

7896

Diag. Cht. No. 5902-2

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HC-05152 Office No. H-7896

LOCALITY

State OREGON

General locality

Locality DEPOE BAY

194/52

CHIEF OF PARTY

H.G. Conerly

LIBRARY & ARCHIVES

DATE FEBRUARY 3, 1953

7896

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 7896

Field No. Ho 05152 & Ho 025152

State Oregon

General locality ~~Lincoln County~~

Locality Depoe Bay

Scale 1/5000 & 1/2500 Date of survey May-June 1952

Instructions dated 12 February 1952

Vessel Hodgson

Chief of party H.G. Conerly

Surveyed by H.D. Nygren

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

Fathograms scaled by G.J. Laferriere

Fathograms checked by A.M. Legako

Protracted by H.C. Parsons

Soundings penciled by H.C. Parsons

Soundings in ~~fathoms~~ feet at ~~MLW~~ MLLW True depths

REMARKS:

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2012

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY H-7896

FIELD NO. HO-05152

Depoe Bay, Oregon

1952

Scale 1:5,000

1:2,500

Horace G. Conerly

Chief of Party
Comdg., Ship HODGSON

Harley D. Nygren

In charge, Field Work

A: Project

CS-348, Depoe Bay, Oregon. Instructions dated 12 February 1952.

B: Survey Limits and Dates

This survey covers the area of the inner harbor of Depoe Bay and its approaches from Lat. $44^{\circ} 47:8$ North to Lat. $44^{\circ} 49:1$ North, and from the east shore of the inner harbor to Long. $124^{\circ} 05:9$ West. Hydrographic work started on 15 May and was stopped on 10 June, although control and topographic surveys were commenced as early as 1 April. ✓

Progress in the offshore areas of this survey was very unsatisfactory because of unfavorable weather. Heavy seas prevented field work altogether many days, and made it extremely dangerous to work close to shore, along the reefs, or in the outer bay. Sea conditions in the jaws of the entrance to the inner harbor were seldom such that a small craft could safely maneuver there. On many days the survey party was able to accomplish a few hours work by starting work at sunrise.

On one occasion the survey launch was required for rescue work, when rarely favorable weather was experienced.

A stiff NW wind commonly appeared every day about noon, and abated before sunup.

C: Vessels and Equipment

The sounding vessel used on the survey of the inner harbor was a skiff from the Ship HODGSON transported to the area by truck. The outer bay and approaches were sounded with a standard 36 foot self bailing, self righting lifeboat of the U. S. Coast Guard, regularly assigned to the Depoe Bay area, and manned by a Coast Guard crew.

The inner bay was sounded with a sounding pole and leadline. Offshore work was done with 808 fathometer No. 77, with acoustic units installed in the bilge of the forward compartment.

D. Tide and Current Stations

A portable tide gage was installed in the inner harbor of Depoe Bay, on the corner of the Columbia River Packers Association Cannery at Lat. $44^{\circ} 48' 16''$, Long. $124^{\circ} 03' 16''$. This station was in operation from 1 April until 16 June 1952. Although this was the only suitable location, the gage failed to record several of the lowest tides. For boat sheet purposes all soundings were reduced to the zero reading on this staff.

No current stations were occupied. A southerly setting current was almost always observed offshore when a northwest wind was blowing.

E. Smooth Sheet

The smooth plotting was done by the Seattle Processing Office.

F. Control Stations

The basic control for this survey was a traverse, executed by the hydrographic party, from stations BALD 1927 to DEPOT 1927; these old stations having been established by a party under G.L.B. _____, Chief of Party. Supplementary triangulation stations RILL 1952 and CLEAR 1952 were located to provide control for topography in the inner and outer bays. The entrance range structures were located by geodetic methods. Topographic stations used in the survey of the outer bay were taken from HO-B-52 and those in the inner bay from HO-A-52. All topographic stations were located by intersection, and checked where possible, by direct measurement. [T-7089(1952)]

G. Shoreline and Topography

All topography was taken from HO-A-52 and HO-B-52. (T-7089) a, b

*Snapshots of Harbor scenes
filed in Geographic Branch*

The low water line was not defined by sounding where it was against a steep bank, as in the inner harbor, or where it was unsafe to operate close inshore, as was the case in the survey of the approaches.

H. Soundings

Depths were measured with a pole or leadline in the inner harbor, and an 808 fathometer offshore. Corrections to fathometers depths were obtained by bar check, utilizing the method common aboard the Ship HODGSON whereby the receiver unit of the magnetostrictive elements is lowered on a calibrated line, readings thus obtained being doubled to obtain comparative values. 1951 scale corrections for Fathometer No. 77 were used.

The fathometer was equipped with 820 fm/sec. reeds.

I. Control of Hydrography

Control of hydrography on the survey of the outer bay was by sextant fixes on shore objects.

Hydrography in the inner harbor was controlled by transit angle and tagline. Lines were run perpendicular to the seawall from points on a base between topographic stations ABE and BAKE, temporary ranges being used. Lines were radiated from stations ABE, BAKE, and CHAR. Distances were controlled by a tagline mounted on a winch in a skiff. As a catenary developed in the tagline because of the long lengths used, corrections were computed by comparing the recorded length of the line with the scaled length, where lines were run from shore to shore. Because of the steep bank on the west side of the bay it was impossible to place both ends of the tagline on the shore. The differences thus scaled were converted to ratios, and averaged. All lengths were then adjusted by the mean ratio, the assumption being made that for these purposes the error was proportional to the length of line.

J. Adequacy of Survey

The survey is as complete as it was possible to make it with existing weather conditions. It is complete in the areas covered, except for several places where lines are too widely spaced. It was impossible to more accurately define the reefs and shoreline on the approach survey because of the continuing heavy surf and breakers.

Although previous surveys indicate deep water inside the north reef of the inner bay, it was seldom safe to take a launch into this area while heavy seas were breaking over the reef.

K. Crosslines

10% crosslines were run. All crosslines checked adequately considering the state of the seas. Recorded depths could be changed several feet by a slightly different interpretation of the jagged profile. *a number of sdgs. were revised during verification.*

L. Comparison with Prior Surveys

The previous survey in this area was H-4878, 1928, on a scale of 1:20,000. The sounding units previously used were fathoms and feet. Considering the scale, datum, and unit difference, and the rough character of the bottom, the survey checks well. It should be noted that the 1928 party was able to work in areas that at no time could be entered in May and June 1952.

The survey of the inner harbor by the U. S. Engineers dated 15 March 1949 is now obsolete. The project engineer has stated that a detailed topographic survey was made of the basin while it was under construction, and while all water was removed. This survey was not furnished the Coast and Geodetic Survey field party by the Portland Office of the U. S. Engineers.

M. Comparison with Chart

Chart 5902, Yaquina Head to Columbia River, print dated 8/27/51 is of rather small scale for comparison, but is adequate. The buoy positions shown on this print are incorrect, and a correction has been forwarded. *Charted Buoy positions in agreement with smooth sheet positions (Chart dated 5-4-53).*

N. Dangers and Shoals

South end of North Reef

Lat. $44^{\circ} 48' 37.5''$
Long. $124^{\circ} 04' 18''$

This is the southern extremity of the shoal reef which partially encloses the northern part of the outer bay. In average weather and moderate sea, breakers will occur continuously from this point in to the rocky point to the north. It was not possible to feel over this point with a lead, or to develop it more fully because of the breakers. The limits of the breakers in heavy weather were sketched by the topographer.

The hydrographic party approached as close to them as possible on successive days. On one occasion two breakers went completely over the survey launch while it was attempting to cross the reef.

Flat Rock

Lat. $44^{\circ} 48' 28''$
Long. $124^{\circ} 04' 06''$

This shoal is the northern extremity of the breakers extending north of the south point. With any sea running at all this area will break. It was not possible to verify this sounding, or further develop it. The survey launch took a breaker at this point on the morning it was sounded.

All charted dangers appear to be within the limits of the foul areas outlined by the survey.

O. Coast Pilot Information

See "Coast Pilot Report", Project CS-348, Depoe Bay, Oregon.

P. Aids to Navigation

See Form 567, Fixed Aids to Navigation, dated 3 June 1952 for CS-348.

The only fixed aids to navigation in this area are the front and rear range structures near the bridge in Depoe Bay.

The following floating aids exist:

Bell Buoy 2

Lat. $44^{\circ} 48' 51''$
Long. $124^{\circ} 04' 37''$
Depth of Water: 58 ft.
Position Number: 25K -
Date: 1 June 1952 -

Lighted Whistle Buoy DB

Lat. $44^{\circ} 48' 51''$
Long. $124^{\circ} 05' 24''$
Depth of Water: 97 ft.
Position Number: 19K -
Date: 1 June 1952 -

It was not possible to occupy the ^{sc} buoy ^{to} nor ^{them} approach ~~it~~ closely.

Each of these positions appears to differ from the charted value.

The azimuth of the range was computed by geodetic methods to be $086^{\circ} 37'$ True.

The overhead clearance of the bridge over the entrance to Depoe Bay was determined to be 50 feet above MHW. This is a measured value.

The overhead clearance of electric wires west of the bridge is 49 feet above MWH. This is an estimated value, derived by use of a hand level.

Q. Landmarks for Charts

See Form 567, Landmarks for Charts dated 3 June 1952 for CS-348.

The following landmarks within the area of the survey have been recommended for charting:

TANK (Standpipe) ✓
CAR (House) ✓
CHIM (House) ✓
ARC (bridge) ✓

R. Geographic Names

See "Special Report, Geographic Names," Project CS-348, Depoe Bay, Oregon.
on file - 854.

S. Silted Areas

The bottom of the inner harbor of Depoe Bay has accumulated silt in the form of a fine, grey, slimy mud. As this information is of interest to local people and to the Corps of Engineers, an overlay can be prepared showing the amount of silt. This information was obtained by ramming the sounding pole through the silt to the rock floor of the harbor, after taking a sounding to the top of the deposited layer.

See overlay tracing, (inserted in D.R.)

Z. Tabulation of Applicable Data

Date Forwarded

1. Traverse measurement records
2. Triangulation Records
3. Wye level records for traverse
4. Tide station records
5. Marigrams
6. Geographic Names Report
7. Topographic Surveys
8. Magnetic Records
9. Coast Pilot Notes

Respectfully submitted,

Harley D. Nygren
Harley D. Nygren,
Lt. (jg) USC&GS

Approved and forwarded:

Horace G. Conerly
Horace G. Conerly,
Lt. Comdr., USC&GS
Chief of Party

Hydrographic Survey H-7896 (HO-05152)

The records of this survey have been examined by the Chief of Party, but the responsibility for a detailed inspection has been delegated to the officer in charge of the field work on this detached project.

Horace G. Conerly
HORACE G. CONERLY
Lt. Comdr. USC&GS
Comdg. Ship HODGSON

Only one line was run thru the jaws of the entrance due to the surf condition that prevailed. However, the fathometer was left running numerous times when the launch went in and out with no indications of dangers except due to surf on the rock ledge.

Horace G. Conerly

H 7896
Ho 05152 & 025152

Depoe Bay, Oregon.

Processing Office Notes.

Smooth sheet.

The projection was made by hand on Whatman paper. The basic control is the traverse and triangulation of the field party. Topographic signals and detail are from ~~Pa~~^{HO}-A & B-52 surveyed by this party.
(T-70890+6, 1952)

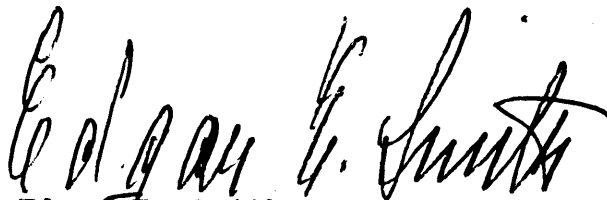
Sub-plan.

For the innerharbor tag line survey a sub-plan, scale 1/ 2 500, was provided in the lower part of the sheet. On account of the dense hydro development in the approach to the inner harbor the sub-plan was extended to include this area. The protracting of positions was done on the 1/ 5 000 Scale projection; (then enlarged two to one in the projector and pricked on the subplan.*) Within the common area the sub-plan is more complete. In this area selected soundings were plotted on the smaller scale part of the sheet as well as space permitted.

*Positions in this area were protracted during verification, - enlarging area and pricking thru on subplan was found to cause errors in positioning.

Silt in inner harbor.

An overlay tracing scale 1/ 2,500 was prepared to show the depth of silt on the bottom. Soundings are to the top of the silt.


Edgar E. Smith
Cart. Engr.

1/30/53

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON 25

AND REFER TO NO. 83-crg

5 December 1952

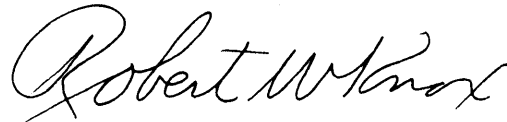
To: Officer in Charge
U.S. Coast and Geodetic Survey
Seattle Processing Office
1500 Westlake Avenue, North
Seattle 9, Washington

Subject: Depo~~x~~^e and Baker Bays

Captain E. O. Heaton has informed this office that during his recent trip, you were desirous of obtaining priority for the smooth plotting of hydrographic surveys for Depo~~x~~^e and Baker Bays, now on hand in Seattle.

It is requested that a very high priority be given to the completion of the smooth sheet for Depo~~x~~^e Bay. This survey is urgently needed in order to complete an insert of Depo~~x~~^e Bay on chart No. 5902.

However, there is no immediate need for obtaining the smooth sheet for Baker Bay. It is therefore requested that this sheet be undertaken in a routine manner.



Acting Director

JUN 30 1952

223/MEK
S-1-HO

Processing Office

24 June 1952

To: Commanding Officer
USC&GS Ship HODGSON
705 Federal Office Building
Seattle 4, Washington

Via: Supervisor, Northwestern District

Subject: Registry Numbers—Project CS-348
Depoe Bay, Oregon

The following registry number has been assigned to your hydrographic survey of Depoe Bay, Oregon, in compliance with your request of 17 June 1952:

<u>Registry Number</u>	<u>Field Number</u>
H-7896	HO-05152

Registry numbers are assigned to topographic sheets only after inspection of the sheets in the Washington Office. In some cases registry numbers are not assigned to topographic sheets. Registry numbers, therefore, will not be assigned to your topographic sheets (HO-A-52 and HO-B-52) until after they have been inked and forwarded to the Washington Office and found after inspection to require numbers.

T-7089 9+6, 1952

(Signed) Robert W. Knox

Acting Director.

cc. Supervisor, Northwestern District
Chief, Hydrographic Section, Div. of Charts
Chief, Hydrography Section, Div. of Coastal Surveys

Abstract of Fathometer Corrections
 Survey H-7896 HO-05152
 Project CS 348
 Depoe Bay, Oregon
 1952

Fathometer Depth-Ft.	Correction-Ft.			
	A Scale	B Scale	C Scale	D Scale
0.0 - 20.0	0.2			
20.1 - 29.0	0.0			
29.1 - 41.0	-0.2	1.0		
41.1 - 52.0	-0.4	0.8		
52.1 - 68.0	-0.6	0.6		
68.1 - 92.0	-0.8	0.4	1.0	
92.1 -	-1.0			2.2

Copy

TO ACCOMPANY H

7896

SUBPLAN

H0-025152 H-7896

Scale 1:2,500

Showing bottom samples
and silt layer in ft.

48'-45"



03'-45"

124° 03'-30"

44°-48'-30"

ABSTRACT OF TIDE REDUCERS

PROJECT CS-348

DEPOE BAY, OREGON

1952

5 May		7 May		18 May		26 May		June 4	
Time	Ft.	Time	Ft.	Time	Ft.	Time	Ft.	Time	Ft.
0800-0948	-5.6	1400-1410	-3.8	1300-1432	-1.0	0824-0842	+1.2	0836-1006	-5.6
0948-1018	-5.4	1411-1420	-3.6	1432-1450	-1.2	0842-0905	+1.0	1006-1032	-5.4
1018-1040	-5.2	1420-1432	-3.4	1450-1508	-1.4	0905-0918	+0.8	1032-	-5.2
1040-1054	-5.0	1432-1444	-3.2	1508-1520	-1.6	0918-0930	+0.6		
1054-1106	-4.8	1444-1500	-3.0	1520-1532	-1.8	0930-0942	+0.4		
1106-1120	-4.6	1500-1520	-2.8	1532-1542	-2.0	0942-0954	+0.2		
1120-1132	-4.4			1542-1554	-2.2	0954-1004	+0.0		
1132-1142	-4.2			1554	-2.4	1004-1110	-0.2		
1142-1153-	-4.0	15 May				1110-1118	-0.4		
1153-	-3.8	0930-0942	+0.4	19 May					
		0942-1000	+0.6	0530-0540	-3.8	28 May			
		1000-1112	+0.8	0540-0550	-4.0	1028-1036	-0.2		
6 May		1112-1133	+0.6	0550-0600	-4.2	1036-1046	-0.4		
0900-1042	-6.0	1133-1148	+0.4	0600-0608	-4.4	1046-1054	-0.6		
1042-1103	-5.8			0608-0620	-4.6	1054-1106	-0.8		
1103-1118	-5.6	16 May		0620-0628	-4.8	1106-1112	-1.0		
1118-1132	-5.4	0544-0600	-6.2	0628-0640	-5.0	1112-1120	-1.2		
1132-1144	-5.2	0600-0612	-6.0	0640-	-5.2	1120-1130	-1.4		
1144-1152	-5.0	0612-0622	-5.8			1130-1136	-1.6		
1152-1207	-4.8	0622-0632	-5.6	20 May					
1308-1320	-3.4	0632-0642	-5.4	0900-1038	-6.2	31 May			
1320-1332	-3.2	0642-0650	-5.2	1038-1100	-6.0	0852-0908	-2.2		
1332-1346	-3.0	0650-0658	-5.0			0908-0920	-2.0		
1346-1400	-2.8	0658-0705	-4.8	21 May		0920-0936	-1.8		
1400-1416	-2.6	0705-0712	-4.6	0812-0820	-4.0	0936-0952	-1.6		
1416-1432	-2.4	0712-0720	-4.4	0820-0826	-4.2	0952-1014	-1.4		
1432-1452	-2.2	0720-0728	-4.2	0826-0834	-4.4	1014-1200	-1.2		
1452-1600	-2.0	0728-0736	-4.0	0834-0843	-4.6	1348-1400	-2.6		
1600-1632	-2.2	0736-0743	-3.8	0843-0850	-4.8	1400-1412	-2.8		
1632-	-2.4	0743-0752	-3.6	0850-0900	-5.0	1412-1422	-3.0		
		0752-	-3.4	0900-0912	-5.2	1422-1432	-3.2		
				0912-0924	-5.4	1432-1442	-3.4		
7 May		17 May		0924-0936	-5.6	1442-1454	-3.6		
0828-0838	-5.2	0600-0700	-6.2	0936-0952	-5.8				
0838-0848	-5.4	0700-0718	-6.0	0952-1014	-6.0	1 June			
0848-0900	-5.6	0718-0732	-5.8	1014-1128	-6.2	0842-0856	-3.6		
0900-0910	-5.8	0732-0744	-5.6	1312-1324	-4.6	0856-0908	-3.4		
0910-0924	-6.0	0744-0756	-5.4	1324-1336	-4.4	0908-0920	-3.2		
0924-0936	-6.2	0756-0807	-5.2	1336-1348	-4.2	0920-0932	-3.0		
0936-0950	-6.4	0807-0817	-5.0	1348-1400	-4.0	0932-0948	-2.8		
0950-1018	-6.6	0817-0823	-4.8	1400-1410	-3.8	0948-1000	-2.6		
1018-1100	-6.8	0823-0832	-4.6	1410-1420	-3.6	1000-1018	-2.4		
1100-1128	-6.6			1420-1432	-3.4	1018-1036	-2.2		
1128-1144	-6.4	18 May		1432-1446	-3.2	1036-1100	-2.0		
1308-1320	-4.8	1200-1216	-1.6	1446-1500	-3.0	1100-1124	-1.8		
1320-1330	-4.6	1216-1236	-1.4	1500-1520	-2.8	1124-1200	-1.6		
1330-1342	-4.4	1236-1300	-1.2	1520-1548	-2.6				
1342-1352	-4.2								
1352-1400	-4.0								

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STATISTICS

HYDROGRAPHIC SURVEY H-7896

Field Number HO-05156

CS-348

Depoe Bay, Oregon

1952

Date	Day	Vol.	No. of Pos.	No. of H.L. Soundings	Total Naut. Miles Run	Stat. Miles Sdg. Lines
5/15/52	a(blue)	1	47 ✓	0	13.6	9.9
5/16/52	b(blue)	1	79 ✓	0	16.8	17.2
5/17/52	c(blue)	1	60 ✓	0	10.1	11.6
		2	32	0	6.8	6.7
5/18/52	d(blue)	2	143 139	0	23.6	26.7
5/19/52	e(blue)	2	25 ✓	0	4.2	4.5
		3	15	0	6.4	6.3
5/21/52	f(blue)	3	75 ✓	0	12.5	14.0
5/26/52	g(blue)	3	101 96	0	16.7	18.6
5/28/52	h(blue)	4	48 ✓	0	7.0	7.6
5/31/52	j(blue)	4	142 141	0	21.8	24.3
6/1/52	k(blue)	5	41 ✓	0	7.2	2.5
6/4/52	l(blue)	5	99 96	0	14.1	15.8
5/6/52	a(red)	6	417 ✓	417	1.7	2.0
5/8/52	b(red)	6 & 7	239 417	239 417	0.2	0.2
5/20/52	c(red)	7	41 ✓	41	0.1	0.1
5/21/52	d(red)	7	190 ✓	190	0.6	0.7
Total - -			1794 1959	887	163.4	168.7

Total square miles - statute: 1.6

Geographic Name List

Hydrographic Survey H-7896

Field Number HO-05152

Depoe Bay, Oregon

DEPOE BAY (referring to the town)

DEPOE BAY (referring to the bay)

FLAT ROCK

NORTH DEPOE CREEK

NORTH REEF

PIRATE COVE

SOUTH DEPOE CREEK

R4c

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Survey~~

16 March 1953

Division of Charts: R. H. Carstens

Plane of reference approved in 7
volumes of sounding records for

HYDROGRAPHIC SHEET 7896

Locality Depoe Bay, Oregon

Chief of Party: H. G. Conerly in 1952
Plane of reference is mean lower low water, reading
1.7 ft. on tide staff at Depoe Bay
15.0 ft. below B. M. 1 (1952)

Height of mean high water above plane of reference is 7.5 feet.

NOTE: Tide reducers for positions 63g to 96g inclusive in
Volume 3 have been revised in red, these revisions
have been verified.

Condition of records satisfactory except as noted below:

E. C. McKay
Section of Tides

Chief, Division of Tides and Currents.

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography:

Division of Charts:

Plane of reference approved in
volumes of sounding records for

HYDROGRAPHIC SHEET H-7896

Locality Oregon, Lincoln County, Depoe Bay

Chief of Party: H. G. Conerly
Plane of reference is
1.7 ft. on tide staff at Depoe Bay
ft. below B. M.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. H-7896

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Oregon</u>											1
<u>Lincoln County</u>											2
											3
<u>Depoe Bay</u>											4
<u>Depoe Bay</u>											5
<u>Pirate Cove</u>											6
<u>North Reef</u>											7
<u>Flat Rock</u>											8
<u>North Depoe Creek</u>											9
<u>South Depoe Creek</u>											10
											11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

} for title

(town)

BGNY

BGNY

"

Names underlined in red are approved
3-16-53 L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7896

Records accompanying survey:

Boat sheets ..2..; sounding vols.7.; wire drag vols.0...;
 bomb vols.0...; graphic recorder rolls 4 ^{Err.}...; *disposed of:*
 special reports, etc. 1 Smooth Sheet; 1 Descriptive Report; 1 ~~Gazier~~ ^{to library}...
~~of Photographs: 1 Overlay Erasing attached to Smooth Sheet;.....~~

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

Number of positions on sheet	1959 (including 1065 tag line positions)
Number of positions checked	222
Number of positions revised	92 (including 3 added) *
Number of soundings revised (refers to depth only)	134
Number of soundings erroneously spaced	54
Number of signals erroneously plotted or transferred	0 (2 added)
Topographic details	Time 14
Junctions	Time 0
Verification of soundings from graphic record	Time 12

Verification by *John J. Simpson*..... Total time 159 hrs Date 8 May 53

Reviewed by *W. Jespers*..... Time 39... Date 6-18-53

* This large figure does not indicate that original protracting was unsatisfactory; most errors were on subtraction which positions were projected, not protracted.

Stini 12 hours

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7896

FIELD NO. HQ-05152

Oregon - Depoe Bay

Project No. CS-348

Surveyed in May - June 1952

Scale 1:5,000 & 1:2,500

Soundings:

Fathometer
Sounding Pole
Leadline

Control:

Sextant fixes on shore signals
Tagline control

Chief of Party - H. G. Conerly
Surveyed by - H. D. Nygren
Protracted by - H. C. Parsons
Soundings plotted by - H. C. Parsons
Verified and inked by - G. T. Thompson
Reviewed by - I. M. Zeskind, 18 June 1953
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline of the present survey originates with plane-table survey T-7089a and b (1952).

The source of the signals is given 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 were adequately delineated, except where breakers and foul areas made it hazardous to run sounding lines.

The bottom is fairly irregular in depths less than 60 ft. and generally smooth in greater depths.

4. Junctions with Contemporary Surveys

The present survey extends to the limits of the Project. Butt junctions were effected with H-4878 (1928) on the north and south and with H-4894 (1928) on the west. Depths on the present survey are in adequate agreement with depths of the 1928 surveys at the junctions.

5. Comparison with Prior Surveys

H-4878 (1928) 1:20,000
 H-4894 (1928) 1:40,000

A comparison between the prior and present surveys reveals changes in bottom configuration and shoreline. These changes are attributed to natural and artificial causes, such as the action of the current on the bottom, and dredging and construction operations. In the inner harbor of Depoe Bay the entrance has been widened and deepened and a seawall and dam have been constructed. The harbor has been dredged to a controlling depth of 7 ft. In the outer harbor, except for minor erosion of the shoreline in several places, no significant changes to the shoreline are noted. Differences in depths between the prior and present surveys in the outer harbor range from 2-5 ft., except in several areas where the differences are greater, as for example, in lat. $44^{\circ} 48.28'$, long. $124^{\circ} 04.68'$, where a prior depth of 84 ft. falls in present depths of 65 ft. Handlead soundings on the prior surveys may be deep by varying amounts because of the currents in this area.

The sunken rock transferred to 4878 from T-1776 (1887) falls on the present survey in lat. $44^{\circ} 48.57'$, long. $124^{\circ} 04.29'$ in depths of 59-72 ft. The bottom configuration of the present survey is adequately developed to disprove the existence of this feature and, therefore, the sunken rock has not been transferred to the present survey. A portion of North Reef on the present survey falls about 100 meters north of this position.

A few soundings and rocks from H-4878 have been transferred to the present survey in the unsurveyed inshore area. With the addition of these soundings and rocks, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 5902 (Latest print date 5-4-53)A. Hydrography

The charted hydrography originates principally with the present survey prior to verification and review, and with the previously discussed prior surveys which need no further consideration. Except as listed below, only

minor differences of 1-2 ft. were noted between the charted depths and the present survey depths.

<u>Charted Depth</u>		<u>Survey Depth</u>	
<u>fm.</u>	<u>Latitude</u>	<u>Longitude</u>	<u>ft.</u>
4	44° 48.16'	124° 04.38'	30
11	44° 48.52'	124° 04.14'	76
3½	44° 48.57'	124° 03.78'	35.50

The present survey supersedes the charted information within the common area.

B. Aids to Navigation

Aids to Navigation located on the present survey are in substantial agreement with the charted aids and adequately mark the features intended. No new features were revealed which might require marking.

7. Condition of Survey


- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. A number of soundings were revised in the Washington Office after rescanning portions of the irregular jagged fathogram profiles caused by seas running as high as 7-8 ft. Except for the foregoing, the smooth plotting was accurately done.

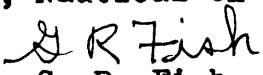
8. Compliance with Project Instructions


The survey adequately complies with the Project Instructions.

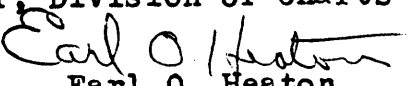
9. Additional Field Work Recommended

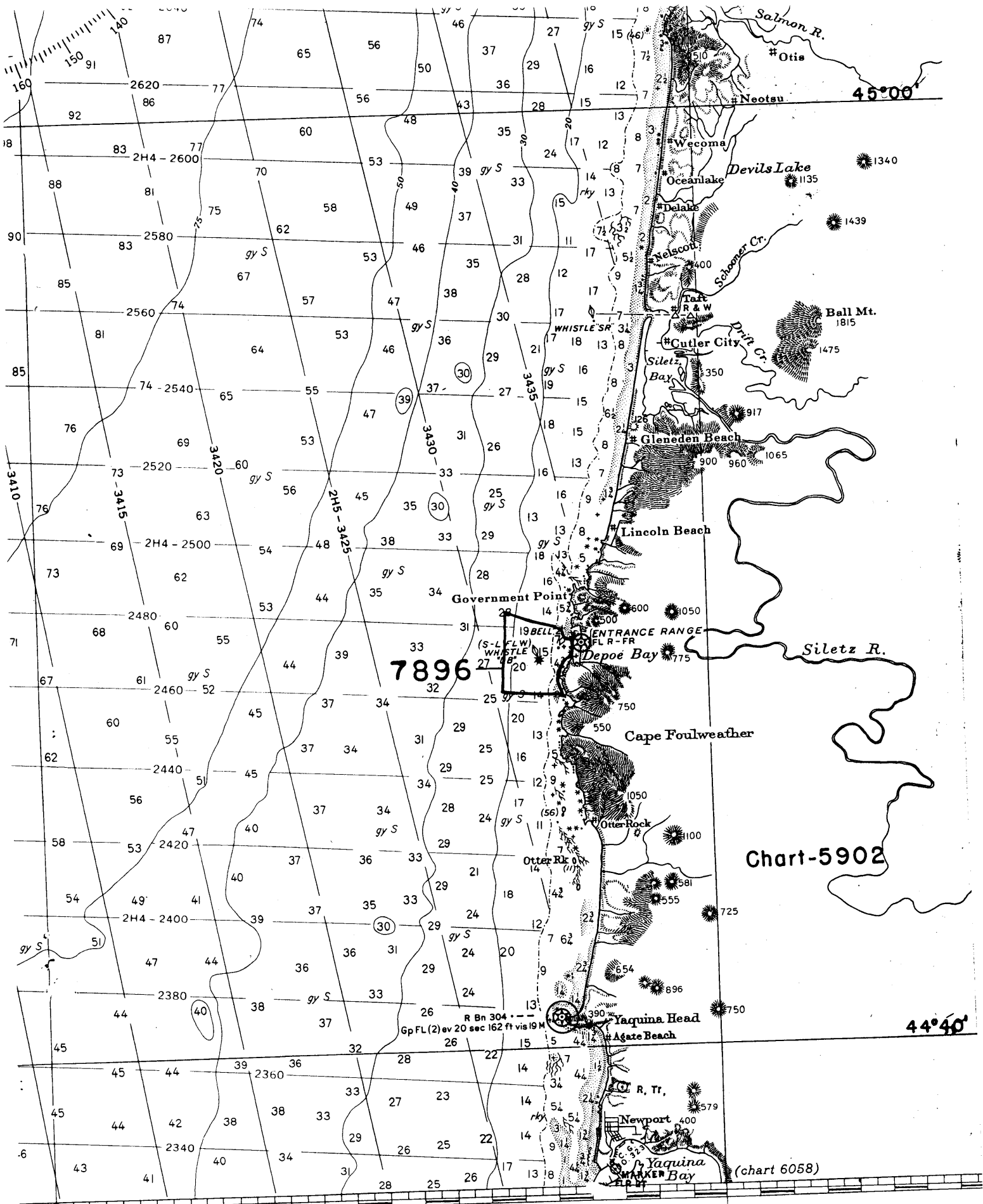
This survey is considered basic and no additional field work recommended.


H. R. Edmonston
Chief, Nautical Chart Branch


G. R. Fish
Chief, Section of Hydrography

Examined and approved:

H. Arnold Karo
Chief, Division of Charts


Earl O. Heaton
Chief, Division of Coastal Surveys



45°00'

44°40'

Chart-5902

7896

20'

10'

124°

COLUMBIA RIVER

45°

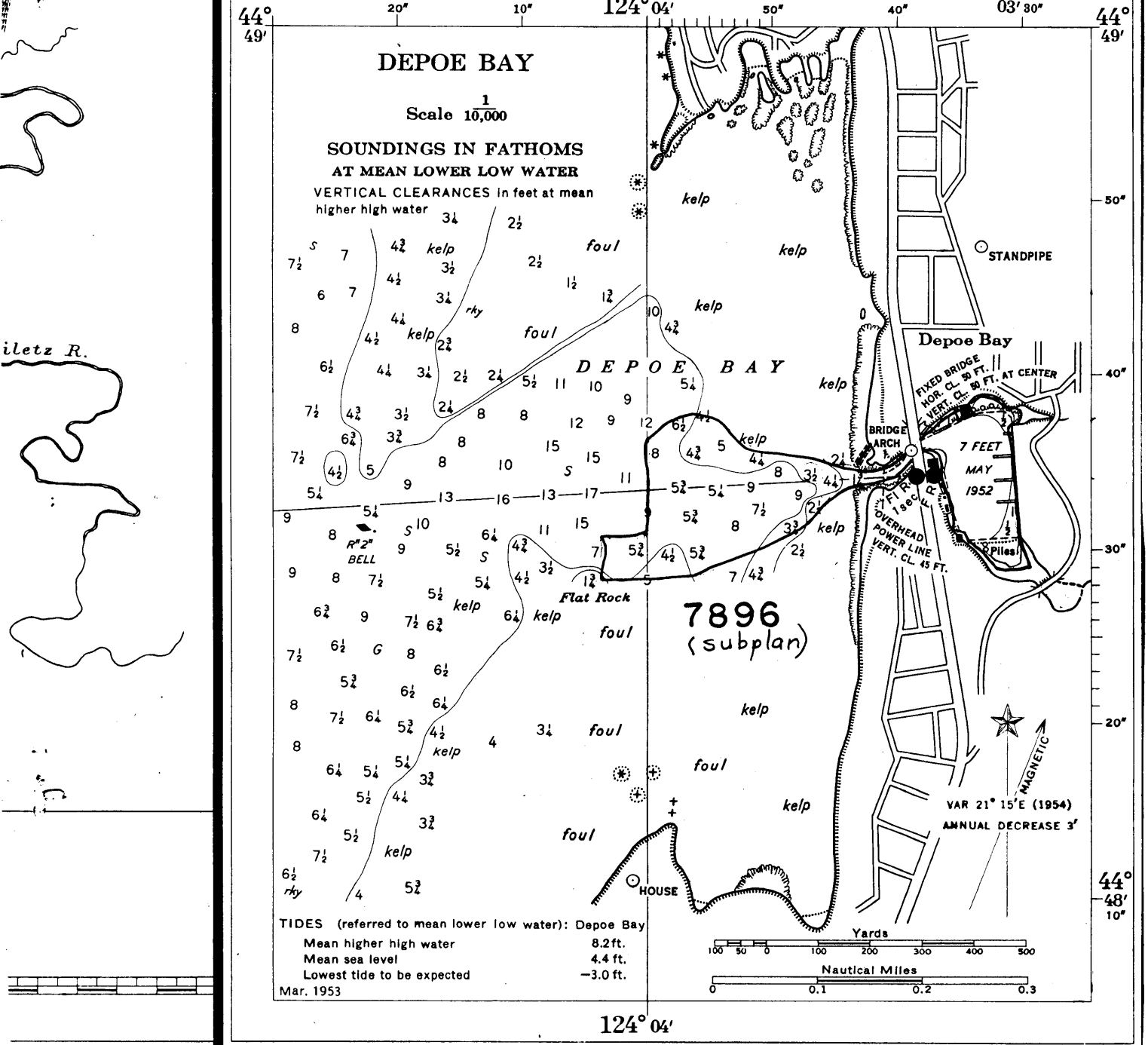
SOUNDINGS IN FATHOMS AT MEAN LOWER LOW WATER

1340

1439

Ball Mt.
1815
1475

iletz R.



NAUTICAL CHARTS BRANCH

SURVEY NO. H-7896

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/17/53	5902	R.D. Goodrich	Before After Verification and Review
12/29/54	6056	H.W. Burgeyne	Before After Verification and Review <i>-Fully applied 3.11.54</i>
6/30/76	5902	R.A. Lillis	<i>Fully applied</i> Before After Verification and Review <i>4 August</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			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.