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)

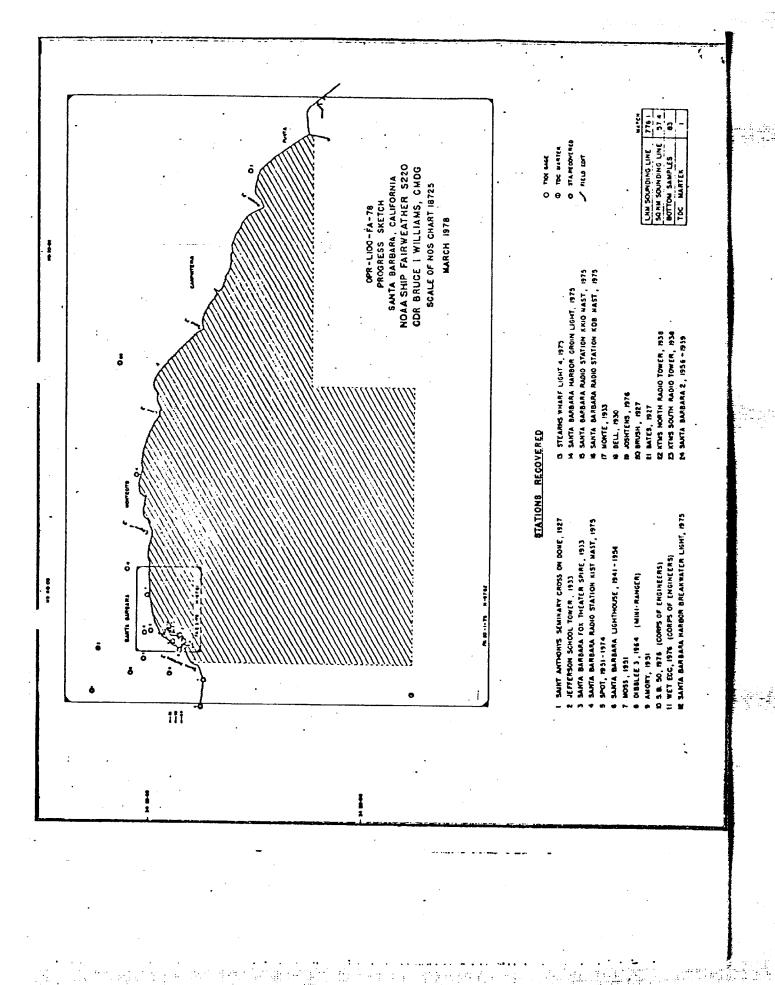
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NOAA FORM 77-28 U.S. DEPARTMENT OF COMMERCE	
(11-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTER NO.
HYDROGRAPHIC TITLE SHEET	
	H-9752
INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form,	FIELD NO.
filled in as completely as possible, when the sheet is forwarded to the Office.	FA-20-1-78
State CALIFORNIA	
General locality SANTA BARBARA CHANNEL	
Locality PUNTA GORDA TO SANTA BARBARA POINT	
Scale 1:20,000 Date of sur	wey <u>March 8 to March 28, 1978</u>
Instructions dated 11 November 1977 Project No.	OPR-L100(411)-FA-78
Vessel NGAA Ship FAIRWEATHER (2020), launches FA-3 (2	
Chief of party Cdr. Bruce I. Williams	
Surveyed by Cdr. B. I. Williams, Lt. A. Kissan, Ens	s. S. Knight, Ens. L. Roberts
Soundings taken by echo sounder, hemananakayonka ROSS Finelin	ne Fathometers (1054 & 1047)
Graphic record scaled byFAIRWEATHER Personnel	
Graphic record checked byFAIRWFATHER Personnel	
Position verified by:  XBOOKERSOODWXX Sandor Feher Automa	
Sounding verified by:	ted plot by
and tenths	
Soundings in fathoms XICCEXX at MAXXXX MLLW	
REMARKS: All survey records were kept on GMT. The	nean longitude of this survey
is 119° 34' 15". The field sheet is complete	
Misc items have been removed from this D.R. and are filed w	
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applied to stale	10/4/79
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# DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY H-9752 (FA-20-1-78) NOAA SHIP FAIRWEATHER S220

#### A. PROJECT

This survey was conducted in accordance with Project Instructions OPR-L100(411)-FA-78, Southern California Coast, dated November 11, 1977, Change 1 dated November 22, 1977, Change 2 dated December 16, 1977, Change 3 dated December 19, 1977, Change 4 dated January 23, 1978, and the PMC OPORDER.

## B. AREA SURVEYED

The area covered by this survey is located on the Southern California Coast from Santa Barbara Point to Punta Gorda and from Latitude 34°18'45" to the shoreline. Hydrography was conducted from March 8, 1978 to March 28, 1978.

#### C. SOUNDING VESSELS

Hydrography on this survey was accomplished by Launches FA-3 (2023) and FA-4(2024). The ship (2020) and FA-6(2026) were used to obtain bottom samples and the Martek Cast.

# D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

A TRA corrector of +0.3 fathoms, based on measured draft and bar checks, was used for FA-3 and FA-4. Sound velocity correctors were determined from one Martek cast taken in the South-West corner of the survey (see position #9907, Sounding Volume #1). For details, see Report on Corrections to Echo Soundings, OPR-L100(411)-FA-78. The depths of soundings on this survey range from 0.4 to 62 fathoms.

#### Sounding Equipment:

<u>Vessel</u>	Instrument	S/N
FA-3	Ross Fineline Fathometer	1054
	Ross Digitizer	1047
	Ross Transceiver	1054
	Ross Invertor	1046
FA-4	Ross Fineline Fathometer	1047
	Ross Digitizer	1046
	Ross Transceiver	1046
	Ross Invertor	1053

## E. HYDROGRAPHIC SHEETS

Two plotting sheets were required: FA-20-1N-78 and FA-20-1S-78, both with a skew of 0. Data on both sheets were plotted by the shipboard Hydroplot system: PDP8e computer (S/N 9524) and Complot plotter (model DP3-5, S/N 6166-22). For other details, see the appended parameter tape printout. The field records will be sent to the Pacific Marine Center for verification.

#### F. CONTROL STATIONS

The control stations used for this survey were Anacapa Island Green Raydist and San Miguel 4, RM 5 - Red Raydist. Both raydist stations were located by 3rd order, class 1 triangulation methods. For details, see <a href="Horizontal Control Report">Horizontal Control Report</a>, OPR-L100 (411)-FA-78.

### G. HYDROGRAPHIC POSITION CONTROL

The sole method of sounding line position control used for this survey was Range-Range Raydist.

On JD-074, the Raydist system in FA-4 experienced several lane jumps that could not be detected on the strip chart. Consequently, the data had to be thrown out. It was found that the Raydist reception improved significantly when the mobile transmitter was run in low power rather than in high power. All survey work after JD-074 was done with the mobile transmitter in low power.

On four occasions, clearly identifiable lane jumps were observed on FA-3. The data were saved and appropriate correctors were applied. (see JD-074, 213755, pattern 2, +1 lane; JD-074, 232050, pattern 2, +1 lane; JD-081, 200852, pattern 1, +1 lane; JD-082, 233106, pattern 1, -1 lane)

All data with dubious position control were rejected and redone.

#### Raydist Shore Stations

Green Raydist Base Station - S/N 125 - pattern 1 - frequency 1650.425 KHz - Anacapa Island.

Red Raydist Base Station - S/N 124 - pattern 2 - frequency 1650.015 KHz - San Miguel Island.

## Raydist Mobile Transmitters

FA-3 (2023): Model TA-96B, S/N 090, frequency 3300.400 KHz JD 069-087

FA-4 (2024): Model TA-96B, S/N 083, frequency 3300.520 KHz JD 067-074 Model TA-96B, S/N 096, frequency 3300.465 KHz JD 075-086

# Raydist Mobile Navigators

FA-3 (2023): Model ZA-75C, S/N 18, frequency 370/480 Hz JD 069-087

FA-4 (2024): Model ZA-75C, S/N 21, frequency 385/435 Hz JD 067-074 Model ZA-75C, S/N 16, frequency 330/490 Hz JD 075-086

Three calibration points were used: Port Hueneme Entrance light #5, Stearns Wharf Calibration Point, and Santa Barbara Harbor Groin Light (Daymark 12). In each case, the bow of the boat was positioned on the calibration point with the antenna aligned in a predetermined direction. For details, see Electronic Control Report, OPR-L100(411)-FA-78, or the appended Calibration Point diagrams.

#### H. SHORELINE

The shoreline details were obtained from the field manuscripts TP-00922, TP-00923, and TP-00924. Existing shoreline details for TP-00922 and TP-00923 were verified by field edit and changes were made as necessary and transferred to the field sheet. Field edit for TP-00924 was done by the RAINIER during their fall project in 1977.

Field edit off shore from Sand Point was not done because of dangerous surf. Positions for the three rocks shown on the smooth field sheet were obtained by FA-4 while getting additional shoreline soundings (see JD-083, positions 5378-5381 and Sounding Volume #2 - FA-4).

#### I. CROSSLINES

The 684.1 nautical miles of hydrography run on this survey include 54.7 nautical miles of crossline. This accounts for 8% of all hydrography. Crossings for soundings of more than

11 fathoms agree to within one fathom. Crossings for soundings of 11 fathoms or less agree to within 0.3 fathoms.

#### J. JUNCTIONS

This survey junctions with the contemporary survey H-9751 (FA-5-3-78) and the prior surveys H-9730, 1:20,000, 1977 and H-9732, 1:20,000, 1977. The depths at the junction with the contemporary survey agree within 1 foot, and at the junctions with the prior surveys, within 1 fathom.

#### K. COMPARISON WITH PRIOR SURVEYS

Pre-Survey Review Item #15, updated November 11, 1977, "piling", was investigated by wire drag and divers. Launch FA-4 was positioned directly off-shore from the charted location of the piling using Range-Range Raydist electronic control (no D.P.'s were taken). A submerged object was found by dragging a wire from the shore directly seaward. The drag tow lines were attached to two boston whalers located outside the surf zone. After being found by wire drag, the object was investigated by divers. They reported that it extended one foot above the bottom in about 9 feet of water. The object could not be identified visually because it lies well within the surf zone and the water was extremely turbid. The divers reported that the object felt like a metal pipe. As the submerged pile is well within the surf zone and provides neither hazard nor aid to navigation, it is recommended that it be removed from the chart. (Vicinity of Lat 34 22.56, Long 119 28-83') retained on

Pre-Survey Review Item #16, updated November 11, 1977, "submerged well, PA". As per instructions, the fathograms of sounding lines in the area of this item were examined but the well head was not seen. This item should remain as charted, as it has not been disproved. (Vicinity of Lat. 34° 19.70′, Long. 119° 36.27′)

Pre-Survey Review Item #17, updated November 11, 1977, "moorings" was investigated by Launch FA-4. The moorings are no longer there and should be removed from the chart [Vicinity of Lat 34° 25.00', Long. 119' 37.80')

Comparison was made with the following prior surveys: H-5030, 1:80,000, 1930; H-5464, 1:5,000, 1933; H-5498, 1:10,000, 1933; H-5499, 1:10,000, 1933; H-5502, 1:10,000, 1933; Variation was less than 0.5 fathoms in depths of 1-11 fathoms, and less than 1 fathom in depths greater than 11 fathoms.

# L. COMPARISON WITH THE CHART

Comparison was made with the soundings from Chart 18725, 1:50,000, Port Hueneme to Santa Barbara, California, 15th edition, February 12, 1977. Variation was less than 0.5 fathoms for depths of 1-11 fathoms and less than 1 fathom for depths greater than 11 fathoms.

#### M. ADEQUACY OF SURVEY

All fathogram field survey records were scanned and checked for peaks and deeps with appropriate changes in soundings made to the printouts. This survey is complete and adequate to supersede prior surveys for charting.

#### N. AIDS TO NAVIGATION

The privately maintained orange and white buoy "Santa Barbara Sewer Outfall Buoy" charted at 34°23.7'N, 119°39.7'W is not there and should be removed from the chart.

At position 34<sup>0</sup>23.88'N, 119<sup>0</sup>35.17'W, there is a privately maintained red and white vertically striped can buoy with red radar reflectors. This is at the same location as "Wells (covered 8 1/2 fms)" on the chart and probably marks the end of the pipeline.

In the area of latitude 34 25.1N to 34 23.4'N and longitude 119 30.0'W to 119 31.0'W, there are 13 privately maintained buoys instead of the eight shown on the chart. The buoys shown on the chart should be deleted and replaced by the 13 buoys located during this survey (see positions 5672-5684, JD-085, FA-4). All buoys on this survey were located using Range-Range Raydist.

# O. STATISTICS

Total number of positions	973	$\frac{FA-4}{1611}$
Nautical miles of soundings	266.7	417.4

Total area - 53.8 sq. n. m.
Total Bottom Samples - 47
Martek casts - 1
Tide Gauges - 2

Note: Records for bottom samples taken by FA-6 are in Sounding Volume FA-6, in the data package for H-9751 (FA-5-3-78).

#### P. MISCELLANEOUS

Greenwich Mean Time was used for all survey records.

# Q. RECOMMENDATIONS

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

# R. AUTOMATED DATA PROCESSING

All hydrography was acquired using RK-111, Range-Range Real Time Hydroplot, version 1-30-76. The semi-smooth and smooth field sheets were plotted using RK-211 Range-Range Non-Real Time Plot, version 1-30-76.

### S. REFERRAL TO REPORTS

Report on Corrections to Echo Soundings, OPR-L100(411)-FA-78
Horizontal Control Report, OPR-L100(411)-FA-78
Electronic Control Report, OPR-L100(411)-FA-78
Field Edit Reports - OPR-L100(411)-FA-78
OPR-411-RA-77

Sounding Volume FA-6, H-9751 (FA-5-3-78), OPR-L100(411)-FA-78

Submitted by:

Ens. LeeAnne Roberts, NOAA

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 existance 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.

The following sound velocity correctors are to be applied to all soundings in fathoms from a fathometer on survey FA-20-1-78 (H-9752).

Depth in Fathoms	Corrector	(Fathoms)
0.0 - 1.9	+ 0.0	
2.0 - 5.1	0.1	
5.2 - 8.5	0.2	
8.6 - 12.3	0.3	i
12.4 - 16.0	0.4	ľ
16.1 - 19.9	0.5	
20.0 - 23.9	0.6	!
24.0 - 28. <b>2</b>	0.7	
28.3 - 32.6	0.8	
32.7 - 36.9	0.9	
37.0 - 41.6	1.0	
41.7 - 46.3	1.1	
46.4 - 51.1	1.2	·
51.2 - 55.8	1.3	
55.9 - 60.6	1.4	
60.7 - 66.0	1.5	

# F. LIST OF STATIONS

101 7 34 00 57581 119 21 45954 243 0049 330040 102 7 34 01 58311 120 21 45300 250 0250 330040

101 - ANACAPA ISLAND GREEN RADIST (ESTB. 1978)

102 - SAN MIGUEL 4, RM 5 (ESTB. 1978) - RED RADIST

NONFLOATING AND REPRETATIONAL OCCURRENGE AND REPRETATION	ORIGINATING ACTIVITY  WHYDROGRAPHIC PARTY  GEODETIC PARTY	PHOTO FIELD PARTY COMPILATION ACTIVITY FINAL REVIEWER OUALITY CONTROL & REVIEW GRP.	(See reverse for responsible personnel)		on reverse side)	FIELD		March /8			_	.31.								
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FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES			REVIEWER QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
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day, and year) of the photograph used to identify and locate the object.  EXAMPLE: 75E(C)6042	otograph used to	date of fleld work graph used to locate EXAMPLE: P-8-V	date of field work and number of the photo- graph used to locate or identify the object. EXAMPLE: P-8-V
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ation 5 - 6 -	Field identified Theodolite	8-12-75	
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SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION,

NOAA FORM 76-40 (8-74)

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SUPERSEDES NOAA FORM 76-40 (3-71) WHICH IS OBSOLETE, AND
EVISTING STOCK SHOULD BE DESTROYED UPON ABAREPT OF MEVISION.

# U.S. CON. ..... PRINTING OFFICE: 1974-665-073/1030 Region 6

NOAA FORM 76-40	07				٦	S. DEPARTM	ENT OF COMMERCE	ORIGINATING ACTIVITY	CTIVITY
(8-74) Replaces C&GS Form 567.	<b>a</b> 567.	NONFLOATING AIDS OR LAN	IDWARKS	FOR CH	ARTS	ATMOSPHER	OR LANDMARKS FOR CHARTS	HYDROGRAPHIC PARTY GRODETIC PARTY PHOTO FIRLD PARTY	ARTY 17 V
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 RASEDES NOAA FORM 16-40 13-711 WHICH IS OF TETE, AND STOCK SHOULD BE DESTROYED UPON RELIEPT OF REVISION.

# APPROVAL SHEET

Field Number: FA-20-1-78 Register Number: H-9752

This field sheet 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

# U.S. DEPARTMENT OF COMMERCE NOVEMBER 9, 1978NATIONAL 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 8-28, 1978,

HYDROGRAPHIC SHEET: H-9752

OPR: L100

Locality: Santa Barbara, California

Plane of reference (mean lower low water): 3.10 ft. - Santa Barbara
Height of Mean High Water above Plane of Reference is
4.6 ft.

Remarks: Zone direct on Santa Barbara.

NOTE: This supersedes the tide note dated August 22, 1978

Chief, Tides Branch

NOAA FORM 76-155 (11-72) NA	TIONAL C	CEANIC			ENT OF CO		SL	JRVEY N	UMBER	
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EDGECLIFF POINT	Х								923	4
EL ESTERO								<b></b>	923	5
FERNALD POINT ✓	Х		,						923	6
FRANKLIN CREEK	Х								923	7
<del>LA MESA</del>							·		922	8
LOON POINT	Х		1						923	9
MONTECITO	Х									10
OAK CREEK		ì							923	11
ORTEGA									923	12
ROMERO PILON CREEK	Х		,						923	13
PT. CASTILLO	Х	b b							867	14
PUNTA 🗸	Х		<u>.</u>	:					924	15
PUNTA GORDA	Х		v			-			924	16
RINCON CREEK	Х	,							924	17
RINCON POINT	Х								924	18
SAND POINT	Х								923	19
SANDYLAND	Х		1						923	20
SANDYLAND COVE			7						923	21
SANTA BARBARA	Х								867	22
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SOUNDINGS	REVISED				154			
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VERIFICATI	ON OF SOUNDINGS					13	84	
COMPILATIO	ON OF SMOOTH SHE	EET				10	<del></del>	
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JUNCTIONS							7	
	N WITH PRIOR SUR	VEYS & CHARTS				<del>                                     </del>	51	
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	REGISTRY NO.
not been corrected Card and Excess Car	cess Sounding Cards for this survey have to reflect the changes made to the Compute d Printouts at this time of the review.
When the cards have of the survey, the	been updated to reflect the final results following shall be completed:
· · · · · · · · · · · · · · · · · · ·	CARDS CORRECTED
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REMARKS:	
	REGISTRY NO. H-9752
The magnetic tape of been corrected to and review.	containing the data for this survey has not reflect the changes made during evaluation
results of the sur	tape has been updated to reflect the final vey, the following shall be completed:  MAGNETIC TAPE CORRECTED
	rime required initials

REMARKS:

# PACIFIC MARINE CENTER VERIFIER'S REPORT

REGISTRY NO: H-9752 FIELD NO: FA-20-1-78

California, Santa Barbara Channel, Punta Gorda to Santa Barbara Point

SURVEYED: March 8 to March 28, 1978

SCALE: 1:20,000 PROJECT NO: OPR-L100(411)-FA-78

SOUNDINGS: Ross Fineline CONTROL: Raydist R/R

Surveyed by......Lt. A. Kissam, Ens. L. Roberts,

Ens. S. Knight

Automated plot by......PMC Xynetics Plotter

Verified by......Sandor A. Feher
April 13, 1979

### I. INTRODUCTION

H-9752 is a basic hydrographic survey conducted in California in the Santa Barbara Channel along the coastline from Santa Barbara Point to Punta Gorda. The harbor area of Santa Barbara was covered on a larger scale survey with its own registry number, H-9751 (1978).

The primary tide gage at Santa Barbara was used for tidal reduction on this survey, the Rincon Island tide gage experienced problems with data acquisition.

No unusual problems were encountered during the verification of this survey.

#### II. CONTROL AND SHORELINE

The source of control is adequately described in the Descriptive Report in Section F, except: there is a large discrepancy of one azimuth closure in the positioning of the Raydist station on Anacapa Island, where upon the redundancy is 02'32.4", as reported in the Horizontal Control Report. (See Horizontal Control Report, Computation of Raydist Tower Location: Anacapa Island). This azimuth closure does not meet the accuracy set forth in the Hydrographic Manual on Page 3-5.(See Q.C. Report-item Ha.)

The positioning of calibration points were selected in such a way that the signal reached the sounding vessels after is is propagated through land areas, therefore it could influence the accuracies of calibrations.

The shoreline and its features were compiled from Class I unreviewed photogrammetric manuscripts TP-922, TP-923, and TP-924. Photography was flown in Oct. 1975 and March 1976 and field edit was accomplished in March 1978. Manuscript TP-924 was flown Oct. 1975 and field edited in Dec. 1977. Manuscript TP-867 was reduced to the proper scale, it was flown in March 1976 and field edited in March 1978. This manuscript was used in the Santa Barbara Harbor area for the inner shoreline.(See Q.C. Reportion III. HYDROGRAPHY

Crosslines are in good agreement, generally within one fathom or less. The construction of depth curves on the smooth sheet is complete, the basic hydrography is adequate to delineate the bottom configuration and to determine least depths except as noted elsewhere in this report. (See Q.C. Reportitem 2)

#### VIV. CONDITION OF SURVEY

The hydrographic records, overlays, smooth sheet are adequate and conform to the requirements of the Hydrographic Manual with the following exceptions:

- A Signal propagated over land area for calibration that may induce error in the initial setting of the hydrographic control instruments.
- B Closure of field measurement for an electronic control station did not meet the 3rd order accuracy requirement set forth in the Hydrographic Manual.
- observe datached positions on

  C. The hydrographer did not locate submerged rocks near positions 5378, 5379, 5380, latitude 34°23'30"N, longitude 119°32'30"W. These submerged rocks were observed and noted by the hydrographer during on line hydrographic data acquisition.
- D. The hydrographer did not locate or make any reference to the mooring byoys charted near Platform "A" and "B" and Hillhouse.
- E The electronic correctors were changed for the following positions, after had been examined and found to be erroneous: Pos. Nos. 3172-3265; 3266-3304; 3305-3346; 4016-4034; 4084-4109; 4349-4385; 4789-4879.

#### V. JUNCTIONS

An adequate junction was effected to the north with contemporary survey H-9751, 1:5000 (1978).

At the south junction was made with H-9730, 1:20000 (1977) and with H-9732, 1:20000 (1977). H-9730 junctional curves should be adjusted to agree with H-9752. Appropriate adjustments were made during Q.C. inspection.

At the west there is no comtemporary survey at the present time.

Soundings and depth curves are in good agreement and junction notes are inked accordingly.

# VI. COMPARISON WITH PRIOR SURVEYS (See Q.C. Report-item 4)

H-5030 a 1:20,000 (1930) H-5030, 1:80000 (1930)

There is no shoreline development on this survey and it shows rugged kelp covered areas toward the shore from the 8 fathom line. The soundings on this survey are shoaler by 1/2 fathom along the ten fathom line on the present survey. Present depths range to 3 fathoms deeper in general depths exceeding 25 fathoms.

The present survey is adequate to supersede this prior survey of the within the area of common coverage.

H-5499, 1:10000 (1933)
The soundings and depth curves are in good agreement, generally 0.5 fathom shoaler on the present survey, except around the Sand Pt. shoal/foul area at approximately latitude 34°23.5'N, longitude 119°32.5'W.

In this area the present survey failed to develop adequately the bottom configuration, the area is covered by heavy kelp growth. There are several rocks in this area that the field editor or hydrographer failed to locate. The three rocks shown at approximately latitude 34°23.6!'N, longitude 119°32.55'W are not shown on the present survey, however they are depicted on Chart 18275 as rocks awash. A subm. rock and a few soundings were carried forward to supplement the present survey.

This present survey is adequate to supersede H-5499, however if larger scale charting requirements of this area should arise, this prior contains valid additional information which can be used.

TH-5502, 1:10000 (1933)
The present survey indicates somewhat 0.2 fathom deeper soundings. The sunken rock and three more uncovered rocks in the area of latitude 34°23.7'N, longitude 119°42万'W, plot father away from shoreline on the present survey than on this prior survey.

The present survey is adequate to supersede this prior survey.

H-5464, 1:5000 (1933 Soundings are generally shoaler along the shoreline. The bottom configuration was adequately delineated on this early survey.

One shoal sounding brought forward from this survey to the present survey, indicated by violet color on the smooth plot. This present survey is adequate to supersede H-5464, however if larger scale charting requirements of this area should arise, this prior survey contains valid additional information which can be used.

H-5498, 1:10000 (1933)
Soundings are in good agreement with this prior survey. The present survey depicts a new shoal area at approximately latitude 34°21.4'N, longitude 119°27.2'W, that is not shown on this prior survey. Scattered depth differences of 11 fathom were noted. One sounding and several rocks were carried forward to supplement the present survey. The present survey is adequate to supersede H-5498, however if larger scale charting requirements of this area should arise, this prior contains valid additional information which can be used.

Presurvey items #16, 17 were adequately disposed and described in the Descriptive Report in Section K. Item #15 was investigated, it's existence confirmed but a positioning data was not taken. It should be retained carried forward as charted.

The dashed circle item along the Sand Point foul area, was depicted by the ship as foul area. It is recommended to be carried forward as charted.

# VII. COMPARISON WITH CHART (See Q.C. Report-item 5)

# Aa. Hydrography

This survey was compared with Chart 18725, 18th Edition, 1977. The following rocks were not located by the survey and therefore it is it is recommended to be carried forward on charting. The source for these rocks are unknown. that they be retained and/or revised to agree with the present survey.

... and were therefore carried forward to supplement the present survey:

-Latitude 34° 22.5'N, longitude 119° 28.05'W (uncovered) ALATITUDE 34° 22.98'N, longitude 119° 29.3'W Latitude 34° 22.9'N, longitude 119° 29.4'W uncovered) (<del>-sunken</del>)avash Latitude 34° 23.05'N, longitude 119°30.15'W (<del>sunken)</del>awash > Source H-5498 (1933) Latitude 34° 23.1'N, longitude 119° 30.35'W (uncovered) Latitude 34° 23.15'N, longitude 119° 30.5'W (uncovered) Latitude 34° 23.2'N, longitude 119° 30.7'W (uncovered) Latitude 34° 23.2½, longitude 119°31.0½ W
Latitude 34° 23.6′N, longitude 119°32.55′W

Latitude 34° 23.7′N, longitude 119° 32.3′W

Latitude 34° 25.0′N, longitude 119° 39.3′W

Latitude 34° 25.0′N, longitude 119° 39.3′W (uncovered) Source H-5499 (1933) sunken) 🐇 uncovered ledge) Source H-5499 (1933) (uncovered) Latitude 34° 23.8'N, longitude 119° 42.3'W (uncovered) Source H-5464 (1933) (See Q.C. Report-Itam 10) -Revise chart to agree with the present survey One additional uncovered rock was located on the field at Latitude 34° 25.00N, longitude 119° 37.8'W.

Soundings generally originate from H-5030 (1930) survey on the open water areas, while closer to shore the soundings originate from H-5499 (1933), and H-5498 (1933), H-5464 (1933) and H-5502 (1933).

The Square Tower charted as a landmark at Latitude 34° 25.95'N, longitude 119° 38.45'W is from a source that could not be determined. It should be investigated and if still in existence, retained as charted. (See Q.C. Report-item 6)

Soundings are in good agreement and adequate to supersede charted hydrography.

## Bb. Aids to Navigation

Aids to navigation consist mostly of fixed marks; the relocation is are charted correctly. The only floating aid to navigation is described in the Ship's Report, Section N, Aids to Navigation.

(See Q.C.Report-item 7)

The privately maintained buoy at Latitude 34° 23.7'N, longitude 119° 39.7'W, should be deleted from the chart, as it was searched for and not found.

# VIII. COMPLIANCE WITH PROJECT INSTRUCTION

This survey complies with the Project Instructions dated Nov. 11, 1977 and March 2, 1978.

#### IX. ADDITIONAL FIELD WORK

There is no additional field work required for the area covered by this survey. (See Q.C. Report-item 8)

This is a good basic hydrographic survey.

Respectfully submitted,

Sandor A. Feher

Cartographic Technician April 13, 1979

Examined and approved,

Chief, Verification Branch

#### APPROVAL SHEET

# FOR

# SURVEY H- 9752

- 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.

Signed:

Title: 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

: June 21, 1979

OA/CPM3/JWC

TO.

OA/CPM - Eugene A. Taylor

OA/CPM3 - John W. Carpenter

SUBJECT: PMC Hydrographic Inspection Team Report for Survey H-9752

This survey is a basic hydrographic survey from Punta Gorda to Santa Barbara Point, Santa Barbara Channel, California. This survey was conducted by NOAA Ship FAIRWEATHER in 1978 in accordance with Project Instructions OPR-L100-FA-78 dated November 11, 1977 and Change Nos. 1 thru 4 dated November 22, 1977, December 16, 1977, December 19, 1977 and January 23, 1978, respectively.

The following deficiencies were noted:

- 1. Fixed point calibrations were accomplished in an area where the Raydist signal was propagated over an intervening land area.
- 2. Significant rocks off Sand Point were not definitely located in either the hydrographic or field edit records (smooth sheet positions are plotted by reference to comments in the raw record.)

The inspection team finds H-9752 to be a good basic survey adequate to supersede common areas of prior surveys and charted hydrography. Administrative approval is recommended.

John W. Carpenter



# ADMINISTRATIVE APPROVAL H-9752

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.

Eugene A. Taylor, RADM

Director

Pacific Marine Center

2 July 1979

Date



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

OA/C352: KWW

August 7, 1979

R.H. Cartens

TO:

R. H. Carstens

Acting Chief, Hydrographic Surveys Division

THRU:

Chief, Quality Control Branch

FROM:

K. W. Wellman R.W. Wellman

Quality Evaluator

SUBJECT:

Quality Control Report for H-9752 (1978), California, Santa

Barbara Channel, Punta Gorda to Santa Barbara Point

A quality control inspection of H-9752 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths and navigation hazards, junctions, shoreline transfer, decisions and actions by the verifier, and cartographic presentation of data.

In general, the present survey was found to conform to National Ocean Survey standards and requirements except as discussed in the Verifier's Report, the HIT Report, and as follows:

- 1. Reference section II of the Verifier's Report:
- a. The noted azimuth error of 2'32.4" results in a possible station displacement of less than 1 foot and is considered insignificant at the scale of the present survey.
- b. The shoreline originating with TP-00867 (at a scale of 1:5,000) is shown on the present survey for orientation purposes only. The larger scale adjoining survey H-9751 (1978) and TP-00867 should be referenced for detailed inshore information between longitude 119°39.50' and longitude 119°42.00'.
- 2. During verification, the supplemental 6-fathom depth curve was improperly inked in brown ink rather than the standard green ink; however, it was not considered necessary to correct this minor defect.

Section III of the Verifier's Report is supplemented by the following:



Supplemental 6-, 8-, 12-, 14-, 16-, and 18-fathom depth curves were added to conform to charting practice. It is noted that the 6-fathom depth curve was inadvertently inked in brown ink rather than the standard green ink.

- 3. Numerous mooring buoys were inappropriately displaced during verification. The referenced mooring buoys are improperly plotted with dotted lines connecting the symbol to the corresponding observed positions. The mooring buoy symbols should have been plotted at the position of the corresponding observed fix.
- 4. Reference section VI of the Verifier's Report:
- a. It was unnecessary to discuss each prior survey separately in the referenced section of the Verifier's Report. If the comparisons reveal generally similar results, the prior surveys can be grouped together and discussed in one general discussion rather than several separate but generally similar discussions. (See the memorandum dated March 21, 1977, from the Office of Marine Surveys and Maps entitled "Verifier's Report Format.")
- b. Prior survey H-5030a was not included among the prior surveys considered during verification.
- c. The required statements concerning the probable cause(s) of the noted depth differences are not included in the referenced section of the Verifier's Report. (See the memorandum cited in item 4.a above.)

Section VI of the Verifier's Report is supplemented by the following:

The noted depth differences are attributed to natural causes.

- 5. The appropriate edition of the chart was not used by either the hydrographer or during verification. It is a requirement that the survey be compared ". . . with the latest edition of the largest scale chart of the area . . . . " (See section 5.3.4(L) of the Hydrographic Manual--Fourth Edition.)
- 6. Section VII-A of the Verifier's Report is supplemented by the following:

In addition, attention is directed to the foul areas charted in the vicinities of latitude 34°23.30', longitude 119°31.25' and latitude 34°23.00', longitude 119°30.20'. The foul areas are not delimited on the present survey. They are considered to originate with miscellaneous source(s) and are referred to the compiler for evaluation and appropriate action.

7. Section VII-B of the Verifier's Report is supplemented by the following:

The three mooring buoys charted in proximity to platforms "A," "B," and "Hillhouse" in approximate latitude 34°20', longitude 119°36.5' were not investigated by the hydrographer and should be retained as presently charted.

8. Section IX of the Verifier's Report is supplemented by the following:

However, the various rocks carried forward from prior surveys to supplement the present survey should be investigated and verified or disproved during future work in the area.

- 9. Several geographic names were inappropriately oriented, i.e., slanted or vertical, when lettered on the smooth sheet during verification. (See section 7.2.5.2 of the Hydrographic Manual--Fourth Edition.)
- 10. Reference section VII-A of the Verifier's Report:

Numerous charted rocks are addressed in the referenced section of the Verifier's Report. During verification, the rocks were designated as originating with unknown sources. During quality control inspection, most of the referenced rocks were determined to originate with the prior surveys and were appropriately carried forward to supplement the present survey. A careful examination of the prior surveys during verification should have provided the sources of the referenced rocks thereby facilitating their transfer to the present survey. This would have obviated the need for enumerating the referenced rocks in the Verifier's Report as well as time-consuming consideration during quality control inspection.

cc: 0A/C35 0A/C351

F ORM	C&GS-8352
13-25-6	3)

# NAUTICAL CHART DIVISION

#### **RECORD OF APPLICATION TO CHARTS**

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9752

# INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.

2. In "Remarks" column cross out words that do not apply.

3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
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			Drawing No. #18/ppc
18720	1-24-80	R.a. Lillis	Full Part Before After Verification Review Inspection Signed Via
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		12-14-81-RBC	Drawing No. 19
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