

8335

Diag. Cht. No. 6002-2.

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. WCEP-1454 Office No. H-8335

LOCALITY

State Washington

General locality Willapa Bay

Locality Palix River

194 54

CHIEF OF PARTY

C. A. George

LIBRARY & ARCHIVES

DATE March 20, 1957

8335

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-8335

Field No. WCFP-1454 B

State WASHINGTON

General locality WILLAPA BAY

Locality PALIX RIVER

Scale 1:10,000 Date of survey Sept. - Oct. 1954

Instructions dated 9 March 1954

Vessel West Coast Field Party

Chief of party C. A. George

Surveyed by G. E. Haraden and K. A. MacDonald

Soundings taken by fathometer, graphic recorder, ~~hand lead~~ and tide gauge pole

Fathograms scaled by H. N. N. & R. M. S.

Fathograms checked by Same

Protracted by W. M. Martin

Soundings penciled by W. M. Martin

Soundings in ~~Fathoms~~ feet at ~~MLLW~~ MLLW and are true depths.

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Handwritten initials*

## NOTES FOR DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY

FIELD NO. WCFP-1454 B

PALIX RIVER, WILLAPA BAY, WASHINGTON

PROJECT CS-372

SCALE 1:10,000

WEST COAST FIELD PARTY

C. A. GEORGE, CHIEF OF PARTY

SURVEYED BY: G. F. HARADEN AND K. A. MACDONALD

A. PROJECT

The work was done in accordance with instructions 22/MEK FP-West Coast, dated 9 March, 1954, addressed to CDR. C. A. George, West Coast Field Party. ✓

B. SURVEY LIMITS AND DATES

This Survey includes that part of the Palix River South of Latitude  $46^{\circ} 36.35'$ , including the South Fork as far south as Latitude  $46^{\circ} 34.12'$ , and the Middle and North Forks as far East as Longitude  $123^{\circ} 52.60'$ . Field work was done, 22 September, 13 October, and 19 October. ✓

C. VESSEL AND EQUIPMENT

Skiff, USC&GS 475 was used for most of the work, the remainder being done with Launch 122, based at Bay Center, Washington. The Launch had a turning radius of 12 meters at sounding speed. A sounding pole was used for the skiff work and fathometer 152 SPX of the 808 J type was used in conjunction with the launch. ✓

D. TIDE STATIONS

A portable tide gage was maintained at PALIX RIVER (SOUTH FORK) for the period of sounding. All tide reducers were computed from data obtained from this station, no time or range corrections were applied. ✓

E. SMOOTH SHEET

The Smooth Sheet will be plotted by the Seattle Processing Office. This survey comprises all the work done on Boat Sheet 1454 during the 1954 field season, but is a small part of the total area covered by the sheet. If, field work is resumed in Willapa Bay in 1955, the smooth plotting could be postponed until the entire sheet is completed. ✓

F. CONTROL STATIONS

The source of control was from Photo Manuscript T-9638 (1953 and 1954 locations). For a great part of the work fixes were obtained by noting when abeam small streams, washes or other points on the bank. These points were transferred from Photo Manuscript T-9638. ✓

G. SHORELINE AND TOPOGRAPHY

All Shoreline and Topography was transferred from the blue line print of Photo Manuscript T-9638. ✓

H. SOUNDINGS

Soundings were taken with a sounding pole and on 808 J type fathometers. Echo corrections for the fathometer soundings were obtained from a mean value of bar checks taken over a large portion of the field season. ✓

I. CONTROL OF HYDROGRAPHY

Hydrography was controlled by sextant fixes and by marking position when abeam points on the bank. ✓

J. ADEQUACY OF SURVEY

The survey of the Palix River is considered complete and adequate to supercede prior surveys for charting. ✓

The junction with Contemporary Survey H-8137 on the north was satisfactory, this was the only junction made. ✓

\*

U. VELOCITY CORRECTIONS

Velocity corrections were determined from the bar checks. A copy of the abstract of velocity corrections to be applied to the soundings on this survey is included in this report. ✓

V. REGISTRY NUMBER

A registry number was not requested for this survey. ✓

\*

P. AIDS TO NAVIGATION

The bridge clearance at Palix River Bridge, Latitude  $46^{\circ} 35.24'$ ,  
Longitude  $123^{\circ} 54.88'$  was measured at 0930, 19 October 1954, and found  
to be 4.8 feet above mean high water. See Vol. 1, page 24 of sounding  
records. (*Hor. cl. not measured*).

Submitted,

*K. A. MacDonald*  
K. A. MacDonald  
Ensign, USC&GS

Approved & Forwarded,

*C. A. George*  
C. A. George  
CDR., USC&GS  
OinC, West Coast Field Party

## STATISTICS FOR HYDROGRAPHIC SURVEY

Field No. WCFP 1454-B (1954)

## West Coast Field Party CS-372

66

Vol. No.	Day Letter	Date	HL Sdgs.	No. Pos.	Stat. Miles	Sdg.
1	a	22 Sept.	135	23	3.4	Skiff
1	b	19 Oct.	155	40	4.0	Skiff
2	a	13 Oct.		12	1.4	Launch
TOTAL			290	75	8.8	

Total area 1.0 square statute miles

ABSTRACT OF VELOCITY CORRECTIONS  
FOR HYDROGRAPHIC SURVEY  
PROJECT CS-372  
Willapa Bay, Washington

Corrections		Dates	To Be Applied Sheet	Day Letter
A Scale		(PERIOD 1)		
0.0 to 44.0	0.0	14 July thru 10 Aug.	WGFP-1354	"a" thru "s"
44.5 to 52.0	+0.2	and	H-8137	"ga" thru "db"
52.5 to 55.0	+0.4	2 Sept. thru 19 Oct.		
B Scale (& C Scale)				
35.0 to 47.0	+0.2		WGFP-15154	"a" thru "e"
47.5 to 52.5	+0.4		H-8138	"j" thru "n"
53.0 to 56.0	+0.6			
56.5 to 58.5	+0.8			
59.0 to 61.5	+1.0			
62.0 to 64.0	+1.2		WGFP-1254	"b" thru "p"
64.5 to 67.5	+1.4		H-8136	
68.0 to 71.5	+1.6		WGFP-1454	"a" day only
72.0 to 75.5	+1.8			
76.0 to 110.0	+2.0			
A Scale		(PERIOD 2)		
0.0 to 55.0	0.0	11 Aug. thru 18 Aug.	WGFP-1354	"t" thru "x"
B Scale (& C Scale)			H-8137	
35.0 to 38.0	+1.4		WGFP-15154	"f" thru "g"
38.5 to 42.0	+1.6		H-8138	
42.5 to 47.5	+1.8			
48.0 to 56.5	+2.0			
57.0 to 71.5	+2.2			
72.0 to 110.0	+2.4			
A Scale		(PERIOD 3)		
0.0 to 30.0	0.0	19 Aug. thru 2 Sept.	WGFP-1354	"y" thru "fa"
30.5 to 38.0	+0.2		H-8137	
38.5 to 42.5	+0.4		WGFP-15154	"h" day only
43.0 to 46.5	+0.6		H-8138	
47.0 to 50.0	+0.8			
50.5 to 53.0	+1.0		WGFP-1254	"a" day only
53.5 to 56.0	+1.2		H-8136	
B Scale (& C Scale)				
35.0 to 42.0	+1.2			
42.5 to 54.5	+1.4			
55.0 to 63.0	+1.6			
63.5 to 70.0	+1.8			
70.5 to 79.0	+2.0			
79.5 to 89.0	+2.2			
89.5 to 105.0	+2.4			

## LIST OF STATIONS ON WGFP-1454 (1954)

Name Used In Hydro Survey	Origin of Station
BARN	T-9638 *
EAST	T-9638 *
ELF	Manuscript T-9638
HIN	Manuscript T-9638
MIS	Vol. 1, Page 72, Survey H-8137 (1954)
ROSE	T-9638 *
Points "a" thru "g"	Manuscript T-9638
Points "1" thru "28"	Manuscript T-9638

\* Positions from "Description of Recoverable Topographic Station" (Form 524)



TIDE NOTE TO ACCOMPANY DESCRIPTIVE REPORT OF  
SURVEY FIELD NO. WCFP-1454

A portable tide gage located at Palix River (South Fork) at Latitude  $46^{\circ} 35.24'$  and Longitude  $123^{\circ} 54.60'$  was used for obtaining all the reducers for this survey.

Mean lower low water corresponds to a reading of 2.1 feet on the tide staff. (Re: The Director's letter, 36-rjb, dated 19 October 1954).

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

✓

## APPROVAL SHEET

FIELD NO. WCFP-1454 B

The survey is considered complete and adequate. No additional field work is recommended.

The boat sheet was examined daily as the field work progressed.

The field records and boat sheet are to be forwarded to the Seattle Processing Office for smooth plotting in accordance with the Director's letter, 22/MEK, dated 11 October 1954.

All corrections to the soundings have been entered and checked. The soundings have been reduced, and checked.



C. A. George  
CDR., USC&GS  
OinC, West Coast  
Field Party

Smooth Sheet

The smooth sheet was hand constructed and verified in the Seattle Processing Office using standard methods. Shoreline and detail transferred from T-<sup>25</sup>6938N. Detail shown in "Red" transferred from Blueline of Manuscript T-<sup>26</sup>6938N.

Sounding line positions taken by skiff were transferred from the Boat Sheet using shore detail as control. Sixty-three positions were transferred by this method. Twelve launch positions were plotted with a protractor.

Respectfully submitted,



WILLIAM M. MARTIN  
Supervisory Cartographer,  
Seattle Processing Office

APPROVED AND FORWARDED:



FRANK G. JOHNSON, Captain, C&GS  
Seattle District Officer

GEOGRAPHIC NAMES PENCILED ON WCFP- 1454B

MIDDLE FORK PALIX RIVER  
PALIX RIVER  
SOUTH FORK PALIX RIVER

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8135...

Records accompanying survey:

Boat sheets ..1...; sounding vols. ...<sup>2</sup>...; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls 1-Envelope  
 special reports, etc. 1-Descriptive report, 1-Smooth sheet, ...  
 1-Cahier with Velocity Corrections Report for Hydrographic  
 Surveys 8135, 8136, 8137, and 8138, 1-Observations of Horizontal  
 Directions filed with fathograms.

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

Number of positions on sheet	.....	75
Number of positions checked	.....	2
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	0
Number of soundings erroneously spaced	.....	0
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	..... 1
Junctions	Time	..... 1
Verification of soundings from graphic record	Time	..... 1

Verification by *J. T. Gallohan 10 hr* ..... Total time *15 hrs.* Date *Sept. 10 '57*  
*S. Rose 5 hr*  
 Reviewed by *[Signature]* ..... Time *7* Date *10/7/57*

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens:

10 April 1957

Plane of reference approved in  
2 volumes of sounding records for

HYDROGRAPHIC SHEET 8335

Locality Willapa Bay, Washington

Chief of Party: C. A. George in 1954

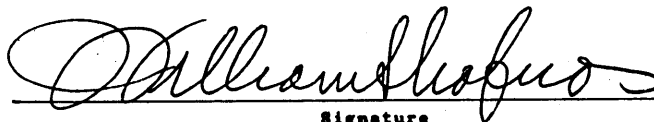
Plane of reference is mean lower low water, reading

2.1 ft. on tide staff at Palix River (South Fork)

17.5 ft. below B.M. 4 (1954)

Height of mean high water above plane of reference is 8.5 feet.

Condition of records satisfactory except as noted below:

  
Signature

Chief, Tides Branch

GEOGRAPHIC NAMES

Survey No. H-8335

Name on Survey												
	A	B	C	D	E	F	G	H	K			
<u>Canyon Creek</u>												1
<u>Middle Fork Palix River</u>												2
<u>Palix River</u>												3
<u>Rains Ranch</u>												4
<u>Rains Road</u>												5
<u>South Fork Palix River</u>												6
<u>U.S. Hwy. 101</u>											4-9-57 agw	7
												8
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DIVISION OF CHARTS  
REVIEW SECTION - NAUTICAL CHART BRANCH  
REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8335

FIELD NO. WCFP-1454B

Washington-Willapa Bay-Palix River

PROJECT NO. CS-372

Surveyed - Sept. - Oct. 1954

Scale 1:10,000

Soundings:

Control:

Sounding pole  
808 fathometer

Spotted from topographic  
details  
sextant fixes

Chief of Party - C. A. George  
Surveyed by - G. E. Haraden & K. A. MacDonald  
Protracted by - W. M. Martin (Seattle P. O.)  
Soundings plotted by - W. M. Martin  
Verified and inked by - J. T. Gallahan & S. Rose  
Reviewed by - L. V. Evans, III  
Inspected by - R. H. Carstens

Date: 7 October 1957

1. Shoreline and Control

The shoreline and control originate with unreviewed photogrammetric survey T-9638 (1950-53).

2. Sounding Line Crossings

Depths are in agreement at crossings.

3. Depth Curves and Bottom Configuration

This survey is confined to mid-channel lines in narrow, winding streams where the development of depth curves would be impracticable. The bottoms of these streams are mud.



4. Junctions with Contemporary Surveys

The junction to the North with H-8137 (1954) will be considered in the review of that survey. Elsewhere, the present survey is carried to the limits of the various forks of the Palix River as presently charted.

5. Comparison with Prior Surveys

- A. H-335 (1852) 1:20,000  
H-2103 (1891) 1:20,000

These prior surveys have been compared with and were superseded by H-6517 and H-6518 of 1939, which are discussed below. Further consideration of the early surveys is considered unnecessary in the present review.

- B. H-6517 (1939) 1:10,000  
H-6518 (1939) 1:10,000

These surveys, with the superseded surveys previously listed, comprise the previous coverage of the area of the present survey.

A comparison between the present and the 1939 surveys shows little change in the area downstream from the confluence of the three forks of the Palix River. Upstream from that point there is a variable pattern of shoaling and deepening, as indicated by the following examples:

<u>Pres. Survey Depth (Ft.)</u>	<u>Lat.</u>	<u>Long.</u>	<u>Prior Survey Depth (Ft.)</u>
7	46°35.72'	123°54.31'	2
0	46°35.85'	123°53.76'	6
2	46°35.01'	123°54.45'	8
8	46°35.2'	123°54.36'	3

The present survey supersedes the prior surveys for charting in the common areas.

6. Comparison with Chart 6185 (print date 6/4/56)

A. Hydrography

The present survey supersedes the charted hydrography which originated with the prior surveys previously discussed in Par. 5B.

B. Aids to Navigation

There are no aids to navigation charted in the area of this survey.

7. Condition of Survey

a. The field records are complete and comprehensive.

b. The smooth plotting was well done.


8. Compliance with Project Instructions

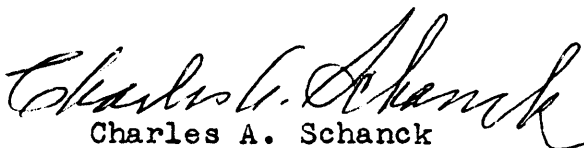
This survey adequately complies with the project instructions.

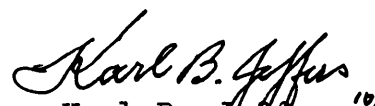
9. Additional Field Work Recommended

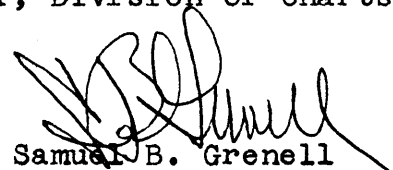
This is an adequate survey of this unimportant area and no additional field work is recommended.

Examined and approved:

  
Max G. Ricketts  
Chief, Nautical Chart Branch

  
Charles A. Schanck  
Chief, Division of Charts

  
Karl B. Jeffers <sup>10/31/57</sup>  
Chief, Hydrography Branch

  
Samuel B. Grenell  
Chief, Division of Coastal Surveys

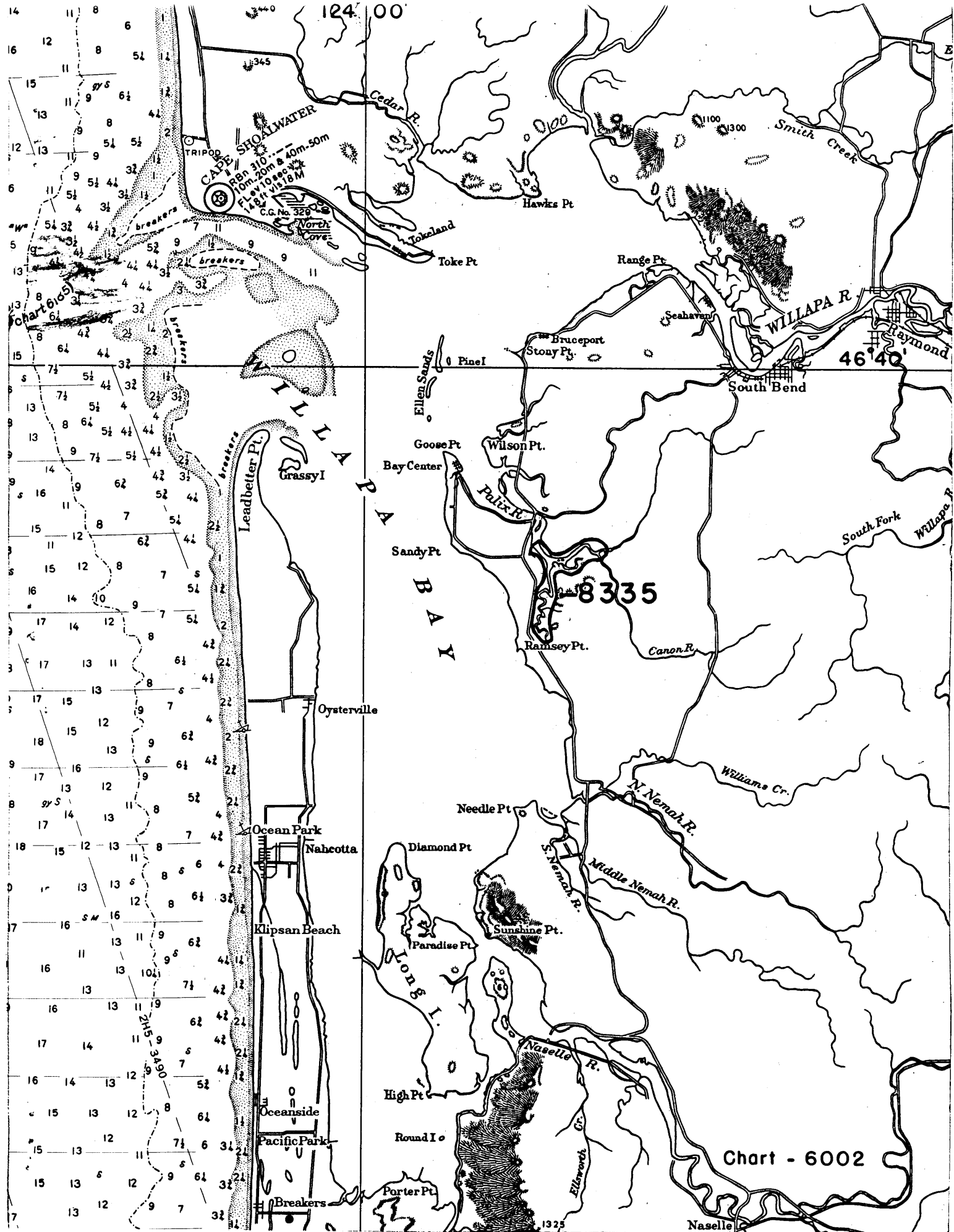


Chart - 6002

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8335

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
9-9-57	6185	R. H. Alexander	Part. applied. <i>before</i> Before After Verification and Review. <span style="float: right;">3MC</span>
6/13/61	6185	J. H. Eaton	<i>during</i> <del>Before</del> <i>Comp. App'd.</i> After Verification and Review
			Before After Verification and Review
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			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.