

9576

Diag. Cht. No. 5101-4

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey HYDROGRAPHIC
Field No. FA-20-8-75
Office No..... H-9576

LOCALITY

State CALIFORNIA
General Locality SOUTHERN CALIFORNIA
Locality SANTA MONICA BAY, OFFSHORE
..... POINT DUME TO MALIBU

19 75

CHIEF OF PARTY

R. E. ALDERMAN

LIBRARY & ARCHIVES

DATE 9-29-76

9576

Charts

5144 Applied 3-4-77 BWH ☆ U.S. GOV. PRINTING OFFICE: 1975-688-353
RES 5101 Applied 3-10-77 BWH
RES 5002 Applied 3-11-77 BWH
RES 5020 Applied 3-11-77 BWH
RES 5202 Applied 3-11-77 BWH
9000

RES INT 501 Exam - no copy 3-11-77 BWH

HYDROGRAPHIC TITLE SHEET

H-9576

INSTRUCTIONS - 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.

FA-20-8-75

State California

General locality Southern California

Locality Santa Monica Bay, Offshore Pt. Dume to Malibu

Scale 1:20,000 Date of survey 29 October 1975-30 October 1975

Instructions dated 11 August 1975 Project No. OPR-411-FA-75

vessel NOAA Ship FAIRWEATHER MSS 20 (EDP-2020)

Chief of party Cdr. R. E. Alderman, NOAA

Surveyed by FAIRWEATHER personnel

Soundings taken by echo sounder, ~~XXXXXXXXXX~~ EDO System: Recorder (Model 333A, S/N118)
Tranceiver Model 248B, S/N 416) Ross System-

Graphic record scaled by EDO Digitrak 5000 Fineline (Model 544, S/N1047)
(Model 261C) Ross Transceiver (Model 544, S/N 1054)

Graphic record checked by FAIRWEATHER personnel

Positions verified

~~XXXXXXXXXX~~ by Karol M. Hoops Automated plot by PMC Kynetics Plotter

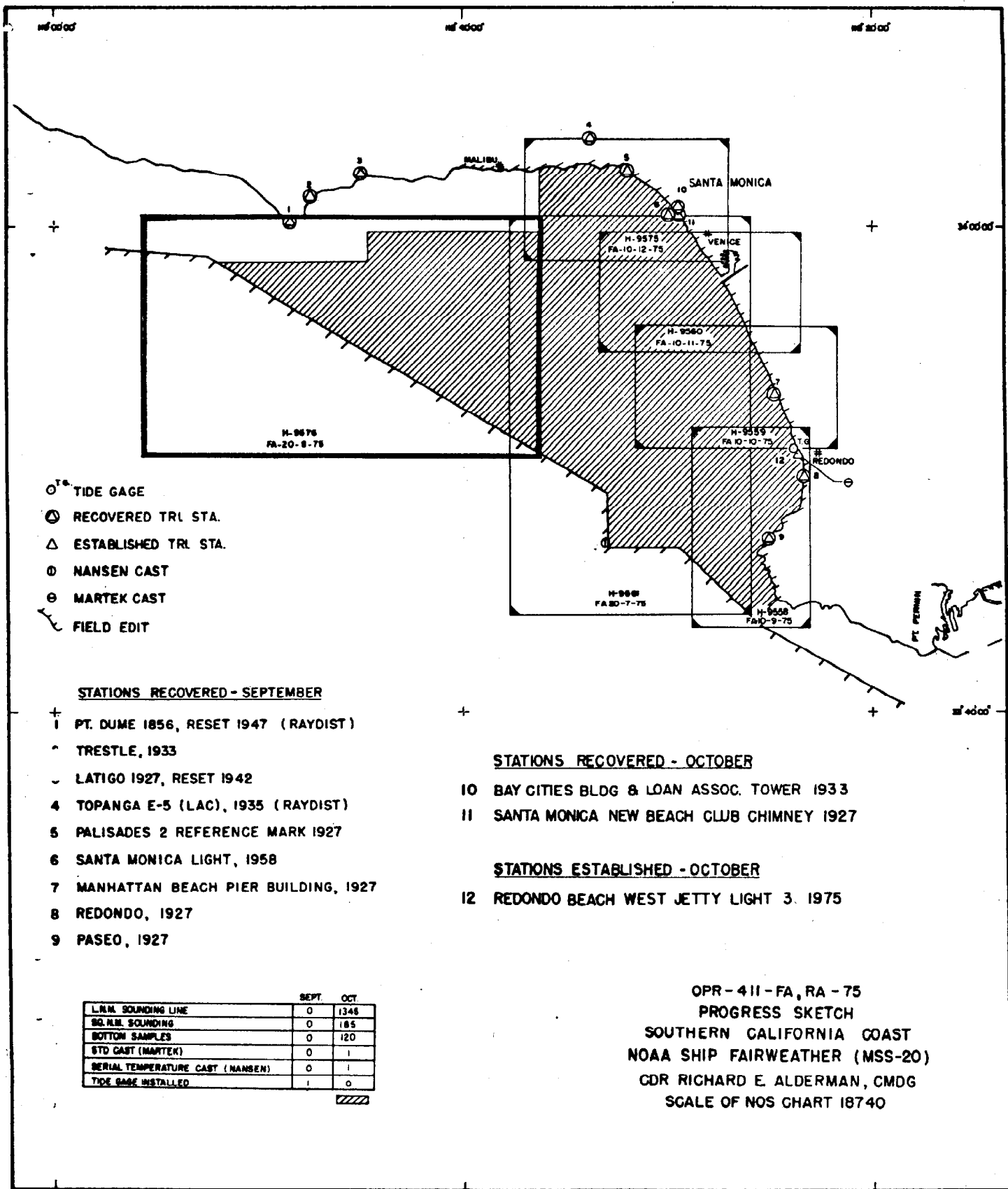
Sounding

Verification by Karol M. Hoops

Soundings in fathoms ~~XXXX~~ at ~~MLLW~~ MLLW

REMARKS: All survey records were kept on GMT. The mean longitude of the
survey is 118/41/00W. The boatsheet is complete and adequate for charting.

Applied to atlas 2-11-77
CRB



- TIDE GAGE
- ⊙ RECOVERED TRL STA.
- △ ESTABLISHED TRL STA.
- ⊖ NANSEN CAST
- ⊕ MARTEK CAST
- ⌞ FIELD EDIT

STATIONS RECOVERED - SEPTEMBER

- + 1 PT. DUME 1856, RESET 1947 (RAYDIST)
- TRESTLE, 1933
- LATIGO 1927, RESET 1942
- 4 TOPANGA E-5 (LAC), 1935 (RAYDIST)
- 5 PALISADES 2 REFERENCE MARK 1927
- 6 SANTA MONICA LIGHT, 1958
- 7 MANHATTAN BEACH PIER BUILDING, 1927
- 8 REDONDO, 1927
- 9 PASEO, 1927

STATIONS RECOVERED - OCTOBER

- 10 BAY CITIES BLDG & LOAN ASSOC. TOWER 1933
- 11 SANTA MONICA NEW BEACH CLUB CHIMNEY 1927

STATIONS ESTABLISHED - OCTOBER

- 12 REDONDO BEACH WEST JETTY LIGHT 3. 1975

	SEPT	OCT
L.N.M. SOUNDING LINE	0	1348
SO.N.M. SOUNDING	0	185
BOTTOM SAMPLES	0	120
STD CAST (MARTEK)	0	1
SERIAL TEMPERATURE CAST (NANSEN)	0	1
TIDE GAGE INSTALLED	1	0



OPR-411-FA, RA - 75
 PROGRESS SKETCH
 SOUTHERN CALIFORNIA COAST
 NOAA SHIP FAIRWEATHER (MSS-20)
 CDR RICHARD E. ALDERMAN, CMDG
 SCALE OF NOS CHART 18740

DESCRIPTIVE REPORT

NOAA SHIP FAIRWEATHER (MSS-20)

OPR-411-FA-75

SURVEY H-9576 (FA-20-8-75)

A. PROJECT

This survey was accomplished according to project instructions OPR-411-FA-75, Southern California Coast, dated 11 August 1975, and with the PMC OPORDER.

B. AREA SURVEYED

The area encompassed by FA-20-8-75 is a portion of Santa Monica Bay, including the Santa Monica Canyon, which lies approximately offshore of the Pt. Dume to Malibu Beach regions on the Southern California Coast. The field sheet is bounded by 33/59/45 N on the north as far west as longitude 118/44/45 W where it is then bounded by 33/58/00 N on the north, by a line from 33/58/00 N, 118/51/00 W to 33/51/00 N, 118/37/00 W on the southwest, and by longitude 118/37/00 W on the east. Hydrography was accomplished from 29 October 1975 to 30 October 1975.

C. SOUNDING VESSEL

The survey was accomplished by the NOAA Ship FAIRWEATHER, MSS-20.

D. SOUNDING EQUIPMENT

The ship used a Ross Finline Fathometer in depths less than 200 fathoms and an EDO recorder, traneiver, and digitrak unit in greater depths. A TRA correction of +2.6 fathoms, based on the known draft of the ship and previous lead line comparisions, was used. The sound velocity corrections were determined from one Nansen Cast taken within the project area. For details see Report on Corrections to Echo Soundings, OPR-411-FA-75. Velocity correctors were not applied to the final *boat sheet* plot. The depths of the soundings on this sheet range from approximately 32 fathoms to 353 fathoms.

SOUNDING INSTRUMENTS

<u>Vessel</u>	<u>Instruments</u>	<u>Model</u>	<u>S/N</u>
Ship	EDO Recorder	333 A	118
	EDO Transceiver	248 B	416
	EDO Digitrak	261 C	-
	Ross Fineline Recorder	544	1047
	Ross Transceiver	544	1054

E. BOAT SHEET

All data was plotted by the shipboard Hydroplot System, using the Ship's PDP 8/e computer (S/N M-40-00000-1006) and a Complot Plotter (model DP3-5, S/N 5848-17). Two plotter sheets were required. Each is a modified transverse Mercator projection at a scale of 1:20,000 with a skew of zero degrees. The plotter origin is 33/51/00 N, 118/55/42 W on boatsheet FA-20-8A-75 and 33/54/30N, 118/55/42 W on boatsheet FA-20-8B-75. Copies of the parameter tape printouts are appended.

F. STATION CONTROL

Horizontal control for this survey consisted of existing triangulation stations and one station established for this project. The pattern one electronic control station was located over PT. DUME 1856 RESET 1947. The pattern two station was located over TOPANGA E-5 (LAC) 1935. The three calibration signals were located over an existing triangulation station, an existing triangulation intersection station, and over a station established by third order resection. The 1927 North American Datum was used for all computations, which are included in The Electronic Systems Calibration Report, OPR-411-FA-75. No photogrammetrically located signals were used for this survey.

G. POSITION CONTROL

The Hastings Raydist electronic positioning equipment, operating in the range/range mode, was used to control all the hydrography on this sheet.

The pattern one station was located over PT. DUME 1856 RESET 1947 and the pattern two station over TOPANGA E-5 (LAC) 1935. The FAIRWEATHER was equipped with a Raydist mobile transmitter, navigator, strip chart recorder and a 35 ft. whip antenna. The strip chart recorder was monitored and annotated at all times between calibrations. Electronic correctors were determined by averaging the calibrations taken at the beginning and the end of the survey.

Calibration of the Raydist Navigator was accomplished by range/range Miniranger fixes from transponders located at PT. DUME 1856 RESET 1947, SANTA MONICA LIGHT 1958, and MARINA DEL REY BREAKWATER TP 1975. Miniranger calibrations were compared to simultaneous theodolite intersection calibrations during ship hydrography on survey FA-20-8-75 and found to compare within 0.1-0.2 lane (4.5-9 meters). On this basis the Miniranger calibrations were considered adequate to control this survey.

Electronic correctors, derived from the calibration data, were applied to the observed ranges before plotting on the field sheet. Slope corrections were automatically applied. Base station operation was excellent, with negligible drift between calibrations and no lane jumps.

H. SHORELINE

There is no shoreline on this field sheet.

I. CROSSLINES

Approximately 21.5 nautical miles, of 11% of the hydrography on FA-20-8-75, is crosslines. Comparisons at crossings are generally good, with no more than 1 fathom variations except at approximately 33/55.3 N, 118/38.5 W where the variation is 5 fathoms in a depth of 200 fathoms on boatsheet FA-20-8-75. The bottom has a very steep slope in this part of the Santa Monica Canyon which is the probable cause of this 5 fathom variation.

J. JUNCTIONS

The survey junctions to the east with contemporary survey FA-20-7-75 (H-9561). Soundings are in excellent agreement with a maximum variation of 1 fathom in depths of 32 fathoms to 212 fathoms.

K. COMPARISONS WITH PRIOR SURVEYS

Prior survey H-5507, Malibu Pt. to Pt. Mugu, scale 1:40,000, dated June 22, 1933 to January 22, 1934, was available for comparisons with this survey and variations in soundings ranged from 1 fathom in depths of 45 fathoms to 11 fathoms in depths of 300 fathoms. With the application of sound velocity corrections the variation was reduced from 11 fathoms to 6 fathoms in 300 fathoms. This area of Santa Monica Bay has a steep bottom slope which could cause this variation in adjacent soundings. There are no Pre-Survey Review items pertaining to FA-20-8-75.

L. COMPARISON WITH CHART

Four soundings from chart 18740 (C&GS 5101), scale 1:234,270, dated 20th edition February 22, 1975, are covered on boatsheet FA-20-8-75. Due to the large difference in the scales between the chart and the

field sheet, approximately (10:1), it was impossible to compare the soundings with any degree of accuracy.

Additional comparisons of soundings from chart 18744 (C&GS 5144), scale 1:40,000, dated 19th edition May 24, 1975 were made with sheets FA-20-8A-75 and FA-20-8B-75. The soundings were generally in good agreement with maximum variations of approximately 2 fathoms in depths of 300 fathoms.

M. ADEQUACY OF SURVEY

All fathogram field survey records were scanned for peaks and deeps. The survey is complete and adequate to supersede prior surveys.

N. AIDS TO NAVIGATION

There are no aids to navigation on this field sheet.

O. STATISTICS

<u>Vessel</u>	<u>Total Positions</u>	<u>N. Miles</u>
MSS-20	516	193.5

Total Area 49.5 sq. n.m.
Total Bottom Samples:17

P. MISCELLANEOUS

Greenwich Mean Time was used for all survey records. Raydist was used for position control. Velocity correctors were not applied on the plotted field sheet.

Poor traces on the Ross Fineline Fathometer were experienced in depths over 200 fathoms. The EDO Fathometer performed adequately at these greater depths and was used in all areas over 200 fathoms deep.

In areas of relatively flat bottom slope the EDO and Ross Fathometer soundings were in excellent agreement. In areas of relatively steep bottom slope the EDO consistently gave shoaler soundings than the Ross Fathometer, because of its wider (30 degree vs. 10 degree) beam width. The variations in soundings range from 0 fathoms to approximately 3 fathoms depending on the bottom slope.

Santa Monica Canyon was developed using ~~200~~⁵⁰⁰ meter spacing in all areas where the bottom had a gentle slope. Where it was necessary to delineate the Canyon edge, ~~100~~²⁰⁰ meter spacing was used. The structure of the Canyon seems unaltered since the last survey

Q. RECOMMENDATIONS

It is recommended that this survey be accepted and used for charting purposes. ✓

R. REFERENCES TO REPORTS

1. Report On Corrections To Echo Soundings, OPR-411-FA-75.
2. Electronic Systems Calibration Report, OPR-411-FA-75. ✓
3. Coast Pilot Report, OPR-411-FA-75.
4. Field Edit Reports, OPR-411-FA-75.

S. DATA PROCESSING PROCEDURES

The Ship used program RK-111, version 4/1/74, on its PDP 8/e computer to acquire and compile all on-line hydrographic data. Program RK-211, version 8/16/74, was used to plot the field sheet. ✓

Submitted By:

Neal G. Millett, ENS. NOAA
ENS. Neal G. Millett, NOAA

FIELD TIDE NOTE

Field tide reduction of soundings was based on predicted tides from Los Angeles Outer Harbor, California, and were interpolated by PDP8e computer utilizing AM500. All times of both predicted and recorded tides are based on GMT.

One Fisher-Porter ADR gage was installed in the project area. Location and period of operation is as follows:

<u>Site</u>	<u>Location</u>	<u>Period</u>
King Harbor,	33°50.8'N	41 days
Redondo Beach	118°23.9'W	20 Sept. - 1 Nov. 1975

KING HARBOR

ADR gage (S/N 7403A3402M14) was installed 9-20-75 and ran satisfactorily for 41 days until removal on 11-1-75. On 10-2-75 at 1704Z the gage was found to be 2 minutes fast. The gage was corrected and no other time errors were observed. The marigram reads 2.1 feet greater than the staff.

Time & Height Differences

No hourly height tabulations were done as the only gage observed was an ADR using a paper punch data record. No time & height differences were examined as only the King Harbor gage was observed; the Los Angeles Outer Harbor and Santa Monica Pier gages' data is submitted directly to Tides Branch by contract observers.

Levels

In a comparison of installation and removal level records, the King Harbor tide staff had a negligible shift of 0.001 ft.

Zoning

No zoning was required or attempted as only data from the King Harbor gage was observed. It is recommended that any necessary zoning be done by the Tides Branch after a review of existing (Los Angeles Outer Harbor and Santa Monica Pier) and observed data.

VELOCITY TABLE 0001SOUND VELOCITY CORRECTOR ABSTRACT

The following sound velocity correctors are to be applied to all soundings on sheets:

FA-10-9-75*	(H-9558)
FA-10-10-75	(H-9559)
FA-10-11-75	(H-9560)
FA-10-12-75	(H-9575)
FA-20-7-75	(H-9561)
FA-20-8-75	(H-9576)

<u>DEPTH (FATHOMS)</u>	<u>CORRECTOR (FATHOMS)</u>
0.0-2.0✓	+ 0.0✓
2.1-4.0✓	0.1✓
4.1-8.2✓	0.2✓
8.3-11.0✓	0.3✓
11.1-14.0✓	0.4✓
14.1-18.8✓	0.5✓
18.9-22.0✓	0.6✓
22.1-27.5✓	0.7✓
27.6-34.9	0.8✓
35.0-43.1✓	1.0✓
43.2-53.6✓	1.2✓
53.7-65.0✓	1.4✓
65.1-77.0✓	1.6✓
77.1-79.0✓	1.8✓
79.1-100.0✓	2.0✓
100.1-112.0✓	2.2✓
112.1-137.0✓	2.5✓
137.1-168.0✓	3.0✓
168.1-200.0✓	3.5✓
200.1-231.0✓	4.0✓
231.1-260.0✓	4.5✓
260.1-294.0✓	5.0✓
294.1-337.0✓	5.5✓

*Excluding soundings in feet on the 1:5000 scale insert of King Harbor (see Velocity Table 0002).

OPR 411 SOUTHERN CALIFORNIA COAST FALL 1975

STATION LIST: H-9558, 9559, 9560, 9561, 9575 & 9576

STA	O	LATITUDE	LONGITUDE	CRT	ELEV	F	KHZ	SOURCE
---	---	-----	-----	---	---	---	---	-----
001	0	34 00 05652	118 48 20652	250	0062	330040		PT DUME 1856 <i>Reset 1947</i> does not belong in name per Q-341183 Melby
002	0	34 03 40193	118 33 46981	250	0437	330040		TOPANGA CANYON E-5 (LAC) 1935 <i>254</i> <i>250</i> no published (1) G. P. Available
004	0	33 50 27754	118 23 40498	250	0011	000000		REDONDO BEACH WEST JETTY LT 3 (2)
005	0	33 49 39405	118 23 21230	250	0021	000000		REDONDO 1927 Q-3311814
008	0	34 00 55744	118 29 44492	139	0000	000000		BAY CITIES BLDG & LOAN ASSOC TOWER 1933 Q-341182
009	0	34 00 05652	118 48 20652	250	0062	000000		PT DUME 1856 Q-341183
010	0	33 57 36658	118 27 41864	250	0005	000000		MARINA DEL REY BREAKWATER TP 1975 (2)
011	0	34 00 27006	118 29 56399	250	0014	000000		SANTA MONICA LIGHT 1958 Q-341182
012	0	33 47 08799	118 25 02100	139	0063	000000		PASEO 1927 Q-3311814
101	0	33 50 27754	118 23 40498	250	0011	000000		REDONDO BEACH WEST JETTY LT 3 (2)
102	0	33 50 30023	118 23 33796	243	0007	000000		REDONDO BEACH EAST JETTY LT 2 (3)
103	0	33 50 35281	118 23 35857	243	0005	000000		NW CORNER OF PIER (3)
104	0	33 50 24765	118 23 31346	243	0005	000000		NW CORNER OF BLDG (3)
105	0	33 50 40247	118 23 44997	243	0018	000000		PORTOFINO TOWER (CENTER) (3)
106	0	33 50 48556	118 23 52230	243	0003	000000		PORTOFINO LT 1 (3)

MAST OF PRINCESS LOUISE II
 107 0 33 50 30704 118 23 30918 243 0020 000000 (3)

KING HARBOR LT 2
 108 0 33 50 54365 118 23 56353 243 0002 000000 (3)

BREAKWATER PLATFORM (SOUTH END)
 109 0 33 50 40669 118 23 56742 243 0005 000000 (3)

NORTH STACK OF 8
 110 0 33 51 06524 118 23 41271 243 0040 000000 (3)

KHYC FLAGPOLE
 111 0 33 50 56151 118 23 59075 243 0013 000000 (3)

STACK (240 FT)
 114 0 33 55 45958 118 25 53371 243 0073 000000 (3)

STACK (334 FT)
 115 0 33 55 07562 118 25 35191 243 0102 000000 (3)

NW CORNER OF PIER
 118 0 33 50 19766 118 23 29129 243 0005 000000 (3)

LAT & LONG GRID FOR D. R. WORK
 119 0 33 51 30000 118 24 15000 243 0000 000000 (3)

SPIRE
 120 0 33 53 12000 118 24 36000 243 0100 000000 (4)

REDONDO BEACH CALIBRATION BUOY
 PATTERN I = 923.50
 PATTERN II = 636.60

MARINA DEL REY BREAKWATER CALIBRATION BUOY
 PATTERN I = 708.02
 PATTERN II = 321.85

- (1) LOS ANGELES COUNTY SURVEY DEPARTMENT
- (2) SEE HORIZONTAL CONTROL ADDENDUM
- (3) PHOTO PICKED SIGNALS FROM MAP TP-00791
- (4) PHOTO PICKED SIGNALS FROM MAP TP-00790

APPROVAL SHEET

Field No. FA-20-8-75

Register No. H-9576

The field sheet and all accompanying records are hereby approved. The survey was conducted under my personal supervision and the field sheet and other records were examined daily. This survey is complete and adequate to supersede prior surveys for charting.

A handwritten signature in black ink, appearing to read 'R. E. Alderman', with a long horizontal flourish extending to the right.

Cdr. Richard E. Alderman, NOAA
Commanding Officer
NOAA Ship FAIRWEATHER (MSS-20)

1/28/76

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): Redondo Beach

Period: October 29-30, 1975

HYDROGRAPHIC SHEET: H-9576

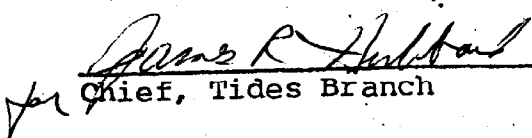
OPR: 411

Locality: Santa Monica Bay, California

Plane of reference (mean lower low water): 0.87 ft.

Height of Mean High Water above Plane of Reference:
4.6 ft.

Remarks: zone direct.



Chief, Tides Branch

GEOGRAPHIC NAMES

Survey No.

H-9576

Name on Survey

	A	B	C	D	E	F	G	H	I
	On Chart No.	On previous survey No.	On U. S. quadrang. Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	Photogrammetric Manuscript
Santa Monica Bay	18744								1
Santa Monica Canyon									2
									3
									4
									5
									6
									7
									8
									9
									10
									11
									12
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									26
									27

Approved

Chas. E. Hamilton

STAFF GEOGRAPHER - C5162

2 Nov. 1976

7A

APPROVAL SHEET
FOR
SURVEY H- 9576

- A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position print-out has been made. A new final sounding print-out has been made.
- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic Manual. Exceptions are listed in the verifier's report.

Date: 9 Sep 1976

Signed: _____

Title: Chief, Verification Branch

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. 9576

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & excess, PNO overlays		1	BOAT SHEETS (2 parts, paper)		1 <i>yx</i>	
DESCRIPTIVE REPORT		1	OVERLAYS (preliminary)		4 <i>yx</i>	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1		1			
VOLUMES	1					
BOXES			1-final Pos. & Sndg. Printout, cahier (fath. & P/O),			
T-SHEET PRINTS (List)			sndg. Vol. & bundle of sawtooth rec.			
SPECIAL REPORTS (List)			N/A			

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				513
POSITIONS CHECKED		513		
POSITIONS REVISED		1		
DEPTH SOUNDINGS REVISED		164		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		0		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
Verification of Control		3		
Verification of Positions		12		
Verification of Soundings		94		
Smooth Sheet		8		
All Other Work		10		
TOTALS	2	127		
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
James S. Green, Chief, Verification Branch	2/3/76		2/3/76	
VERIFICATION BY	BEGINNING DATE		ENDING DATE	
Karol M. Hoops, Cartographic Technician	2/11/76		8/30/76	
REVIEW BY	BEGINNING DATE		ENDING DATE	

Evaluator: N Myers 22 hrs 11/14/76

R D Sanocki 3 hrs 25/1/77
* U.S. G.P.O. 1972-769-562/439 REG.#6

REGISTRY NO. H-9576

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQUIRED _____ INITIALS _____

REMARKS:

REGISTRY NO. H-9576

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE _____ TIME REQUIRED _____ INITIALS _____

REMARKS:

H-9576

Information for Future Presurvey Reviews

The bottom has not significantly changed in the area of the present survey since the prior surveys.

<u>Position Index</u>		<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>

Present survey depths are greater than 20 fathoms.

The resurvey cycle is 50 years.

VERIFIER'S REPORT

H-9576

FA-20-8-75

This survey was verified and plotted at the Pacific Marine Center, Seattle, Washington. Information relating to this survey is provided as specified in Chapter 6 of the Provisional Hydrographic Manual.

I. INTRODUCTION

H-9576 is an offshore survey off Point Dume, California, accomplished by NOAA Ship FAIRWEATHER in the fall of 1975 utilizing Raydist positioning control.

There was only one major problem encountered in verification of this survey. That being in the depth recordings. At times the ship was depending on the Ross fathometer at depths more than 200 fathoms which exceeds the limitation of the instrument. Furthermore, the Digitrak digitizer used in tandem with the EDO fathometer was off as much as twenty fathoms. There were cases where the paper would stick on the EDO and the analog trace would be lost. As a result, the verifier had to rescan every sounding. The digitized sounding was accepted when the trace was not readable and the sounding appeared reasonable.

Projection parameters used to prepare the boatsheet have been revised to combine the two boatsheets and center the hydrography on the smooth sheet. Parameters used by PMC are appended.

Tide correctors for this survey were computed using hourly heights approved by Tides Branch, Rockville, from the Redondo Beach marigrams. The approved form 712 is appended.

II. CONTROL AND SHORELINE

This survey is an offshore survey with larger scale surveys inshore. Shoreline was not required and is not shown on the smooth sheet.

Horizontal control is adequately presented by the ship in section F of the descriptive report. The computer listing of signals is included with the position printout.

III. HYDROGRAPHY

The hydrography incorporated in this survey was adequate to delineate the bottom characteristics. The crossline soundings were in good agreement with the main scheme. An adequate number of bottom samples were obtained.

IV. CONDITION OF SURVEY

With the exception of the forementioned problems created by the limitation and the operation of the fathometers, the condition of the survey is found to be satisfactory. The smooth sheet, overlays and other hydrographic records are adequate and conform to the requirements of the Provisional Hydrographic Manual.

V. JUNCTIONS

This survey junctions with H-9598, 1976 (1:10,000) to the northeast and H-9599, 1976 (1:10,000) to the northwest. The depth curves involved are left in pencil due to the differences in processing stages. The junction to the east with H-9561, 1975 (1:20,000) was completed and curves are inked in agreement.

VI. COMPARISON WITH PRIOR SURVEYS

Comparison of soundings with prior surveys H-5507,¹⁹³³⁻ 1934 (1:40,000), H-5653,¹⁹³³⁻¹⁹³⁴ 1935 (1:40,000) and H-6259, 1937 (1:80,000) shows a very stable bottom with soundings in good agreement with the present survey. The minor differences in soundings are attributed to changing methods of control and depth measuring instruments.

There are no presurvey review items within the limits of this survey. See section K of the ship's descriptive report.

VII. COMPARISON WITH CHART

Comparison of hydrography with Chart 18740,^{(5101) Scale 1:234,270} 20th Edition, 22 Feb. 1975 was next to impossible due to the scale of this chart. Since all the soundings originated with the latest prior surveys within the present survey limits, comparison is discussed in section VI of this report.

Comparison was also accomplished with Chart 18744,^{(5144) Scale 1:40,000} 20th Edition, 24 May 1975. See comparison of prior surveys section VI.

Both comparisons are considered good. The verifier recommends that the soundings from this survey supersede all previously charted soundings.

VIII. COMPLIANCE WITH INSTRUCTIONS

This survey adequately complies with the project instructions OPR-411-FA-75 dated 11 August 1975.

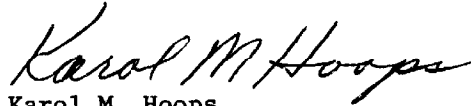
IX. ADDITIONAL FIELD WORK

Survey H-9576 is considered a good basic survey and no additional field work is recommended.

X. NOTES TO THE COMPILER

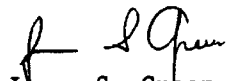
Velocity and TRA correction tables are included with the Smooth Sounding printout.

Respectfully submitted,



Karol M. Hoops
Cartographic Technician
8/30/76

Examined and approved,



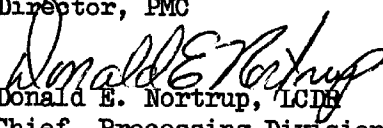
James S. Green
Chief, Verification Branch



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY, Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102

Date: 13 September 1976

To: Eugene A. Taylor, RADM
Director, PMC

From: 
Donald E. Nortrup, LCDR
Chief, Processing Division

Subject: PMC Hydrographic Survey Inspection Team Report, H-9576


This survey is a basic hydrographic survey in Santa Monica Bay, California. The survey was conducted by NOAA Ship FAIRWEATHER in 1975 in compliance with Project Instructions OPR-411-FA-75 dated 11 August 1975.

The survey is an offshore survey in depths from 30 to 360 fathoms. Hydrographic development of the area is in compliance with requirements of project instructions. Bottom configuration would have been more effectively defined had hydrography been run north/south rather than east/west. Splits were run in appropriate areas except one additional 400 meter line at the north side of the sheet would have been very beneficial in defining the 40 fathom curve.

The inspection team finds H-9576 to be an adequate basic survey, complete for charting purposes and adequate to supersede prior surveys. Administrative approval is recommended.


Donald E. Nortrup, LCDR


Dean R. Seidel, LCDR

for 
Richard D. Lynn


John C. Albright, LCDR

Administrative Approval

H-9576

The smooth sheet and reports of this survey have been examined and the survey is complete and adequate for charting and to supersede the prior surveys.



Eugene A. Taylor, RADM
Director, Pacific Marine Center



Date



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

C352

November 2, 1976

TO: *A. J. Patrick*
A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

FROM: *G. K. Myers*
G. K. Myers
Quality Evaluator

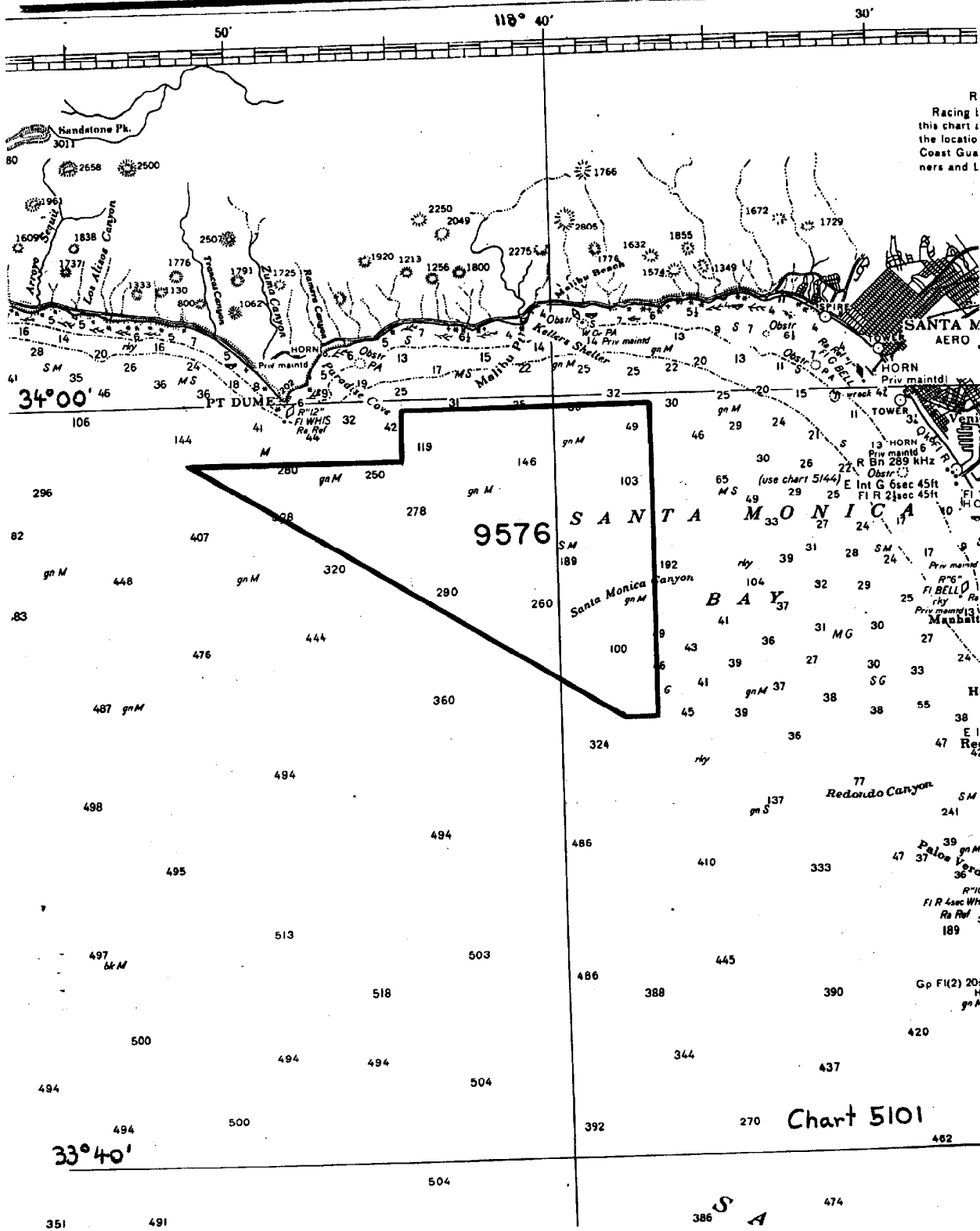
SUBJECT: Quality Control Report, H-9576 (1975), California, Santa
Monica Bay, Offshore Point Dume to Malibu

A quality control report of H-9576 has been accomplished to evaluate the accuracy and adequacy of the survey with respect to data acquisition, delineation of the bottom configuration, and determination of least depths and navigational hazards, decisions and actions by the verifier, and cartographic presentation of data.

The present survey is considered complete and adequate and to conform to the standards of the National Ocean Survey.

cc:
C351





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Chart 5101

