8039

Diag. Cht. Nos. 5802 & 5902-2

Form 504

CS-356

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. WCFP-05153 *Office No.* H-8039

LOCALITY

State OREGON

General locality NEWPORT

Locality YAQUINA BAY

194 53

CHIEF OF PARTY

C. J. Beyma

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DATE

B-1870-1 (1)

8039

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. 8039

Field No. WCFP 05153

State OREGON

General locality NEWPORT

Locality YAQUINA BAY

Scale 1/ 5 000 Date of survey 1 April to 21 August 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 H.C.Parsons

Soundings penciled by H.C.Parsons

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
West Coast Field Party
Surveyed by C. J. Beyma, G. E. Haraden

Season of 1953
C. J. Beyma, Chief of Party

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 Approaches and extend from latitude 44° 34.0' to latitude 44° 41.0' and from longitude 123° 55.6' to longitude 124° 07.0'. *Includes adjacent surveys*

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 are to be 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.

*H-8039

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

D.R. in H-8040

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.

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.

*H-8039

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. 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 of 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.

Not applicable to present survey

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.

5

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-8041 ✓

Soundings from position 89 - 90 of 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, "F" DAY day, and the 13 foot sounding was not found.

J. ADEQUACY OF SURVEY

Survey Sheets H-8039 Yaquina Bay, and H-8041 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.

Junctions with prior surveys H-4894 and H-4749 were made on the west and north with considerable overlap and depth curveys can be adequately drawn.

K. CROSSLINES

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

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. Crossings in agreement on smooth sheet.

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.

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. | see HP 6 of Review

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 that 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

The channel under the highway bridge has ~~shoaled~~ scoured up to five feet deeper than the depths on the published chart. H-8039

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

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

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. H-8040

The sunken wreck charted at Latitude 44° 36' 58" Longitude 124° 05' 12" should be charted as stranded wreck baring 5.5 feet at MLLW, see position data, Volume I, page 4, H-8040.

M. COMPARISON WITH CHART CONTD

The four foot rock charted at latitude 44° 37.6' longitude 124° 04.25' is misplaced. This survey indicated a shoal approximately 220 meters NNE of the charted position, see boat sheet H-8040.

Verification of the three foot rock south of the jetties was not possible and therefore should be retained on the chart.

H-8040

Investigations of the charted shoal at latitude 44° 39.8' longitude 124° 05' 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.

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.

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

H-8041

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

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° 39.8'	124° 05.0'	
Chimney	44° 34.7'	124° 00.2'	
Dolphin	44° 37.31'	124° 02.0'	H-8039 (See Review of H-8041)
Rock	44° 37.31'	124° 02.05'	
14 ft. Sdg.	44° 38.90'	124° 04.15'	
2 ft. Rock	44° 36.6'	124° 04.42'	

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 5.5 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

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	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 (1953)

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. Report on file — 854, L. Heck

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.

STATISTICS FOR HYDROGRAPHIC SURVEY H-8039
FIELD SHEET NO. WCFP 05153

LAUNCH CS-160 Project CS-356

Vol. No.	Day Letter	Date	No. HL Soundings	No. Pos.	No. Stat. Miles Sdg.
I	-	5/26/53	259	259	1.4
I	-	5/29/53	13	13	0.1
II	a	6/3/53	-	33	2.1
II	b	6/4/53	-	114	8.5
II	c	6/5/53	-	24	2.3
III	d	6/8/53	-	50	4.6
IV	e	6/9/53	-	93	7.8
IV & V	f	6/10/53	-	110	9.2
V	g	6/22/53	-	49	3.2
VI	h	7/2/53	-	73	4.4
VI & VII	j	7/6/53	-	153	10.1
VII	k	7/7/53	-	20	0.8
VII	l	7/21/53	-	124	9.0
VII & VIII	m	7/24/53	*	54	4.8
IX	n	8/17/53	-	28	Bottom Samples
IX	p	8/18/53	-	12	Bottom Samples
IX	q	8/21/53	-	47	2.2
		TOTALS		1255	70.5

TOTAL SQUARE STATUTE MILES 0.94

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Sheet 1 of 1

[redacted] LANDMARKS FOR CHARTS

TO BE CHARTED / [redacted] — 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 [redacted] the charts indicated.

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

Same as letter 935(1453)

C.J. Beyma — *Chief of Party.*

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
LIGHT HOUSE	Abandoned (Yaquina Lighthouse, old)	HOUSE	44 37	850.9	124 03	936.3	"	"	1908		X	X	5902 6058
LOOKOUT TOWER	House 9' x 9', [redacted] high on 49' skeleton steel tower *This position was obtained from Corps of Engineers	LOOK	44 37	849.5	124 03	921.9	"	"	"		X	X	5902 6058
MARKER (FLR LT)	[redacted]port, Center of Bridge, Light	LIGHT	44 37	702.1	124.03	470.0	"	"	1950		X	X	5902 6058
TANK	Silver, low elevated with conical Top	RUM	44 37	23	123 56	1031	"	Radial Plot	1953		X		6058
STACK (NORTHEAST OF TWO)	Black metal	TAN	44 37	11	123 56	541	"	"	1953		X		6058
TANK (ELEVATED)	Black, on steel skeleton	TAP	44 37	0	123 56	440	"	"	1953		X		6058

H 8040
H 8039
H 8041

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.

M-2836-3

* TABULATE SECONDS AND METERS

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~RECOMMENDATIONS~~ LANDMARKS FOR CHARTS

TO ~~BE CHARTED~~
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 ~~charted~~ (*deleted from*) the charts indicated.

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

Same as letter 935 (1953)

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
CHY	Chimney Oysterville (H-8041)		44 34.7		124 002		M 1927	Triangulation	1914	X			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

[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 (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 C. E. Haraden

Same as Keller 935 (1953)

C. J. Boyns
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	5802 6058
	Entrance Lighted Bell Buoy "1"		44 36	566	124 05	840	"	"	"		X	X	5802 6058
	Entrance Buoy "2"		44 36	761	124 05	214	"	"	"	X			6058
	Yaquina Reef Buoy "3"		44 36	1151	124 04	1299	"	"	"	X			"
	North Jetty Gang Buoy "5"		44 36	1413	124 04	790	"	"	"	X			"
	Channel Lighted Buoy "7"		44 37	142	124 03	1410	"	"	6/3/53	X			"
	West Junction Buoy		44 37	1246	124 03	194	"	"	"	X			"
	Channel Buoy "9"	H-8039	44 37	1212	124 02	958	"	"	"	X			"
	Channel Buoy "11"		44 37	1111	124 02	548	"	"	"	X			"
	East Junction Buoy		44 37	1132	124 02	296	"	"	"	X			"
	Channel Buoy "12"		4 437	848	124 02	435	"	"	"	X			"
	Channel Buoy "15" ✓		44 36	1391	124 00	1174	"	"	7/14/53	X			"
	Channel Buoy "21" ✓		44 35	718	124 01	255	"	"	"	X			"
	Channel Buoy "23" ✓		44 35	190	124 01	245	"	"	7/24/53	X			"

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

FLOATING AIDS FOR CHARTS

TO BE CHARTED
TO [illegible]
} STRIKE OUT ONE

Newport, Oregon — 8 October, 1953

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

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

Same as letter 935(1953)

C. J. Boyer, *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
	Channel Buoy "26" ✓		44 34	1487	124 00	77	MLW 1927	Hydro 6E-356	7/28/53	X			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	893	123 57	1089	"	"	"	X			"
	Channel Buoy "36" ✓		44 34	1995	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			"
	✓ shown on Smooth Sheet												

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

NONFLOATING AIDS ~~OR LANDMARKS OR SEAMARKS~~

TO BE CHARTED / ~~TO BE REMOVED~~ } 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 ~~(or removed from)~~ the charts indicated.

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

Supersedes Letter -935 (1953)

C. J. Beyma *Chief of Party.*

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
	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.	Newport, Municipal Airport, beacon	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 (H-8039)	FRONT	44 37	204.7	124 03	763.7	"	USED	1953	X			6058
ENTRANCE RANGE REAR LIGHT	White diamond daymark with red vertical stripe on skeleton tower (H-8039)	REAR	44 37	439.6	124 03	342.7	"	"	1953	X			6058
BOAT BASIN WEST LIGHT	White platform on pile (H-8039)	WEST	44 37	1472.3	124 02	1282.5	"	"	1953	X			6058
BOAT BASIN EAST LIGHT	White platform on pile (H-8039)	EAST	44 37	1323.9	124 02	508.7	"	"	1953	X			6058
LIGHT 10	White platform with red triangle on dolphin (H-8039)	BAY	44 37	1039.1	124.02	1066.1	"	"	1953	X			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.

M-2836-3

* 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 ~~(been)~~ 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

Surveys Letter - 735 (1953)

C. J. Beyma *Chief of Party.*

STATE OREGON			POSITION									
			LATITUDE*		LONGITUDE*			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	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 Pb-113	1953	X			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			6058
LIGHT 19	White square house with black rectangle	DON	44 35	1323.9	124 00	864.1	"	Triangulation Pb-113	1953	X			6058
LIGHT 20	White square house with red triangle	ZEB	44 35	851.7	124 01	397.4	"	"	1953	X			6058
LIGHT 22	White square house with red triangle	FIN	44 35	107.5	124 01	560.1	"	"	1953	X			6058
LIGHT 25	White square house with black rectangle	FOG	44 35	32.8	124 00	885.3	"	"	1953	X			6058
LIGHT 30	White square house with red triangle	MAX	44 34	480	123 58	570	"	Radial Plot	1953	X			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

NONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~

TO BE CHARTED / TO ~~BE CHECKED~~ } 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 ~~(recommend)~~ the charts indicated.

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

same as letter 935 (1953)

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 (Gen84)												
LIGHT 32	White square box with red triangle on white platform on dolphin	MDM	44 34	555	123 57	1238	MA 1927	Radial Plot	1953	X			6058
LIGHT 37	White square house with black rectangle	MOD	44 35	63	123 57	1046	"	"	1953	X			6058
LIGHT 42	White square house with red triangle	CBM	44 35	489.0	123 56	733.7	"	Triangulation Pt. 113	1953	X			6058
LIGHT 44	White square house with red triangle	PET	44 35	1062	123 56	139	"	Radial Plot	1953	X			6058
LIGHT 47	White cylinder with black rectangle on white platform on dolphin	PLY	44 35	1576	123 56	444	"	"	1953	X			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

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	"
E rance 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	"
annel 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

H 8039
WCFP 05153

Yaquina Bay, Oregon.

The smooth sheet was made by hand on Whatman paper. The shoreline is from sheets T 11136, T 11137 & T 9370. Signals are from these sheets and Graphic Control Sheet WCFP-A-53. Lad, a dolphin off the east end of a log boom or jetty, was relocated by using the air photographs. Apparently the end of the jetty was located in the first instamce. WCFP-A-53 applied to H-8039 and then destroyed.

The field party furnished ten letter size sheets showing sketches of wharves. Dimensions were shown but angles and azimuths were sometimes in doubt. These sketches were reproduced on the smooth sheet on scale of 1/1 000. The topographic sheets and the air photographs were used to aid in orientation. It is believed that they have all the accuracy required for the scale of the charts.

Filed with fdh 2 a day.

It is recommended that the central waterfront area of Newport be shown in a box on the chart at a large scale.

new chart 6015 (1-20,000) will cover this area.

Depth curves are in agreement with the curves of sheets H 8041 and H 8040 of 1953 to east and west.

Attention is called to the following soundings near the entrance to the bay.

φ	λ	Position	Feet	Remarks.
44° 36.84'	124° 04.23'	42-43g	17	Very close to entrance range.
37.00	03.90	16g	~~18~~ 17	~~30~~ 40 M. north of range.
36.98	03.95	20-21g	~~15~~ 16	40 M. north of range.
36.78	04.28	50-51j	~~17~~ 18	The profile shows a slender sharp trace which could be from a log or stump.
36.83	04.28	151-152j	~~19~~ 20	60 M. south of range. On range.

Edgar L. Smith
Cart. Engr.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8039 FIELD NO. WCFP-05153

Oregon, Newport, Yaquina Bay

Project CS-356

Surveyed - April - August, 1953 Scale 1:5,000

Soundings: Control:

808 Fathometer Sextant fixes on shore signals

Chief of Party - C. J. Beyma
Surveyed by - C. J. Beyma and G. E. Haraden
Protracted by - H. C. Parsons
Soundings plotted by - H. C. Parsons
Verified and inked by - J. T. Gallahan and I. M. Zeskind
Reviewed by - I. M. Zeskind 9/1/54
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with the reviewed manuscripts of air-photographic surveys T-11136 and T-11137 of 1953, and the unreviewed manuscript of air-photographic survey T-9370 (1953).

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

2. Sounding Line Crossings

Depths at crossings are in adequate agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

The bottom is fairly irregular. It drops sharply off inshore mud flats and shoal areas to the channel deeps. Dredging and current action haveleft numerous irregularities in the deeper areas.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-8041 (1953) on the east. The junction with H-8040 (1953) will be considered in the review of that survey.

5. Comparison with Prior Surveys

A. H-998 (1868-88), 1:10,000
H-1764 (1868), 1:10,000

These early surveys together cover the area of the present survey. A comparison between the prior and present surveys reveals many changes in bottom configuration which are attributed to natural and artificial causes, such as the action of the current on the bottom, the construction of jetties, breakwaters, groins, piers, docks and bulkheads and the reclaiming of land. An example of the change in bottom configuration occurs in the vicinity of lat. 44°37.7', long. 124°02.8', where a prior shoal which was approximately one-half mile long and one-tenth of a mile wide and which uncovered 1-3 ft. at MLLW, falls in present depths of 11-24 ft. The shoreline has also changed in a number of places, as for example in the vicinity of lat. 44°36.8', long. 124° 03.8', where the shoreline has accreted as much as 0.3 mile.

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 reveals many changes in the bottom configuration and the shoreline. These changes are attributed to the natural and artificial causes enumerated in paragraph A above. Examples of changes in bottom configuration occur in lat. 44°36.87', long. 124°04.14', where a prior depth of 11 ft. falls in present depths of 23 ft., and in lat. 44°37.79', long. 124°02.60', where a prior depth of 13 ft. falls on the present survey in an area which uncovers 1- 3 ft. at MLLW. Natural changes in the shoreline are caused principally by accretion to the shoreline, as for example, in lat. 44°37.3', long. 124°02.75', where the shoreline has accreted as much as 0.3 mile.

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

6. Comparison with Chart 6058 (latest print date 9/6/54)

A. Hydrography

The charted hydrography within the limits of the dredged channel and adjacent thereto originates with the U. S. Corps of Engineers' surveys of 1954 (Bps 51513 and 51628) which were accomplished subsequent to the present survey. Outside the aforementioned area, the charted hydrography originates with the U. S. Corps of Engineers' survey of 1949 (Bp 45818), supplemented by a few soundings from the present survey. In the latter area only minor differneces of 1-2 ft. between the charted and present depths were noted.

The present survey supersedes the charted hydrography which falls outside the limits of the U. S. Corps of Engineers' surveys of 1954.

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, except that Buoy C-9, which is charted in lat. 44°37.64', long. 124°02.81', in accordance with H O N to M 38, 1951, is located 200 meters to the eastward on the present survey. The charted location more adequately marks the northern limits of the channel.

C. Controlling Depths

The controlling depths in the dredged channel originate 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. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This is an excellent basic survey and no additional field work is recommended. As mentioned in paragraph 6B above, the present survey has been superseded in part by the U. S. Corps of Engineers' survey of 1954.

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

GEOGRAPHIC NAMES

Survey No. H-8039

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	
Oregon			(for title)						B.G.N	1
Yaquina River			(" ")						"	2
Pacific Ocean										3
Newport										4
Yaquina Bay									B.G.N.	5
Southbeach										6
McLean Point										7
										8
				Names approved 5-25-54 L. Heck						9
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										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8039..

Records accompanying survey:

Boat sheets ..1..; sounding vols. 2....; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls .....;

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		1255
Number of positions checked		⊛ 391 384+10+97
Number of positions revised		8
Number of soundings revised (refers to depth only)		33
Number of soundings erroneously spaced		25
Number of signals erroneously plotted or transferred		0
Topographic details	Time	50
Junctions	Time	15
Verification of soundings from graphic record	Time	40

Partial Verification -- C.R. Helmer ---------- 40 hrs. -- 5/27/54 - 6/3/54
Partial Verification — L.M. Leskiw ---------- 31 hrs — 8/23/54

Verification by J.T. Gallahan.....Total time 237... Date .....
Total 308

Reviewed by L.M. Leskiw..... Time 45... Date 9-1-54

⊛ includes 282 Det. Positions

M-2232-1

CHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~: 24 May 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 8039

Locality Yaquina River, Oregon

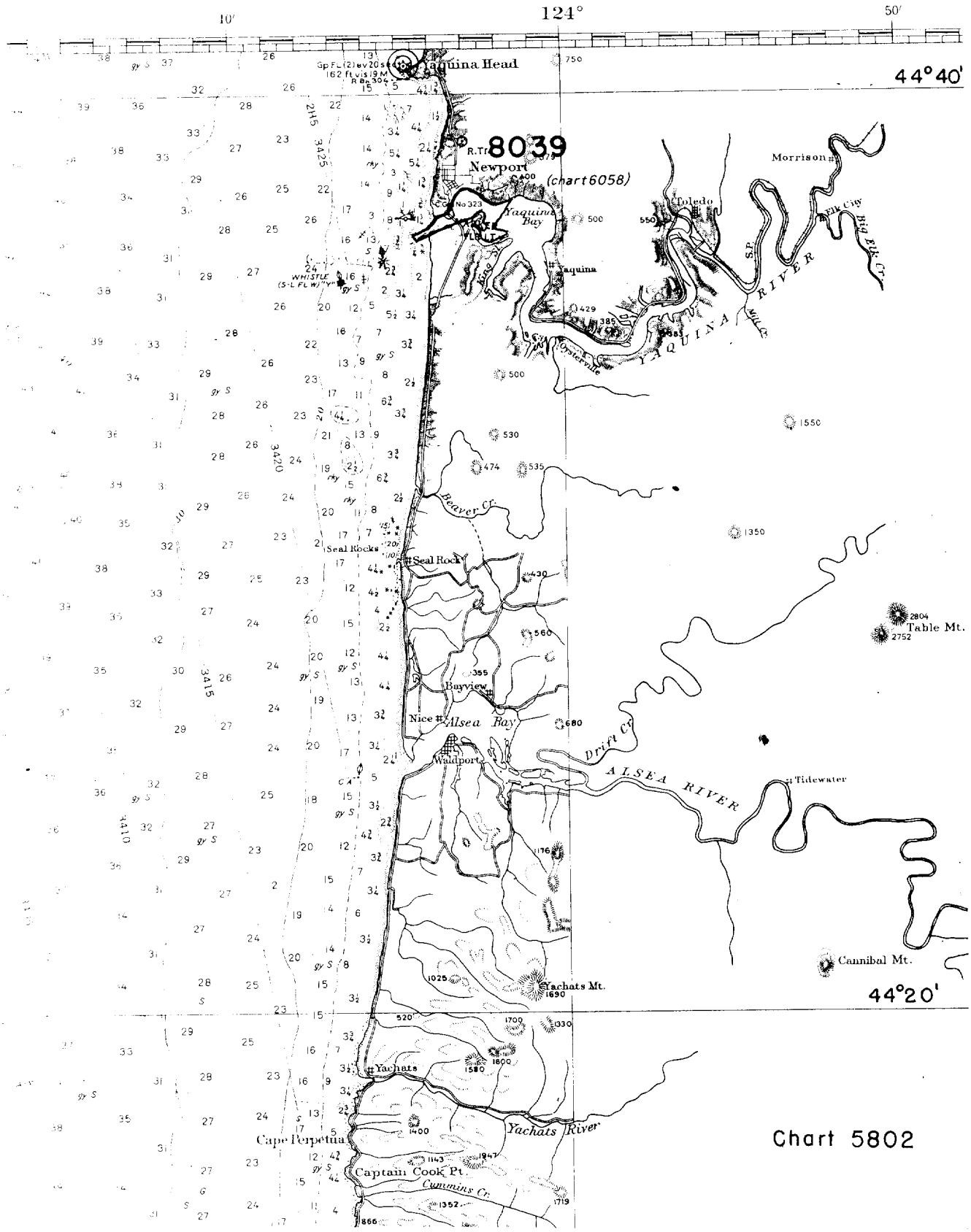
Chief of Party: C. J. Beyma in 1953
Plane of reference is mean lower low water, reading
3.2 ft. on tide staff at Newport
17.2 ft. below B. M. 5 (1933)

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


124°
10'
50'
44°40'
44°20'
Yaquina Head
8039
Newport
(chart 6058)
Yaquina Bay
Toledo
Morrison
YAQUINA RIVER
Elk City
Big Elk Cr.
Yaquina
Oysterville
Seal Rocks
Seal Rock
Beaver Cr.
Table Mt.
2804
2752
Buyview
Nice
Alsea Bay
Waldport
Drift Cr.
ALSEA RIVER
Tidewater
Cannibal Mt.
Yachats Mt.
1690
Yachats
Yachats River
Cape Perpetua
Captain Cook Pt.
Cummins Cr.
Chart 5802

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8039

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
	6058	ESY	Partially Applied Before ~~After~~ Verification and Review
Nov '54	6055	H.E. MacEwen	[redacted] After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			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.