

5696

U. S. COAST & GEODETIC SURVEY
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Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Hydrographic~~ } Sheet No. SB-113
Hydrographic }

State CALIFORNIA

LOCALITY

SANTA ROSA ISLAND

BECHERS BAY

1935

CHIEF OF PARTY

Robert W. Knox

5696

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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MAR 18 1935
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REG. NO.

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.

Field No. 113

REGISTER NO. **5696**

State California

General locality Santa Rosa Island

Locality Bechers Bay and Vicinity

Scale 1-10,000 Date of survey October 34-Feb. 35, 19

Vessel chartered launch Romance

Chief of Party R. W. Knox

Surveyed by Harry T. Keiser

Protracted by D. V. Radcliffe

Soundings penciled by R. J. Sipe & K. McBean

Soundings in fathoms ~~####~~

Plane of reference MLLW

Subdivision of wire dragged areas by _____

Inked by C. E. Edwards

Verified by G. H. Everett *(C. K. Green)*

Instructions dated Oct 31, 1932 and Sept 9, 1933 *(C. K. Green)*, 19

Remarks: _____

DESCRIPTIVE REPORT
to accompany
Hydrographic Sheet Field no. 113
Bechers Bay--Santa Rosa Id.
California

INSTRUCTIONS

October 31, 1932 and Sept 9, 1933

LIMITS AND SCALE

This sheet embraces the inshore hydrography in Bechers Bay, Santa Rosa Island, and a distance of $2\frac{1}{2}$ miles along the north coast of the island to join sheet 26. On the east end of the sheet it joins sheet 25 at Skunk Pt. Total shoreline $7\frac{1}{2}$ miles. Work was carried out to a general 10-12 fm. depth; work beyond that being done by the larger launch (Joanne) equipped with trolley rig.

GENERAL DESCRIPTION

The shoreline west of Carrington Pt., the northwest limit of Bechers Bay, is very precipitous, with sheer 350-400 ft cliffs. Heavy northwest seas beat against this shore, and except under unusual conditions it is difficult to get close to shore. However with the exception of one ledge 100 meters offshore just west of long. 120-04, the coastline is free of danger except for the heavy swells.

At Carrington Pt., however, Beacon Reef, with 2 1/6 fms lies 700 meters due north of the point, and the shoreline is studded with submerged rocks, the farthest out (awash at $-\frac{1}{2}$ ft tide) being 300 meters offshore, forming a generally dangerous point.

Rounding into Bechers Bay the shore becomes less precipitous, but continues rocky until we reach Skunk Pt. Here there is a considerable stretch of sand beach and a sand spit making off the point in an easterly direction. Except in smooth weather this breaks in a line about $1\frac{1}{4}$ mile long stretching directly east from the point, over the shallowest soundings

Near the west side of Bechers Bay, and $1\frac{1}{2}$ miles in from Carrington Pt. there is a substantial wooden pier extending 150 meters out. This is used for loading and unloading cattle, and a 160 ft. steamer warps into- alongside the east side of the pier at the outer end.

The bottom of the bay is regular, dropping off into 10 fathoms $\frac{1}{2}$ to $\frac{3}{4}$ mile offshore.

SURVEY METHODS

A skiff was used for the inshore line in shallow water, and the launch beyond that, using hand lead to 15 fms. and vertical cast, wire, machine soundings above that depth. 3 point fixes on shore signals for location. Control ample.

DISCREPANCIES

None.

DANGERS

Beacon Reef constitutes the greatest danger to navigation. With 2 1/6 fms on it, it breaks most of the time with northwest weather, but does not always do so. The area is foul between the shoal and the point.

There are no dangers in Bechers Bay.

The sand spit off Skunk Pt. however should be avoided. The current is heavy at this point, and the point is difficult to see on dark nights, partly because the hills behind it are low and indefinite. In average weather there is a small breaker making out from the point, but in bad weather the sea breaks heavily over this sand spit. In calm weather there is no breaker.

ANCHORAGES

The northwest anchorage in Bechers Bay lies just off and a little east of the pier there. Sand and rock bottom.

For southeast weather the bight 2 miles west of Skunk Pt. offers fair anchorage in 5-6 fms. sandy bottom

COMPARISON WITH PREVIOUS SURVEYS

The general trend of the 10-fm. curve compares favorably with the former work (sheet 1221 a 1873). It appears however that off Skunk Pt. on the north side of the spit the bottom is filling in, pushing the 10 fm. curve 200 meters farther offshore.

GEOGRAPHIC NAMES.

The present names appearing on chart 5202 have been accepted, and are fairly well known.


 Harry T. Kelsh
 Surveyor

ADDITIONAL NOTES

GENERAL:

Protractor used on "g" day (blue), "h" (blue) day when signal Pilen was used was found to be 3 minutes too large when checking. These positions were not replotted.

Hydrographic stations do not check positions as shown on boat sheet due to distortion of boat sheet.

DISCREPANCIES:

- (1) Lat. 34 - 02.5 - Pos. 4D $7\frac{3}{4}$ fms *Pos. 47E was erroneously plotted.*
 Long. 120 - 02.4 Pos. 47E $8\frac{1}{4}$ fms. *OK now.*
- (2) Lat. 30 - 02.7 - Pos. 55M $8\frac{3}{4}$ fms - $8\frac{3}{4}$ not plotted and is
 Long. 120 - 02.7 Pos. 1-2N $7\frac{1}{4}$ not needed. $7\frac{1}{4}$ appears OK
- (3) Lat. 34 - 02.1 - Pos. 57-58T Lines pass between two *This fact may*
 Long. 120 - 02.5 Pos. 52-53T rocks not noted in record. *have happened*
without notice of the rocks
during H.W. by hydro. party.
- (4) Lat. 33 - 59.3 - Shoal sounding $5\frac{1}{2}$ fathoms
 Long. 120 - 01.1 *Should be retained. Cannot be dispersed in*
records.
- (5) Lat. 34 - 02.7 - $9\frac{1}{2}$ fathom crossing outside of 12 fms. *This has*
 Long. 120 - 03.3 (These positions are evidently in error but *been*
 (there is apparently no reason for moving *adjusted*
 (these positions.) *Carrington OK*
- (6) Lat. 34 - 02.68 - $6\frac{1}{2}$ fathoms outside of $7\frac{1}{2}$ fathoms.
 Long. 120 - 03.00 *Apparent mark against $6\frac{1}{2}$ in records. Should*
be retained.
- (7) Lat. 33 - 59.3 - $6\frac{4}{6}$ fathoms outside of $7\frac{3}{8}$ fathoms.
 Long. 120 - 00.9 *Line may be slightly out of position but it*
agrees with B.S. and record. This condition here is
insignificant.
- (8) Lat. 33 - 59.0 - $3\frac{4}{6}$ fathoms outside of $4\frac{2}{16}$ fms.
 Long. 119 - 58.2 *Quite possible. H. 4700 (1434-35) shows a $3\frac{1}{2}$ nearby.*
- (9) Lat. 33 - 59.5 - 17 fathom sounding between 13 and 15
 Long. 119 - 58.8 fathom soundings. (This sounding is
 evidently in error.) *NOT plotted.*

GEOGRAPHICAL NAMES:

Caoti Point and Corral Point are names seldom used. The name Carrington Point denoting the whole point.

R. J. S. Sigsbee

Statistics

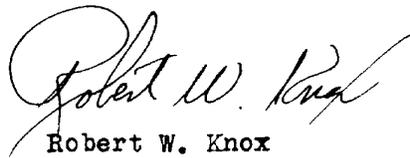
Sheet S. B. 113. Santa Rosa Island.

Date	Day	Vol.	Positions.	Soundings	Miles, Statute.	Vessel.
1934	Letter	No.				
Oct. 4	A	1	49	126	3.5	Skiff.
" 17	B	1	35	109	5.6	Virginia I.
Nov. 8	C	1	8	21	0.9	"
Dec. 20	D	1	173	558	21.0	Romance.
" 21	E	1 & 2	172	528	23.6	"
" 22	F	2	149	439	15.8	"
" 23	G	2	161	428	16.2	"
" 24	H	3	72	168	8.3	"
1935						
Jan. 3	J	3	29	102	3.3	"
" 5	K	3	111	225	11.5	"
" 8	L	3	41	91	4.7	"
" 10	M	3	67	190	7.5	"
" 15	N	4	138	371	17.3	"
" 18	P	4	140	381	15.4	"
" 21	Q	4	118	330	10.0	"
Feb. 4	R	5	75	170	8.1	"
" 5	S	5	113	265	11.5	"
" 6	T	5	74	287	8.2	Joanne's Tende
1934						
Dec. 19	a	6	50	158	6.7	Joanne.
" 20	b	6	159	471	23.9	"
" 21	c	6 & 7	267	751	35.5	"
" 22	d	7	122	363	15.5	"
" 23	e	7	38	105	4.1	"
" 24	f	7	85	224	9.0	"
1935						
Jan. 7	g	8	168	430	16.3	"
" 8	h	8 & 9	327	705	32.2	"
" 10	j	9	139	334	12.3	"
" 11	k	9	25	71	3.2	"
" 15	m	9	68	138	7.0	"
Feb. 5	n	9 & 10	125	274	13.3	"
" 6	p	10	105	245	10.1	"
Totals.			3403	9058	381.5	

VERIFICATION REPORT
HYDROGRAPHIC SHEET #SB-113

Hydrographic Sheet SB-113 and accompanying records have been inspected and approved by me. The field work was done under my occasional supervision and the office work under my direct supervision.

No additional work is considered necessary.



Robert W. Knox
H. & G. Engineer
Chief of Party

REPORT ON H-5696

GENERAL INSTRUCTIONS.

The records conform to the requirements of the general instructions. ✓

A few discrepancies between the names of signals used on Boat sheet and on Topo sheet have been corrected in records and on smooth sheet. ✓

FIELD DRAFTING.

The plotting was well done. The delineation of the depth curves by the field plotter was generally satisfactory. Practically all soundings revised were due to the dropping of fractions on soundings between 10 and 11 fathoms.

Notes on rocks were inked by field draughtsman, taken from the topo sh. No. 4907. The reviewer's attention is called to these rocks* as the class of rocks and notes do not always agree.

** All discrepancies have been changed on the list sheet to conform with T. 4907 (1954)*

CURVES.

The following curves are drawn: one, two, three, five, ten and twenty fathom curves. ✓

JUNCTIONS.

Junctions with H-5701 and H-5700 have been made and are satisfactory. No junction has been made off shore as no survey of recent date has yet been received in the office. ✓

REMARKS.

(1) In reference to note in Des. Report concerning an error in the protractor, upon checking the plotting of a few positions on these days*, it was noted that these positions would generally not be changed from more than 5 to 10 meters. As all of these positions were outside the 10 fm. curve they were not replotted except as noted in records. ** " " " " g+h days*

(2) Vol. I, pg. 63, Pos 38-39E. (See also D.R. Discrepancy 5)

These positions were changed as noted in the records. The rt. angle was probably wrong (see also note pg. 59 Same Vol.) due to poor visibility and distance away. The locus of left angle favors a time check and was accepted. Such a plotting eliminates the discrepancy as noted in D.R. ✓

(3) Vol. I pg. 64, Pos. 47E (See also D.R. Discrepancy 1)

Pos. 47E was plotted wrong on Smooth sheet. A correct plotting eliminates the discrepancy. ✓

(4) Vol. II pg. 45, Pos 114 P. Cut to rock awash is not definite as to what rock was intended. *Undoubtedly means the nearest * bearing 15 ft. MLLW.*

(5) Vol. I pg. 37, Pos. 11 T. Note in record "Ledge bare 1ft. 12m stbd. ϕ 33-59.35, λ 120-01.58. This checks with a rock awash located by topo. A rock awash symbol has been used.

(6) ϕ 33-59.1, λ 120-00.8 to 120-01.0. Rocks awash located by topo are not mentioned in records. *Stage of tide was near H.W. + may not have been seen*

(7) ϕ 34-02.2, λ 120-02.5. Rocks awash are not mentioned in records. *Same*

(8) ϕ 34-02.15, λ 120-02.45. Sunken rock is not mentioned in records. *Rock was plotted on final sheet. Essentially correct on the chart.*

(9) Vol. VI, pg. 18, Pos. 30b-31b. ϕ 33-59.1, λ 119-58.4. Because of note "strong currents", and the changing of compass course between fixes the soundings between these positions were not plotted on a str. line. This makes the crossing with other lines better.

(10) Vol. VIII, pg. 23, Pos. 120g. Soundings missed by trolley. Note "less than 10 fms." * The 10-fm. curve has been drawn accordingly to include this area. Same applies to pos. 93g *There are some missed as*

(11) Vol. IX pg. 25, Pos. 44j. - Note "approx. 5dg." This sounding has been inked as it agrees with adjacent soundings. *This depth 7 1/2 fath. is on a shoal and is shoals 1 dg.*

(12) ϕ 34-02.1, λ 120-02.3. Sunken rock shown on B.S. has not been inked as such because of accompanying note on B.S. Legend "Tide Rips" has been used. This rock is not mentioned in records. B.S. note - "Probably not a rock - shoal area + tiderips." "Tide Rips" note appears to cover the condition satisfactorily.

Submitted 7/31/35

George H. Everett.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **5696**

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

Number of positions on sheet	3403
Number of positions checked	218
Number of positions revised	15
Number of soundings recorded	9058
Number of soundings revised	260
Number of signals erroneously plotted or transferred	—

Date: *July 31, 1935*

Verification by *G. H. Everett* Time: 71 hrs.
Inked by - C.E. Edwards 34hrs.

Review by *G. Risegari* Time: 22 "
R. J. Christman $3\frac{1}{2}$

LAC

April 11, 1935

Fairly Easy

Division of Hydrography and Topography:

✓ Division of Charts: Attention Mr. E. P. Ellis

Tide Reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 5696 ✓

Locality Bechers Bay and Vicinity, Santa Rosa Island, Coast of California

Chief of Party: Robert W. Knox in 1933-1934

Plane of reference is mean lower low water, reading
3.5 ft. on tide staff at Prisoners Harbor
11.8 ft. below B.M. 1

4.3 ft. on tide staff at Bechers Bay
24.1 ft. below B.M. 1

3.6 ft. on tide staff at Santa Barbara
16.6 ft. below B.M. 1

Height of mean higher high water above plane of reference is 5.0 feet at
Prisoners Harbor; 5.3 feet at Bechers Bay; 5.4 feet at Santa Barbara.

Condition of records satisfactory except as noted below:

Hama
Chief Chief, Division of Tides and Currents.

5 ft 4 in

9 ft 4 in

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5696 (1934-35) FIELD NO. 113

Bechers Bay and Vicinity, Santa Rosa I., California

Surveyed in 1934-35

Instructions dated October 31, 1932 and September 9, 1933 (C. K. Green)

Hand Lead and Machine Soundings.

3 Point fixes on shore signals.

Chief of Party - R. W. Knox.

Surveyed by - H. T. Kelsh.

Protracted by - D. V. Radcliffe.

Soundings penciled by - R. J. Sipe, K. McBean.

Verified by - G. H. Everett.

Inked by - C. E. Edwards.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except that several rocks originating with T-4907 (1934) were not correctly transferred to the smooth sheet.

The descriptive report is complete and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

This is an excellent survey and amply complies with the instructions for the project.

3. Sounding Line Crossings.

The cross lines that result from the work as well as the closely spaced adjacent lines are in excellent agreement.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn, including portions of the 1, 2 and 3 fathom curves.

5. Junctions with Contemporary Surveys.

The junction with H-5700 (1934-35) on the south is satisfactory.

The junction with H-5701 (1934-35) on the west is satisfactory with the exception of a very small holiday in latitude $34^{\circ} 01.8'$, longitude $120^{\circ} 05.1'$. This is of minor importance as the area is in depths of 11 to 12 fathoms, gently sloping bottom. The offshore surveys to the north and northeast have not yet been received in the office.

6. Comparison with Prior Surveys.

a. H-289 (1851).

This is a small scale reconnaissance survey, a few soundings of which fall within the area of the present survey. The survey has no value for comparison.

b. H-1221a (1873-74) and H-1334a (1875-76).

These surveys together cover all the area within the limits of the present survey and are in good agreement with it. Since the present survey has adequately covered these areas it supersedes within its limits H-1221a (1873-4) and H-1334a (1875-6) for future charting purposes.

A number of rocks appearing on the old surveys originate with T-1326 (1872-73). They fall inshore of the inside limits of the present hydrography and have been discussed in the review of T-4907 (1934).

7. Comparison with Chart No. 5202.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review.

8. Field Plotting.

The protracting of positions and the plotting of soundings was satisfactorily done.

9. Additional Field Work Recommended.

The area within this survey has been well covered and the survey is considered quite complete. No additional work is required but due to the importance of this area to the U. S. Navy, the wire dragging of the area north of Santa Rosa Island should be considered. (See recommendation by chief of party, page 4 Descriptive Report of H-5701 (1934).

A few soundings in the small gap at latitude $34^{\circ} 01.8'$, longitude $120^{\circ} 05.1'$ would be desirable when work is resumed.

10. Superseding Old Surveys.

Within the area covered the present survey, with the indicated additions from previous surveys, supersedes the following surveys for charting purposes:

H-1221a (1873-4) in part.

H-1334a (1875-6) in part.

11. Reviewed by - G. Risegari and R. J. Christman August 14, 1935.

Inspected by - R. L. Johnston.

Examined and approved:

K.T. Adams
K. T. Adams,
Assistant Chief, Division of Charts.

F.S. Borden
Chief, Section of Field Work.

L.O. Pollock
Chief, Division of Charts.

G. H. H. H.
Chief, Division of H. & T.

<i>applied to Chart 5115</i>	<i>Feb 5, 1936</i>	<i>Lu Jackwid</i>
" " " 5202	<i>Mar 1936</i>	<i>L.M.Z.</i>
" " " 5101	<i>Mar 1936</i>	<i>L.M.Z.</i>
" " " 5066	<i>Dec 1963</i>	<i>RKD.</i>

25 Jan 15 1936
END

Appd to Capt 5066 12-11-63 RKO