

9240

Diag. Cht. No. 5802.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. DA-2-5-1-71 Office No. H-9240

LOCALITY

State OREGON

General locality UMPOUA RIVER

Locality SALMON HARBOR, WINCHESTER BAY

1971

CHIEF OF PARTY

CDR. G. C. SALADIN

LIBRARY & ARCHIVES

DATE 6-18-74

*Recommended Locality
25' W of Umpqua Bay
(within 1/2 mile of shore)
(changed)
11/2/74*

Chart 6004

9240

HYDROGRAPHIC TITLE SHEET

H-9240

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

FIELD NO.

DA-2.5-1-71

State OREGON

General locality Umpqua River

Locality Salmon Harbor, Winchester Bay

Scale 1:2,500 Date of survey Nov 4 - Nov 10, 1971

Instructions dated 27 August 1971 Project No. OPR-498

Vessel Launch DA-2

Chief of party CDR G.C. Saladin

Surveyed by R.C. Arnold, H. W. Herz, S.A. Young

Soundings taken by echo sounder, hand lead, pole Raytheon DE-723 #1276

Graphic record scaled by Ship's Personnel

Graphic record checked by Ship's Commissioned Officers

Protracted by R. Arnold, H. Herz, S. Young Automated plot by PMC, Seattle

*Gerber Digital
Plotter*

Soundings penciled by H. Herz, S. Young

Soundings in fathoms feet at ~~MFL~~ MLLW

REMARKS: PNO Verified by Vincent Flore,

PSO verified by Nicholas Lestenkof

SS depiction by Nicholas Lestenkof

Applied to stels 6/27/74

*Chart
6007*

Exam for Cont Covr Inc 6/28/74 No Cont Covr

*5802 No Sdgs.
46950 fathoms
est*

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SURVEY H-9240, DA-2.5-1-71

OPR-498 OREGON

SCALE 1:2,500

NOAA Ship DAVIDSON

Gerald C. Saladin
CDR. NOAA
Commanding Officer
NOAA Ship DAVIDSON

DESCRIPTIVE REPORT

DA-2.5-1-71

A. PROJECT

This survey was accomplished according to Project Instructions: OPR-498-DA-71, Umpqua River, Oregon dated 27 August 1971.

B. AREA SURVEYED

The survey covered the areas designated as Winchester Bay and Salmon Harbor on C&GS Chart 6004, Umpqua River, Oregon. This area lies between latitudes $43^{\circ} 40.5'$ N and $43^{\circ} 41.2'$ N, and longitudes $124^{\circ} 10.4'$ W and $124^{\circ} 11.2'$ W.

Work was accomplished between November 4, and November 10, 1971. The survey makes a junction with the following sheet:

DA-10-12-71 H-9239 Contemporary Survey

C. SOUNDING VESSEL

Launch DA-2 was used to obtain soundings on this survey. All position numbers on the boatsheet are in red except those for bottom samples, which are in violet.

D. SOUNDING EQUIPMENT

Raytheon DE-723 fathometer #1276 was used throughout the survey. Echo sounder corrections were determined from bar checks taken daily by the sounding vessel. All soundings are in feet.

Differences between actual and assumed initial values are compensated for with Initial Corrections (TC/TI tape. See corrections to Echo Sounders OPR-498 1971.

E. SMOOTH SHEET

The smooth sheet will be constructed and plotted by the processing Division, Pacific Marine Center, Seattle, Washington.

F. CONTROL

Visual three-point fixes were used for control on this survey. There were three types of visual signals used: triangulation, topographic, and hydrographic. Triangulation stations were hand plotted using published GP's, topographic stations were hand plotted using GP's, computed from azimuths measured with a T-2 Theodolite and distances measured with a Tellurometer, and hydrographic stations were hand plotted using sextant angles. An Abstract of signals is included in the appendix. See Ground Control Report OPR-498 1971.

G. SHORELINE

Shoreline was plotted on the boatsheet from sextant fixes and sextant azimuths. Photograph 71E-7785 portrays the type of shoreline that is included in the survey area. It is recommended that the shoreline be verified from the completed manuscripts of the area. See Field Edit Report OPR-498-1971.

H. CROSSLINES

Soundings agree at all sounding line crossings. No percentage of crosslines was obtained because a sounding line system was not established.

I. JUNCTIONS

A junction was made with the following sheet:

DA-10-12-71	H-9239	Contemporary Survey
-------------	--------	---------------------

Soundings agree at this junction.

J. COMPARISON WITH PRIOR SURVEYS

The only prior survey of the area available was an Army Corp's of Engineers survey, UM-1-410, Umpqua River, Oregon, Winchester Bay, 10 July 1968, scale 1:2,000. A comparison with this survey indicated that most soundings were in agreement.

K. COMPARISON WITH THE CHART

Comparison of soundings and depth curves with C&GS chart 6004, 36th Edition, August 15, 1970 was made and the few soundings available in the survey area are in agreement. The area depicted in light green on the chart and labeled Winchester Bay has since been dredged and filled. This survey apparently is the only one that has been made of this new area.

L. ADEQUACY OF SURVEY

This survey is considered complete and adequate to supercede prior surveys.

M. AIDS TO NAVIGATION

There are three aids to navigation in the survey area:

Salmon Harbor Entrance Lt. 1	Lat. 43° 41' 09.7"	Long. 124° 10' 45.7"
Salmon Harbor Entrance Lt. 2	Lat. 43° 41' 08.1"	Long. 124° 10' 50.1"
Salmon Harbor Directional Lt.	Lat. 43° 40' 48.9"	Long. 124° 10' 36.3"

N. STATISTICS

The total area surveyed was 0.25 square nautical miles. There were 15.3NM of sounding lines, and 5 bottom samples taken within the survey area. There are 2 (two) volumes with this survey.

O. MISCELLANEOUS

A tide gage installed and maintained at Winchester Bay will be used for reduction of soundings on the smooth plot. Soundings on the boatsheet are reduced to MLLW using the predicted tides for Umpqua River Entrance, Oregon. All soundings are in feet. Time meridian 120° west was used for the entire survey. Ground Control Volumes, referred to in the List of Stations in the appendix, are C&GS form 251 and will be submitted with the Ground Control Report OPR-498-1971.

P. RECOMMENDATIONS

Since construction of shore facilities in Winchester Bay have not been started it will be necessary to have more survey work done there in the next couple of years or whenever the work is completed. The filled portions tend to scour near the shore but it is unlikely that the harbor depths will change due to silting. It is recommended that this survey be accepted as complete for harbor depths.

Q. REF^ERENCES TO REPORTS

Field Edit Report OPR-498-1971
Corrections to Echo Sounders OPR-498-1971
Ground Control Report OPR-498-1971

Respectfully Submitted,

Russell C. Arnold
Russell G. Arnold
LTJG NOAA

Attachments:

Tide Note
List of Stations
Abstract of Positions
Form # 1
Approval Sheet

TIDE NOTE

The tide station used for this survey was located at the U.S. Coast Guard Base Umpqua River, Winchester Bay.

Location	Lat. 43° 40.9' N	Long. 124° 10.6' W
Time Meridian	120° West	
Plane of Reference	MLLW	
Type of Gage	Portable Bubbler	

LIST OF STATIONS ON DA-2.5-1-71

<u>SIGNAL NUMBER</u>	<u>ORIGIN OF STATION</u>
101	Vol. 2 (Ground Control) pg. 10-13
102	Vol. 2 (Ground Control) pg. 10-13
103	Vol. 2 (Ground Control) pg. 10-13
104	Vol. 2 (Ground Control) pg. 10-13
105	Vol. 2 (Ground Control) pg. 10-13
106	Vol. 2 (Ground Control) pg. 10-13
107	Vol. 2 (Ground Control) pg. 10-13
108	Vol. 2 (Ground Control) pg. 10-13
109	Vol. 5 (Ground Control) pg. 12-29
110	Vol. 5 (Ground Control) pg. 8-9
111	Vol. 2 (Ground Control) pg. 1-10
112	CORNWALL, 1920
113 & 114	Vol. 2 (Ground Control) pg. 1-9
115	Vol. 2 (Hydro) pg. 32

ABSTRACT OF POSITIONS

<u>DAY</u>	<u>LAUNCH 2</u>	<u>BOTTOM SAMPLES</u>	<u>DP'S</u>
308	1-107		
312	108-176		
313	177-241		5001-5018 14
314	242-275	5024, 5045, 5048	5019-5023, 15 5025-5044, 20 5049-5056 7
319	300-319		5057-5059 3

TABLES

CORRECTION TO ECHO SOUNDERS

OPR 498 1971

Handwritten notes:
 1/11 1971
 J. W. ...

Table 1 Fathometer #214

From	To	Corrn
0.0ft	14.2ft	-0.8ft
14.3	20.8	-0.6
20.9	25.4	-0.4
25.5	29.0	-0.2
29.1	32.7	0.0
32.8	36.3	+0.2
36.4	40.2	+0.4
40.3	46.4	+0.6
46.5	58.8	+0.8
58.9	70.0	+1.0

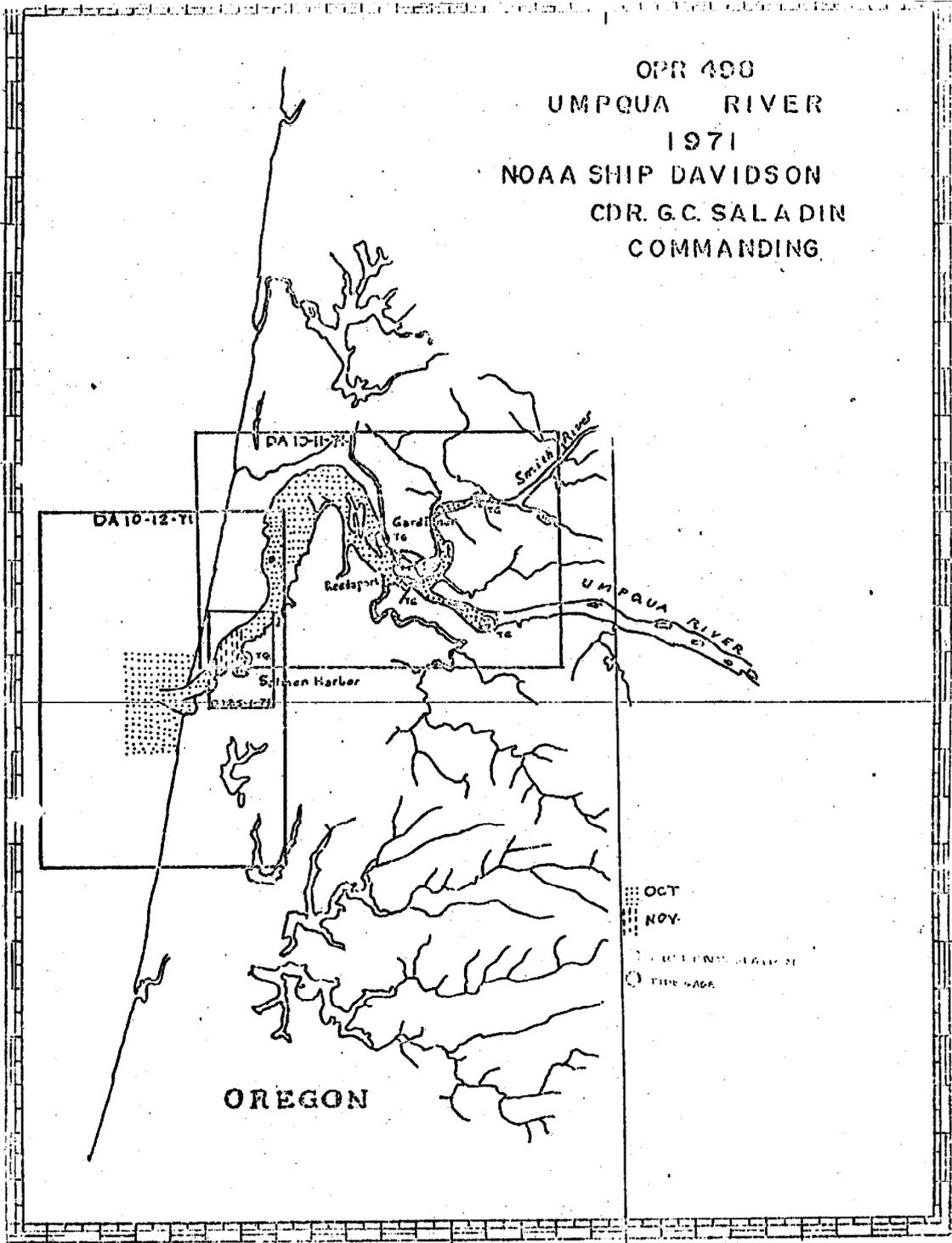
Table 2 Fathometer #553

From	To	Corrn
0.0ft	8.4ft	-0.8ft
8.5	15.7	-0.6
15.8	22.4	-0.4
22.5	29.2	-0.2
29.3	35.8	0.0
35.9	42.6	+0.2
42.7	49.4	+0.4
49.5	57.2	+0.6
57.3	62.4	+0.8
62.5	68.6	+1.0

Table 3 Fathometer #1276

From	To	Corrn
0.0ft	7.4ft	+0.2ft
7.5	26.0	0.0
26.1	36.2	+0.2
36.3	46.8	+0.4
46.9	57.0	+0.8
57.1	67.0	+0.8

OPR 498
 UMPQUA RIVER
 1971
 NOAA SHIP DAVIDSON
 CDR. G.C. SALADIN
 COMMANDING.



APPROVAL SHEET
HYDROGRAPHIC SURVEY

H-9240 DA-2.5-1-71

SALMON HARBOR
~~WINCHESTER BAY~~, UMPQUA RIVER

OREGON

The field work on this survey was accomplished
under my supervision.
Frequent inspections were made of the boatsheet
and other records


Gerald C. Saladin
CDR. NOAA
Commanding Officer
NOAA Ship DAVIDSON

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. 9240

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & PNO		1	BOAT SHEETS		1	
DESCRIPTIVE REPORT		1	OVERLAYS		3	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
Envelopes			1 box			
CAHIERS	1					
VOLUMES	2					

T-SHEET PRINTS (List)

1 shoreline manuscript

SPECIAL REPORTS (List)

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED		455		
POSITIONS REVISED		12		
DEPTH SOUNDINGS REVISED		67		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		---		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		---		
	TIME (MANHOURS)			
Verification of Control		8		
Verification of Positions		101		
Verification of Soundings		35		
Smooth Sheet Compilation		72		
ALL OTHER WORK <i>Topo Revisions 12 hrs</i>		4		
TOTALS		220 + 12 = 232		
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
VERIFICATION BY: <i>Nicholas Lestenkof</i> Nicholas Lestenkof <i>m.j. Green</i>	BEGINNING DATE <i>11/2 470</i> 6/1/73		ENDING DATE <i>11/2 470</i> 5/30/74	
REVIEW BY	BEGINNING DATE		ENDING DATE	

VERIFIER'S REPORT
HYDROGRAPHIC SURVEY, H₉ 9240

INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

CL - Check List Items: should be checked as having been completed during the verification processes.

R - Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT	CL	R	Part III - JUNCTIONS (Continued)	CL	R
<p>Note: The verifier should first read the Descriptive Report for general information and problems.</p> <p>1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None</p>	X		<p>10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are SUPERSEDED.</p>		X
<p>2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None</p>	X		<p>Part IV - VOLUMES</p> <p>11. 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 and exceptions noted in the volumes. Remarks Required: -- None</p>	X	
<p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None</p>	X				
<p>Part II - SHORELINE AND SIGNALS</p> <p>4. Source of shoreline signals Remarks Required: -- List all surveys</p> <p>a. Give earliest and latest dates of photographs</p> <p>b. Field inspection date</p> <p>c. Field Edit date</p> <p>d. Reviewed-Unreviewed</p>		X	<p>12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following:</p> <p>(a) rocks</p> <p>(b) line turns</p> <p>(c) position values of beginning and ending of lines</p> <p>(d) bar check or velocity correctors</p> <p>(e) time recording</p> <p>(f) notes or markings on fathograms</p> <p>(g) was reduction of soundings accurately done?</p> <p>(h) was scanning accurate?</p> <p>(i) were peaks at uneven intervals missed?</p> <p>(j) were stamps completed?</p> <p>(k) references to adjacent features</p>	X	
<p>The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>		X			
<p>6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None</p>	X				
<p>7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.</p>		X	<p>Part V - PROTRACTING</p> <p>13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None</p>	X	
<p>Part III - JUNCTIONS</p> <p>Note: Make a cursory comparison preliminary to making soundings in area of overlap.</p> <p>8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None</p>	X		<p>14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None</p>	X	
<p>9. The notation in slanted lettering "JOINS H--- (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: -- None</p>	X		<p>15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None</p>	X	

Part V - PROTRACTING (Continued)		CL	R	Part VIII - AIDS TO NAVIGATION		CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.	X			26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey. Remarks Required: -- Conflicts of any nature listed.	X		
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.	X			27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification. Remarks Required: -- None	X		
Part VI - SOUNDINGS				Part IX - BOATSHEET			
18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None	X			28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None	X		
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.	X			29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.	X		
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None	X			Part X - GENERAL			
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None	X			30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2). Remarks Required: -- None	X		
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.	X			31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None	X		
Part VII - CURVES				32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet. Remarks Required: -- None			
23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the pened curves inspected.			X	33. The bottom characteristics are adequately shown. Remarks Required: -- None			
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed Remarks Required: -- None	X			Part XI - NOTES TO THE REVIEWER			
				34. Unresolved discrepancies and questionable soundings.			X
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.	X			35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.	X		
				36. Supplemental information.	X		
Verified by <i>Nicholas Lestenkof</i> Nicholas Lestenkof						Date 5/30/74	

VERIFIER'S REPORT

H-9240

OPR-498

DA-2.5-1-71

This sheet was constructed and plotted at Pacific Marine Center, Seattle, Washington. Information relating to this will be noted under the heading by the number and letter as on the Verifier's Report, C & GS Form 946A.

PART II SHORELINE AND SIGNALS

4. Approved T-sheets were not available to transfer shoreline. A shoreline manuscript which accompanied this survey was blown up from an unknown source and is inconsistent with the hydrographic data. The data obtained for shoreline was taken from shoreline detached positions and boatsheet. The shoreline is displayed in pencil and was not inked, either in black or red, because there is no valid T-sheet for confirmation or change respectively.

5. Positions 9057, 9067, 9063, 9064, and 9065, describing positions of floats at Latitude $43^{\circ} 40' 36.6''$ and Longitude $124^{\circ} 10' 33.8''$, were not used because they displayed illogical formation. The limits of the boatsheet were accepted otherwise.

Positions 5050, 5051, 5053, 5054, 5055, and 5056 describing floats and boat-ramps at Latitude $43^{\circ} 40' 51''$ and Longitude $124^{\circ} 10' 33''$ were not used. Reason, same as previous paragraph.

Position 9105 describing the limits of a pier at Latitude $43^{\circ} 40' 46.8''$ and Longitude $124^{\circ} 10' 36.5''$ was not used also. Reason, same as the two preceding paragraphs.

The boatsheet was used to great extent to display the shoreline because the detached positions were unreliable due to the ³¹⁹⁰⁹¹³ symbols being exceptionally close in. Photographs would have been of great assistance but unfortunately were not available. *Lines were deleted to same as H-9239 (1971-72). Final - in red ink.*

7. There are no signals outside the HWL. *However, 3 detaches (detached positions 5042-44) are retained on this sheet as part of the basic hydrographic survey. 11/30/76 M.N.F.*

PART III JUNCTION

10. Due to the processing stage of H-9239, 1971, comparison could not be accomplished for junctional evaluation.

PART VII CURVES

23. The depth curves were inspected by Vincent Flor, Cartographic Technician.

PART XI NOTES TO THE REVIEWER

34. The piers, floats, and shoreline should be re-evaluated if additional sources are available to the reviewer. The detached positions and boat-sheets were the only source available, which had conflicts as mentioned in SHORELINE AND SIGNALS section.

Salmon Harbor Directional Light (Signal 115) position was used from signal list. To confirm that the D.P.'s are weak the hydrographer attempted to get a fix on this light with position 9093. The detached position was off by 80 meters.

Respectfully submitted


Nicholas Lestenkov
Cartographic Technician

GEOGRAPHIC NAMES

Survey No.

H-9240

Name on Survey

On Chart No. **6004**
 On previous survey No.
 On U. S. quadrangle Maps
 From local information
 On local Maps
 P. O. Guide or N.Y.
 Rand McNally At.
 U. S. Light List

	A	B	C	D	E	F	G	H	K	
CORNWALL POINT	✓									1
SALMON HARBOR	✓									2
UMPQUA RIVER	✓									3
WINCHESTER BAY	✓									4
WINCHESTER POINT	✓									5
										6
										7
										8
										9
										10
										11
										12
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										27

Approved by
Chas. E. Harrington
 Staff Geographer
 28 June 1974

DAVIDSON

~~DA-10-12-71~~ DA-2.5-1-71

~~H-9239~~ H-9240

TIME MERIDIAN - 120 WEST

TIDE GAGE AT SALMON HBR., WINGHESTER BAY

YEAR - 1971

CORRECTIONS IN FEET.

MLLW CORRECTION - 3.6 FEET

TIME SHIFT - ZERO

RANGE RATIO - 01.00

125200 00 1077 0000 308 0 120000 000000

130500 00 1076

131300 00 1075

132000 00 1074

132700 00 1073

133300 00 1072

133800 00 1071

134300 00 1070

134800 00 1069

135300 00 1068

135700 00 1067

140200 00 1066

140600 00 1065

141000 00 1064

141400 00 1063

141700 00 1062

142100 00 1061

142500 00 1060

142800 00 1059

143200 00 1058

143500 00 1057

143900 00 1056

144200 00 1055

144500 00 1054

144800 00 1053

145200 00 1052

145500 00 1051

145800 00 1050

150100 00 1049

150400 00 1048

150700 00 1047

151000 00 1046

151300 00 1045

151600 00 1044

151900 00 1043

152200 00 1042

152500 00 1041

*Reviewer - file with
other printouts*

152800	00	1040			
153000	00	1039			
153300	00	1038			
153600	00	1037			
153900	00	1036			
154200	00	1035			
154400	00	1034			
154700	00	1033			
155000	00	1032			
155300	00	1031			
155500	00	1030			
155800	00	1029			
160100	00	1028			
160300	00	1027			
160600	00	1026			
160900	00	1025			
161100	00	1024			
161400	00	1023			
161700	00	1022			
161900	00	1021			
162200	00	1020			
162500	00	1019			
162700	00	1018			
163000	00	1017			
163300	00	1016			
163600	00	1015			
163800	00	1014			
164100	00	1013			
164400	00	1012			
164700	00	1011			
164900	00	1010			
165200	00	1009			
165500	00	1008			
165800	00	1007			
170000	00	1006			
090400	00	1039	0000	312	0 090000 000000
091300	00	1038			
092300	00	1037			
093500	00	1036			
094900	00	1035			
103400	00	1034			
105200	00	1035			
110600	00	1036			
111700	00	1037			
112800	00	1038			
113700	00	1039			
114600	00	1040			
115500	00	1041			
120400	00	1042			
121300	00	1043			
122200	00	1044			

123100	00	1045							
123900	00	1046							
124700	00	1047							
125500	00	1048							
130300	00	1049							
131100	00	1050							
131800	00	1051							
132500	00	1052							
133300	00	1053							
134000	00	1054							
134800	00	1055							
135600	00	1056							
140400	00	1057							
141300	00	1058							
142200	00	1059							
143100	00	1060							
144200	00	1061							
145300	00	1062							
150500	00	1063							
151900	00	1064							
153800	00	1065							
161400	00	1066							
163000	00	1065							
164300	00	1064							
165400	00	1063							
170000	00	1062							
080200	00	1063	0000	313	0	080000	000000		
080800	00	1062							
081300	00	1061							
081800	00	1060							
082200	00	1059							
082700	00	1058							
083100	00	1057							
083500	00	1056							
084000	00	1055							
084400	00	1054							
084800	00	1053							
085300	00	1052							
085700	00	1051							
090300	00	1050							
091100	00	1049							
091900	00	1048							
092900	00	1047							
094000	00	1046							
095300	00	1045							
100500	00	1044							
101600	00	1043							
103000	00	1042							
104700	00	1041							
112600	00	1040							
114900	00	1041							

110400 00 1042
111300 00 1041
112300 00 1040
113500 00 1039
115000 00 1038
121100 00 1037
131700 00 1036
133700 00 1037
135300 00 1038
140000 00 1039
080900 00 1054 0000 319 0 080000 000000
081500 00 1055
082100 00 1056
082700 00 1057
083400 00 1058
084100 00 1059
084800 00 1060
085600 00 1061
090300 00 1062
091100 00 1063
092000 00 1064
093100 00 1065
094500 00 1066
101200 00 1067
102700 00 1066
103700 00 1065
104700 00 1064
105500 00 1063
110500 00 1062
111600 00 1061
112600 00 1060
113500 00 1059
114300 00 1058
115000 00 1057
115600 00 1056

000000

S I G N A L P L O T T E R C A R D S

H-NO.-

LATITUDE LONGITUDE X Y X

31161	101	71	43405147	124104410	04149	06672
09240	102	71	43404916	124104350	04093	06372
31161	103	71	43404644	124104292	04038	06020
31161	104	71	43404346	124104203	03954	05633
31161	105	71	43404006	124104222	03972	05193
31161	106	71	43403716	124104143	03898	04817
31161	107	71	43403387	124104071	03830	04391
31161	108	71	43403097	124103991	03755	04014
31161	109	71	43404249	124110442	06061	05508
31161	110	71	43405786	124110822	06418	07500
31161	111	71	43412467	124110589	06198	10974
31161	112	71	43411383	124103794	03570	09569
31161	113	71	43410966	124104560	04290	09029
31161	114	71	43410824	124105008	04712	08845
31161	115	71	43404902	124103629	03415	06354

000000

H-9240 VELOCITY CORRECTION TABLE

000074 0 0002 0003 000 000000 000000
000260 0 0000
000362 0 0002
000468 0 0004
000570 0 0008
000670 0 0008

•

DA-25 1-71

Campgoua RIVER

DA 2

DAY 308, 309, 313, 314, 319

smooth TC/TI Tape

TRA CORRECTION/TABLE INDICATOR TC/TI TAPE

313 308 1971

132030 0 0000 0003 308 000000 000000

150706 0 0000

104345 0 1010 0003 309 000000 000000

154543 0 1010

091600 0 1010 0003 313 000000 000000

152507 0 1010

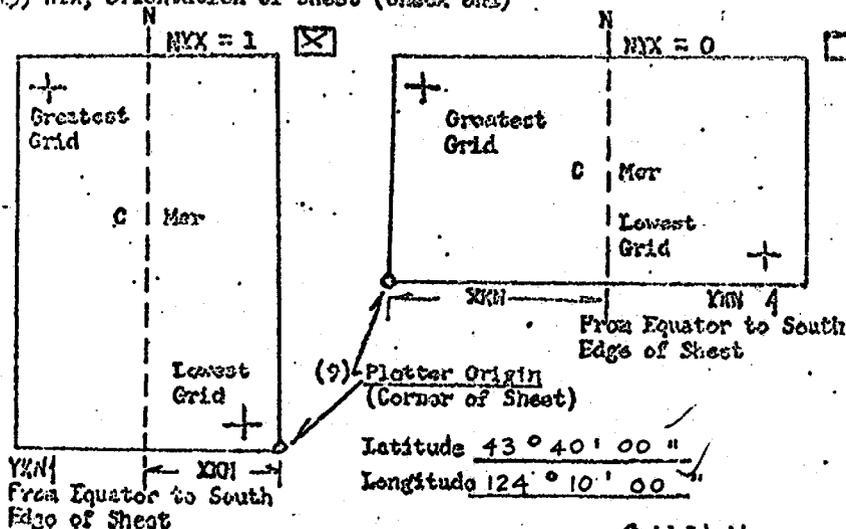
085730 0 1010 0003 314 000000 000000

122115 0 1010

095800 0 1010 0003 319 000000 000000

102104 0 1010

- (1) Project No. OPR 498 (2) Requested by C.O. DAVIDSON
 (3) H No. 31161 (4) Ship or Office NOAA DAVIDSON
 (5) Field No. DA 2.5-1-71 (6) Date Required NOV. 15, 1971
 (7) Visual Ft.(0) or Fathoms (1) (8) Electronic (fill out form 23)
 (10) XN (SP 5) Distance from CMBR to East Edge (NYX = 1) 895.71 896.18
 or West Edge (NYX = 0). (Origin) 671.79
1000.180 Meters
 (11) YN (SP 2A3) Distances from Equator to South Edge
 of Sheet. (Origin) 4,836,570.14 Meters
 (12) Central Meridian 124° 10' 45"
 (13) Survey Scale 1:2,500
 (14) Size of Sheet (Check one) 36x60 42x60
 (15) NYX, Orientation of sheet (Check one)



Grid Limits	
(16) Greatest Latitude	<u>43° 41' 30"</u> (Projection Line Interval Page 4 Hydro Manual)
(17) Lowest Latitude	<u>43° 40' 10"</u>
(18) Difference	<u>1' 20"</u>
(21) Greatest Longitude	<u>124° 11' 30"</u>
(22) Lowest Longitude	<u>124° 10' 10"</u>
(23) Difference	<u>1' 20"</u>
(19)	<u>10"</u>
(20)	<u>8</u> YN
(24)	<u>1</u> 10"
(25)	<u>8</u> YN

Field No. DA 2.5-1-71
 Date 12-3-71

PARAVETER CARD II

31161

Small major axis of the earth	6,378,206.4	YOM	1	2	3	4	5	6	7	8	9	10
Y Constant - Distance from central meridian to origin of plotter Sp 5		YVM	11	12	13	14	15	16	17	18	19	20
X Constant - Distance from equator to origin of plotter Sp 2/1		YVM	21	22	23	24	25	26	27	28	29	30
Central Meridian of Projection	124° 41' 00" W	YOM	31	32	33	34	35	36	37	38	39	40
Plotter Scale/Survey Scale	1:250,000	YOM	41	42	43	44	45	46	47	48	49	50
North/south axis of sheet - to correspond to (Y axis - 0)	0 - Feet 1 - Fathom	YOM	51	52	53	54	55	56	57	58	59	60
Foot/Fathom Indicator		YOM	61	62	63	64	65	66	67	68	69	70
Identification No.		YOM	71	72	73	74	75	76	77	78	79	80

FOF - 1

PARAVETER CARD III

Lowest Lat. Intersection	43	44	45	46	47	48	49	50
Lowest Long. Intersection	124	125	126	127	128	129	130	131
Difference between Grid								
Interval (Long)								
Interval (Lat)								

Computed _____
 Furnished _____
 Checked _____
 Date _____

APPROVAL SHEET

The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report)

Examined and approved,



James S. Green
Supervisory Cartographic Technician

Approved and forwarded,



Walter F. Forster, Cdr., NOAA
Chief, Processing Division
Pacific Marine Center

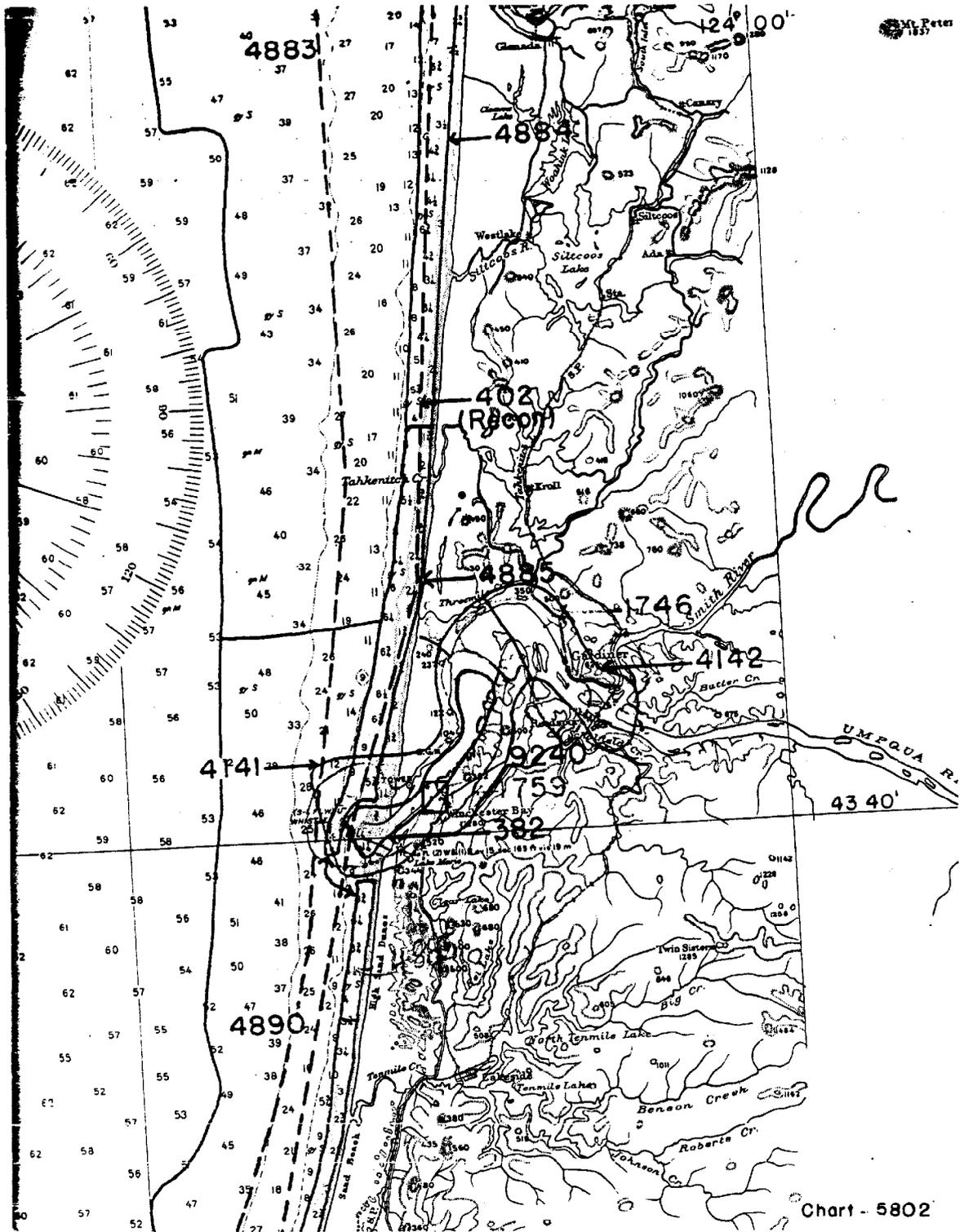


Chart - 5802

