8040

Diag. Cht. Nos. 5802 & 5902-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. WCFP-1153 *Office No.* H-8040

LOCALITY

State OREGON

General locality NEWPORT

Locality APPROACHES TO YAQUINA RIVER

1953

CHIEF OF PARTY

C. J. Beyma

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

8040

Form 537
(Ed. June 1946)

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 8040

Field No. WCFP 1153

State Oregon

General locality Newport

Locality Approaches to Yaquina River

Scale 1/ 10 000 Date of survey 12 June * 8 September 1953

Instructions dated 2 March 1953

Vessel Launch CS 160

Chief of party C.J.Beyma

Surveyed by C.J.Beyma & G.E. Haraden

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

Fathograms scaled by Party personnel

Fathograms checked by C.J.Beyma & G.E.Haraden

Protracted by C.R.Lehman

Soundings penciled by C.R.Lehman

Soundings in ~~fathoms~~ feet at ~~MLW~~ MLLW and are true depths

REMARKS: Plotted in Seattle Processing Office.

U. S. GOVERNMENT PRINTING OFFICE 693019

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY

H-8039 (1953) Field Sheet (WCFP 05153)
H-8040 (1953) Field Sheet (WCFP 1153)
H-8041 (1953) Field Sheet (WCFP 1253)

YAQUINA BAY OREGON AND APPROACHES

Project CS-356 Season of 1953
West Coast Field Party C. J. Beyma, Chief of Party
Surveyed by C. J. Beyma, G. E. Haraden

A. PROJECT

The work was done in accordance with instructions for project CS-356 dated 2 March 1953.

B. SURVEY LIMITS AND DATES

The limits of this survey include Yaquina River ~~and~~ Approache~~s~~ and extend from latitude 44° 34.0' to latitude 44° 41.0' and from longitude 12~~4°-55.6'~~ 4° 03.7' to longitude 124° 07.0'.

Field work was begun 1 April 1953 and was completed 16 October 1953. Work in Yaquina Bay and River progressed satisfactorily, however considerable trouble was encountered in the adjacent offshore area. Progress was retarded by unfavorable weather and the fact that the launch used was unsuitable for sounding on the unprotected coast. Sounding on the reef immediately north of the jetties was unsafe because of the presence of continuous breakers during the working season.

C. VESSEL AND EQUIPMENT

The hydrography was performed exclusively with launch CS-160 which operated from a shore base at Newport, Oregon. The turning radius of the launch was approximately 30 meters. Fathometers of the 808 type were used. Fathometer number 152SPX was used at all times except when inoperative, in which case number 154SPX was substituted until repairs could be made.

D. TIDE AND CURRENT STATIONS

Two portable recording tide gages and one tide staff were used in connection with this survey. A tide gage at the U. S. Coast Guard Station in Newport was maintained throughout the entire working season for reducing soundings obtained on sheets H-8039 and H-8040. A tide gage at Yaquina was also maintained throughout the entire working season and was used for reducing soundings on that portion of Sheet H-8041 which is west of longitude 123° 58'. For the remainder of Sheet H-8041 a tide staff at Toledo, Oregon was used.

D. TIDE AND CURRENT STATIONS, CONTD.

Five current stations were occupied as follows:

(1) On the north side of the channel under the highway bridge between Newport and South Beach, observations for 100 hours.

(2) Near the docks at Newport near the West Junction Buoy, observations for 100 hours.

(3) Off Yaquina, observations for 97 hours.

(4) Between the jetties near the entrance to Yaquina Bay, observations for 9 1/2 hours.

(5) Three tenths miles north of Light 47, Yaquina River, observations for 29 hours.

H-8039

E. SMOOTH SHEETS

Smooth sheets for this survey were drawn and completed by the Seattle Processing Office.

F. CONTROL STATIONS

Positions of hydrographic signals and triangulation stations used for the control of this survey were furnished by the Portland Photogrammetric Office. Photo-hydro signals were transferred to the boat sheets by pricking through photographic manuscripts T-11136, T-11137 and ~~T-11138~~. Refer to Descriptive Report, Project Ph-113 for further details regarding control for this survey.

Seven hydrographic signals were located by planetable methods. Refer to Descriptive Report covering Topographic sheet WCFP-A-53.

Hydrographic signals ROC and POLE were located by four sextant cuts from the launch at various positions south of Yaquina Head. These cuts are recorded in Volume II pages 29 and 30, H-8040.

Hydrographic signals HEX and KEY were located by measuring along the Boat Basin breakwater from the Boat Basin Lights. These distances are recorded in Volume I page 3, H-8039.

H-8039

No difficulty was encountered with any of the control signals.

G. SHORLINE AND TOPOGRAPHY

All shoreline for this survey was furnished by the Portland Photogrammetric Office and transferred to the boat sheets from Manuscripts T-11136, T-11137 and ~~T-11138~~, by the West Coast Field Party.

G. SHORELINE AND TOPOGRAPHY CONTD.

The low water line in Yaquina Bay and Yaquina River is adequately defined. On the outside coast it was impossible to delineate the low water line because of alongshore breakers. H-8040 | H-8039 & H-8041

H. SOUNDINGS

Fathometer 152SPX and 154SPX when received from the Washington office were equiped with 820 fms/sec. tachometers. 800 fms/sec. tachometers were requisitioned from Washington early in May but were received by the party late in June. The 820 fms/sec. tachometers were used in fathometers 152SPX and 154SPX on boat sheet H-8039 from 3 June 1953 thru 10 June 1953 day letters a,b,c,d,e, and f. On boat sheet H-8040 the 820 fms/sec. tachometer was used on 12 June 1953 day letter a. On subsequent days 800 fms/sec. tachometers were used on boat sheets H-8039, H-8040 and H-8041.

The fish on the keel of the launch was used on boat sheet H-8039 letter days a thru g and on boat sheet H-8040 on letter days a and b. On June 26, 1953 an outboard fish was installed on the launch. The reason being that the fish attached to the keel gave unsatisfactory results especially when sounding on the outside coast. The launch has a ramp bow, because of its design when sounding on the coast, the launch would ride over every swell causing air to pass under the keel resulting in large void sections on the fathograms. To rectify this an outboard fish was installed on the starboard quarter of the launch to enable this party to sound at a greater speed and thus take advantage of favorable weather on the open coast. Because of the construction of the launch the conventional type bar could not be used advantageously, so a fathometer receiver was used in taking bar checks. By lowering the receiver unit directly under the outboard fish attached to a graduated wire rope, a value of 1.0 feet was found to give good results when taking a bar check. This value was then doubled and adopted as initial setting, thus eliminating any index correction while sounding.

After sounding for two days on Sheet H-8040 ~~b~~ and c days, and h day on Sheet H-8039 it was discovered by using 2.0 as an initial setting the fish would ground before the launch and a reading of less than three feet recorded on the fathogram. The bottom of the housing enclosing the fathometer units was measured with a steel tape to be 38 inches below the surface of the water. A bar check was taken with a conventional metal bar suspended below the fish and the bar check corroborated that the initial setting should have been 3.2 feet in lieu of 2.0 feet as recorded on the fathograms for h day on sheet H-8039 and c and d days on Sheet H-8040. Handlead soundings were taken against fathometer soundings also pole soundings against fathometer soundings all indicating the initial to be 3.2 feet. So an index correction of +1.2 feet was applied to the soundings obtained on those days. Why the unit gave erroneous bar checks yet consistent thru the range of depths on the A Scale cannot be accounted for unless for the reason that the unit was kept out of the water and not soaked well enough to give the correct results.

H. SOUNDINGS CONTD.

Since the outboard fish grounded before anything else it was advisable to raise it to a point which was less than the draft of of the launch. On 6 July the fish was raised to 27 inches below the water surface. Subsequent bar checks indicated the new initial to be 2.2 feet. Both type bar checks that is the metal bar, and the receiver unit gave the same results. After h day Sheet H-8039 the receiver unit used in taking bar checks was submerged in a large can of sea water at all times, to allow the unit to become well soaked.

On Sheet H-8040 it was impossible to obtain satisfactory bar checks with an ordinary metal bar. The sea action and under water currents would cause the bar to move in every direction except under the fish. The receiver unit was used successfully on the A Scale only. When switching to the B Scale the fathogram consistently indicated a shoaler depth of 2 feet throughout the B Scale range. On the C Scale range there was no correction. The fathogram and the measured depth on the receiver unit agreed; likewise on the D Scale. By anchoring the launch in the Bay in a depth of about 40 feet the A Scale and B Scale agreed, so no phase correction was applied to the soundings on the B Scale. To determine the phase correction on the C and D Scales the launch was allowed to drift and comparative readings were taken on the B and C Scales and similary on the C to D Scales. On the C Scale the correction was -1.2 feet and D Scale -2.6 feet. These corrections were obtained by scanning the peaks and troughs on either scales and obtainning a mean. It was accepted for about 75% of the survey that the bar checks on the various fathometer scales were correct by using the fathometer receiver unit as a bar until it was decided to actually check the scales by bottom comparison. It was discovered that the receiver unit was registering erroneously on the B, C and D Scales in comparison with the depth of the bottom recorded on the fathograms on the various scales. Attempts were made to check the bottom comparison with a leadline. Because of the sea and wind conditions the leadline could not be read accurately. It was impossible to obtain a vertical depth with the leadline or to accurately average the height of the swells. The leadline would be either leading aft or inboard or outboard. To record such a reading would only introduce additional errors.

Weather conditions on the outside coast were far from ever being calm. Even what was considered calm to accomplish launch hydrography, the seas were 4 to 6 feet high. By inspecting the fathograms it can be clearly seen the conditions of the seas while sounding on the outside coast. On many days the fathograms cannot be scanned to average the correct depth within 2 feet. It seems impracticable to make any corrections to the soundings except for tide because of the prevailing weather conditions this season along the Oregon Coast.

Temperature and salinity observations were not observed principally because every workable day on the coast was utilized in launch hydrography. During the entire season there were so few days that a launch could actually work on the coast. Even these days were rough, far from what one would consider calm or ideal for launch hydrography.

I. CONTROL OF HYDROGRAPHY

Sextant fixes, using the three point method, were used for horizontal control of the survey, except for sounding lines in the sloughs at Oysterville. Lines run in these sloughs were mid-channel lines and only the times when abeam signals and times of all turns were recorded for control data. Sextant fixes were not taken because sufficient signals were not visible when needed and the angles changed too rapidly when they were visible. In the western slough at Oysterville the boat sheet soundings were plotted by dead reckoning. H-8039, H-8040 & H-8041

Soundings from position 89 - 90 of "F" DAY H-8039 were rejected because of a 13 foot sounding which plotted out of place. The area was thoroughly developed on an overlay, on 21 August 1953, q day, and the 13 foot sounding was not found.

J. ADEQUACEY OF SURVEY

Survey Sheets H-8039 Yaquina Bay, and H-8040 Yaquina River, are adequate and complete and should supersede prior surveys for charting. Boat Sheet H-8040 is adequate for navigation purposes, however, due to the prevailing heavy seas and strong NW'ly winds, the offlying reef could not be thoroughly developed. Shoal soundings from prior surveys should be retained for charting. H-8040, H-8039 & H-8041

Junctions with prior surveys H-4894 (1928) and H-4749 (1927) were made on the west and north with considerable overlap and depth curves can be adequately drawn. See PS of Review

K. CROSSLINES

A total of 7.6% crosslines were run on Sheet H-8041 Yaquina River with very good agreement. H-8041

Crosslines to the extent of 7.4% were run on Sheet H-8039 Yaquina Bay, with generally good agreement except for crossings between the jetties. The system of short lines between the jetties and normal to the channel should be adjusted when smooth plotted allowing for the launch to attain sounding speed and spacing the soundings accordingly. H-8039

On Sheet H-8040 7.6% of the total mileage was crosslines. All crossings were in good agreement.

L. COMPARISON WITH PRIOR SURVEYS

H-8041

There are no recent prior surveys of Yaquina River, However comparison with Sheet H-3728, 1914 scale 1:10,000 indicates that the river has shoaled from zero to three feet between Mc Lean Point and Toledo. H-8041

(6)

L. COMPARISON WITH PRIOR SURVEYS CONTD

H-8039

Survey H-3727, 1914 scale 1:10,000 is obsolete and the only recent survey of this area is a condition survey by the U. S. Corps of Engineers. Engineers survey Sheet YB-1-249, scale 1:5,000 May 1953 agrees with soundings of this survey in the channel. | H-8039

H-8040

Comparison with old survey H-4894, 1928, scale 1:40,000 is in good agreement at the junctions.

Survey H-4749, 1927, scale 1:20,000 is in good agreement, however shoaler depths were found on the reef west of and southwest of Yaquina Head.

Comparison with old survey H-4879, 1928, scale 1:20,000 is generally good except over the reefs. Shoaler soundings were obtained on the south reef and this reef was found to extend to the southern limits of the survey. The shoal soundings on the north reef north of Yaquina Reef Buoy 3 could not be verified because of breakers in the area.

M. COMPARISON WITH CHART

Comparison with Chart 6058, August 1942 (19th Edition), scale 1:20,000, reveals the following:

The area southwest of Boat Basin West Light has shoaled considerbly as a result of the Engineers emptying their dredgings on the south side of the breakwater and the subsequent shifting in a westerly direction. | H-8039 1953

The channel under the highway bridge has ~~shoaled~~ scoured up to five feet deeper than the depths on the published chart.

The shallow channel southeast of McLean Point no longer exists. Construction is under way in that area at present. | H-8041 1953

The slough at Oysterville extends south of the limits of Chart 6058 and is navigable by small boats. Lumber tugs haul log rafts through this slough to the mills along the Yaquina River. For this reason it is recommended that the limits of Chart 6058 be extended to include this slough. | H-8041

on Chart 5802 (8-9-54)

No indication of the sunken wrecks in latitude 44° 36' Longitude 124° 06' and Latitude 44° 37' Longitude 124° 06' was found during this survey. (Depths on present survey in wk. locations 70-80 ft.) Deleted from chart ✓

The sunken wreck charted at Latitude 44° ~~36' 58"~~ 37.2' Longitude 124° ~~05' 12"~~ 04.78' should be charted as stranded wreck baring 5.9 feet at MLLW, see position data, Volume I, page 4, H-8040.

M. COMPARISON WITH CHART CONTD

Cht 6058 (6-18-51)

The four foot rock charted at latitude 44° 37.6' *(57')* longitude 124° 04.25' is misplaced. This survey indicated a shoal approximately 220 meters NNE of the charted position, see boat sheet H-8040. *Retain as charted. (See ¶6 of Review)*

Charted on 6058 (6/18/51)

Verification of the three foot rock south of the jetties *(south jetty)* was not possible and therefore should be retained on the chart. *Retain on Chart. (See ¶6 of Review)*

Investigations of the charted shoal at latitude 44° 39.88' longitude 124° 05.03' indicates that the symbol as charted should be deleted. This shoal is a continuation of Yaquina Reef which runs from the entrance channel north to the limits of the survey. *Delete. See ¶5 of Review*

The offshore reef on chart 6058 is so extensive that the many shoal soundings charted could well exist although all were not verified during this survey. It is therefore recommended that the shoal soundings from prior surveys be retained for charting. *See ¶6 of Review*

The rocks west of Coquille Point and at latitude 44° 36.7' longitude 124° 00.7' were found as charted.

The rock charted at latitude 44° 35.00' longitude 124° 00.32' should be shown as rocks awash baring 3.4 feet at MLLW. *H-8041*

No indications of the following charted features were found during the survey and they should be deleted from the chart:

Charted Feature	Latitude	Longitude	
Rock Symbol	44° 39.88'	124° 05.03'	*(see 3rd ¶ above)*
Chimney	44° 34.7'	124° 00.2'	*H-8039*
Dolphin	44° 37.31'	124° 02.0'	*H-8039*
Rock	44° 37.31'	124° 02.05'	*H-8039*
14 ft. Sdg. *(from H-998(1868))*	44° 38.90'	124° 04.15'	*Carried forward to H-8040*
2 ft. Rock	44° 36.6'	124° 04.42'	*Retain on Chart. (See ¶6 of Review)*

N. DANGERS AND SHOALS

Newly found dangers within the limits of this survey include the following:

Sheet No.	Danger	Latitude	Longitude	Least Depth	Position No.
H-8040	Stranded Wreck	44° 37.32'	124° 04.78'	Bares 5.[illegible] *(0)* ft. @ MLLW	1 a
H-8041	Steel Boiler	44° 36.81'	124° 01.11'	Bares 3.8 ft @ MLLW	1 a
H-8041	Log	44° 34.47'	123° 59.47'	Bares 6.0 ft @ MLLW	6 q
H-8041	3 Logs	44° 34.34'	123° 58.97'	One End Floats	23,24 & 25 g

H-8041

N. DANGERS AND SHOALS CONTD

Sheet No.	Danger	Latitude	Longitude	Least Depth	Position No.	
H-8041	Log	44° 34.38'	123° 58.18'	One End Floats	67 g	H-8041
H-8041	Log	44° 35.07'	123° 57.63'	" " "	26 h	
H-8041	Log	44° 35.10'	123° 57.56'	" " "	27 h	
H-8041	Log	44° 35.53'	123° 56.30'	" " "	63 j	
H-8041	Stump	44° 36.71'	124° 01.44'	Bares 9.0 ft. @ MLLW	69 c	

O. COAST PILOT INFORMATION

The following are corrections to Coast Pilot Notes for Yaquina Bay, Oregon Chart No. 6058. Page and line numbers refer to publication "United States Coast Pilot Pacific Coast Seventh (1951) Edition":

Page 326 Line 41; States "26 feet deep over the bar." The present survey indicates 22 feet least depth over the bar. | H-8040

Page 327 Line 34; Strike out lines 34,35 and 36. Insert - The controlling depth in Yaquina River to Toledo in August 1953 was 9 feet; In Depoe Creek the controlling depth was 3 feet in August 1953. | H-8039 (1953)

Page 328 Line 17; Strike out "The wharves have 10 to 12 feet alongside. Insert - The wharves have 5 to 6 feet alongside. | H-8041 (1953)

P. GEOGRAPHIC NAMES

All geographic names within the limits of this survey were investigated by the Portland Photogrammetric Party and a special report was submitted by that office.

Submitted By
C. J. Beyma
C. J. Beyma
CDR., USC&GS

Approved & Forwarded
C. J. Beyma
C. J. Beyma
CDR., USC&GS
Chief of Party

8039
8040
8041

TIDE NOTE

Sheet H-8039 Field Sheet WCFP 05153

An automatic recording portable tide gage at latitude 44° 37.55' longitude 124° 03.30' was used to reduce the soundings for survey H-8039. Mean lower low water on the staff corresponds to a reading of 3.2 feet.

No corrections to the observed readings were applied for differences in time or height.

Sheet H-8040 Field Sheet WCFP 1153

The same tide gage at latitude 44° 37.55' longitude 124° 03.30' was used for the reduction of soundings on survey H-8040 as was used for H-8039. No corrections were applied for differences in time or height.

Sheet H-8041 Field Sheet WCFP 1253

Two tide stations were used for reducing the soundings for survey H-8041. A portable recording gage at latitude 44° 36.17' longitude 124° 00.57' was used for reducing all soundings on survey H-8041 west of longitude 123° 58.00'. Mean lower low water on the staff corresponds to a reading of 1.9 feet.

A tide staff at latitude 44° 37.04 longitude 123° 56.16' was used for reducing all soundings on this survey east of longitude 123° 58.00'. Mean lower low water on the staff corresponds to a reading of 3.4 feet.

No corrections for differences in time or height were applied to either the gage or the staff readings.

Name	Latitude °	'	D.M. (meters)	Longitude °	'	D.P. (meters)	Pos No.		Date of Location	Survey No.
Approach Lighted Whistle Buoy "Y"	44	35	1623	124	06	1010	5a	104	6/12/53	H-8040
Entrance Lighted Bell Buoy "1"	44	36	566	124	05	840	4a	62	6/12/53	"
Entrance Buoy "2"	44	36	761	124	05	214	3a	39	6/12/53	"
Yaquina Reef Buoy "3"	44	36	1151	124	04	1299	2a	33	6/12/53	"
North Jetty Gong Buoy "5"	44	36	1413	124	04	790	6a	28	6/12/53	"
Channel Lighted Buoy "7"	44	37	142	124	03	1410	8a	22	6/3/53	H-8039
West Junction Buoy	44	37	1246	124	03	194	5a	13	6/3/53	"
Channel Buoy "9"	44	37	1212	124	02	958	4a	19	6/3/53	"
Channel Buoy "11"	44	37	1111	124	02	548	2a	12	6/3/53	"
East Junction Buoy	44	37	1132	124	02	296	1a	16	6/3/53	"
Channel Buoy "12"	44	37	848	124	02	435	3a	23	6/3/53	"
Channel Buoy "15"	44	36	1391	124	00	1174	2a	24	7/14/53	H-8041
Channel Buoy "21"	44	35	718	124	01	255	87a	14	7/14/53	"
Channel Buoy "23"	44	35	190	124	01	245	35d	12	7/24/53	"
Channel Buoy "26"	44	34	1487	124	00	77	94e	12	7/28/53	"
Channel Buoy "28"	44	34	801	123	58	1295	6g	10	8/7/53	"
Channel Buoy "29"	44	34	777	123	58	964	7g	9	8/7/53	"
Channel Buoy "34"	44	34	833	123	57	1089	88g	7	8/7/53	"
Channel Buoy "36"	44	34	1595	123	57	1073	28h	9	8/10/53	"
Channel Buoy "38"	44	35	76	123	57	705	24h	10	8/10/53	"
Channel Buoy "39"	44	35	167	123	57	783	25h	6	8/10/53	"
Channel Buoy "41"	44	35	404	123	57	44	62h	10	8/10/53	"
Channel Buoy "45"	44	35	1300	123	56	253	35j	7	8/11/53	"

APPROVAL SHEET

The field work was personally supervised and the boat sheets were inspected daily by the chief of party. The survey is considered complete and adequate. Because of the constant adverse weather on the Oregon coast a complete and thorough development of Yaquina Reef could not be accomplished as desired.

The boat sheets are approved.

C. J. Beyma

C. J. Beyma
CDR., USC&GS
Chief of Party

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Sheet 1 of 1

~~NONFLOATING AIDS OR~~ LANDMARKS FOR CHARTS

TO BE CHARTED | ~~TO BE DELETED~~ — STRIKE OUT ONE

Newport, Oregon — 6 October — 1953

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

The positions given have been checked after listing by C. J. Beyma

aids in this list same as L. 935 (1953

C.J. Beyma — *Chief of Party.*

H-8040
H-8039
H-8041

STATE OREGON

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
RADIO MAST (WESTERLY OF TWO)	Newport Radio Station (KNPT Tower) (This is the W l/y of two towers)	STAT	44 39	170.3	124 03	29.6	NA 1927	Triangulation	1950		X	X	5902 6058 6055
LIGHT HOUSE	Abandoned (Yaquina Lighthouse, old)	HOUSE	44 37	850.9	124 03	936.3	"	"	1908		X	X	5802 5902 6058 6055
LOOKOUT TOWER	House 9' x 9', 7'4" high on 49' skeleton steel tower *This position was obtained from Corps of Engineers	LOCK	44 37	849.5	124 03	921.9	"	"	"		X	X	5802 5902 6058 6055
MARKER (FLR LT)	Newport, Center of Bridge, Light	LIGHT	44 37	702.1	124.03	470.0	"	"	1950		X	X	5802 5902 6058 6055
TANK	Silver, low elevated with conical Top	RUM	44 37	23	123 56	1031	"	Radial Plot	1953		X		6058 6055
STACK (NORTHEAST OF TWO)	Black metal	TAN	44 37	11	123 56	541	"	"	1953		X		6058 6055
TANK (ELEVATED)	Black, on steel skeleton	TAP	44 37	0	123 56	440	"	"	1953		X		6055 6058

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 individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

M-2836-3

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

[redacted] FLOATING AIDS [redacted] FOR CHARTS

TO BE CHARTED / TO [redacted] — STRIKE OUT ONE

Newport, Oregon — 8 October, 19 53

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

The positions given have been checked after listing by C. E. Haraden

Scales 1022.3 on H-8040

C. J. Reyna
Chief of Party.

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	Approach Lighted Whistle Buoy "1"		44 35	1623	124 06	1010	NA 1927	Hydro CS-356	6/12/53		X	X	*6055 6802 6058
	Entrance Lighted Bell Buoy "1"		44 36	566	124 05	840	"	"	"		X	X	6802 6058 6055
	Entrance Buoy "2"		44 36	761	124 05	214	"	"	"	X			6058 6055
	Yaquina Reef Buoy "3"		44 36	1151	124 04	1299	"	"	"	X			" 6055
	North Jetty Gong Buoy "5"		44 36	1413	124 04	790	"	"	"	X			" 6055
	Channel Lighted Buoy "7"		44 37	142	124 03	1410	"	"	6/3/53	X			" 6055
	West Junction Buoy		44 37	1246	124 03	194	"	"	"	X			" 6055
	Channel Buoy "9"		44 37	1212	124 02	958	"	"	"	X			" 6055
	Channel Buoy "11"		44 37	1111	124 02	548	"	"	"	X			" 6055
	East Junction Buoy		44 37	1132	124 02	296	"	"	"	X			" 6055
	Channel Buoy "12"		44 37	848	124 02	435	"	"	"	X			" 6055
	Channel Buoy "15"		44 36	1391	124 00	1174	"	"	7/14/53	X			" 6055
	Channel Buoy "21"		44 35	718	124 01	255	"	"	"	X			" 6055
	Channel Buoy "23"		44 35	190	124 01	265	"	"	7/24/53	X			" 6055

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 individual field survey sheets. Information under each column heading should be given.

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

[redacted] FLOATING AIDS [redacted] FOR CHARTS

TO BE CHARTED / TO [redacted] — STRIKE OUT ONE

Newport, Oregon — 8 October, 1953

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

The positions given have been checked after listing by G. E. Haraden

C. J. Boyna — *Chief of Party.*

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.N. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	Channel Buoy "26"		44 34	1487	124 00	77	NA 1927	Hydro CS-356	7/28/53	X			*6056 ✓ 6058
	Channel Buoy "28"		44 34	801	123 58	1295	"	"	8/7/53	X			" ✓ "
	Channel Buoy "29"		44 34	777	123 58	964	"	"	"	X			" ✓ "
	Channel Buoy "34"		44 34	833	123 57	1089	"	"	"	X			" ✓ "
	Channel Buoy "36"		44 34	1595	123 57	1073	"	"	8/10/53	X			" ✓ "
	Channel Buoy "38"		44 35	76	123 57	705	"	"	"	X			" ✓ "
	Channel Buoy "39"		44 35	167	123 57	783	"	"	"	X			" ✓ "
	Channel Buoy "41"		44 35	404	123 57	44	"	"	"	X			" ✓ "
	Channel Buoy "45"		44 35	1300	123 56	253	"	"	8/11/53	X			" ✓ "

* Floating aids from this list were transferred directly from the Hydro sheets (H-8039 - 8040 - 8041) Item. to chart 6055.

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 individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

M-2836-3

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

[redacted] LANDMARKS FOR CHARTS

TO BE [redacted] / TO BE DELETED — STRIKE OUT ONE

Newport, Oregon — 6 October, 19 53

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

The positions given have been checked after listing by C. E. Haraden

C. J. Beyma, *Chief of Party.*

STATE			POSITION									
			LATITUDE *		LONGITUDE *		DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CHARTING NAME	DESCRIPTION	SIGNAL NAME	° ′	″ D.M. METERS	° ′	″ D.P. METERS							
CHY	Chimney Oysterville		44 34.7		124 02		NA 1927	Triangulation	1914	X			6058

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M-2836-3

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~

TO BE CHARTED
~~TO BE DELETED~~ STRIKE OUT ONE

Newport, Oregon 6 October 1953

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

The positions given have been checked after listing by C. J. Beyma

C. J. Beyma *Chief of Party.*

STATE OREGON

CHARTING NAME	DESCRIPTION	SIGNAL NAME	LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	OREGON COAST												
YAQUINA HEAD LIGHTHOUSE	White conical tower	HEAD	44 40	1139.0	124 04	915.6	NA 1927	Triangulation	1908		X	X	5902 6058
AERO BN. (Deleted on this Proof of 6058 ch)	Newport, Municipal Airport, beacon (H-8040)	BEA	44 35	368.6	124 03	792.2	"	"	1950		X	X	5802 6058
	YAQUINA BAY												
ENTRANCE RANGE FRONT LIGHT 8	White square daymark with red vertical stripe on pile structure	FRONT	44 37	204.7	124 03	763.7	"	USED	1953	X			6055 6058
ENTRANCE RANGE REAR LIGHT	White diamond daymark with red vertical stripe on skeleton tower	REAR	44 37	439.6	124 03	342.7	"	"	1953	X			6055 6058
BOAT BASIN WEST LIGHT	White platform on pile	WEST	44 37	1472.3	124 02	1282.5	"	"	1953	X			6065 6058
BOAT BASIN EAST LIGHT	White platform on pile	EAST	44 37	1323.9	124 02	508.7	"	"	1953	X			6056 6058
LIGHT 10	White platform with red triangle on delphin	BAY	44 37	1039.1	124.02	1066.1	"	"	1953	X			6055 6058

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* TABULATE SECONDS AND METERS

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~

TO BE CHARTED / ~~DISCONTINUED~~ } STRIKE OUT ONE

Newport, Oregon — 6 October 19 53

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

The positions given have been checked after listing by C. J. Beyma

C. J. Beyma — *Chief of Party.*

STATE OREGON			POSITION					METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
			LATITUDE*		LONGITUDE*								
CHARTING NAME	DESCRIPTION	SIGNAL NAME	° ′	″ D.M. METERS	° ′	″ D.P. METERS	DATUM						
	YAQUINA BAY (Contd.												
LIGHT 14	White house with red triangle on dolphin	JUG	44 36	1687.1	124 01	281.4	NA 1927	Triangulation Ph-113	1953	X			6055 ✓ 6058
	YAQUINA RIVER												
LIGHT 17	White square house with black rectangle on concrete posts.	SEVEN	44 36	733.0	124 00	715.3	"	Radial Plot	1953	X			6055 ✓ 6058
LIGHT 19	White square house with black rectangle	DON	44 35	1323.9	124 00	864.1	"	Triangulation Ph-113	1953	X			6055 ✓ 6058
LIGHT 20	White square house with red triangle	EBB	44 35	851.7	124 01	397.4	"	"	1953	X			6055 ✓ 6058
LIGHT 22	White square house with red triangle	FIN	44 35	107.5	124 01	560.1	"	"	1953	X			6055 ✓ 6058
LIGHT 25	White square house with black rectangle	FOG	44 35	32.8	124 00	885.3	"	"	1953	X			6055 ✓ 6058
LIGHT 30	White square house with red triangle	MAX	44 34	480	123 58	570	"	Radial Plot	1953	X			6055 ✓ 6058

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* TABULATE SECONDS AND METERS

M-2836-3

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~

TO BE CHARTED
~~TO BE CHARTED~~ STRIKE OUT ONE

Newport, Oregon 6 October 1953

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

The positions given have been checked after listing by C. J. Beyma

C. J. Beyma *Chief of Party.*

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	YAQUINA RIVER (Cont'd)												
LIGHT 32	White square box with red triangle on white platform on dolphin	MUM	44 34	555	123 57	1238	MA 1927	Radial Plot	1953	X			6055 ✓ 6058
LIGHT 37	White square house with black rectangle	NOD	44 35	63	123 57	1046	"	"	1953	X			6055 ✓ 6058
LIGHT 42	White square house with red triangle	OEM	44 35	489.0	123 56	733.7	"	Triangulation H-113	1953	X			6055 ✓ 6058
LIGHT 44	White square house with red triangle	PET	44 35	1062	123 56	139	"	Radial Plot	1953	X			6055 ✓ 6058
LIGHT 47	White cylinder with black rectangle on white platform on dolphin	PLY	44 35	1576	123 56	441	"	"	1953	X			6055 ✓ 6058

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 individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

M-2836-3

FORM 537a
(9-24-47)

DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

REGISTER NO. T - (Destroyed.)

FIELD NO. WCFP-A-53

Each Planetable and Graphic Control Sheet should be accompanied by this form, completed so far as practicable, when forwarded to the Washington Office.

STATE: Oregon

GENERAL LOCALITY: Newport, Oregon

LOCALITY: Yaquina Bay, Oregon

SCALE: 1:5000

DATE OF SURVEY: 5 May, 1953

VESSEL: West Coast Field Party

CHIEF OF PARTY: C. J. Beyma

SURVEYED BY: G. E. Haraden

INKED BY: G. E. Haraden

HEIGHTS IN FEET ABOVE MHW OR _____ ☐ TO GROUND ☐ TO TOPS OF TREES

CONTOUR APPROXIMATE CONTOUR FORM LINE INTERVAL _____ FEET

OJECT NUMBER: CS-356

REMARKS

Applied to H-8039, H-8040 and H-8041 of 1953, and then destroyed

12136

DESCRIPTIVE REPORT TO ACCOMPANY
TOPOGRAPHIC SURVEY SHEET WCFP-A-53

YAQUINA BAY OREGON

A. PURPOSE

The purpose of this survey was to locate additional control signals for the hydrographic survey of Yaquina Bay, Oregon, which could not be picked from photographs by the photogrammetric party.

B. EQUIPMENT

Planetable no. 105 and alidade no. H-223 were used for the topography.

C. TOPOGRAPHIC SHEET

The projection was drawn on an aluminum mounted topographic sheet and verified by officers of the West Coast Field Party. The shoreline was transferred from photo-manuscript T-9370.

D. PROCEEDURE

The following triangulation stations were plotted on the sheet for use in locating the hydrographic signals:

Yaquina Lighthouse Old, 1908
Coast Guard Lookout Tower
Sand, 1953
Yaquina Bar Front Range (USED) 1948
Yaquina Bar Rear Range (USED) 1948
Newport Center of Bridge Light 1950
Yaquina Bay Light 10 (USED) 1952
Boat Basin West Light (USED) 1950
Boat Basin East Light (USED) 1950

Four plane table set-ups were made and all signals to be located were cut in.

1. Set up over station SAND and oriented on all visible triangulation.
2. Set up on bank of south jetty near most westerly groin and oriented by three point fix.
3. Set up under highway bridge on south jetty and oriented by three point fix.
4. Set up on bank of north jetty south of Coast Guard Lookout Tower and oriented by three point fix

Submitted by:
G. E. Haraden
G. E. Haraden
Ensign. USC&GS

Approved & Forwarded
C. J. Beyma
C. J. Beyma
CDR., USC&GS
Chief of Party

8040

H 8040

WCFP 1153

Oregpn
Approaches to
Yaquina Bay.

Processing Office Notes.

Smooth sheet.

The projection was ruled by hamd on a cut sheet of D-117 paper. The shoreline and topographic signals are from T 11136, T11137, ~~T 9370~~. Δ stations are from the adjusted lithographed sheets for Oregon pages 28, 77 & 79.

Reefs.

The oustanding features of this sheet are the long reefs with shoal depths of 7 to 30 feet. These things are explained by the air photographs which show the shoal waters near shore. Here in the shallow water off Newport are seen the edges of vertical strata miles long and papalelling the shore. The strata are harder than the adjacent bottom. Knobby irregularities which the waves have not yet worn off appear on the strata. The strata are not visible in the deeper water further offshore where the reefs lay, but the reefs are believed to be of the same formation as the strata seem. See the reef along λ 124 05 from ϕ 4438 to Yaquina Head. South of the river entrance the reefs slant off to the southwestward. See the reef from

ϕ 44 36.7 λ 124 04.95 to ϕ 44 38 λ 124 04.65, and from
35.95 04.70 to 35.30 05.15, and from
36.25 05.10 to 35.05 ~~06~~ . This last is well marked to the south edge of the survey, but in deeper water.

Important soundings have been emphasized and pointed out with leaders. *in pencil.*

Curves.

The four fathom curve was omitted in places where it would cause confusion by crowding.

An eight fathom curve was used to delineate the reefs better. The ten fathom curve fell too far from the base of the reefs to outline them well.

The curves at the entrance to the river fit the curves on the inner sheet, H 8039.

see ¶ 3 Review

The continuous profiles of modern surveys have so many advantages over hand lead or stop and go wire soundings that the older sheets are under a heavy handicap when compared.

8040

Comparison with Sheet H 3727, of 1914.

The jettys at the entrance to the river have been pushed out nearly half a mile and the soundings in the approack channel are importantly changed, some deeper, some shoaler, out to λ 124 05.5.

φ	λ	H 8040	H 3727
44 36.7	124 04.9	13	20
36.3	05.1	12 6	22
36.8	04.9	27	12

See TP 5 of Review

The older survey was not sufficiently close to reveal the nature of the reef running north from φ 44 38 along λ 124 05, nor the one running southwestward from φ 44 36.3 λ 124 05.1, nor the one from φ 44 04.75 λ 124 35.?

See TP 5 of Review.

44 35 124 04.75

Comparison with H 4749.

In the vicinity of Yaquina Head the newer survey is in greater detail. Some shoal depths along the reef which follows λ 124 05 are in good agreement. The soundings of the older sheet frequently straddled the reef without revealing it.

The ~~7~~ foot sounding on H 8040 at φ 44 ~~41~~ 40.82 124 04.82 does not appear on the older sheet.

The 3 2/6 fms. on H 4749 at φ 44 39.~~3~~ 3 λ 124 0~~5~~ .06 falls about 100 meters north of a 21 foot depth on H 8040. The existence of the 3 2/6fms. is not excluded. 20 ft retained

Pubs. 21ft adequate for charting. See Review TP 5.

Sunken rock at φ 44 39.8 λ 124 05.05 not found on H 8040.

Comparison with H 4894.

φ	λ	H 4894 Fms.	H 8040 Feet.	φ	λ	H 4894 Fms.	H 8040 Feet.
44 40	124 07	23	144	44 41	124 06.5	21*	131
39	07	22	14~~2~~ 0	39	06.5	19	120
38.5	07	22	14~~2~~ 0	38.5	06.5	18	119
38	07	22*	13~~8~~ 1	38	06.5	18	114
37.5	07	21	13~~4~~ 4	34.5	06.5	12	78
37	07	20	~~132~~ 1	34	06.5	13	53 ~~54~~ 3
36.5	07	19	12~~1~~ 3				
35.5	07	18	~~114~~ 2				
34	07	16*	10~~3~~ 2				

* depth interpolated.

Considered in TP 5 of Review

Comparison was made along meridians 124 06, 124 06.5 & 124 07. On the western two lines the new survey tends to be about a fathom deeper than on H 4894. On the eastern of these meridians depths usually agree within two feet.

8040

Comparison with H 4879.

φ	λ	H 4879 Fms.	H 8040 Feet
44 39.	124 04.9	3 1/6	17 ~~18~~
38.5	05.05	3 1/6	18 ~~17~~
38.3	05.05	3	17
38	05.05	3 1/6	18 ~~16~~
38	04.95	1 5/6	11 ~~10~~
38.05	04.7	2 4/6	9 ~~11~~
37.9	04.7	1 2/6	11 ~~10~~
37.55	04.8	2 1/6	9 ~~8~~
37.5	04.8	1 4/6	11 ~~10~~
37.45	04.8	*	8 ~~7~~
37.13	04.8 (a)	1 1/6	10 ~~8~~

(a) = Carried forward to H-8040

~~* Print obscure~~

φ	λ	H 4879 Fms.	H 8040 Feet
44 37.25	124 04.8 (a)	9 *	11 ~~10~~
36.9	04.9	4 4/6	27 ~~28~~
36.88	(b) 04.88	Sunk.Rk.	12 ~~11~~
36.73	(b) 04.93	" "	13
36.05	05.25	3 1/2	22 ~~21~~
35.8	05.41	2 1/6	13 ~~10~~
35.7	05.6	4	20 ~~27~~
35.5	05.75	5	31 ~~28~~
35.4	05.85 (a)	5	36 ~~32~~
35.1	06.05	6 4/6	39 ~~36~~
~~34.75~~	~~06.15~~	~~10~~	~~35~~

Considered in Review TP5.

(b) = Sunken rks not carried forward, they fall on 6ft charted sdgs. from 1950 USCE survey (Bp 46608). (See TP 6 of Review)

The reefs surveyed on H 4879 bear a close resemblance to H 8040. More frequently shoaler soundings were found on H 8040 than on H 4879. In the flattish area west of the reefs fathom differences can be found.

several shoaler sdgs. on reefs carried forward to H-8040

Comparison with Chart 6058.

φ	λ	Chart. Feet	H 8040. Feet
44 39.8'	124 05.03'	Sunk.Rk.	28'
35.8	05.45	12	10 ~~13~~

See on Page 7 recommendation that rock be deleted.

In general H 8040 shows shoaler soundings along the reef which runs along meridian 124 07 north from φ 44 38, but the chart shows shoaler depths on the reef running N X E from φ 44 36.7 λ 124 04.9.

see TP5 & 6 of Review

The reefs running southwestward from φ 44 36.3 λ 124 05.1 and from 44 35.95 λ 124 04.75 are better developed on the new survey.

The limiting depths ~~of 21 and 22~~ 18 20 feet in the channel approach along the entrance range ~~remains the same~~. This remark does not include depths in the channel between the jettys.

Edgar F. Smith
Cart. Engr. 4/13/54

STATISTICS FOR HYDROGRAPHIC SURVEY H-8040
FIELD SHEET NO. WCFP 1153

LAUNCH CS-160

Project CS-356

Vol. No.	Day Letter	Date	No. HL Soundings	No. Pos.	No. Stat. Miles Sdg.
I	a	6/12/53	-	140	23.6
II	b	6/22/53	-	40	6.9
II	c	6/26/53	-	53	10.5
II & III	d	7/1/53	-	123	24.1
III	e	7/7/53	-	78	15.3
III	f	7/8/53	-	31	7.1
III,IV & V	g	7/9/53	-	159	35.0
V & VI	h	7/27/53	-	178	32.3
VI & VII	j	7/29/53	-	118	26.2
VII & VIII	k	7/30/53	-	137	29.0
VIII	l	7/31/53	-	51	10.6
VIII & IX	m	8/17/53	-	69	10.7
IX	n	8/18/53	-	35	4.0
IX	p	8/20/53	-	75	10.4
X & XI	q	8/31/53	-	218	23.3
XI	r	9/1/53	-	175	26.2
XII	s	9/2/53	-	132	23.2
XII & XIII	t	9/3/53	-	129	25.6
XIII	u	9/8/53	-	45	3.8
		TOTALS		1986	347.8
		TOTAL SQUARE STATUTE MILES		20.72	

H 8040

WCFP 1153

Approaches to Yaquina Bay, Oregon.

List of geographic names
penciled on smooth sheet.

Yaquina Head

Yaquina Bay

Newport, Oregon

Agate Beach

Southbeach

Nye Beach

Yaquina Reef

South Reef

Names approved
10-11-54
a.d.w.

GEOGRAPHIC NAMES

Survey No. H-8040

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Yaquina Head										1
Yaquina Bay										2
Newport										3
Agate Beach										4
Southbeach										5
Nye Beach										6
Yaquina Reef										7
South Reef										8
										9
				Names approved						10
				10-11-54						11
				A.J.L.						12
										13
										14
										15
										16
										17
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										22
										23
										24
										25
										26
										27

M 234

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8040 FIELD NO. WGFP-1153

Oregon, Newport, Approaches to Yaquina River

Project CS-356

Surveyed - June - Sept. 1953 Scale 1:10,000

Soundings: Control:

808 Fathometer Sextant fixes on shore control

Chief of Party - C. J. Beyma
Surveyed by - C. J. Beyma and C. E. Haraden
Protracted by - C. R. Lehman
Soundings plotted by - C. R. Lehman
Verified and inked by - C. R. Helmer
Reviewed by - I. M. Zeskind 9-22-54
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with reviewed air-photographic surveys T-11136 and T-11137 of 1953.

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

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated, except close inshore where breakers and foul areas generally prevented development of the bottom to the low-water line. Portions of the 8-fm. curve were drawn to better delineate Yaquina Reef.

A significant submarine feature in the area covered by the present survey is a long narrow reef which runs north-south,

north of the entrance to Yaquina Bay and southwest-northeast south of the entrance. The bottom inshore from the reef for the most part is very irregular, except in the northeast portion where it is fairly smooth. West of the reef the bottom is generally smooth. Ridges, troughs, deeps and pinnacles contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-8039 (1953) at the entrance to Yaquina Bay. The present survey extends to the limits of the project on the north, south and west, where charted depths are in adequate agreement with the present depths.

5. Comparison with Prior Surveys

A. H-402 (1853), 1:375,000
H-998 (1868), 1:10,000

H-402 is a small-scale reconnaissance survey with only a few close inshore soundings falling in the area of the present survey. A comparison of H-402 with the present survey is deemed of no practical value.

A comparison between H-998 and the present survey reveals in general only minor differences of 2-3 ft. in depths, except along the submarine ridges and at the entrance to Yaquina Bay, where differences of as much as 8 ft. are noted. These latter differences in depths are attributed largely to the irregularity of the bottom in the vicinity of the ridges, the construction of the breakwaters at the entrance to Yaquina Bay and the action of the current on the bottom. Several soundings from H-998 have been brought forward to two shoals on the present survey.

With the addition of these prior soundings, the present survey is adequate to supersede the prior surveys within the common area.

B. H-3727 (1914), 1:10,000

A comparison between the prior and present surveys shows that changes in bottom configuration have occurred principally on the east side of the submarine ridges which lie 1-2 miles offshore. The breakwaters at the entrance to Yaquina Bay have been extended seaward about $\frac{1}{2}$ mile, with resultant changes in bottom configuration. Here depths have changed as much as 19 ft., as for example,

in lat. 44°37.01', long. 124°04.52', where a prior depth of 12 ft. falls in present depths of 26-31 ft. On the west side of the ridges only minor changes in depths of 2-4 ft. are noted. The ridges were not fully developed on the prior survey where sounding lines either straddled portions of the ridges or inadequately developed these features. Where soundings were obtained on the ridges on both the prior and present surveys, only minor differences of 1-2 ft. in depths were noted.

Several soundings from the prior surveys have been carried forward to the present survey. With these additions, the present survey is adequate to supersede the prior survey within the common area.

C. H-4749 (1927), 1:20,000
H-4879 (1928), 1:20,000
H-4894 (1928), 1:40,000

These prior surveys together cover the area of the present survey. A comparison between the prior and present surveys reveals that in the area west of the submarine ridges there are only minor differences of 2-5 ft. in depths ranging from 60-130 ft., except in several places where the differences are greater. An example of this latter difference in depth occurs in lat. 44°40.24', long. 124° 05.98', where a prior depth of 15 fms. falls in present depths of 97-101 ft. In the area east of the ridges minor differences of 2-3 ft. in depths are noted, except in the vicinity of the breakwaters where greater changes in depths have occurred, as for example, in lat. 44°36.73', long. 124°04.73', where a prior depth of 2-1/6 fms. falls in present depths of 22-24 ft. Prior general depths along the ridges are in harmony with present depths; however, a few shoaler soundings on the prior surveys have been carried forward to the present survey. The following discrepancies between the prior and present surveys were noted:

1. The sunken rock charted in lat. 44°39.88', long. 124° 05.03' from H-4749, should be deleted from the chart. Close development of the area on the present survey discredits the existence of the sunken rock. Several sounding lines run over the area on H-4749 failed to confirm the existence of the feature. It is believed that kelp noted in the records was mistakenly identified as a sunken rock on H-4749. The soundings on the present survey are considered to adequately reveal the least depth in this area.

2. The following soundings (charted) which originate with H-4894 are believed to be in error because the visual fathometer by which these soundings were obtained was not operating properly at the time the fathometer was read. The soundings should be deleted from the chart.

Charted depths Feet	Location Latitude	Location Longitude	Present Survey Depths-Ft.
72	44°39.23'	124°06.26'	105-108
96	44°39.24'	124°06.58'	120-133

With the addition of the several soundings and bottom characteristics, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Drawing of Chart 6058, dated 6/17/54
Chart 5902 (latest print date 5/4/53)
Chart 5802 (latest print date 8/9/54)

A. Hydrography

The charted hydrography originates principally with the previously discussed prior surveys which need no further consideration, with the U. S. Corps of Engineers' surveys accomplished subsequent to 1916, with several soundings which appeared on the first edition of Chart 6058 and whose sources are not readily ascertainable, and with critical depths from the boat sheet of the present survey. These boat sheet soundings differ from the smooth sheet soundings by 2 to 3 ft.

1. The following charted soundings which originate from sources other than this Bureau, should be retained on the chart. These soundings are either the least depths on the ridges or shoals in areas which have been inadequately developed on the present survey, or are soundings which fall in greater depths on the present survey and whose existence has not been disproved:

Charted Sdg.-ft.	Latitude	Longitude	Source
13	44°37.18'	124°04.42'	C of E 1935 (Bp 28702) (Bp 27571) (Bp 27771)
8	44°37.20'	124°04.81'	C of E 1916 (Bp 16345)
8	44°37.08'	124°04.85'	C of E 1916 (Bp 16345)
6	44°36.98'	124°04.85'	C of E 1950 (Bp 46608)
8	44°36.90'	124°04.88'	" " " "
6	44°36.85'	124°04.88'	" " " "

6		44°36.80'	124°04.88'	C of E 1950 (Bp. 46608)
5		44°36.72'	124°04.92'	" " " " (" ")
10		44°36.66'	124°04.94'	" " " " (" ")
16	Rk	44°36.68'	124°04.52'	" " " " (" ")
2	Rk	44°36.60'	124°04.44'	" " " 1925 (" 19898)
3	Rk	44°36.52'	124°04.40'	" " " 1929 (" 22724)
6		44°36.40'	124°04.42'	" " " 1940 (" 34674)
8		44°36.45'	124°04.43'	" " " 1940 (" 34674)
15		44°36.80'	124°04.50'	" " " 1949 (" 45818)
15		44°36.22'	124°05.13'	1st Ed. Cht. 6058 (1916)
15		44°35.94'	124°05.31'	" " " " "
14		44°35.83'	124°05.27'	" " " " "
17		44°35.82'	124°05.22'	" " " " "
17		44°35.77'	124°05.27'	C of E 1916 (Bp. 16345)
4	Rk	44°37.57'	124°04.25'	1st Ed. Cht. 6058 (1916)
8		44°37.32'	124°04.80'	C of E 1930 (Bp. 23495)

2. The sunken wrecks charted in lat. 44°36.0', long. 124° 06.0', and lat. 44°37.0', long, 124°06.0' respectively on Chart 5802 from H.O. Wreck List dated January 1, 1943, fall on the present survey in depths of 70-80 ft. The existence of these wrecks was neither confirmed nor disproved on the present survey. The sunken wrecks should, therefore, be retained on Chart 5802.

Navigation wrecks built in 1960's

3. The 20-ft. sounding charted in lat. 44°40.13', long. 124°04.30' was erroneously revised from a 29-ft. sounding on Chart 6058, dated 7/12/35. The charted 20-ft. sounding should be disregarded.

The present survey supersedes the charted hydrography, except for those charted soundings listed for retention in paragraph 1 above and soundings charted from Corps of Engineers' surveys made subsequent to the present survey.

B. Aids to Navigation

The present survey positions of aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended.

C. Dredged Channels

The controlling depth in the dredged channel into Yaquina Bay originates with the U. S. Corps of Engineers' survey of 1954 (Bp. 51628) which was accomplished subsequent to the present survey.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. Numerous discrepancies at crossings and between adjacent lines were eliminated by rescanning profiles showing heavy chop. Phase corrections were applied to 160 soundings and errors in reductions were found in 71 soundings.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

The present survey together with the soundings recommended for retention on the charts provide adequate coverage of the area.

Examined and approved:

H. R. Edmonston
Chief, Nautical Chart Branch

E. R. McCarthy
Acting Chief, Division of Charts

G. R. Fish
Chief, Hydrography Branch

Earl O. Heaton
Chief, Division of Coastal Surveys

8040

H 8040

Processing Office Notes.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8040..

Records accompanying survey:

Boat sheets .....; sounding vols. 13.....; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 9env.;

special reports, etc. 1 Smooth Sheet; 1 Descriptive Report ....

....

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

Number of positions on sheet		1986
Number of positions checked		117
Number of positions revised		31
Number of soundings revised (refers to depth only)		865 *
Number of soundings erroneously spaced		28
Number of signals erroneously plotted or transferred		0
Topographic details	Time	4
Junctions	Time	4
Verification of soundings from graphic record	Time	20

Verification by C. E. Helmer ....Total time 379.. Date 9/1/54...

Reviewed by [signature] .... Time 103... Date 9/23/54

* includes 161 phase corrections and 71 arithmetical errors. Numerous changes because of chop

M-2232-1

H8040

★ (5550) **OREGON—Yaquina Bay—Gong buoy replaced by buoy.**—Yaquina Bay North Jetty Gong Buoy 5 has been seasonally replaced by a second-class can painted black and numbered 5.

Approx. position: 44°36'47" N., 124°04'38" W.

Note.—The gong buoy will be maintained from May 1 to October 1, annually, and the second-class can from October 1 to May 1, annually.

(See N. M. 38 (5306) of 1951.)

(Supersedes N. M. 40 (5172) of 1953.)

(N. M. 43, Oct. 24, 1953.)

(L. N. M. 155, C. G., Seattle, Oct. 7, 1953.)
C. & G. S. Chart 6058.
C. G. Light List, Pacific Coast, 1953, page 83.
C. & G. S. Coast Pilot, Pacific Coast, 1951, page 326.

★ (5551) **COLUMBIA RIVER—Baker Bay East Channel—Buoys moved.**—The following buoys have been moved and reestablished as indicated to better mark the channel; distances and bearings from Baker Bay East Channel Light 10 (46°16'24" N., 123°58'41" W.):

(*a*) Baker Bay East Channel Buoy 14, in 6 feet of water, about 1,600 yards 286°.

(*b*) Baker Bay East Channel Buoy 20, in 10 feet of water, about 3,420 yards 301°.

(*c*) Baker Bay East Channel Buoy 26, in 10 feet of water, about 5,325 yards 303°.

(See N. M. 32 (4212) of 1953.)

(N. M. 43, Oct. 24, 1953.)

(L. N. M. 157, C. G., Seattle, Oct. 9, 1953.)
C. & G. S. Chart 6151.
C. G. Light List, Pacific Coast, 1953, page 138.
C. & G. S. Coast Pilot, Pacific Coast, 1951, page 345.

★ (5552) **COLUMBIA RIVER—St. Helens to Willamette River—Leading light established.**—A leading light showing *quick flashing white*, of 600 candlepower visible between the bearings 143° 30' and 151° 30' (toward the light), has been established 15 feet above the water on the structure of Fales Light 17.

Approx. position: 45°46'34" N., 122°45'47" W.

(N. M. 43, Oct. 24, 1953.)

(L. N. M. 156, C. G., Seattle, Oct. 8, 1953.)
C. & G. S. Chart 6154.
C. G. Light List, Pacific Coast, 1953, No. 1196.
C. & G. S. Coast Pilot, Pacific Coast, 1951, page 354.

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~ 4 June 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
13 volumes of sounding records for

HYDROGRAPHIC SHEET 8040

Locality Yaquina River, Oregon

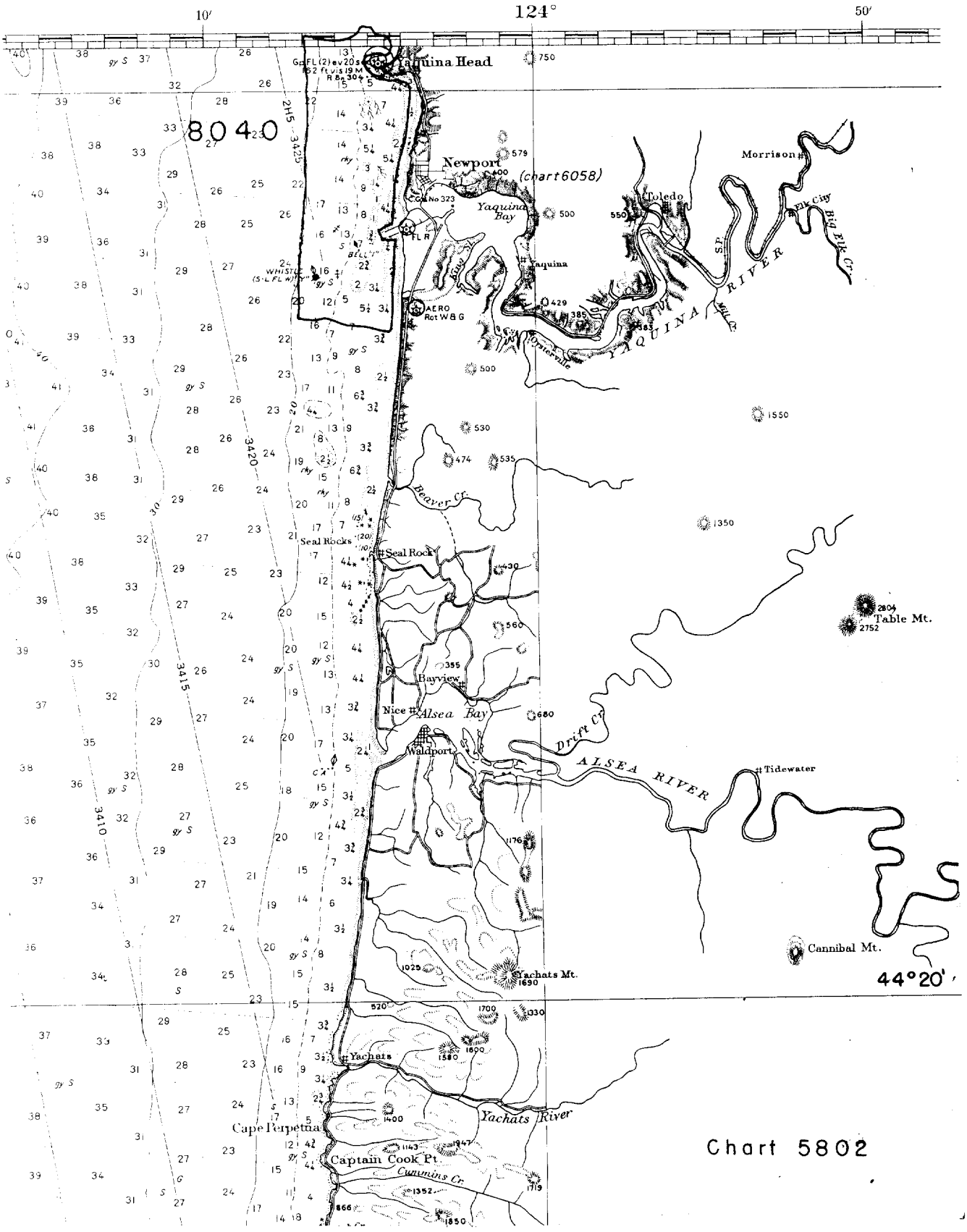
Chief of Party: C. J. Beyma in 1953
Plane of reference is mean lower low water, reading
3.2 ft. on tide staff at Newport
17.2 ft. below B. M. 5 (1933)

Height of mean high water above plane of reference is 7.3 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Tides Branch
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 877933


10'
124°
50'
Yaquina Head
Gp FL (2) ev 20s
152 ft vis 19 M
RBn 30s
750
8040
Newport
(chart 6058)
579
400
CG No 323
Yaquina Bay
500
FLR
Toledo
550
Morrison
Elk City
Big Elk Cr.
S.P.
RIVER
YAQUINA
MILE
Yaquina
WHISTLE
(S-L FL W)
AERO
Rot W & G
429
386
363
Oysterville
500
1550
530
474
535
Beaver Cr.
1350
Seal Rocks
Seal Rock
430
2804
Table Mt.
2752
560
355
Bayview
Nice
Alsea Bay
680
Drift Cr.
ALSEA RIVER
Waldport
Tidewater
1176
Cannibal Mt.
44°20'
1025
Yachats Mt.
1690
520
1700
1030
1580
1600
Yachats
Yachats River
1400
Cape Perpetua
1143
347
Captain Cook Pt.
Cummins Cr.
1352
1719
866
1850
3410
3415
3420
3425
2H5
Chart 5802

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8040

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
	6058	ESY	Partially applied Before ~~After~~ Verification and Review
16 Nov '54	6055	H. MacEwen	[redacted] After Verification and Review
8/4/55	5902	Sam.	~~Before~~ After Verification and Review completely applied direct – Ch 6055 not available – JPW
Nov. '54	Compilation 6056	H.W.B.	~~Before~~ After Verification and Review In part via compilation 6055
3/6/56	5022	Sam	~~Before~~ After Verification and Review
4-25-56	5802	J.M.A.	Critical sdgs. only, via cht. 6056. No further corr'n. ~~Before~~ After Verification and Review needed on this scale. until reconstruction – Partially applied
8/14/57	5802	Sam	~~Before~~ After Verification and Review Fully applied.
			Before After Verification and Review
			Before After Verification and Review
			Before After 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.