

8417

Diag. Cht. No. 5902-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. 50-2258 Office No. H-8417

LOCALITY

State Oregon

General locality Mouth of Columbia River

Locality Lat. 46°03.00' to Lat. 46°14.00'

Long. 123°56.00' to Long. 124°10.00'

1958

CHIEF OF PARTY

Fred Natella

LIBRARY & ARCHIVES

DATE 05/59

8417

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-8417

Field No. BO-2258

State Oregon

General locality Mouth of Columbia River

Locality Lat. 46°03.00' to 46°14.00', Long. 123°56.00' to 124°10.00'

Scale 1:20,000 Date of survey 10 July 1958 to 14 Aug. 1958

Instructions dated 14 November 1957

Vessel Coast Survey Ship BOWIE and Launch 92

Chief of party CDR Fred Natella

Surveyed by Lt. (j.g.) B. L. Gabrielsen

Soundings taken by fathometer, graphic recorder, hand lead, wire

Fathograms scaled by D. N. Lillebo

Fathograms checked by R. F. Malnate

Protracted by E.A.H. W.C.

Soundings penciled by W.C.

Soundings in ~~fathoms~~ feet at ~~MLLW~~ MLLW

REMARKS:

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.....
.....
.....

DESCRIPTIVE REPORT

HYDROGRAPHIC SURVEY

(BO-2158 & BO-2258)

A-PROJECT:

Authority for this project is contained in instructions, Project C.S. 404, Columbia River entrance and estuary, dated 14 November, 1957.

B-SURVEY LIMITS AND DATES:

The Washington Coast Survey, BO-2158, extends from latitude 46 10' 00" N to 46 26' 00" N and from longitude 124 00' 00" to 124 16' 00". This survey was initiated 9 June, 1958 and completed 14 August, 1958. H-8416

Survey BO-2258 H-8417 was started 10 July, 1958 and finished 13 August 1958. This survey covers an area of the northern Oregon Coast from latitude 46 03' 00" N to 46 17' 00" N and from longitude 123 54' 00" to 124 10' 00".

C-VESSELS AND EQUIPMENT:

Coast Survey Ship Bowie and Launch 184[✓] performed the work on BO-2158 while the Ship Bowie and Launch 92[✓] did the work on BO-2258. Survey Ship Bowie was equipped with a five scale 808-J fathometer and a deep sea K20 unit for sounding work. It was also equipped with a shoran position determining unit which was used extensively. Both launches were equipped with standard 808-J sounding units. The launch on H-8417 was #92 fathometers #163 and 152 SPX were used with the launch.

D-TIDES AND CURRENTS:

Tide reducers for both of these surveys were obtained from a portable tide gage installed on the Columbia River North Entrance Jetty at approximately 46 16.40' N latitude and 124 04.17 longitude. The 0.0 feet mark of the staff coincided with the plane of mean lower low water; therefore, the gage readings were used as obtained for sounding reduction.

Tide reducers applied to the best sheets were those obtained from the predicted tidal data for Columbia River Entrance, North Jetty. No corrections for time or range differences were applied either of the sheets.

No current stations were observed.

A-SMOOTH SHEETS:

Both smooth sheets were hand ruled by ships base processing personnel. No unusual or substandard methods were employed in either shore line transfer or control plotting.

C-CONTROL STATIONS:

Basic control for these surveys is triangulation that was established in 1873, 1909, 1926, 1935, 1942, 1956, 1957, and 1958. Of the three shore stations located, two, "NORTH" and "LUCAS", were located by triangulation while the third, "KORN", was located by a short tape traverse from triangulation station "BONNIE", 1926. Supplementary control for visual work was obtained by photogrammetric means or by use of the three point and check angle fix. Photo support was provided by Photo Field Party Number 722. Photo signal locations for sheet BO-2158 are shown on manuscripts 10340, 10344, and 10649 while signal locations for sheet BO-2258 are shown on manuscripts 10344, 10353, 10359, and 10650. Refer to "List of Signals" appended to this report for additional information. H-8417

G-SHORELINE:

Beatsheet shoreline for both BO-2158 and 2258 was indirectly obtained by transfer and reduction from 1:10,000 incomplete manuscripts. The sections of inked shoreline found on the smooth sheets were obtained through use of 1:20,000 reproductions of 1:10,000 manuscripts. Those sections of shoreline found in pencil were drawn by means of indirect point transfer from 1:10,000 manuscripts. H-8416 H-8417

H-SOUNDINGS:

Soundings on inshore work were obtained through use of 808 J fathometers equipped with 800 fathom per second reeds. These fathometers were also equipped with an additional "E" scale giving a total sounding range of from 0 to 195 feet or fathoms. When sounding in depths greater than 180 feet the EQN-1B EDO deep sea sounding unit was also employed. Fathometer corrections for ship work were limited to phase corrections (refer to page 27 of this report) an eight foot draft correction which was kept on the initial set of the fathometer. No correction was applied to the "EDO" sounding work. Fathometer corrections for launch units were obtained from bar check data. (refer to page 15 of this report) H-8422

See D.R. H-8422 for bar checks Launch #92, Fath 152.57X

Ship vs. launch sds and H.L. Comparison 3
was a -2.0 instrumental correction
to ship 808 sds. RHC 11/9/70 ~~Instrumental correction~~
H-8423

H-SOUNDINGS (2158) H-8416

H-8416 H-8417
Discrepancies were found on both 2158 and 2258 where ever ship lines crossed launch lines. This error amounts to about three feet with the ship lines being the deeper. Fathograms were re-scanned and correctors for tide and initial checked. Both fathometers appeared to be operating at nearly the correct speed. In checking the initial it was discovered that the NMC striker unit had been used rather than the 808-J keel mounted unit. This means that the draft correction on the initial set should have been seven feet rather than eight feet. Therefore, all ship soundings should be reduced in depth by one foot.

The error is widely spread over the sheet so it would seem unlikely to be control difficulty. Numerous signals were used for visual control.

No checks of ship sounding data are available in the form of bar checks. However, analysis of comparisons between vertical casts and 808 soundings on "F" day (BO-2158) indicated a tendency toward shoaler sounding on the vertical casts than on the fathometer. These results create suspicion of the accuracy of the ship hydrographic field procedures. The lack of field data for correcting ship soundings limits the ability of the smooth plotter to resolve this discrepancy further. H-8416

I-CONTROL OF HYDROGRAPHY

All launch hydrography was controlled by means of the visual three-point fix method. Ship hydrography was controlled by the use of both shoran and the visual three-point fix method. A shoran report under separate cover will be submitted along with this report.

J-ADEQUACY OF SURVEY

Both surveys are felt to be complete and adequate. Depth curves make a very good junction at the intersection of the two sheets. The adjacent smooth sheet to the east (BO-2258) has already been sent to Washington so no comparison was made. H-8413

K-CROSSLINES

H-8416
Twelve per cent of all hydrography accomplished on sheet BO-2158 was made up of cross lines while ten per cent of sheet BO-2258 consisted of crosslines.

H-8417
On BO-2158 a number of discrepancies were found due largely to two reasons: (1) The seas were rough throughout the period of the survey, and practically all the fathograms show an extremely jagged profile difficult to interpret. (2) The fathograms had not been properly check-scanned, and as a result most of them had to be re-scanned. Also, discrepancies due to

K-CROSSLINES (CONTINUED)

an undetermined cause exist between ship lines and launch lines, as explained in sec. H.

The following discrepancies were noted:

H-8416

BO-2158

Position	Crossing	Difference	Depth
1-2B	81-82G	6'	54'
69K	112-113d	5'	36'
125-126K	19-20a	4'	39'
88-89K	12-13b	5'	32'

Discrepancies in crossing inside the 18' curve are due largely to the extremely rough seas and to the uneven profile of the bottom. Line 1-4B is approximately 2' shoal.

BO-2258 H-8417

"G" day (ship) crosses badly with launch work.

L-COMPARISON WITH PRIOR SURVEYS

BO-2158 H-8416

The available prior survey was made in 1926-27 and consists of sheets H-4634, H-4619, and H-4618. The following changes were noted:

- (1) Changes in curves--There has been little change in the 180' and 120' curve. The 60' curve had moved westward in the region from lat. $46^{\circ} 14.0'$ to $46^{\circ} 18.0'$, reaching a maximum of 0.8 miles at lat. $46^{\circ} 16'$. The 18' curve shifted westward an average of 0.3 miles.
- (2) The present shoreline is generally outside the 1926-27 6' curve. At lat $46^{\circ} 17.3'$, the shoreline intersects the 1926 18' curve. Between North Jetty and North Head Lighthouse, the shoreline has moved westward over 0.3 mile, while from the lighthouse north it has moved west an average of 0.25 mile.

BO-2258 H-8417

This sheet was compared to sheets H-4611, H-4634, and H-4635. The following changes were noted:

- (1) Changes in curves--The 60' curve has shifted eastward between lat. $46^{\circ} 04'$ and $46^{\circ} 11'$. Maximum shift is approximately 0.6 mile at $46^{\circ} 11'$.
- (2) The shoreline has shifted westward between lat. $46^{\circ} 03'$ and $46^{\circ} 11'$, reaching a maximum displacement of 0.2 mile at lat. $46^{\circ} 06.5'$. Above lat. $46^{\circ} 11'$ the shoreline has shifted slightly to the east.
- (3) The $9\frac{1}{4}$ fathomm shoal area at $46^{\circ} 10.8'$, $124^{\circ} 03.7'$ and the 10 fathomm shoal at $46^{\circ} 10.3'$, $124^{\circ} 02.9'$ are not seen on the smooth sheet.
- (4) The 60-66' readings near $46^{\circ} 14'$, $124^{\circ} 06'$ on the previous survey do not correspond with the 48-50' readings on the smooth sheet.

M-COMPARISON WITH CHARTS

BO-2158 H-8416

Comparison was made with charts 6002 and 6151. The following changes were noted:

- (1) The 120' shoal at lat. 46°19.5'N, long. 124°12.8'W was not revealed by lines running close by it. Present depth is 150'.
- (2) At the wreck at lat. 46°19.7'N, long. 124°09.5'W, shown to be in 90' of water, the actual depth is now 87'.
- (3) The 9 fathomn shoal at lat. 46°20.5'N, long. 124°06.9'W, once an isolated shoal, is now inside the 10 fathomn curve.

BO-2258 H-8417

Comparison was made with charts 6151 and 5902. Changes are described under section L.

N-DANGERS AND SHOALS

BO-2258 H-8417

The only rocks within the limits of the surveyed area are those in the vicinity and north of Horth Head Lighthouse. They could not be approached by the launch, and could not be accurately located with our copy of the manuscript (T-10344) because it was in poor condition. They should be transferred off a copy of T-10344.

Individual offshore shoals of less than 18' exist at:

- (1) Lat. 46°17.3'N, Long. 124°04.35'W--16'
- (2) " 18.9' " 04.7' --17'
- (3) " 19.5' " 04.6' --17'
- (4) " 21.3' " 04.4' --16'
- (5) " 22.3' " 04.0' --18'
- (6) " 22.9' " 04.3' --18'

A long shoal of less than 18' extends from position (6) above to the northern limit of the sheet. Its minimum depth is 14' at lat. 46°23.55'N, long. 124°04.3'W.

The shoal (108') at lat. 46°12.5', long. 124°10.7' was searched for from position 42J to 65J, making a total of 5.3 miles of sounding lines. The shallowest depth found was 140'.

The shoal (59') at lat. 46°24.3', long. 124°06.6' was not developed. Position line 271-272F passes over it, revealing a depth of 64'.

The 60' shoal at lat. 46°19.6', long. 124°07.3' has disappeared.

O-COAST PILOT INFORMATION

Present information is considered adequate.

P-AIDS TO NAVIGATION

BO-2258 H-8417

The adjacent smooth sheet to the north (WCTP 1358) shows the floating aids to navigation in this area.

P-AIDS TO NAVIGATION (CONTINUED)

BO-2158 H-8410

The adjacent smooth sheet to the south (WCFP-1358) shows the floating aids to navigation in this area with the exception of bell buoy "1" fl 4 sec, which is located at lat. $46^{\circ}14' 610$ meters N, long. $124^{\circ}09' 870$ meters W. The location is from position 104H. The present charts show all the aids to navigation in the area.

Q-LANDMARKS

Present charts show an adequate selection of landmarks.

R-GEOGRAPHIC NAMES

A report on geographic names will be submitted by the photogrammetric unit working in the area.

S-SILTED AREAS

No silted areas.

STATISTICS RECORD

FOR

FIELD SHEET NO. 30-2258

HYDROGRAPHIC SURVEYS

REGISTRY SHEET NO. 8417

SURVEYED BY ~~XXX~~: SHIP BOWIE

LOCALITY: NORTHERN OREGON COAST (MOUTH OF COLUMBIA)

DATE	DAY	VOL	POSITIONS		MILES OF SOUNDINGS				NAUT. MILES		NO. BOTTOM SAMP.
			Vol.	Total	Nautical		Statute		To & From	Misc	
7/10/58	A	1	259	259	93.2	93.2			23.0	5.0	
7/17/58	B	2		154		52.0			20.0	9.0	
7/18/58	C	2		131		45.4			20.0	5.0	
7/22/58	D	2	314								
	D	3	7	321		95.0			20.0	10.0	
7/24/58	E										
	E	3		259		78.2			20.0	20.0	20
7/29/58	F	4		127		42.0			20.0	2.0	
7/31/58	G	4		150		56.2			20.0	4.0	
						462.0					
				1401							

STATISTICS RECORD

FOR

FIELD SHEET NO. BC-2258

HYDROGRAPHIC SURVEYS

REGISTRY SHEET NO. H-8417

SURVEYED BY XXXX Launch #94
LOCALITY: Northern Oregon Coast

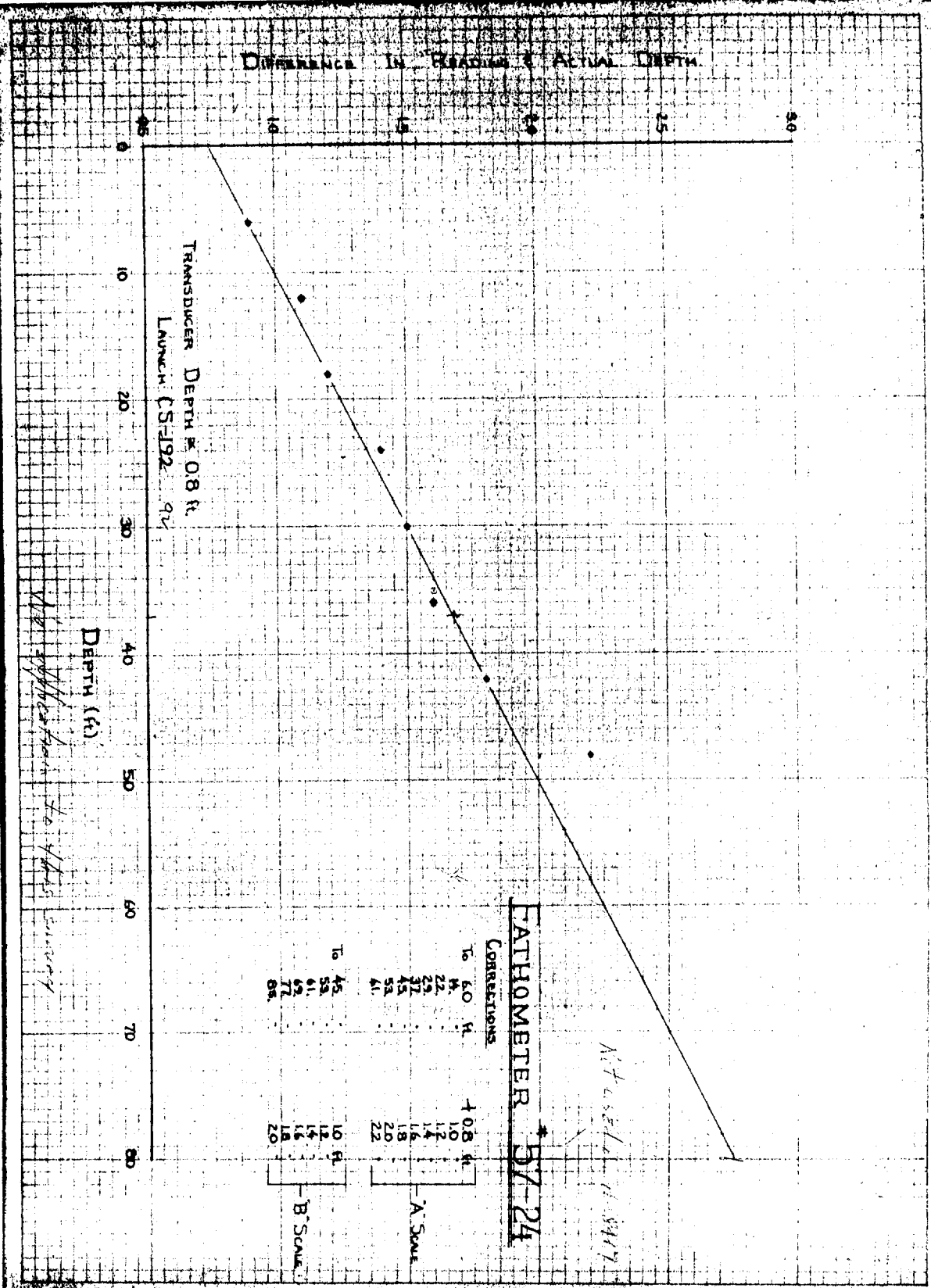
DATE	DAY	POSITIONS		MILES OF SOUNDINGS				NAUT. MILES		NO. BOTTOM SAMP.
		VOL	Total	Nautical	Statute	To & From	Misc Run			
8/5/58	a	1	88	26.5		11	1			
8/6/58	b	1	108	32.2		11	1			
8/11/58	c	2	111	31.3		11	2			
8/12/58	d	2	72	20.6		11	2			
8/13/58	e	2	55	15.0						
	e	3	47	12.3	27.3	11	5			
8/14/58	f	3	41	12.2		14	6			
			522							
			1401							
			1923							

LIST OF SIGNALS
 BO-2258 /V- 8417

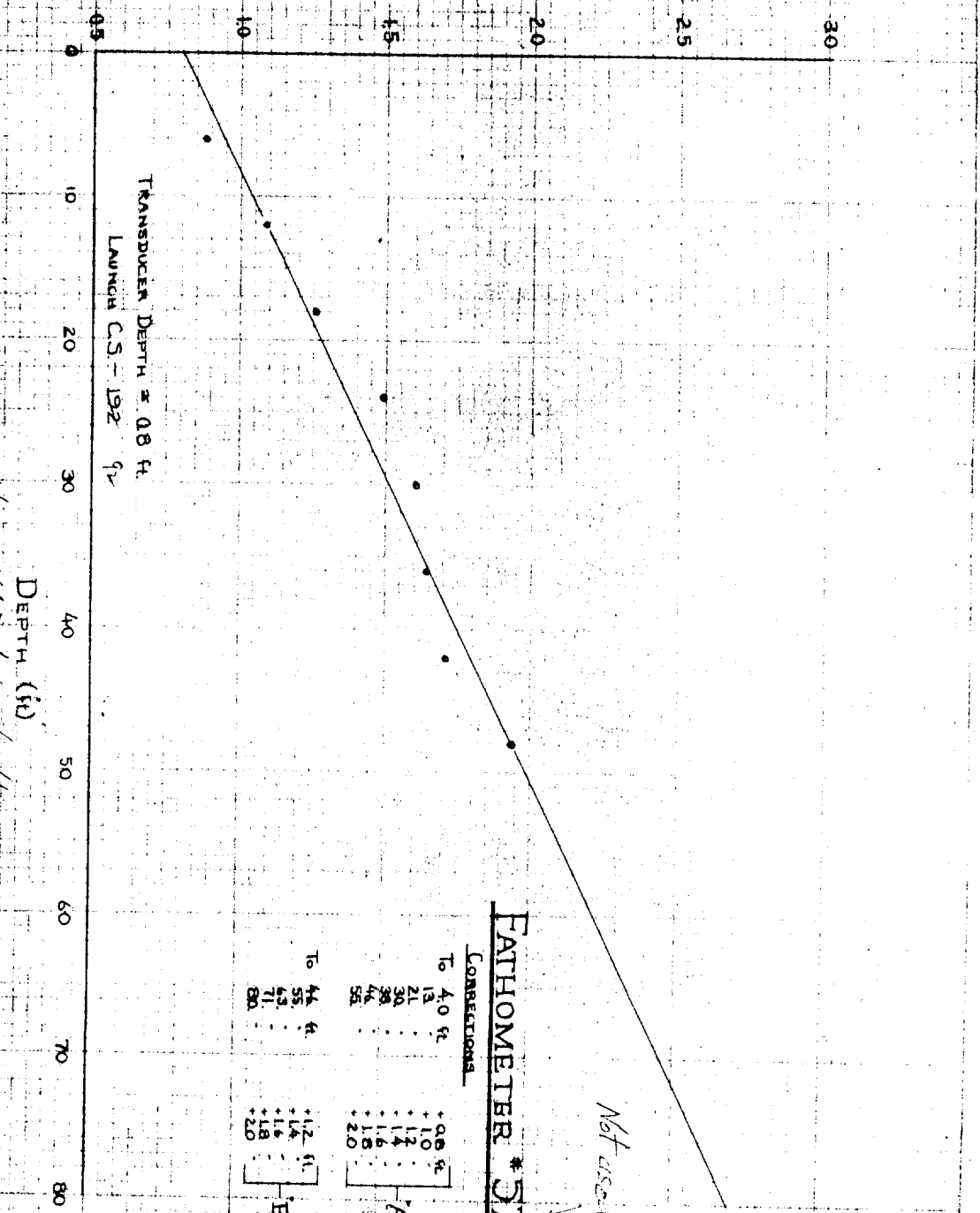
<u>SIGNALS</u>	<u>TYPE</u>	<u>MANUSCRIPT OR SOURCE</u>
018 Act	Photo	10650
020 <u>BEACH ROAD</u> (U.S.E.), 1935	TRIANGULATION	10353 and 10359
021 Bed	Photo	10650
105 Cam	Photo	
106 <u>CAPE DISAPPOINTMENT</u> <u>LIGHTHOUSE, 1873</u>	TRIANGULATION	
138 CHUMMY, 1956	TRIANGULATION	10353
139 Chy	Photo	10650
766 <u>CLATSOP SPIT, 1942</u>	TRIANGULATION	10353
109 Day	Photo	10650
185 <u>DUNE, 1935</u>	TRIANGULATION	
852 Dune, 1957	Photo	10359
233 Egg	Photo	10650
208 Fat	Photo	10650
304 <u>GALENA, 1942</u>	TRIANGULATION	10359
333 Gig	Photo	10650
327 Her	Photo	10650
312 Ice	Photo	10359
422 Jeep, 1957	Photo	10359
421 Ked	Photo	10359
435 Kim	Photo	
409 Lay	Photo	10353
481 <u>LUCAS, 1958</u> (Shoran)	TRIANGULATION	10650
501 <u>MACK, 1926</u>	TRIANGULATION	10359
528 Met	Photo	10353
533 Nig	Photo	10353
567 <u>NORTH, 1958</u> (Shoran)	TRIANGULATION	10344
641 Old	Photo	10353

LIST OF SIGNALS, BO-2258 (continued)

<u>SIGNALS</u>	<u>TYPE</u>	<u>MANUSCRIPT OR SOURCE</u>
688 <u>OUTERTANK</u> , 1942	TRIANGULATION	
623 <u>peg</u>	Photo	10353
701 <u>RADIO</u> , 1926	TRIANGULATION	10353
708 <u>Rat</u>	Photo	10353 and 10359
705 <u>SANDY</u> , 1935	TRIANGULATION	
794 <u>SYLAR</u> , 1926	TRIANGULATION	10650
866 <u>TOP OF MAST OF BEACHED SHIP</u> , 1926	TRIANGULATION	10359
872 <u>TRESTLE (U.S.E.)</u> , 1956	TRIANGULATION	
727 <u>TRESTLE</u> , 1942	TRIANGULATION	
804 <u>Val</u>	Photo	10359
907 <u>War</u>	Photo	10359
905 <u>Yam</u>	Photo	10359
903 <u>Zag</u>	Photo	10359



DIFFERENCE IN READINGS & ACTUAL DEPTH



TRANSDUCER DEPTH = 0.8 ft.
 LAUNCH C.S. - 192 ft

No application to this survey

FATHOMETER # 5725

Not used on H-847

CONVERSIONS

To 4.0 ft	+ .08 ft
13	+ .10
21	+ .12
30	+ .14
38	+ .16
44	+ .18
55	+ .20

A Scale

To 44 ft	+ .12 ft
55	+ .14
63	+ .16
71	+ .18
80	+ .20

B Scale

PLANE COMPARISONS

Does not apply to this survey

PASSENGER 4

STW

VOL.	DATE	DAY	A SCALE	B SCALE	DIFFERENCE
8	5/7	A	40.0	40.0	0.0
10	5/13	B	41.0	41.5	0.5
11	5/13	B	40.7	41.9	1.2
			40.4	47.2	0.8
			40.4	40.8	0.4
12	5/16	D	40.0	40.5	0.5
			45.9	46/6	0.7
12	5/19	C	40.0	41.0	1.0
			46.0	46.9	0.9
			40.2	41.0	0.8
13	5/20	F	46.0	46.9	0.9
			40.2	41.0	0.8
14	5/21	G	39.6	40.8	1.2
			45.6	47.0	1.4
15	5/23	H	39.8	41.5	(1.7)R
			45.5	47.2	(1.7)R
			40.0	41.2	1.2
15	5/26	A	40.3	41.0	0.7
			46.2	47.0	0.8
			40.3	41.2	0.9
15	5/27	V	40.0	41.0	1.0
			45.0	46.8	1.0
			40.0	41.8	(1.8)R
16	6/3	V	39.0	40.6	0.6
			45.2	46.0	0.8
			39.0	40.3	0.7
16	6/4	Z	40.2	41.0	0.8

TOTAL 19.8
 MEAN 0.825
 C.
 CORRECTION AND - 0.8

*does not apply
to this survey
Benson*

PLATE COMPARISONS

FAUCONIER †

STRI					
VOL	DAY	DATE	A Scale	B Scale	DIFFERENCE
1	D	5/27	39.8	40.6	0.8
			39.8	40.6	0.8
1AR	C	5/28	40.0	40.2	0.2
			40.0	40.8	0.8
3AR	C	6/2	40.2	41.2	1.0
			40.2	---	---
4	C	6/2	40.0	40.4	0.4
			40.0	---	---
4	E	6/3	40.2	41.2	1.0
			40.4	41.2	0.8
5	A	6/13	40.8	41.0	0.2
			40.6		

TOTAL 3.6
MEAN 0.62

CORRECTION APPLIED A-B SCALE - 0.6

ABSTRACT OF TIDE COMPARISONS
HYDROGRAPHIC SURVEY H-
Field No. 20-2150 & 20-2250
H-8417

	<u>SCALE 1</u>	<u>SCALE 2</u>	<u>SCALE 3</u>	<u>SCALE 4</u>
Fathometer No. 57-24 } <i>not used</i> <i>See H-8417</i>	-1.7	-2.0	-2.3	-2.8
Fathometer No. 57-25	-0.5	-1.5	-2.1	-2.7
Fathometer No. 57-28 } <i>ship</i> <i>H-8417</i>	-0.2	-0.2	0.8	1.4
Fathometer No. 57-30	-0.5	-1.1	<u>-1.1</u>	<u>-1.1</u>

TIDAL NOTE

~~BO-2158~~ & BO-2258

Tidal control for both Survey BO-2158 and Survey BO-2258 was taken from a portable tide gage installed on the Columbia River entrance North Jetty at Latitude $46^{\circ} 16.40' N$, Longitude $124^{\circ} 04.17' W$.

The zero mark of the staff corresponded exactly to the reference plane of mean lower low water.

APPROVAL SHEET

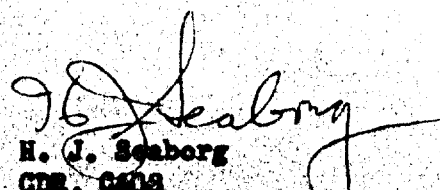
Surveys ~~BO-2158~~ and BO-2258

H-8417

During field operations the Chief Party, Captain Fred Natella, exercised personal supervision of survey work. He examined the boat sheet frequently. It would appear that the surveys are complete and adequate with no additional work required.

LTJG James C. Sainsbury executed the launch work on Sheet ~~BO-2158~~ and supervised the protracting and plotting of soundings on both survey sheets. Ensign James B. Allen smooth plotted Sheet ~~BO-2158~~ and Ensign Will Connell smooth plotted Sheet ~~BO-2258~~.

Ship's personnel completed work on these surveys with BOWIE.


H. J. Seaberg
CDR, USN
Commanding Ship BOWIE

#163 Path

for a #6 day Sheet BC225E

"A" Scale

<u>fath depth</u>	<u>corr</u>
0.0 to 3.0	-0.6
3.1 to 14.0	-0.4
14.1 to 25.2	-0.2
25.3 to 36.2	0.0
36.3 to 47.6	+0.2
47.7 to end	+0.4

"B" Scale

<u>fath depth</u>	<u>corr</u>
31.0 to 36.2	-2.0
36.3 / 47.5	-1.8
47.6 to 58.5	-1.6
58.6 to 69.7	-1.4
69.8 to 80.8	-1.2
80.9 to end	-1.0

Launch 92

Sheet B.O. 2258

c de and f days

Fathometer 152 SPX

"A" Scale

fath depth corr.

00 to 21.3 -0.8

21.4 to 43.0 -0.6

43.1 to end -0.4

"B" Scale

fath depth corr.

30.4 to 52.2 +1.0

52.3 to 74.2 +1.2

74.3 to end +1.4

"C" Scale

74.3 to end +0.4

PHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

3 September 1959

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 8417

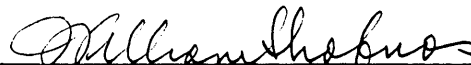
Locality Columbia River Mouth, Oregon

Chief of Party: F. Natella

Plane of reference is mean lower low water, reading
0.0 ft. on tide staff at North Jetty
19.7 ft. below B.M. 1 (1958)

Height of mean high water above plane of reference is 7.0 feet.

Condition of records satisfactory except as noted below:


Signature

Chief, Tides Branch

SURVEY #08417

<u>VOLUME #</u>	<u>VESSEL</u>	<u>BLOCK OF #'s</u>
1-5	BOWIE	0001-1386
6-8	Launch #92	2001-2518

ABSTRACT FOR SURVEY #08417
(BOWIE)

<u>MANUAL</u>		<u>AUTOMATED</u>		
<u>DAY</u>	<u>POSITION #'s</u>	<u>JULIAN DAY</u>		<u>POSITION #'s</u>
"A" Day 7/10/58	1-259 (10R)	191	E	0001-0249
"B" Day 7/17/58	1-154	198	E	0250-0403
"C" Day 7/18/58	1-131	199	E	0404-0534
"D" Day 7/22/58	1-321	203	E	0535-0855
"E" Day 7/24/58	1-259 (5R)	205	E	0856-1109
"F" Day 7/29/58	1-127 (1 error)	210	V	1110-1237
"G" Day 7/31/58	1-150 (1R)	212	V	1238-1386
(Launch #92)				
"A" Day 8/05/58	1-084	217	V	2001-2084
"B" Day 8/06/58	1-108	218	V	2085-2192
"C" Day 8/11/58	1-111	223	V	2193-2303
"D" Day 8/12/58	1-072	224	V	2304-2375
"E" Day 8/13/58	1-102	225	V	2376-2477
"F" Day 8/14/58	1-041	226	V	2478-2518

CROSS REFERENCE FOR SURVEY #08417

<u>VOLUME #</u>	<u>VESSEL</u>		<u>POSITION #'s</u>
1	Bowie	E	0001-0249
2	Bowie	E	0250-0534
3	Bowie	E	0535-0848
4	Bowie	E	0849-1109
5	Bowie	V	1110-1386
6	Launch #92	V	2001-2192
7	Launch #92	V	2193-2430
8	Launch #92	V	2431-2518

CROSS REFERENCE FOR SIGNAL NAMES
AND THEIR ASSIGNED NUMBERS

SURVEY #08417

<u>SIGNAL NAME</u>	<u>NUMBER</u>	<u>SIGNAL NAME</u>	<u>NUMBER</u>
ACT	018	ICE	312
BEACH	020	<u>JEEP</u>	422
BED	021	KED	421
CAM	105	KIM	435
CAPE	106	LAY	409
<u>CHUMMY</u>	138	<u>LUCAS</u>	481
CHY	139	MET	528
<u>CLATSOP</u>	766	OLD	641
DAY	109	PEG	623
<u>DUNE</u>	852	RAT	708
EGG	233	TOP	866
FAT	208	<u>TRESTLE</u>	872
<u>GALENA</u>	304	VAL	804
GIG	333	WAR	907
HER	327	ZAG	903

H-8417 (1958)

Tapes required: Electronic & Visual Control

Electronic Control

Ship BOWIE Posn #1 - Posn #1109

4 Volumes July 10, 1958-July 24, 1958

Visual Control

Ship BOWIE Posn #1110 - Posn #1386

1 Volume (#5) July 29, 1958-July 31, 1958

Launch #92 Posn #2001 - Posn #2518

3 Volumes August 5, 1958-August 14, 1958

Need TRA Corrector for both Ship BOWIE and Launch #92.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ...⁸⁴¹⁷...

Records accompanying survey:

Boat sheets ..²...; sounding vols. ...⁸...; wire drag vols.;
bomb vols.; graphic recorder rolls ¹⁰Envelopes
special reports, etc. ¹-Smooth sheet. ¹-Descriptive report....
¹ Cahier.-Shoran Plotting Abstracts and ¹ Cahier. -. Miscellaneous
Data. ¹-Special report with Shoran Calibrations from Ship BOWIE-1958

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

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8417

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:

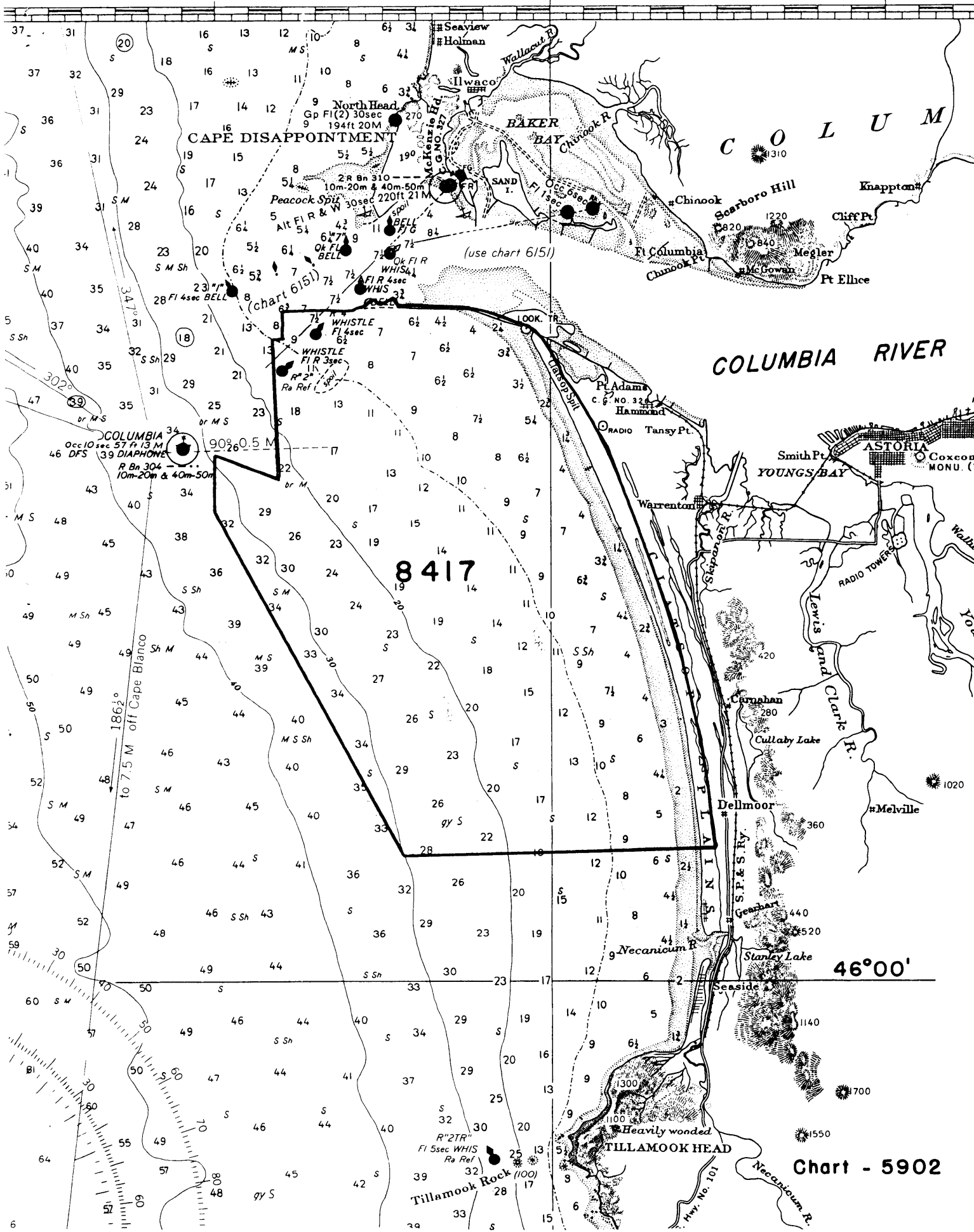
Verified by

Date

10'

124°

50'



COLUMBIA RIVER

8417

46°00'

Chart - 5902

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8417

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
Sept '59	5052	G.A.K.	Before Exam ^{Exam no corr. at this scale.} Verification and Review
Apr '61	5027	W.P.S.	Before Exam ^{Exam. - No Corr at this scale} Verification and Review
Nov '61	6151	hjk	Before Exam ^{Exam - No Corrs.} Verification and Review
Nov '61	6151	hjk	Before Exam ^{Exam - No corrs.} Verification and Review
June '76	6002	D.C. Larson	Before Exam Verification and Review ^{Exam No. Corr.}
Jan 84	¹⁸⁵²¹ (6151)	J.S. Stuart	Before Exam ^{No Corr Consider} Verification and Review ^{Adequately applied.}
			^{Category 1 Survey}
			Before Exam Verification and Review
			Before Exam Verification and Review
			Before Exam Verification and Review
			Before Exam Verification and Review
			Before Exam Verification and Review
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			Before Exam Verification and Review
			Before Exam Verification and Review
			Before Exam Verification and Review
			Before Exam Verification and Review

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.