	"	"	"	"	"	"	"	
1700	0.7	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.3	

28 July 1948

Time	Cascade Locks			Wind River - Gages
	A	B	C	
0900	2.1	2.3	2.5	
1000	"	"	"	
1100	"	"	"	
1200	"	"	"	
1300	"	"	"	
1400	"	"	2.5	
1500	"	"	2.4	
1600	"	"	"	
1700	2.1	2.3	2.4	

29 July 1948

Time	Cascade Locks			Wind River - Gages
	A	B	C	
0900	2.2	2.4	2.5	
1000	"	"	"	
1100	"	"	"	
1200	2.2	2.4	2.5	
1300	2.1	2.3	2.4	
1400	"	"	"	
1500	2.1	2.3	2.4	
1600	2.1	2.2	2.4	
1700	2.1	2.2	2.4	

TIDE NOTE: (Continued)30 July 1948

<u>Time</u>	<u>Cascade Locks</u>		<u>Wind River</u>	<u>Zones</u>
	<u>A</u>	<u>B</u>	<u>B</u>	
0900	2.5		2.7	
1000	2.5		2.7	
1100	2.4		2.6	
1200	2.4		2.6	
1300	2.3		2.5	
1400	2.3		2.5	
1500	2.2		2.4	
1600	2.2		2.4	

31 July 1948

<u>Time</u>	<u>Eagle Creek</u>						<u>Cascade Locks</u>			<u>Wind River</u>	<u>Zones</u>
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>		
0800	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9		
0900	1.4	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9		
1000								2.7	2.9		
1100								2.7	2.9		
1200								2.6	2.8		

2 August 1948

<u>Time</u>	<u>Cascade Locks</u>			<u>Zones</u>
	<u>A</u>	<u>B</u>	<u>C</u>	
1000	2.4	2.5	2.6	
1100	2.3	2.4	2.6	
1200	2.3	2.4	2.6	

22 October 1948

<u>Time</u>	<u>Cascade Locks</u>		<u>Zone</u>
	<u>A</u>	<u>B</u>	
1400	0.5		
1500	0.5		
1600	0.5		
1700	0.3		

23 October 1948

<u>Time</u>	<u>Eagle Creek</u>					<u>Cascade Locks</u>		<u>Zones</u>
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>		
0800						0.8		
0900						0.8		
1000						0.8		
1100	-0.2	0.0	0.2	0.4	0.6	0.7		
1200						0.5		
1300	-0.5					0.4		

<u>Date Forwarded To:</u>	
<u>Washington</u>	<u>Seattle</u>
<u>D.C.</u>	<u>Processing</u>
<u>Office</u>	<u>Office</u>

APPLICABLE DATA:

- 2 - Topographic Sheets, (HO-F-47), T-7052(a) - - - - 2/25/49
- (HO-G-47), T-7053(a)
- 1 - Hydrographic Boat Sheet, (HO-1247), H-7125 - - - - 2/23/49
- 20 - Volumes, Sounding Records, Form 275 - - - - - 2/15/49
- 45 - Fathograms for Hydro Sheet H-7125 - - - - - 2/16/49
- 47 - Description of Recoverable Topographic Stations - 2/18/49
- (Form 524)
- 39 - Recovery of Triangulation Stations, --(Form 526) - 2/18/49
- 1 - Progress Sketch, Combined Operations - - - - - (Monthly)
- 1 - Sketch, Sheet Layout - - - - - 9/ 1/47
- 1 - Season's Report, (Year 1948), - - - - - 12/16/48

- 6 - Prints, U.S. Engr's., Portland, Ore. - - - - - 2/23/49
 (Scale 1 : 5,000)

Print No.	Series	Dated:
(CL-106-13/15),	(No. 15 of 30),	12/31/35*
" " (CL-106-13/16),	(No. 16 of 30),	"
" " (CL-106-13/17),	(No. 17 of 30),	"
" " (CL-106-13/18),	(No. 18 of 30),	"
" " (CL-106-38/ 4),	(No. 4 of 6),	1/22/46*
" " (CL-106-38/ 5),	(No. 5 of 6),	"

*see Bk 32112 for
index of Bps
4/9/50
Bps?*

*: 1935 Survey, Mouth Of Willamette To The Dalles, Ore.
 *: 1945 Survey, Vancouver, Wash. To The Dalles, Ore.

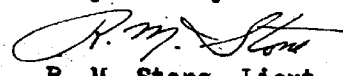
- 1 - Sheet, Compilation of aerial photographs taken on 8 July 1939 & 3 Aug. 1935, Proj. CS-189, Scale 1 : 20,000. (Note: This compilation was enlarged to a scale of 1 : 10,000, comprising two additional sheet). *Not suitable for smooth sheet microfilm: b. b. v.*


Print

Data used in determining difference between normal-pool-level and elevation of water surface:

Gage Locations	Report				Record Staff Reading
	Of Tide Sta. Form	Level Record Form	Hourly Hts. Mari-Fern grams	Staff Reading Form	
	#681	#258	#362	#277	
Eagle Creek, Ore	1	1	2	1	
Cascade Locks, Ore	1	1	6	1	
Wind River, Wash	1	1	5		
Viento, Ore	1	1	4		

2/7/49

Respectfully submitted,

 R. M. Stone, Lieut. USC&GS
 H. & G. Engr.

Approved:

 Henry J. Healy, Lt. Comdr. USC&GS
 Commanding Ship RODGSON

APPROVAL SHEET

Hydrographic Survey No. H-7125
(Field No. HO-1247)

Columbia River

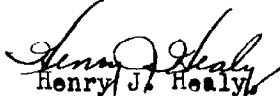
Bonneville, Oregon to Wyeth, Oregon

Project CS-325

The records for this hydrographic sheet have been examined and found to be complete.

The smooth sheet had not been plotted at the time of writing this report.

This survey is complete, adequate in detail, and is approved.


Henry J. Healy
Lt. Comdr., USCGS
Commanding Ship HODGSON

Preliminary Verification

Loss of Significance

H-7125

Instructions

1. Inspect junction for agreement of hydrography and curves.
(Tracing attached to back of this page was used in verification of H-7653).
2. In addition to verifying features indicated by notes on sheet, verify the following:

	lat. $45^{\circ} 39.32'$, long. $121^{\circ} 54.3'$	✓
✓ 26 ft		
✓ 16	40.25	54.35 and position
✓ 23	40.4	54.15
✓ 29	40.37	54.12
✓ 22	40.42	53.82
22 28	40.43	53.91
21 ³	40.28	53.85
✓ 6	40.62	54.12
✓ 39	40.56	53.65
✓ 34	40.61	53.65
✓ 4	40.96	53.65 and 5 ft, southward
✓ 5	40.92	53.66
✓ 23	40.90	53.15
✓ 36	40.86	53.28
✓ 10	40.93	52.65
✓ 2	41.70	52.47
✓ 39	42.07	51.12
✓ 5	42.04	50.87
✓ 9	42.50	49.98
✓ pos 41j (purple)	41.83	49.83 5-ft. displaced? yes
✓ 5	42.77	49.06
✓ 22	42.33	49.23
✓ 29	42.07	49.43
✓ 7	42.75	48.84
✓ 1	42.75	48.18 also 2 ft to westward
✓ 2	43.29	47.25
✓ 16	43.08	47.30 looks like 6
✓ 20	42.40	47.43
✓ 17	42.47	47.41
✓ 28	42.40	47.23
✓ 32	42.38	47.06 (over)

√ 29 ft.	42.38'	47.43'
√ 15	41.85	47.74'

NOTES - TO REVIEWER -

Where field records indicate position & limits of high water rocks, this data has been applied in red ink, as islet, on smooth sheet.

Rocks which are accurately located & definitely established as high water rocks — but — have neither an outline on the boat sheet — nor — a description in the field book — have NOT been inked even tho. preliminary verification of these rocks has been performed.

O. Swendsen

Per. RHC

Processing Office Notes

H 7125
HO 1247

Columbia River
Bonneville to Wyeth

Smooth sheet.

The projection was made by hand on Whatman paper. Data for the triangulation are found on Pages 504,5, 526,7,8,9 & 1139 of the lithographed GP's for Washington. Topographic signals are from T 7052 & T 7053. The shoreline available was not suitable for the smooth sheet.

Rock symbols.

Rocks which cover at flood stages of the river have been shown as rocks awash. This may not be accepted. *Revised to high water rocks when above normal pool level. RMC*
It has been noticed that the rock (Δ Lone) at ϕ 45 42.4 λ 151 48.8 which is 7.3 ft. above Columbia River datum is charted as a bare rock. This rock is covered several feet at flood stages. Article 7822 of the Hydrographic Manual needs clarification when applied to rivers, unless the established river datum is to be held as both the HW and LW datum for the purposes of that article.

Crossings.

Good. Exception; near ϕ 45 42.4 λ 121 50.1 in the area about 150 m. SSE of Δ Flume the soundings from 49-a to 50-a (green) could not be made to agree with crossing lines. After re-scanning and re-plotting the differences still exist. They amount to 5ft. to 10 ft. and are probably due to slight displacement of a line running parallel to a steep slope. The lines into the slough at ϕ 45 41.3 λ 121 53.8 did not agree well. The control here is not good. the lines were plotted per boat sheet.

Depth Curves.

Some curves have been omitted on account of congestion.

Boat sheet comparison.

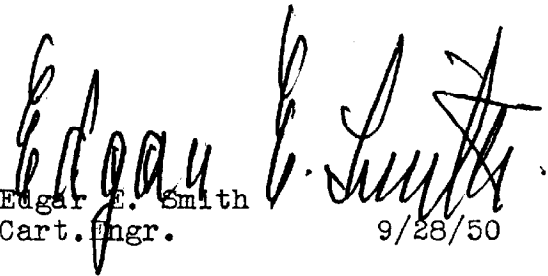
The boat sheet has been examined for items not recorded in the sounding records.

Junction.

The junction with H-7653 to eastward is good. Depth curves and soundings are in agreement. The junction with H 7123 to westward is in agreement.

In addition to the soundings mentioned in the report by the field party note also these important soundings.

ϕ	λ	Feet	Remarks.
45 42.37	121 49.13	9	410 M. SSW from Δ Lone.
39.97	53.82	14.3	Sounding over closed gate of Lock. 135 M. upstream from Cascade Lock Lower Lt.
40.96	53.15	18	60 M. ENE from Nun Buoy No. 2.
41.05	52.85	17	480 M. " " " " "


Edgar E. Smith
Cart. Engr.

9/28/50

H 7125
HO 1247

SEE
9100 P. 39

Columbia River.
Bonneville to Wyeth.

List of geographic names
penciled on smooth sheet.

Washington

Oregon

Columbia River

Sheridan Point

Bridge of the Gods

Cascade Locks

Rock Cove

Rock Creek

Government Cove

"LAKE" ON P. 11 P

Anderson Point

Wind River

Wyeth

GEOGRAPHIC NAMES

Survey No. H-7125

Name on Survey	A	B	C	D	E	F	G	H	K	
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
<u>Oregon</u>									US&B	1
<u>Washington</u>									"	2
<u>Columbia River</u>									"	3
<u>Sheridan Point</u>									"	4
<u>Bridge of the Gods</u>										5
<u>Cascade Locks</u>		(town)								6
<u>Rock Creek</u>										7
<u>Rock Cove</u>										8
<u>Stevenson</u>										9
<u>Government Cove</u>										10
<u>Anderson Point</u>										11
<u>Kyeta</u>										12
<u>Wind River</u>										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27
										M 234

Names underlined in red are approved. 12-4-50.

L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7125....

Records accompanying survey:

Boat sheets ..1..; sounding vols. 20....; wire drag vols.;
bomb vols.; graphic recorder rolls .15 envel.
special reports, etc.
.....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet			
Number of positions checked			
Number of positions revised			
Number of soundings revised (refers to depth only)			
Number of soundings erroneously spaced			
Number of signals erroneously plotted or transferred			
Topographic details	Time		
Junctions	Time		
Verification of soundings from graphic record	Time		
Verification by.....	Total time	Date
Reviewed by.....	Time	Date

Stam 6 hrs

Joins H-7125

8
6 8 8
5 5 8 9
4 5 8 9

23 33 22 21 20 19
 24 23 23 24 23 24 24 24
 24 24 24 24 25 25
 28 27 27 25 25 26 24 25 25
 31 30 29 27 27 27 27
 34 33 32 32 30 30 30 28 28
 38 37 36 37 36 38 32 33 33 32 32 32
 41 40 40 40 38 37 37 37
 47 45 47 48 45 41 40 40 40
 47 48 49 49 48 46 46
 53 51 52 52 51 53 54 54 53
 55 54 52 53 55 55
 53 53 51 54 52 52 54 57 57 62 60
 53 53 53 50 50 53 52 51 53 53 58 58 60
 46 47 51 51 50 52 52 51 52
 40 44 47 48 49 50 50 49 50 52 50 52
 32 33 33 41 47 47 48 50 48 51 50 48
 27 28 31 24 33 33 47 48 47 48 48
 25 26 27 29 31 31 32 34 37
 13 15 16 18 19 21 24 25 27 28 28
 7 7 9 9 11 13 13 15
 4 3 3 4 3 3 3 3 3 3

H-7653

45° 41' 30"
121° 46' 30"

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

13 December 1950

Division of Charts: R. H. Carstens

Plane of reference approved in
20 volumes of sounding records for

HYDROGRAPHIC SHEET 7125

Locality Columbia River (Washington-Oregon)

Chief of Party: W. H. Bainbridge in 1948

Plane of reference is Columbia River (Pool) Datum or 72.0 ft. above Sea-level
14.3 ft. on tide staff at Viento, Oregon Datum of 1929, reading
46.2 ft. below B. M. B 470 (1941)

6.3 ft. on tide staff a Cascade Locks, Oregon
17.1 ft. below B. M. LOCKS (1901)

0.3 ft. on tide staff at Eagle Creek, Oregon
33.1 ft. below B. M. Q 263 (1940)

-2.4 ft. on tide staff at Wind River, Washington
29.9 ft. below B. M. K 44 (1933)

Condition of records satisfactory except as noted below:

E.C. McKay
Section

Chief, ~~Division of Tides and Currents.~~

H-7125

INDEX

See pp 33-34 of Report

Sounding Volume				Fathogram		
Vol. No.	Date	Day Letter	Vessel	Day Letter	Date	
1	26 May '48	1a	Launch 141	A	5-26-48	1
	2 July	127c	"	C	7-2-48	
13	2 July	128c	"	D	7-6-48	
	7 July	71e	"	F	7-7	
14	7 July	72e	"	F	7-7	2
	8 July	123f	"	F	7-8	
15	8 July	124f	"	G	7-9	3
	12 July	22h	"	J	7-12	
16	12 July	23h	"	K	7-14	4
	14 July	53k	"	M	7-15	
17	14 July	54k	"		7-15	4
	16 July	109m	"	M	7-16	
18	16 July	110m	"	N	7-19	5
	31 July	26s	"	Q	7-26	
20	2 Aug	1t	"	R	7-28 T 8-2	6
	23 Oct	36v		U	10-22 V 10-23	7
2	28 May	1a	(Logwalk)			
	31 July	6e				
3	2 June	1a	Cotamaran	A	6-2-48	10
	4 June	32c	"	C	6-4-48	
4	7 June	1d	"	D	6-7-48	11
	10 June	40g	"	F	6-9	
5	10 June	41g	"	G	6-10	12
	14 June	140h	"	J	6-15	
6	15 June	1j	"	K	6-16	13
	17 June	45l	"	M	6-17	
7	17 June	46l	"		6-17	13
	18 June	138m	"	M	6-18	
8	18 June	139m	"	N	7-20	14
	22 July	63q	"	Q	7-22	
19	22 July	64q	"	R	7-26	
	30 July	90t	"	T	7-30	
9	22-23 June	1a 111b	Launch 114	A	6-22 C 6-23	8
10	23-25 June	112b 53d	"		6-23 C 6-24	8
11	25-28 June	54d 174e	"	D	6-25 G 6-30	9
12	29-30 June	1f 43y	"	D	6-25 G 6-30	9

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- H-7125

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
6. All positions verified instrumentally were check marked in the sounding records.
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.
8. The metal protractor has been checked within the last three months.
9. The protracting and plotting of all bad crossings were verified.
10. All detached positions locating critical soundings, rocks or buoys were verified.
11. The boat sheet was compared with the smooth sheet.

12. The spacing of soundings as recorded in the records was closely followed.
13. The bottom characteristics were shown on outstanding shoals.
14. The reduction and plotting of doubtful soundings were checked.
15. The transfer of contemporary topographic information was carefully examined.
16. All junctions were transferred and overlapping curves made identical.
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
22. Unnecessary pencil notes have been removed.
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
24. The low water line and delineation of shoal areas have been properly shown.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:

Verified by

Date

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7125

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
30 Nov 49	6157	Nichols	Before After Verification and Review <i>Applied only critical data from boat sheet.</i>
1/16/51	6156	<i>[Signature]</i>	Before After Verification and Review
12/17/52	6158	<i>[Signature]</i>	Before ^{preliminary} After, Verification and Review <i>(fully)</i> ^{97% of edges are in pencil}
3/16/79	18531B	Charles Jones	Before After Verification and Review <i>Consider fully applied, superseded Bp 104510-19; Bp 104625 Bp 104655-56</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.