

5366

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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

U. S. COAST & GEODETIC SURVEY
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State: California

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 6 5366
 Hydrographic }

LOCALITY

Pacific Coast

El Jarro Point to Point Ano Nuevo

1932

CHIEF OF PARTY

Fred L. Peacock

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5366

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. 6

REGISTER NO. 5366

State California

General locality Pacific Coast

Locality El Jarro Point to Point Ano Nuevo

Scale 1:10,000 Date of survey Oct. 25-Nov. 13, 1932

Vessel chartered launch ROUGE

Chief of Party Fred L Peacock

Surveyed by A. Newton Stewart

Protracted by R. D. Dewart

Soundings penciled by A. Newton Stewart

Soundings in fathoms feet

Plane of reference M L L W

Subdivision of wire dragged areas by

Inked by S. E. Perkins

Verified by Warren H Bamford & S. E. Perkins

Instructions dated April 4, 1932

Remarks: Hand lead soundings

Visual fix control

XWW 9/22/92

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET FIELD NO. 6
Project No. 101
Coast of California
U.S.C. & G.S.S. GUIDE
1932.

INSTRUCTIONS: Instructions for the hydrography on this sheet are dated April 4, 1932.

LOCALITY: This sheet covers the inshore area southward from Ano Nuevo Island to El Jaro Point. It extends offshore to approximately the 20 fathom curve, and covers an area of 9.4 square statute miles.

LIMITS: This sheet joins Launch Sheet No. 5 on the north, Ship Sheets Nos. 44 and 46 on the west, and Launch Sheet No. 7 on the south.
H5245 H.5266 H5287 H5312

CHARACTER OF WORK: The hydrography on this sheet is all hand lead sounding with visual fix control. The depths range up to a maximum of 22 fathoms.

The sounding lines are spaced approximately 90 meters inside the 10 fathom curve and 180 meters in greater depths.

Cross lines are spaced not more than three miles apart.

The position interval ranges from two to three minutes, the usual interval being about two and one half minutes. Supplemental positions were obtained at radical changes of course and speed.

This survey was executed between October 25 and November 13, 1932.

CONTROL: The control for the hydrography on this sheet consists of positions determined by triangulation in 1931 by Lieutenant C. D. Meany, and of the topographic signals located by the 1932 topographic unit of the Ship GUIDE's party. These positions are plotted on the North American 1927 Adjusted Datum.

TIDAL REDUCERS: Tidal reducers were obtained from the records of the Santa Cruz Tide Station. It was not necessary to apply a correction for either time or range.

For further information on this subject the reader is referred to the Season's Tidal Report which covers all the tidal work for the Ship GUIDE's party from April 29, 1932 to February 28, 1933.

LEADLINE CORRECTIONS: It should be noted that considerable trouble was had during the season due to shrinkage of the leadlines. Leadlines were checked regularly before and after each days work and usually at noon. Corrections to soundings were obtained by direct proportion between the times of the corrections.

BOTTOM CHARACTERISTICS: Numerous bottom characteristics well distributed over the area were obtained. In general the bottom is sandy. Close inshore and in the area of irregular bottom extending southeastward from Ano Nuevo Island Lighthouse it is rocky.

DANGERS AND SHOALS: Attention is called to two shoals in Latitude $37^{\circ}06.1$ and Longitude $122^{\circ}19.5$, and Latitude $37^{\circ}05.9$ and Longitude $122^{\circ}19.9$. These were developed on Launch Sheet No. 5 which joins this sheet on the north. Shoal indications are shown on this sheet but not the least depths. The least depths are shown on Sheet No. 5. — H-5287

The irregular bottom in Latitude $37^{\circ}05.6$ and Longitude $122^{\circ}18.9$ was carefully felt over, a least depth of $5 \frac{5}{6}$ fathoms being obtained.

All other shoals found are close inshore, the most notable of which is an irregularity found in Latitude $37^{\circ}03.4$, about one half mile offshore.

$122^{\circ}13.43 - 6 \frac{1}{2}$ fms

BUOYS: In Latitude $37^{\circ}02.1$ and Longitude $122^{\circ}14.1$ there are several buoys of various kinds which mark an unloading station of the General Petroleum Corporation.

The positions of these buoys together with a brief description of each, are recorded on Page 2, Volume 2, of the sounding volumes of this sheet. It is not known whether or not these are permanent buoys.

ANCHORAGE: An anchorage used by fishing boats and the Lighthouse Service lies east of Ano Nuevo Island Lighthouse in Latitude $37^{\circ}06.4$ and Longitude $122^{\circ}19.0$, larger vessels anchoring about a half mile southeast of this position. The smaller fishing boats often anchor closer inshore, off stations Don or Abe. This anchorage affords fairly good protection from the northwest but is exposed to the south. It should be approached from the south.

The development of this anchorage is partly on this sheet, but mostly on Sheet No. 5.

JUNCTIONS: Satisfactory junctions have been obtained with Launch
Sheets No. 5 on the north and No. 7 on the south.

#5287

#5312

#5245

#5266

Junction is made with Ship Sheets 44 and 48 on the west.
While there is not an actual overlap with these in all places the
bottom here is regular and soundings appear satisfactory.

DISCREPANCIES: This sheet is free from apparent discrepancies, all
irregular soundings having been verified by development.

COMPARISON WITH PREVIOUS SURVEYS: Previous surveys of this area are
covered by sheets 380, 506 and 505. The soundings and depth curves
agree in general but with minor variations. The newer survey, being
in greater detail, shows less water on the few shoals and gives a
better delineation of the depth curves.

Respectfully submitted,

A. Newton Stewart
A. Newton Stewart,
Jr. H. & G. Engineer,
U.S. C. & G. Survey.

Respectfully forwarded,
approved:

Fred. L. Peacock
Fred. L. Peacock,
Chief of Party, C. & G. Survey,
Commanding Ship GUIDE.

VARIATION OF SOUNDING METHOD IN DEPTHS TOO GREAT FOR ORDINARY HAND
LEAD SOUNDING:

The deeper soundings on this sheet were obtained by a slight modification of the usual hand lead sounding.

Whenever the depth became so great that any difficulty was experienced in obtaining vertical lead line casts at regular sounding speed the launch engine clutch was disengaged at the command "Sound", and was re-engaged when the sounding had been obtained. This method was resorted to because of the small amount of work necessary outside the fifteen fathom curve and was particularly feasible in that the launch was equipped with pilot house control which enabled the helmsman to view the operations of the leadsman and control the engine accordingly.

A fourteen pound lead was used for all soundings outside the ten fathom curve.

Although a hand wire sounding machine was installed on the launch, ready for use, the method detailed above was favored, since in the opinion of the hydrographer it gave better control of the sounding line and was faster.

The regularity with which the engine clutch was manipulated appeared to insure satisfactory accuracy with respect to the spacing of soundings intermediate between positions.

All recorded soundings were made with the lead line vertical and all doubtful soundings were rejected at the time.

A. Newton Stewart
A. Newton Stewart,
Jr. H. & G. Engineer,
U.S.C. & G. Survey,
Hydrographer.

STATEMENT
to accompany
HYDROGRAPHIC SHEET FIELD NO. 6
Project No. 101
Coast of California
U.S.C. & G.S.S. GUIDE
1932

The protracting of this sheet was done by Mr. R. D. Dewell, Civil Engineering Hand, under the direct supervision of Lieutenant (j.g.) L. W. Swanson. At least ten percent of the protracting was checked by Lieutenant (j.g.) A. Newton Stewart.

The soundings were plotted and the depth curves drawn by Lieutenant Stewart.

The completed smooth sheet has been inspected and is approved. However, as much of the work was done by a temporary employee it is recommended that the office verification be correspondingly rigid.


Fred. L. Peacock,
Chief of Party, C. & G. S.,
Commanding Ship GUIDE.

LIST OF SIGNALS
to accompany
HYDROGRAPHIC SHEET FIELD NO. 6
Project No. 101

TRIANGULATION

Hydrographic Name	Location
Lite	Ano Nuevo Lighthouse, 1931
Evo	Evo, 1931
Grey	Grey, 1931
Ocean	Ocean, 1931
Jaro	Jaro, 1931

TOPOGRAPHIC

Name	Topographic Sheet F
Stripe	
Pole	"
Pen	"
Silo	"
Abe	"
Don	"
Nel	"
Whi	"
Tre	"
Shed	"
Tank	"
Fen	"
Nat	"
San	"
Sig	"
Tip	"
Tuf	"
Pot	"
Dog	"
Yap	"
Ben	"
Net	"
Cat	"
Lop	"
Bill	"
Tall	"
Bul	"
Tom	"

STATISTICS
to accompany
HYDROGRAPHIC SHEET FIELD NO. 6

Day	Date 1932	Statute Miles of Sounding Line	Number of Positions	Number of Soundings
a	10-25	15.8	75	195
b	10-26	24.5	134	458
c	10-27	16.2	110	298
d	11-9	13.8	65	229
e	11-10	25.0	138	386
f	11-11	30.9	150	430
g	11-12	33.1	199	820
h	11-13	12.3	107	315
TOTALS		115.1	978	3131

Area in square statute miles - 9.4

Partial Report on H 5366

Jan. 29-1934

1/ The protracting was found to have been exceptionally well done although the corrections made in the volumes by the field party - during the plotting of the sheet - to the angles and signals are more numerous than usual. The position numbers are generally small and placed properly.

2/ The topographic sheet for this area had not been received in the office at this time.

Respectfully Submitted
W. H. Bausford

SECTION OF FIELD RECORDS

REPORT ON H-5366.

CHIEF OF PARTY Fred L. Peacock

SURVEYED BY A. Newton Stewart

VERIFIED BY Warren H. Bamford
and S.E. Perkins

INKED BY S.E. Perkins

SURVEYED Oct 25, - Nov 13, 1932

PROTRACTED BY R.D. Dewell

SOUNDINGS PLOTTED BY
A. Newton Stewart

TOPOGRAPHY INKED BY
FIELD PARTY.

1. The records conform to the General Instructions except that rocks are not completely described. On the Boat Sheet near position 89B, four (4) rocks are shown in pencil. There are only two (2) rocks definitely mentioned in the sounding volumes, for this position.
2. The junctions were good except in one or two cases where H-5245 joined. This may have been due to difference in hand lead and fathometer sounding.

3. The usual depth curves can be drawn.
4. The field plotting was completed to the degree prescribed in the General Instruction.
5. Errors in spacing soundings occurred seldom.
6. The protracting and field drafting were particularly well done, in view of the fact that F. L. Peacock, chief of Party, indicated that new men had done the drafting, for the most part.
7. The topographic sheet for this area has not been received at this office at this time.

Respectfully Submitted
J. E. Perkins

Feb. 19, 1934

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Division of Hydrography and Topography:

January 25, 1934

Division of Charts:

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5366

Locality El Jarro Point to Point Ano Nuevo, Coast of California

Chief of Party: Fred. L. Peacock in 1932

Plane of reference is mean lower low water reading

3.0 ft. on tide staff at Santa Cruz

14.5 ft. below B. M. 2

Height of mean higher high water above plane of reference is 5.3 feet.

Condition of records satisfactory except as noted below:

Hammann
Acty Chief, Division of Tides and Currents

SECTION OF FIELD RECORDS
Review of Hydrographic Sheet No. 5366
El Jarro Pt. to Pt. Ano Nuevo, Coast of California.
Surveyed in 1932
Hand lead soundings
Instructions dated April 4, 1932 (GUIDE).

Chief of Party - F. L. Peacock.
Surveyed by - A. N. Stewart.
Protracted by - R. D. Dewell.
Soundings plotted by - A. N. Stewart.
Verified by - W. H. Bamford, S. E. Perkins.
Inked by - S. E. P.

1. The records conform to the requirements of the Hydrographic Manual.
2. The character and extent of the survey satisfy the specific instructions.
3. The sounding line crossings are satisfactory and adjacent sounding lines agree very well except in the irregular areas close in shore.
4. The information is sufficient for drawing the usual depth curves with the exception of some of the shoaler curves close to the shoreline.
5. The junctions on the north with H. 5287, and on the west with H. 5245 and H. 5266 and on the south with H. 5312 are satisfactory.
6. Comparison with Previous Surveys.

The older surveys in this area H. 241, H. 290, H. 380, H. 505, H. 506, and H. 871 were examined. Although the depths differ slightly in some places, the general agreement of soundings and depth curves is very good. The survey of 1924 and 5, H. 4455, is in good agreement with the new work in the vicinity of the 20 fathom curve south of Lat. 37° 03'. None of the older surveys show any shoals or dangers which were not found by the new work. In view of the fact that the recent survey, H. 5366, is in greater detail, shows less water on the shoals and gives a better delineation of the depth curves, it is recommended that it should now supersede all previous work and become the basic survey for this area.

7. Chart Change.

In approximate Lat. 37° 02'.4 a solid line is shown on Chart 5402 extending out from the shoreline. This would be taken for a pier but is a 13 inch pipe belonging to the General Petroleum Corporation. (Bp. 22818). From the fact that sounding lines were run over this without any mention being made of it in the records and that it was not seen by the topographer, it is evident that the pipe is submerged. It is recommended that a broken line be substituted on the chart.

8. The survey as a whole is believed to be adequate and no additional work is required.

9. Reviewed by - R. L. Johnston.

K. T. Adams
K. T. Adams, Chief,
Section of Field Records.

F. L. Peacock
Chief, Section of Field Work.

Examined and approved: *L. O. L. Abbott*
Chief, Division of Charts.

S. E. P.
Chief, Division of H. & T.