

# 9751

Diag. Cht. No. 5202-2

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-5-3-78  
Office No. .... H-9751

### LOCALITY

State ..... California  
General Locality ..... Santa Barbara Channel  
Locality ..... Santa Barbara Harbor  
and Vicinity

1978

CHIEF OF PARTY  
B.I. Williams

### LIBRARY & ARCHIVES

DATE ..... June 4, 1979

9751

*Area 5  
Chts*

*18720 App'd 5-1-80 CBY ✓  
18722 App'd 5-1-80 CBY ✓  
18720 ✓ Applied  
18725 ✓ Applied*

**HYDROGRAPHIC TITLE SHEET**

H-9751

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-5-3-78

State CALIFORNIA

General locality SANTA BARBARA CHANNEL

Locality SANTA BARBARA HARBOR AND VICINITY

Scale 1:5,000 Date of survey 14 March - 29 March 1978

Instructions dated 11 November 1977 Project No. OPR-L100 (411)-FA-78

Vessel NOAA Ship FAIRWEATHER <sup>Launches</sup> (2020) & FA-5 (2025), Boston Whaler (2027)

Chief of party CDR B. I. Williams

Surveyed by LT A. H. Yanaway, LT A. Kissam, ENS L. Roberts

Soundings taken by echo sounder, hand lead, ~~and~~ Ross Fineline Fathometer S/N 1036

Graphic record scaled by FAIRWEATHER Personnel

Graphic record checked by LT A. Yanaway, LT A. Kissam, ENS L. Roberts

Positions verified Isagani Almacen Automated plot by PMC Xynetics Plotter

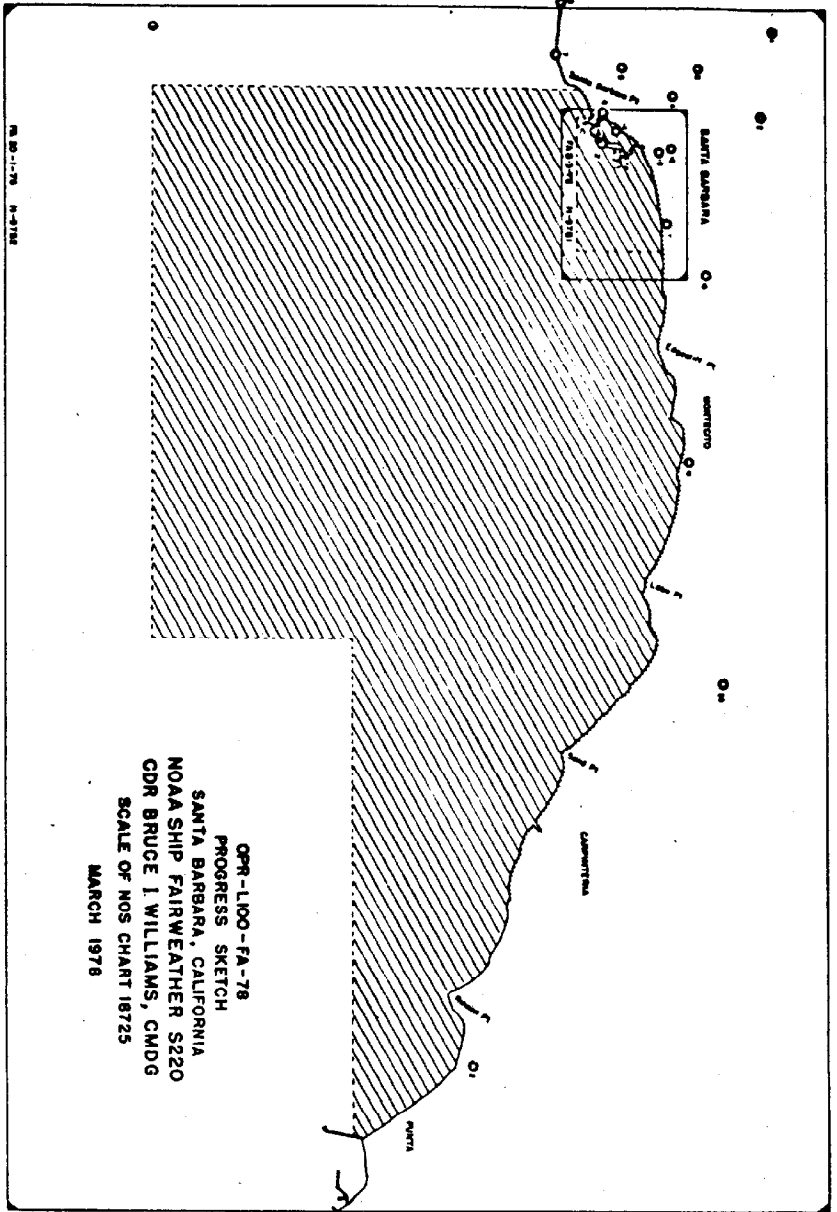
Soundings verified Isagani Almacen

Soundings in ~~XXXXXX~~ feet at ~~MLW~~ MLLW

REMARKS: All data records are in GMT. This survey is complete and adequate for charting.

"Misc. data filed with field records"

Applied to stels 10/4/79  
[Signature]



**STATIONS RECOVERED**

- 1 SAINT ANTHONY'S SEMINARY CROSS ON DOME, 1927
- 2 JEFFERSON SCHOOL TOWER, 1933
- 3 SANTA BARBARA FOX THEATER SHRE, 1933
- 4 SANTA BARBARA RADIO STATION KST MAST, 1975
- 5 SPOT, 1931-1974
- 6 SANTA BARBARA LIGHTHOUSE, 1941-1956
- 7 MOOS, 1951
- 8 MIBBLEE 3, 1964 (MINI-RANGER)
- 9 AMONT, 1951
- 10 S.E. 90, 1976 (COMPS OF ENGINEERS)
- 11 VET BDC, 1976 (COMPS OF ENGINEERS)
- 12 SANTA BARBARA HARBOR BREAKWATER LIGHT, 1975

- 13 STEAMS WHARF LIGHT 4, 1975
- 14 SANTA BARBARA HARBOR GROUND LIGHT, 1975
- 15 SANTA BARBARA RADIO STATION KNQ MAST, 1975
- 16 SANTA BARBARA RADIO STATION KDB MAST, 1975
- 17 MONTI, 1933
- 18 BELL, 1930
- 19 JOHNTENS, 1976
- 20 BRUSH, 1927
- 21 BATES, 1927
- 22 KTRS NORTH RADIO TOWER, 1936
- 23 KTRS SOUTH RADIO TOWER, 1936
- 24 SANTA BARBARA 2, 1956-1959

- TDC SAKE
- TDC MARTER
- STA RECOVERED
- ✓ FIELD DOT

LINE SOUNDING LINE	MARCH
776.1	
57.4	
83	
TDC MARTER	1

DESCRIPTIVE REPORT  
NOAA SHIP FAIRWEATHER S220  
OPR-L-100-FA-78  
SURVEY H-9751 FA5-3-78

PROJECT

This survey was accomplished in accordance with Project Instructions OPR-L-100-FA-78, South California coast, dated 11 November 1977, Change 1 dated 22 November 1977, Change 2 dated 16 December 1977, Change 3 dated 19 December 1977, Change 4 dated 23 January 1978 and Change 5 dated 2 March 1978.

AREA SURVEYED

FA5-3-78 included Santa Barbara's inner harbor and approaches to it. The northern boundary was the shoreline. The western boundary was the shoreline in the inner harbor and longitude 119° 41' 36" outside and south of the breakwater. The eastern boundary was longitude 119° 39' 40". The southern boundary was latitude 34° 23' 58". The survey was conducted from 14 March 1978 to 29 March 1978.

SOUNDING VESSELS

Launch FA5 (Hull #1001) was used for all soundings on the survey except for the detached positions taken from Stearn's Wharf. These positions (2001-2032) were collected by walking the pier with a leadline. A Boston Whaler (EDP# 2027) took detached positions 2033-2038 by leadline.

SOUNDING EQUIPMENT

All fathometer data were collected and scaled by the Ross Fineline, Model 200A, S/N 1036, on Launch FA5. The TRA corrector for all days was 1.5 feet. TRA determination and other corrections to echo soundings are explained in the Abstract to Corrections to Echo Soundings, an attachment to this report. Detached positions 2001-2038 were leadline soundings taken from Stearn's Wharf. Depths on this survey ranged from 0 to 72<sup>4</sup> feet.

HYDROGRAPHIC SHEETS

One sheet covered the entire survey area of FA5-3-78. The scale was 1:5000, the skew was 0, origin latitude 34° 23' 48", and longitude 119° 41' 42". The projection was a modified transverse mercator. All sheets were prepared using the FAIRWEATHER Hydroplot system; a PDP 8e (S/N 9524) and Complot Plotter Model DP-3, S/N 6166-22.

CONTROL STATIONS

Several stations were recovered during the period of hydrography. No new stations were located in the area covered by this sheet. For a detailed description see Horizontal Control Report, Santa Barbara, OPR-L-100-FA-78.



These dolphins\* are in the surf zone and are deteriorated. They were located by the field edit team as the area was too shallow for the launch. See Field Edit Report OPR-L100(411)-FA-78, Santa Barbara

Recommendation: It is recommended that the dolphins\* be kept on the chart.

PSR #19

*\* piling according to field editor.*

Shoaling reported at latitude 34° 24.5' and longitude 119° 41.22'. This did exist earlier this spring due to high winds and tides eroding the sand spit at the harbor entrance and flushing this material into the main channel. The area was dredged two days before it was surveyed. The existing channel is well delineated in the present data. See Verifier's Report

Recommendation: The warning note on the present chart should be retained.

PSR #20

Pile reported at latitude 34° 24.4848" and longitude 119° 41.4444". In conversations with the Harbor Master at the port it was established that this pile is now incorporated in an existing pier and so does not constitute a hazard to navigation. (See verifier's Report)

Recommendation: Delete from the chart.

PSR #21

Pile reported at latitude 34° 24.4949" and longitude 119° 41.4444". In conversations with the Harbor Master at the port it was established that this pile is now incorporated in an existing pier and so does not constitute a hazard to navigation. (See verifier's Report)

Recommendation: Delete from the chart.

PSR #23

Vessel Garland, aground at latitude 34° 24' <sup>24"</sup>48" and longitude 119° 41' <sup>08"</sup>15". Portions of this wreck are still located in the surfline at the above position. These visible objects consist of two pile like objects sticking out of the sand at angles to the surface. Most of the wreck has been removed, including the ribs and keel. (See verifier's Report)

Recommendation: Keep this on the chart.

Hydrographic Survey #5464, March - September, 1933, Scale 1:5000. This survey agreed to within 2 feet of the contemporary survey except for an area bounded by the outer harbor breakwater to the end of Stearn's Wharf, and continuing eastward from the shoreline at the wharf to the edge of the sheet, and then seaward along this line 100 meters. This difference is due to shoaling caused by the addition of several groins along the beach and the construction of the large spit at the entrance to the harbor.

COMPARISON WITH CHART

Chart 18725, 16th Edition, 10 December 1977.

PA dolphins (PSR #20 and #21) are portions of a new pier and should be deleted from the chart. Mooring buoy C has been removed. The new sewer line is incorrectly positioned on the chart. The point of origin on the beach is correct but the ending point on the chart is too far west. The old sewer line has dropped into the bottom of the bay generally along its entire length and is not always indicated by the fathometer. The chart and survey agreed to within 2 feet of each other over the survey area. More details are available in the Field Edit Report OPRL100-FA-78, Santa Barbara.

ADEQUACY OF SURVEY

All fathograms were scanned for peaks and deeps and any corrections were applied to the corrector tapes. Depths inaccurately digitized were corrected on the corrector tape. This survey is adequate and complete to supersede all previous surveys.

AIDS TO NAVIGATION

All aids were located by visual confirmation and detached positions observed. The channel buoys in the area of the inner harbor are consistent with the chart. These buoys will continue to be periodically relocated due to dredging.

The measured mile range markers were located by FAIRWEATHER personnel using third order methods. See Horizontal Control Report OPRL100-FA-78, Santa Barbara. (See verifier's Report)

Three aids were recommended to be deleted from the chart. For this information refer to the Field Edit Report OPRL100-FA-78, Santa Barbara.

STATISTICS

<u>Vessel</u>	<u>Total Positions</u>	<u>Miles of Hydro</u>
FA5	1,400	92
Whaler 2	38	.3

Thirty six (36) bottom samples were taken by FA6. These data are included on the M sheet in the attachments at the end of this report. One Martek cast was taken and the data collected were used to construct the Abstract to Corrections on Echo Soundings.

MISCELLANEOUS

This project was conducted in GMT.

The city of Santa Barbara maintains a privately owned dredge at the harbor. This dredge operates all year as needed except in the summer months due to the high boating traffic.

MISCELLANEOUS - Continued

A development over an area of the sewer line was accomplished on JD 085 and included positions 1077 to 1091. This was done to establish that nothing but the sewer line was represented by a peak noted on the fathogram at the time of scanning. The conclusion was that the sewer line was all that was present. ✓

RECOMMENDATIONS

The note warning of the dangerous shoaling conditions at the harbor entrance should remain. ✓

The survey is acceptable to supercede<sup>s</sup> all previous charts and surveys. ✓  
*SEE RC REPORT 2A(3)*

AUTOMATED DATA PROCESSING

Range/Azimuth data were collected on FA5 by an ASI logger. All raw data were reformatted and checked by RK330 Reformat and Data Check, 5 May 1976. The data were plotted using programs RK212, Visual Station Table Load, and Plot, dated 1 April 1974, and RK216, Visual Stations and Sounding Plot, dated 5 April 1976. The field sheet was constructed on the ship's Hydroplot system using RK201, Grid, Signal and Lattice Plot, dated 18 April 1975. ✓

REFERENCES TO REPORTS

✓ Field Edit Report OPR-L100-FA-78

Horizontal Control Report OPR-L100-FA-78

Electronic Systems Calibration Report OPR-L100-FA-78

Report on Correction to Echo Soundings OPR-L100-FA-78

Submitted by:

*Alan H. Yanaway*  
 Alan H. Yanaway, Lt. NOAA



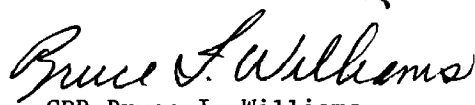
APPROVAL SHEET

FIELD NUMBER FA5-3-78

REGISTER NUMBER H-9751

This fieldsheet and all accompanying records are hereby approved.

This survey was conducted under my supervision and the survey  
is complete and adequate for charting purposes.



CDR Bruce I. Williams

Commanding Officer

NOAA Ship FAirweather s220

SANTA BARBARA SIGNAL TAPE OPR-L100(411)-FA-78

SAINT ANTHONYS SEMINARY CROSS ON DOME 1927

001 0 34 26 21782 119 42 52905 139 0000 000000

SANTA BARBARA FOX THEATER SPIRE 1933

002 0 34 25 27560 119 42 20564 139 0000 000000

SANTA BARBARA, RADIO STATION KIST, MAST, 1975

003 5 34 25 09268 119 41 54522 139 0000 000000

SANTA BARBARA, RADIO STATION KDB, MAST, 1975

004 1 34 25 07631 119 41 09589 139 0000 000000

SANTA BARBARA, RADIO STATION KK10, MAST, 1975

005 4 34 24 58964 119 41 06739 139 0000 000000

MONTE 1933

006 1 34 25 04034 119 40 03422 139 0000 000000

STEARNS WHARF LIGHT 4, 1975

007 0 34 24 28946 119 41 02808 139 0000 000000

SANTA BARBARA HARBOR, GROIN LIGHT, 1975

008 1 34 24 25366 119 41 23843 139 0005 000000

SANTA BARBARA HARBOR, BREAKWATER LIGHT, 1975

009 3 34 24 17421 119 41 12742 139 0003 000000

SANTA BARBARA CAL POINT ON STEARNS WHARF (ESTB: 1978)

010 1 34 24 28918 119 41 01897 243 0005 000000

DIBBLEE 3, 1964

020 3 34 24 18712 119 41 36963 250 0018 000000

ANACAPA ISLAND GREEN RAYDIST (ESTB. 1978)

101 7 34 00 57581 119 21 45954 243 0049 330040

SAN MIGUEL 4, RM. 5 (ESTB: 1978) - RED RAYDIST

102 7 34 01 58311 120 21 45300 250 0250 330040



NOAA FORM 76-40  
(8-74)

Replaces CAGS Form 567.

TO BE CHARTED  
 TO BE REVISED  
 TO BE DELETED

REPORTING UNIT  
(If field party, ship or office)

NOAA Ship Fairweather

STATE

California

LOCALITY

Santa Barbara

DATE

3-78

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY  
 HYDROGRAPHIC PARTY  
 GEODETIC PARTY  
 PHOTO FIELD PARTY  
 COMPILATION ACTIVITY  
 FINAL REVIEWER  
 QUALITY CONTROL & REVIEW GRP.  
 COAST PILOT BRANCH

The following objects HAVE  HAVE NOT  been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.

JOB NUMBER

SURVEY NUMBER

DATUM

N.A. 1927

METHOD AND DATE OF LOCATION  
(See instructions on reverse side)

CHARTS  
AFFECTED

L-100-FA-78

TP-00867

CHARTING  
NAME

DESCRIPTION  
(Record reason for deletion of landmark or aid to navigation.  
Show triangulation station names, where applicable, in parentheses.)

LATITUDE  
° / ' / ''  
D.M. Meters

LONGITUDE  
° / ' / ''  
D.P. Meters

OFFICE

FIELD

SIGNAL  
MAST

Does not exist

34 24

119 41

32.7

V-Vis

18725

SCHOOL  
CUPOLA

Surrounded by trees and other buildings  
no longer prominent from seaward  
(JEFFERSON SCHOOL TOWER 1933)

34 26

119 41

38.300  
977.9  
36

V-5-Vis  
Triang Rec  
3-78

18720  
18725

RADIO  
BEACON

Does not exist.

34 24

119 41

V-Vis

18720  
18725

Velocity Table  
Santa Barbra, Calif.  
Sound Velocity Corrector Abstract

The following sound velocity correctors are to be applied to all soundings in feet obtained with a fathometer on Survey FA-5-3-78 (H-9751). ✓

Depth in Feet	Corrector (Feet)
0.0 - 4.5	+ 0.0
4.6 - 11.1	0.2
11.2 - 17.2	0.4
17.3 - 23.6	0.6
23.7 - 30.2	0.8
30.3 - 37.0	1.0
37.1 - 43.8	1.2
43.9 - 50.7	1.4
50.8 - 57.4	1.6
57.5 - 64.2	1.8
64.3 - 71.1	2.0
71.2 - 78.0	2.2
78.1 - 82.0	2.4

FIELD TIDE NOTE  
OPR-L100-FA-78  
(H-9751) FA 5-3-78  
(H-9752) FA 20-1-78  
SANTA BARBARA, CALIFORNIA

Field tide reductions were based on Los Angeles, outer harbor tides, and were interpolated by PDP 8/e computer for the Santa Barbara area. Times of predicted tides are on GMT.

There were no tide gages installed during this period of hydrographic operations due to the existence of primary tide gages at Rincon Island and at Stearns Wharf at Santa Barbara.

ZONING

It is recommended that the primary gage at Santa Barbara be used for tidal reductions on (H-9751) FA 5-3-78 and that (H-9752) FA 20-1-78 be zoned during office processing, utilizing the multi gage option, for tide reducers between the Santa Barbara and Rincon Island tide gages.

U.S. DEPARTMENT OF COMMERCE  
August 22, 1978 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): 941-1340, Santa Barbara, CA

Period: March 14-29, 1978

HYDROGRAPHIC SHEET: H-9751

OPR ~~1100~~ 411

447

Locality: Santa Barbara, California

Plane of reference (mean lower low water): 3.10 ft.

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

Remarks: Zone Direct

Don Spillman 8/23/78  
85 Chief, Tides Branch

H-9751

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 18725 B ON PREVIOUS SURVEY NO. C ON U.S. QUADRANGLE MAPS D FROM LOCAL INFORMATION E ON LOCAL MAPS F P.O. GUIDE OR MAP G RAND MCNALLY ATLAS H U.S. LIGHT LIST K TP-00867									
	A	B	C	D	E	F	G	H	K	
EAST BEACH ✓	X								X	1
POINT CASTILLO ✓	X								X	2
SANTA BARBARA ✓	X								X	3
SANTA BARBARA HARBOR CHANNEL ✓									X	4
STEARNS WHARF ✓	X								X	5
SYCAMORE CREEK ✓	X								X	6
MISSION CREEK ✓									X	7
SANTA BARBARA HARBOR										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

Approved:

*John E. Harcourt*  
Chief Geographer - C345

12 June 1979



APPROVAL SHEET  
FOR  
SURVEY H- 9751

- 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: 16 APRIL 1979

Signed:

A. E. Eichelberger

for:

Title: Chief, Verification Branch

**HYDROGRAPHIC SURVEY STATISTICS**

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1	BOAT SHEETS & PRELIMINARY OVERLAYS		2 & 6	
DESCRIPTIVE REPORT		1	SMOOTH OVERLAYS: POS. ARC, EXCESS		5	
DESCRIP- TION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1-with printouts					
VOLUMES		2				
BOXES			1- Smooth & Tides			

T-SHEET PRINTS (List) TP-00867 (copy)

SPECIAL REPORTS (List)

**OFFICE PROCESSING ACTIVITIES**

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

PROCESSING ACTIVITY	AMOUNTS		
	PRE- VERIFICATION	VERIFICATION	TOTALS
POSITIONS ON SHEET			1326
POSITIONS CHECKED		1326	
POSITIONS REVISED		3	
SOUNDINGS REVISED		991	
SOUNDINGS ERRONEOUSLY SPACED			
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED			
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	4		
VERIFICATION OF CONTROL		4	
VERIFICATION OF POSITIONS		48	
VERIFICATION OF SOUNDINGS		106	
COMPILATION OF SMOOTH SHEET		22	
APPLICATION OF TOPOGRAPHY		16	
APPLICATION OF PHOTOBATHYMETRY		-	
JUNCTIONS		2	
COMPARISON WITH PRIOR SURVEYS & CHARTS		12	
VERIFIER'S REPORT		10	
OTHER		4	
<b>TOTALS</b>	<b>4</b>	<b>224</b>	

Pre-Verification by <b>James S. Green</b>	Beginning Date <b>7/13/78</b>	Ending Date <b>7/13/78</b>
Verification by <b>Isagani A. Almacen</b>	Beginning Date <b>11/6/78</b>	Ending Date <b>3/16/79</b>
Verification Check by <b>James S. Green, Stan Otsubo</b>	Time (Hours) <b>14</b>	Date <b>3/29/79</b>
Marine Center Inspection by <b>HIT</b>	Time (Hours) <b>10</b>	Date <b>5/9/79</b>
Quality Control Inspection by <b>Robert W. Derkazanian</b>	Time (Hours) <b>60</b>	Date <b>8/6/79</b>
Requirements Evaluation by <b>JP Mum Gardner</b>	Time (Hours) <b>4</b>	Date <b>8/29/79</b>

Engle 10 hrs 8/14/79

Reg. No. 9751

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 REQ'D \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

Reg. No. \_\_\_\_\_

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 REQ'D. \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:



No photogrammetrically located stations were used.

Shoreline detail information was obtained from unreviewed class I. shoreline manuscript TP-00867. The date of photography was March 1976 and field edit was March 1978.

### III. HYDROGRAPHY

Crossline soundings were in good agreement throughout the survey.

The development of the bottom configuration as well as the determination of least depths is considered adequate except for the delineation of the present low water line along the coast.

It should be noted that the boat sheet shows the low water line being developed, while on the smooth sheet the most inshore soundings along the coast turns out to be 1 to 2 feet deeper. It appears that on this survey the boat sheet was plotted in the field using a TRA of 0.3 (for soundings in fathoms) instead of 1.5 (for soundings in feet).

The inking of depth curves on the smooth sheet is complete.

### IV. CONDITION OF SURVEY

The automated plotting of smooth sheet including accompanying overlays, hydrographic records, reports and field procedures are adequate and conform to the requirements mentioned in the NOS Hydrographic Manual.

### V. JUNCTIONS

H-9752 (1978), 1:20,000

Junction with this contemporary survey to the south and east of the survey is good. Notes and depth curves were inked on the smooth sheet.

### VI. COMPARISON WITH PRIOR SURVEYS

H-5464 (1933), 1:5000

No significant changes on the offshore area were found<sup>past present</sup> and ~~the~~ depths generally differ by about 1 to 2 feet. However, <sup>significant</sup> changes were noted in the inshore areas along the coast and approach to the inner harbor. These changes are due primarily to the harbor developments since 1933, including the occasional dredging done by the City of Santa Barbara to keep the area deep enough and safe for passage of vessels in and out of the harbor. *Rock cribbing carried forward. See Q.C. Report.*

H-5030 (1930), 1:80,000; H-5499 (1933), 1:10,000;

H-5030a (1930), 1:10,000

Comparison with these ~~two~~ <sup>(2)</sup> surveys of 1930 and 1933 is considered satisfactory. They generally agree to within 1-2 feet except in

inshore areas where differences of up to 3 feet could be noted primarily due to natural changes along the coast.

The following are presurvey review items covered on this Survey:

A. PSR Item 18: The dolphins (PA) at lat.  $34^{\circ}24.33'$ , long.  $119^{\circ}41.18'$  and lat.  $34^{\circ}24.38'$ , long.  $119^{\circ}41.18'$  reported by the U. S. Coast Guard Auxiliary were located in the field. These pilings (charted as dolphins) were found in a state of deterioration in the surf zone. It is recommended that these pilings be charted as shown on the survey.  
*Origin C/L 200 (1975)*

B. PSR Item 19: The shoaling in the vicinity of lat.  $34^{\circ}24.5'$ , long.  $119^{\circ}41.22'$  reported in 1975 was investigated in the field. It was found that the shoaling was due to the erosion of the sand spit primarily caused by the tides and strong winds prevailing in the area. This portion of the harbor was dredged a couple of days before the survey started and the present bottom configuration of the channel is delineated.  
*Origin C/L 200 (1975)*

It is recommended that the note pertaining to this area, subject to frequent change, be retained and the recent soundings be incorporated on the chart.

C. PSR Items 20 and 21: The ruins charted at lat.  $34^{\circ}24.48'$ , long.  $119^{\circ}41.44'$  and the dolphin (PA) charted at lat.  $34^{\circ}24.49'$ , long.  $119^{\circ}41.44'$  were not found in the field. According to the harbor-master, the ruins and the dolphin were both made a composite part of the existing pier and does not constitute a hazard to navigation. It is recommended that these two (2) items be deleted from the chart.  
*Origin C/L 200 (1975)*

D. PSR Item 23: The wreckage of vessel GARLAND charted at lat.  $34^{\circ}24'24''$ , long.  $119^{\circ}41'08''$  still lies in the surf zone. Some part of the vessel has been removed, but its major portion still remains at the site. It is recommended that the wreck symbol be charted as shown on this survey.  
*Origin LNM 51 (1976)*

The current survey is considered adequate to supersede the prior surveys of 1930 and 1933 for areas of common coverage, with the addition of a rock cribbing carried forward.

VII. COMPARISON WITH CHART

A. Hydrography

X. The smooth sheet was compared with chart (inset) 18725, 16th edition, 10 December 1977, scale 1:10,000. The charted soundings primarily originated from surveys by C & GS in 1933 and the Corps of Engineers.

Aside from the changes previously mentioned on the preceding section of this report, the following other items have been noted:

1. The two (2) rocks at lat.  $34^{\circ}24'48.8''$ , long.  $119^{\circ}40'53.2''$  and lat.  $34^{\circ}24'48.0''$ , long.  $119^{\circ}40'52.7''$  originating from H-5464 survey and charted as cribbing on outfall sewer were deleted on class I shoreline manuscript TP-00867, based on the latest field edit information. } *Superseded See Q.C. Report 2A(1)*

2. The new existing sewer line, apparently the same charted sewer line under construction, was located in the field. The old sewer line, according the ship's report, was dropped into the bottom of the harbor generally along its entire length. It is recommended that the new sewer line be incorporated on the chart of the area. *See QC Report 2 A(2)*
3. No information concerning the two (2) dolphins charted at lat.  $34^{\circ}24'27.0''$ , long.  $119^{\circ}41'15.0''$  and lat.  $34^{\circ}24'25.0''$ , long.  $119^{\circ}41'16.5''$  has been mentioned on the ship's report. It is recommended that these dolphins be retained on the chart.  
*Origin - Bp 76235 (1968)*

#### B. Aids to Navigation

All positions of existing navigational aids including privately maintained mooring buoys and markers were determined in the field. Positions of charted aids agree with the present survey and adequately serve the purpose intended, except for the following:

1. The mooring buoy "C" previously charted at lat.  $34^{\circ}24'32.2''$ , long.  $119^{\circ}40'36.0''$  has been removed. It is recommended that the mooring buoy symbol be deleted from the chart.
2. The charted bell buoy "1" was checked and found in good condition except that the bell was missing at the time of the survey.
3. Contrary to what was stated on the ship's report, the field party found the mile range markers but did not actually determine its present position. Theodolite cuts were only taken from stations SPOT, 1951-74 and DIBBLEE 3, 1964 (see Horizontal Control Report OPR-L100-FA-78). The field data is not considered adequate to determine an acceptable position for the markers and it is therefore recommended that the markers be retained at their present location on the chart. *See CL 1242 (1978)*

This survey is adequate to supersede charted hydrography within the common area. *See QC Report 2 A(3)*

#### VIII. COMPLIANCE WITH PROJECT INSTRUCTION

This survey complies with project instructions.

IX. ADDITIONAL FIELD WORK

This is a good basic hydrographic survey and no additional field work is necessary. ✓

Respectfully submitted,



Isagani A. Almacen  
Cartographic Technician  
16 March 1979

Examine and approved,



for 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 : May 11, 1979

OA/CPM3/GRS

TO : OA/CPM - Eugene A. Taylor

*Larry M. Woodcock, for*  
FROM : OA/CPM3 - Glen R. Schaefer

SUBJECT: PMC Hydrographic Inspection Team Report for Survey H-9751

This survey is a basic hydrographic survey of Santa Barbara Channel, Santa Barbara Harbor, California. This survey was conducted by NOAA Ship FAIRWEATHER in 1978 in accordance with Project Instructions OPR-L100-FA-78 dated 11 November 1977, Change 1 dated 22 November 1977, Change 2 dated 16 December 1977, Change 3 dated 19 December 1977, Change 4 dated 23 January 1978 and Change 5 dated 2 March 1978.

The following deficiencies were noted:

1. The measured mile range markers were not located to third order specifications nor were the Forms 76-40 submitted on these items.
2. The tide station number 941-1341 Pt. Castillo was not installed as required by the Project Instructions
3. Additional sounding lines should have been run in the channel parallel to the contours as required by Section 4.3.5.4 of the Hydrographic Manual.

The inspection team finds H-9751 to be a good basic survey adequate to supersede common areas of prior surveys and charted hydrography. Administrative approval is recommended.

*David B. MacFarland*  
David B. MacFarland

*William A. Wert*  
William A. Wert

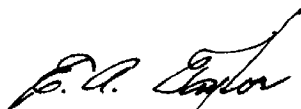
*James W. Steensland*  
James W. Steensland

*Arnold E. Eichelberger*  
Arnold E. Eichelberger



ADMINISTRATIVE APPROVAL  
H-9751

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



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Eugene A. Taylor, RADM  
Director  
Pacific Marine Center

23 May 1979

Date



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

OA/C352:RWD

August 6, 1979

TO: *R.H. Carstens*  
R. H. Carstens  
Acting Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control Branch

FROM: R. W. DerKazarian *R.W. DerKazarian*  
Quality Evaluator

SUBJECT: Quality Control Report for H-9751 (1978), California, Santa Barbara Channel, Santa Barbara Harbor and Vicinity

A quality control inspection of H-9751 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, shoreline transfer, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data. In general, the survey was found to conform to the National Ocean Survey's standards and requirements except as stated in the Verifier's Report, the HIT Report, and as follows:

1. The hydrographer did not determine the location of the mean lower low water line in the vicinity of latitude  $34^{\circ}24.45'$ , longitude  $119^{\circ}41.20'$ . Inasmuch as dredging was conducted shortly prior to hydrographic operations, detached positions would have been desirable. Present depths of 18 feet exist where the present shoreline manuscript's mean lower low water line is shown. (Field edited--March 1978.)
2. The following information supersedes in part or supplements paragraph VII.A of the Verifier's Report:

A. Hydrography

The charted hydrography originates with the prior surveys previously discussed in paragraph VI of the Verifier's Report which require no further consideration, supplemented by surveys by the Corps of Engineers and City Public Works (Bp-85924-926 (1973), 96104-105 (1976), and 76235 (1968)).



(1) The rock cribbing charted in latitude  $34^{\circ}24'48.0''$ , longitude  $119^{\circ}40'52.7''$  from H-5464 (1933) is not considered disproved by the present survey information and has been carried forward with the notation "bares at extreme low water," as noted on the source document.

(2) The new sewer extending offshore from latitude  $34^{\circ}24'48''$ , longitude  $119^{\circ}41'01''$  was located by the present survey but does not agree with the charted position of the sewer (under construction) originally plotted from Local Notice to Mariners 36 of 1975. The chart should be adjusted to agree with the present survey.

(3) The 9- and 10-foot depths charted in latitude  $34^{\circ}24.36'$ , longitude  $119^{\circ}41.31'$  and latitude  $34^{\circ}24.41'$ , longitude  $119^{\circ}41.33'$  respectively, from Corps of Engineers blueprint 96104, have not been disproved by the present survey and should be retained as charted.

cc:  
0A/C35  
0A/C351

119° 40'

34° 40'

Diag. Cht. No. 5202-2

