

# 8241

Diag. Cht. No. 6102-2.

<p>Form 504</p> <p>U. S. COAST AND GEODETIC SURVEY</p> <p>DEPARTMENT OF COMMERCE</p> <p>DESCRIPTIVE REPORT</p>
<p>Type of Survey <u>Hydrographic</u></p> <p>Field No. <u>WCSP-05155</u> Office No. <u>H-8241</u></p>
<p>LOCALITY</p> <p>State <u>Washington</u></p> <p>General locality .....</p> <p>Locality <u>Quillayute River &amp; Entrance</u></p>
<p><u>194 55</u></p> <p>CHIEF OF PARTY</p> <p><u>Horace G. Conerly</u></p>
<p>LIBRARY &amp; ARCHIVES</p> <p>DATE <u>October 7, 1958</u></p>

# 8241

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-8241

Field No. WCSP-05155

State Washington

General locality ~~Pacific Coast~~

Locality Quillayute River and Entrance

Scale 1:5,000 Date of survey July - August 1955

Instructions dated 7 May 1955

Vessel Launch 160

Chief of party Horace G. Conerly

Surveyed by Horace G. Conerly

Soundings taken by fathometer, ~~graphic recorder~~, hand lead, ~~wire~~ and pole.

Fathograms scaled by A. W. B.

Fathograms checked by Various

Protracted by C. R. Lehman

Soundings penciled by C. R. Lehman

Soundings in ~~fathoms~~ <sup>fms</sup> feet at ~~MLLW~~ MLLW and are true depths.

REMARKS:

948

## DESCRIPTIVE REPORT

### TO ACCOMPANY HYDROGRAPHIC SURVEY

SHEET NO. WCSP 05155 - REGISTRY NO. H-8241 - *Boat Sheet previous Bp-52975*

PROJECT 1379

SCALE 1:5,000

HORACE G. CONERLY, CHIEF OF PARTY

#### PROJECT

The work was in accordance with instructions for Project 1379, dated 7 May 1955. ✓

#### PRUPOSE

The purpose of the survey was for a more detailed chart of the Quillayute River and its approach. ✓

#### SURVEY LIMITS AND DATES

The area is from the rapids approximately 1.5 miles up the river to approximately 3/4 mile off the mouth of the river. ✓

Work was begun in July and completed in August 1955. ✓

#### VESSELS AND EQUIPMENT

For the area off the mouth of the river standard launch equipment was used with an 808 fish unit mounted in the keel of Launch 160. ✓

The river was too narrow, shoal and crooked to use the standard equipment upstream from the mouth. ✓

For all soundings in the river a skiff was used to transport the hydrographic party and a pole for the depths. ✓

#### METHODS

Due to the very detailed work required standard methods were only used in the area off the mouth where the launch was run on range and sextant angles were taken with the observers standing over the fish units. ✓

For the river survey a traverse was measured with a 300 foot steel tape the full length of the part to be sounded. Along the traverse points were located approximately 22 meters apart and these points used as one part of a range to be run by the skiff. ✓

## METHODS - Continued

Before each line was run one target was put on the traverse point marked for that purpose and another one set by turning an angle as required to cover the area.

During the actual running of the line the Coxswain of the boat ran along the range and only one angle was taken. At the same time one man was ashore watching to see if the skiff was on the line at all times. If it was off the range more than one or two meters the line was run again and the previous work rejected.

For control of the lines portable targets were moved along the traverse and placed on the points required.

Due to the large number of boats moving up and down the river and the current a tag line was impracticable.

## TIDES AND CURRENTS

For tides see separate tidal note.

No hourly current observations were made and during the time of the survey there was never a slack. The river is fed by melting snow and rain in the mountains and such things as temperature, winds, rains, etc. affect the flow of the current.

During the time the survey party was at La Push there was very little rain but the weather was warm, probably causing a good flow of water from snow.

The maximum velocity was not measured but a good oarsman cannot make headway against it along the deeper parts of the river during the strength. Probably the maximum current during the survey parties stay was close to 4.5 knots.

People who live there report that during rainy weather in the winter the ebb is much stronger than it is in the summer months.

During four days of observations to determine if there was a slack at all, a block of wood was thrown in the water, at a point 125 meters WNW of the Coast Guard Lookout Tower and timed over a certain distance to determine the amount of current.

On 9 August the least current was a 0.2 knot ebb at 1325, 10 August a minimum ebb of 0.3 knots was at 1135, 11 August there was a minimum ebb of 0.4 knots at 1542. On 12 August it is not certain that the minimum was observed as the observer failed to observe a stronger current after he obtained a velocity of 0.4 knots at 1611. In each case a number of observations were taken.

## CONTROL

Control was from four sources; previously established triangulation, photo location of identifiable objects and computations of theodolite cuts. Three hydro stations were located and angles shown in the volumes. The computations of theodolite angles are a part of this report.

For work in the river itself a traverse was run along the river bank, with numerous points along the traverse located. A 300 ft. steel tape was used for the horizontal distances and a theodolite for the angles. The ends of the legs on the traverse were computed and all observations were abstracted and are a part of this report.

## SHORELINE AND TOPOGRAPHY

Shoreline was from T-11488 ~~and~~ T-11490. *and 11489 of 1954.*

## SOUNDINGS

Soundings were taken with either an 808 fathometer or pole. Those taken with the fathometer were corrected by comparing numerous bar checks and leadline soundings over a period of time. An abstract of corrections is part of this report and a separate fathometer report will be forwarded to the Director.

## CONTROL OF HYDROGRAPHY

See discussion of methods in this report.

## ADEQUACY OF SURVEY

The survey is considered to be adequate for the purpose for which it was done. No additional work is recommended.

## CROSSLINES

With one exception crosslines agree with the regular system. At the mouth of the river the later soundings are deeper than those taken earlier with a pole. This is due to the scouring action of the river during periods of good weather when the gravel is pushed out faster than it is thrown back in by the surf action. *(Resolved during verification.)*

## COMPARISON WITH PRIOR SURVEYS

Except for the USED survey late in 1954 previous surveys were of a reconnaissance nature and there have been numerous changes in the river. This survey should be considered as a new basic survey.

*See  
TP 629  
of Review*

### COMPARISON WITH CHART

There has never been a large scale chart of the area published so no comparisons are made. ✓

### DANGERS AND SHOALS

Dangerous areas are the rocky shore at the southern limits of the sheet, on the south side of James Island west of the 5 foot rock and the jetties themselves which cannot be seen at high tides. ✓

There is no reason for traffic to be close enough to the shore at the south side of the survey to be in danger, but small craft coming in from the mouth may get close to shore and hit the sunken rocks along the south side of James Island. They don't always break when at a dangerous depth for small craft. During the time that the survey party was working there was either vegetable or animal life in the water that prevented rocks just below the surface from being seen. ✓

The jetties themselves are below water much of the time and are a danger to strangers attempting to go through the channel. ✓

The entrance channel is torturous and should not be attempted by strangers except in excellent weather and in daylight. Local people and others familiar with the area approach the channel from the south, keeping clear of the five foot, and 9 foot, high water rocks and close to the east side of James Island until the sharp bend in the reef then turn sharply toward Butts and Pattisons docks keeping as near as possible to midchannel. Usually there are flags, maintained by local people, that mark the NW side of the channel about 2 feet above MLLW. ✓

### COAST PILOT INFORMATION

On page 387, line 18, the Coast Pilot should read "Neither the dike nor the jetty shows at high water in 1955".

Line 25 and 26 should read as follows: "In August 1955 the controlling depth was 6 feet but during southerly weather the surf often reduces the depth by throwing gravel into the channel. It is reported by several of the local residents that it is sometimes reduced to 2½ feet then is scoured out again by the river".

### GEOGRAPHIC NAMES

In various correspondence and instructions Quillayute appears spelled several different ways. The spelling on the chart is correct. ✓

Other names appear to be fairly well established. ✓

APPLICABLE DATA

- 1 - Triangulation Forwarded to Washington and a Copy of List of G. P.s to Processing Office.
- 2 - Special Fathometer Report Forwarded to Washington.
- 3 - Photo Manuscripts to Processing Office.
- 4 - Photos Forwarded to Washington.
- 5 - Tidal Levels, Marigrams Forwarded to Washington.
- 6 - Fathograms Forwarded to Seattle Processing Office.
- 7 - Boat Sheet Forwarded to Washington for Photographing.

*Horace G. Conerly*  
Horace G. Conerly  
Commander, USC&GS  
OinC., West Coast  
Shore Party

✓

# STATISTICS FOR HYDROGRAPHIC SURVEY

HYDRO. SHEET NO. 05155 (1955)

Vol. No.	Day Letter	Date	H.L. Sdgs.	No. Pos.	Stat. Miles
1	a (green)	14 July	626	349	2.3 (Skiff)
1 & 2	b (green)	15 July	740	398	3.2 (Skiff)
2	c (green)	23 July	644	323	2.5 (Skiff)
2	d (green)	5 August	296	174	1.4 (Skiff)
3	e (green)	7 August	152	68	0.8 (Skiff)
3	f (green)	13 August	124	63	0.5 (Skiff)
4	a (blue)	8 August		241	18.3 (Launch)
5	b (blue)	10 August		244	15.5 (Launch)
5	a (yellow)	12 August	57	57 (Dock Soundings)	
6	c (blue)	12 August		180	7.6
TOTALS			2,639	2,097	52.1

Total area 1.4 square statute miles



APPROVAL SHEET

HYDROGRAPHIC SHEET WCSP 05155 - REG. H-8241

The field work was personally supervised by the Chief of Party  
and is approved.

*Horace G. Conerly*  
Horace G. Conerly  
Commander, USC&GS  
OinC., West Coast  
Shore Party

TIDAL NOTE

TO ACCOMPANY HYDROGRAPHIC SHEET WCSP 05155 - REG. H-8241

For tide reducers for the whole river a tide gage was maintained at Butts and Pattison Docks in La Push.

The staff reading of MLLW was 4.4 feet.

## SIGNALS USED

ON HYDROGRAPHIC SHEET NO. WCSP 05155 - REG. NO. H-8241

Name	Source
Aqua	T-11488
Cab	T-11490
"C" ✓	(USED) Station C Triang. 1955 ✓
Egg	Computed Theodolite Cuts attached to report.
Hid	T-11490 (9002)
Hot	T-11490 T-11488 (8801)
Hub "A"	Theodolite Angles and taped distance Attached to This Report.
Hub "B"	Theodolite Angles and taped distance. Attached to this report.
Hub "C"	Theodolite Angles and taped distance. Attached to this report.
Hub "D"	Theodolite Angles and taped distance. Attached to this report.
Hub "E"	Theodolite Angles and taped distance. Attached to this report.
Hub "F"	Theodolite Angles and taped distance. Attached to this report.
Hub "G"	Theodolite Angles and taped distance. Attached to this report.
Hub "H"	Theodolite Angles and taped distance. Attached to this report.
Hub "I"	Theodolite Angles and taped distance. Attached to this report.
Jam ✓	JAMES ISLAND LIGHT 1954
Keen	T-11490
Log ✓	LOG 2 1954
Look ✓	TOWER, LOOKOUT, U.S. COAST GUARD QUILLAYUTE RIVER 1954
Mon. 21 ✓	MON 21 (USED) 1955
Mon 2 00 ✓	MON. - 2 + 00 (USED) 1955

Copy 2

The following are distances to traverse points which were used to control the distances between sounding lines in the Quilliyute River. On the line Hub "A" to Hub "B" two more points were measured past Hub "B" on the same line.

Hub A	0.0 meters	Hub C	0.0 meters	Mon. 21	0.0 meters
A + 1	10.9 "	C + 1	18.1 "	M + 1	21.9 "
A + 2	30.9 "	C + 2	40.1 "	M + 2	44.0 "
A + 3	53.0 "	C + 3	62.0 "	M + 3	65.9 "
A + 4	74.9 "	C + 4	84.0 "	M + 4	87.9 "
A + 5	96.8 "	C + 5	104.5 "	M + 5	108.8 "
A + 6	118.8 "	C + 6	116.9 "	M + 6	130.7 "
A + 7	140.7 "	C + 7	136.3 "	M + 7	152.6 "
A + 8	162.6 "	C + 8	160.6 "	M + 8	174.6 "
A + 9	184.5 "	C + 9	182.7 "	M + 9	196.4 "
A + 10	206.5 "	C + 10	206.7 "	M + 10	218.2 "
A + 11	228.4 "	C + 11	228.8 "	M + 11	240.0 "
A + 12	250.3 "	C + 12	250.8 "	M + 12	261.9 "
A + 13	272.1 "	Mon. 21	272.7 "	M + 13	285.0 "
A + 14	294.0 "			M + 14	306.1 "
A + 15	315.9 "			M + 15	328.1 "
A + 16	337.8 "			Hub "D"	350.2 "
A + 17	359.8 "				
Hub "B"	381.9 "				
A + 19	404.0 "				
A + 20	425.7 "				

Hub D	0.0 meters	Hub E	0.0 meters	Hub F	0.0 meters
D + 1	21.3 "	E + 1	21.8 "	F + 1	21.9 "
D + 2	44.4 "	E + 2	43.8 "	F + 2	43.8 "
D + 3	66.3 "	E + 3	65.7 "	F + 3	65.7 "
D + 4	88.2 "	E + 4	87.6 "	F + 4	87.6 "
D + 5	110.0 "	E + 5	109.6 "	F + 5	109.6 "
D + 6	131.9 "	E + 6	131.6 "	F + 6	131.5 "
D + 7	153.9 "	E + 7	153.6 "	F + 7	153.5 "
D + 8	175.8 "	E + 8	175.5 "	F + 8	175.5 "
D + 9	197.8 "	E + 9	197.5 "	Hub "G"	192.3 "
D + 10	219.8 "	E + 11	241.6 "		
D + 11	241.6 "	E + 12	263.5 "	Hub H	0.0 meters
D + 12	263.6 "	E + 10	219.5 "	H + 1	21.9 "
D + 13	285.5 "	E + 13	285.5 "	H + 2	43.8 "
D + 14	370.9 "	E + 14	307.5 "	H + 3	65.7 "
D + 15	392.7 "	E + 15	329.4 "	H + 4	87.6 "
D + 16	414.3 "	E + 16	350.4 "	H + 5	109.5 "
D + 17	436.5 "	E + 17	373.3 "	H + 6	131.5 "
D + 18	458.4 "	E + 18	395.3 "	H + 7	149.4 "
D + 19	480.2 "	E + 19	417.1 "	H + 8	171.3 "
D + 20	502.1 "	E + 20	439.1 "	H + 9	193.2 "
D + 21	524.0 "	E + 21	461.0 "	H + 10	215.2 "
D + 22	546.0 "	E + 22	483.0 "	H + 11	237.1 "
Mon - 2 + 00	567.4 "	E + 23	504.7 "	Hub "I"	259.1 "
		E + 24	526.7 "		
		E + 25	548.8 "	Hub "E" (Contd)	
		E + 26	570.7 "	E + 29	636.6 meters
		E + 27	592.7 "	E + 30	658.6 "
		E + 28	614.7 "	E + 31	680.6 "
				Hub "F"	697.8 "

# SIGNALS USED

(CONTINUED)

Name	Source
Peak	T-11490 (1954)
Por	T-11490 (9001)
Sal	Hydro. Volume 4, Pages 4 and 5
Spoon	Computed Theodolite Outts. Attached this report
Sun	Hydro. Volume 4, Pages 4 and 5
Top	T-11488
Three	T-11490
<del>Trans</del> Trans	Hydro. Volume 2, Page 2
Try	Computed Theodolite Outts. Attached this report
Tip	Computed Theodolite Outts. Attached this report

Various points at end of ranges will be found in computations attached to this report.

## Abstract of Smooth Tides

Tide Gage at Lapush, Wash.

Sheet WCSP 05155 Reg H-8241

SKIFF

14 July "a" day	15 July "b" day (cont.)	23 July "c" day (cont.)	5 August "d" day (cont.)
0850-0918 -5.0'	-1548' -4.2'	-1317' -6.0'	-1200' -5.8'
-0938 -4.8'	-1600' -4.4'	-1324' -6.2'	-1209' -6.0'
-0957 -4.6'		-1331' -6.4'	-1218' -6.2'
-1044 -4.4'	Scaled AEE	-1338' -6.6'	-1227' -6.4'
-1031 -4.2'	✓ CDU	-1345' -6.8'	-1239' -6.6'
-1046 -4.0'	23 July "c" day	-1354' -7.0'	-1251' -6.8'
-1100 -3.8'	0800-0809 +0.4'	-1402' -7.2'	-1309' -7.0'
-1119 -3.6'	-0820 +0.6'	-1412' -7.4'	-1435' -7.2'
-1139 -3.4'	-0930 +0.8'	-1424' -7.6'	-1452' -7.0'
-1200 -3.2'	-0948 +0.6'	-1439' -7.8'	-1505' -6.8'
-1338 -3.0'	-1000 +0.4'	-1500' -8.0'	-1520' -6.6'
-1400 -3.2'	-1009 +0.2'	-1554' -8.2'	
-1411 -3.4'	-1017 0.0'		Scaled AEE
-1423 -3.6'	-1026 -0.2'	Scaled AEE	✓ CDU
-1436 -3.8'	-1034 -0.4'	✓ CDU	7 August "e" day
-1448 -4.0'	-1041 -0.6'	5 August "d" day	1302-1312 -6.8'
-1530 -4.2'	-1048 -0.8'	0911-0918 +0.6'	-1320' -7.0'
-1510 -4.4'	-1054 -1.0'	-0925' -0.8'	-1332' -7.2'
-1519 -4.6'	-1101 -1.2'	-0933' -1.0'	-1345' -7.4'
-1528 -4.8'	-1108 -1.4'	-0939' -1.2'	-1400' -7.6'
-1536 -5.0'	-1114 -1.6'	-0944' -1.4'	-1500' -7.8'
	-1120' -1.8'	-0950' -1.6'	
Scaled CDU	-1126' -2.0'	-0957' -1.8'	Scaled AEE
✓ AEE	-1131' -2.2'	-1002' -2.0'	✓ CDU
15 July "b" day	-1137' -2.4'	-1008' -2.2'	13 August "f" day
0805-0840 -5.6'	-1142' -2.6'	-1042' -2.4'	0810-0936 -5.6'
-0948 -5.8'	-1148' -2.8'	-1018' -2.6'	
-1016 -5.6'	-1153' -3.0'	-1023' -2.8'	Scaled AEE
-1039 -5.4'	-1158' -3.2'	-1028' -3.0'	✓ CDU
-1058 -5.2'	-1202' -3.4'	-1034' -3.2'	
-1116 -5.0'	-1208' -3.6'	-1039' -3.4'	
-1132 -4.8'	-1213' -3.8'	-1045' -3.6'	
-1147 -4.6'	-1219' -4.0'	-1051' -3.8'	
-1200 -4.4'	-1224' -4.2'	-1057' -4.0'	
-1214 -4.2'	-1230' -4.4'	-1104' -4.2'	
-1230 -4.0'	-1235' -4.6'	-1111' -4.4'	
-1250 -3.8'	-1241' -4.8'	-1118' -4.6'	
-1317 -3.6'	-1246' -5.0'	-1124' -4.8'	
-1340 -3.4'	-1252' -5.2'	-1131' -5.0'	
-1500 -3.6'	-1258' -5.4'	-1138' -5.2'	
-1520 -3.8'	-1305' -5.6'	-1146' -5.4'	
-1535' -4.0'	-1311' -5.8'	-1153' -5.6'	

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ABSTRACT OF SMOOTH TIDES  
Tide Gage at Lapush, Wash.  
Sheet WCSP 05155 Reg H-8241  
Launch

8 August "a" day	10 August "b" day	12 August "c" day			
0834-0945 -0.6'	0755-0809 -3.4'	0800-0830 -5.2'			
-1007 -0.8'	-0822 -3.2'	-0900 -5.0'			
-1023 -1.0'	-0836 -3.0'	-0930 -4.8'			
-1037 -1.2'	-0853 -2.8'	-0950 -4.6'			
-1048 -1.4'	-0910 -2.6'	-1008 -4.4'			
-1057 -1.6'	-0930 -2.4'	-1022 -4.2'			
-1106 -1.8'	-1000 -2.2'	-1040 -4.0'			
-1114 -2.0'	-1057 -2.0'	-1100 -3.8'			
-1121 -2.2'	-1125 -2.2'	-1120 -3.6'			
-1128 -2.4'	-1142 -2.4'	-1200 -3.4'			
-1134 -2.6'	-1158 -2.6'	-1300 -3.2'			
-1140 -2.8'	-1208 -2.8'	-1332 -3.4'			
-1145 -3.0'	-1219 -3.0'	-1353 -3.6'			
-1151 -3.2'	-1229 -3.2'	-1410 -3.8'			
-1156 -3.4'	-1239 -3.4'	-1425 -4.0'			
-1200 -3.6'	-1248 -3.6'	-1438 -4.2'			
-1206 -3.8'	-1257 -3.8'	-1450 -4.4'			
-1211 -4.0'	-1303 -4.0'	-1500 -4.6'			
-1217 -4.2'	-1310 -4.2'	-1510 -4.8'			
-1222 -4.4'	-1318 -4.4'	-1521 -5.0'			
-1228 -4.6'	-1325 -4.6'	-1531 -5.2'			
-1233 -4.8'	-1331 -4.8'	-1541 -5.4'			
-1239 -5.0'	-1340 -5.0'	-1551 -5.6'			
-1244 -5.2'	-1347 -5.2'	-1600 -5.8'			
-1251 -5.4'	-1355 -5.4'	-1608 -6.0'			
-1300 -5.6'	-1402 -5.6'	-1617 -6.2'			
-1304 -5.8'	-1410 -5.8'	-1627 -6.4'			
-1310 -6.0'	-1418 -6.0'	-1638 -6.6'			
-1315 -6.2'	-1426 -6.2'	-1648 -6.8'			
-1323 -6.4'	-1435 -6.4'				
-1330 -6.6'	-1444 -6.6'				
-1339 -6.8'	-1453 -6.8'				
-1347 -7.0'	1505 -7.0'				
-1355 -7.2'	1519 -7.2'				
-1406 -7.4'	1531 -7.4'				
-1420 -7.6'	1549 -7.6'				
-1435 -7.8'	1600 -7.8'				
-1500 8.0'					
-1600 8.2'					
	Scaled AEE ✓ CDL				
Scaled AEE ✓ CDL					

# COMBINED CORRECTIONS FOR FATHOMETER 154 SPX

WHEN BEING USED IN LAUNCH CS 160

SEASON 1955

"a" Scale		"b" Scale		"c" Scale		"d" Scale	
Fathometer Reading	Corr'n	Fathometer Reading	Corr'n	Fathometer Reading	Corr'n	Fathometer Reading	Corr'n
3.9 - 6.3	- 0.8						
9.4	- 0.6						
21.4	- 0.4						
31.4	- 0.2						
40.0	0.0	39.4	+ 0.6				
45.0	+ 0.2	44.4	+ 0.8				
50.3	+ 0.4	49.7	+ 1.0				
53.1	+ 0.6	52.5 <sup>5</sup>	+ 1.2				
55.8	+ 0.8	55.2	+ 1.4				
57.5	+ 1.0	56.9	+ 1.6				
59.9	+ 1.2	59.3	+ 1.8				
		61.5	+ 2.0				
		63.4	+ 2.2				
		65.5	+ 2.4				
		68.6	+ 2.6	70.3	+ 0.9		
		71.7	+ 2.8	73.4	+ 1.1		
		77.3	+ 3.0	79.0	+ 1.3		
		81.3	+ 3.2	83.0	+ 1.5		
		86.3	+ 3.4	88.0	+ 1.7		
		92.4	+ 3.6	94.1	+ 1.9		
				112.9	+ 2.1	114.5	+ 0.5
				161.1	+ 2.3	162.7	+ 0.7



# GEOGRAPHIC NAMES

Survey No.

H-8241

Name on Survey

	A	B	C	D	E	F	G	H	K	
Washington									BGN	1
Pacific Ocean										2
Olympic Peninsula ?										3
<del>Second</del> FIRST BEACH										4
First Beach										
James Island										5
Lapush (BGN)			(This form is 1941 BGN decision and should be followed until it can be reviewed).						BGN	6
Quillayute River									BGN	7
Dickey River									"	8
			Names approved 10-27-58.							9
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# Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ...<sup>8241</sup>...

## Records accompanying survey:

Boat sheets ...<sup>1</sup>...; sounding vols. ...<sup>6</sup>...; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls 1-Envelope  
 special reports, etc. 1-Smooth sheet, 1-Descriptive report, ...  
 1-group of Control computations and data filed with fathograms.  
 1-ea. Blackline Print T-11488, T-11489, T-11490, & T-11491.

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

Number of positions on sheet	2097
Number of positions checked	42
Number of positions revised	2
Number of soundings revised (refers to depth only)	9
Number of soundings erroneously spaced	1
Number of signals erroneously plotted or transferred	0
Topographic details	Time 20
Junctions	Time 1
Verification of soundings from graphic record	Time 1

Verification by F. P. SAULSBURY ..... Total time 113 ..... Date 10-21-59

Reviewed by [Signature] ..... Time 36 ..... Date 11-6-59

DIVISION OF CHARTS

REVIEW SECTION -- NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8241

FIELD NO. WCSP-05155

Washington, Quillayute River and Entrance

SURVEYED: July-August 1955

SCALE: 1:5,000

PROJECT NO. 1379

SOUNDINGS: 808 Depth Recorder  
Sounding Pole

CONTROL: Sextant fixes  
on shore signals.  
Ranges on shore targets  
combined with sextant  
angles on shore signals.

Chief of Party ----- H. G. Conerly  
Surveyed by ----- H. G. Conerly  
Protracted by ----- C. R. Lehman  
Soundings plotted by ----- C. R. Lehman  
Verified and inked by ----- F. P. Saulsbury  
Reviewed by ----- I. M. Zeskind  
Inspected by ----- R. H. Carstens

DATE: 11/6/59

1. Shoreline and Control

The shoreline originates with reviewed air-photographic surveys T-11488, T-11489 and T-11490 of 1954. However, several portions of the shoreline in Quillayute River were revised during the smooth plotting of the present survey in order to bring the shoreline into agreement with the hydrographic information. The revisions are shown in broken red lines.

The source of the control is given in the Descriptive Report.

2. Sounding Line Crossings

The sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated, except on the south side of James Island and the southeastern portion of the survey where the foul character of the foreshore bottom prevented development to the low-water line.

The bottom in Quillayute River is fairly irregular with river deeps and sand and gravel spits, flats, and shoals contributing to the bottom irregularity. Except as noted in the above paragraph, the area south of James Island is smooth.

4. Junctions with Contemporary Surveys

The junction with H-8242 (1955) on the south, west and north will be considered in the review of that survey.

5. Comparison with Prior Surveys

A. H-2203a (1894), 1-40,000

A comparison of this small-scale reconnaissance survey with the present survey is of little cartographic value, although indications of changes in the shoreline and bottom configuration are noted.

The present survey is adequate to supersede the prior survey within the common area.

B. H-4396 (1924), 1-10,000  
H-5069 (1930), 1-20,000

A comparison between the prior and present surveys reveals many changes in shoreline and bottom configuration. These changes are attributed to natural and man-made causes, such as the action of the current on the bottom, the depositing of sediment and the construction of piers. At the entrance to Quillayute River, the north shore has eroded about 100 meters, while the south shore has accreted about 50 meters. James Island has changed both in size and shape. The course of the channel in the river has shifted with the resultant changes in depth. The bottom in the vicinity of lat.  $124^{\circ}55.2'$ , long.  $124^{\circ}38.0'$ , which formerly uncovered as much as 3 ft. at MLLW, now bares at HW. In the area outside of the river, the bottom has shoaled as much as 5 ft. in depths less than 3 fms. The 3-fm. depth curve now falls about 50 meters further offshore. In depths greater than 3 fms., only minor differences in depths of 1-2 ft. are noted.

The present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Inset Drawing 14A dated October 22, 1959 of Chart 6102  
Comparison with Chart 6102 (Latest Print date August 4, 1958)

A. Hydrography

Inset Drawing 14A

The charted hydrography in Quillayute River

originates with the U. S. Corps of Engineers' before dredging surveys of April 1958 (Bp. 56559) and March 1959 (Bp 58016), and the after dredging survey of September 1959 (Bp. 58648). These surveys were accomplished subsequent to the present survey and reveal numerous changes in the shoreline and bottom configuration. The charted hydrography which falls outside the entrance to Quillayute River originates with the boat sheet of the present survey. A comparison between the depths on the inset which fall outside of the entrance to Quillayute River and those on the present survey reveal only minor differences of as much as  $\frac{1}{4}$ -fm. The charted reef symbol at lat.  $47^{\circ}54.27'$ , long.  $124^{\circ}38.66'$  should contain a bare islet.

Charted hydrography from the U. S. Corps of Engineers' surveys of 1958-59 is adequate to supersede the present survey. Elsewhere the present survey is adequate to supersede the charted hydrography within the common area.

#### Chart 6102

The charted hydrography which falls outside of the entrance to Quillayute River beyond the limits of the above mentioned inset, originates with the previously described prior surveys which need no further consideration.

#### B. Dredged Channels

As noted in the paragraph 6A "Inset 14A" above, the charted channel depths in Quillayute River originate with the U. S. Corps of Engineers' survey of 1959, which was accomplished subsequent to the present survey. A comparison of the charted and present survey channel depths, therefore, is of no value.

#### C. Aids to Navigation

The light on James Island is in agreement with its charted position and adequately marks the feature intended.

Buoy N "2" located on the present survey in lat.  $47^{\circ}54.22'$ , long.  $124^{\circ}38.57'$ , was subsequently moved about 400 meters south-southwestward where it is now charted in accordance with HON to M 49, 1957. An approximate present survey location near the submerged end of the jetty would better mark the entrance to Quillayute River and allow the charting of the buoy on the inset.

7. Condition of Survey

- a. The Descriptive Report and sounding records are complete and comprehensive.
- b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

The survey is considered basic and no additional field work is recommended.

Examined and Approved:

*May Skelton*  
Chief, Nautical Chart Branch

*Thomas B. Leary*  
Chief, Division of Charts

*Louis F. Woodcock*  
Chief, Hydrography Branch

*J. Bowie*  
Chief, Division of Coastal Surveys

RAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens:

3 November 1958

Plane of reference approved in  
6 volumes of sounding records for

HYDROGRAPHIC SHEET 8241

Locality Quillayute River, Washington

Chief of Party: H. G. Conerly in 1955

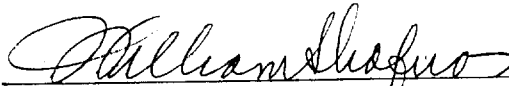
Plane of reference is mean lower low water, reading

4.4 ft. on tide staff at La Push

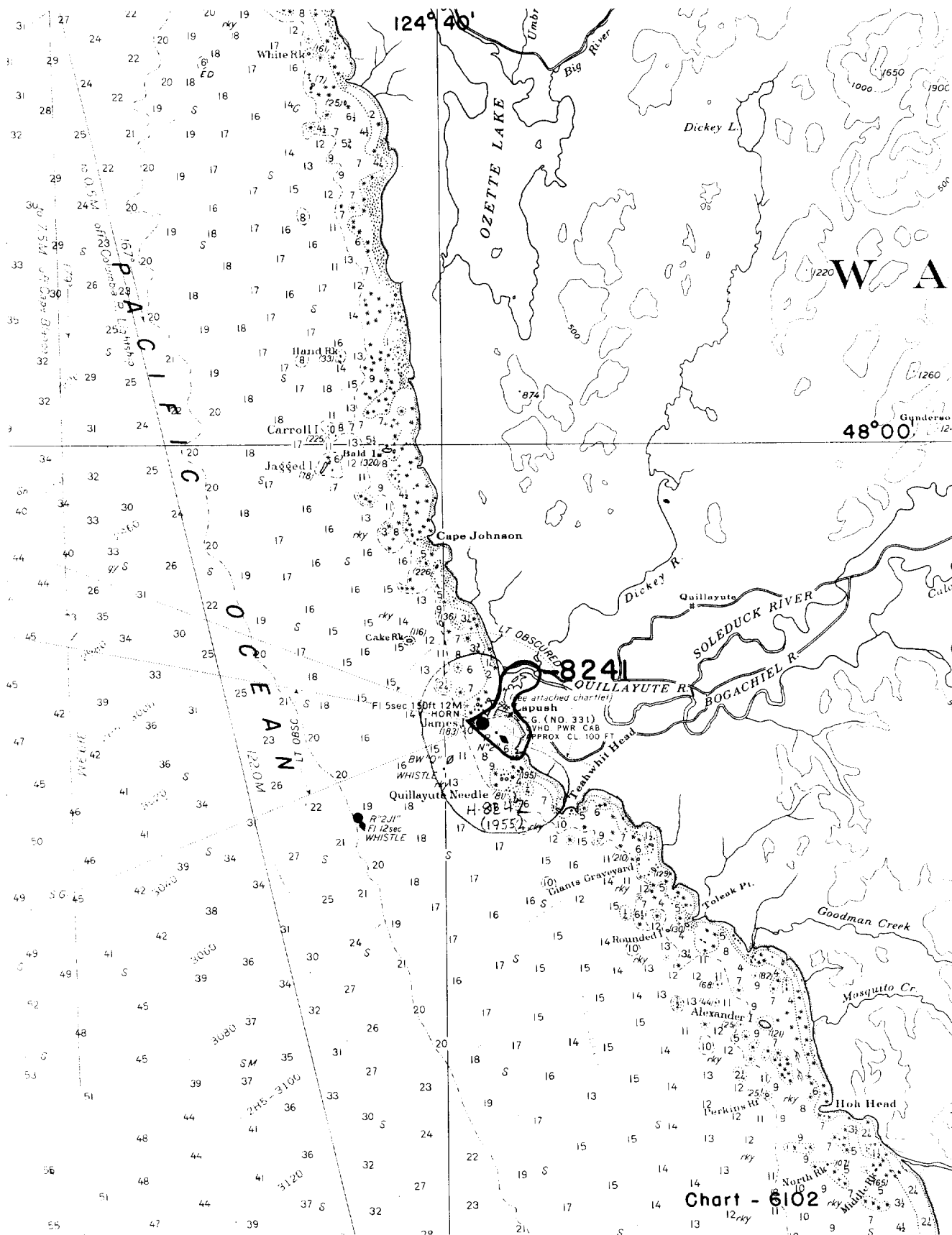
29.4 ft. below B.M. 7 (1955)

Height of mean high water above plane of reference is 7.8 feet.

Condition of records satisfactory except as noted below:

  
Signature

Chief, Tides Branch





## NAUTICAL CHARTS BRANCH

SURVEY NO. H-8241

## Record of Application to Charts

[illegible]

**M-2168-1**

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.