

9592

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-5-1-76**
Office No. **H-9592**

LOCALITY

State **CALIFORNIA**
General Locality **SAN PEDRO BAY**
Locality **ALAMITOS BAY**

1976

CHIEF OF PARTY
R. E. ALDERMAN

LIBRARY & ARCHIVES

DATE **4-19-77**

☆ U.S. GOV. PRINTING OFFICE: 1975-688-353

9592

Area 2
5192
5192 Appd Man (10-20-78)

HYDROGRAPHIC TITLE SHEET

H-9592

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-5-1-76

State California

General locality San Pedro Bay

Locality Alamitos Bay

Scale 1:5,000 Date of survey 1-17 March 1976

Instructions dated 12 November 1975 Project No. OPR-411-FA-76

Vessel FAIRWEATHER LAUNCH
FA-4 (hull #1233 EDP 2024)

Chief of party CDR R. E. Alderman

Surveyed by Ship's Personnel (CST E. R. Krick in charge)

Soundings taken by echo sounder, ~~EGGSON/300X~~ Ross Fineline Fathometer (S/N 1036)

Graphic record scaled by Ship's personnel

Graphic record checked by Ship's personnel

Positions verified ~~EGGSON~~ by Isagani A. Almacen Automated plot by PMC Xynetics Plotter

Soundings Verification by Isagani A. Almacen

Soundings in ~~EGGSON~~ feet at ~~MOEX~~ MLLW

REMARKS: All records were kept on GMT. The mean longitude

is 118°07'30"W. This survey is complete and adequate for
charting.

Applied to stls 10/11/77
[Signature]

- 1 CHANNEL, 1933
- 2 WHITE ROCK, 1875 - 1933
- 3 CHERRY 2, 1933
- 4 ABALONE KNOLL, 1984 - 1933 (RAYOIST)
- 5 VILLA RIVERA, 1933
- 6 MIDWEST, 1948
- 7 MIDWEST, 1948
- 8 EHLE (NO DESCRIPTION)
- 9 NAVY, 1921
- 10 VERDES, 1963

HORIZONTAL CONTROL RECOVERED AND ESTABLISHED - MARCH

- 11 PT VINCENTE LM, 1948
- 12 VINCENTE, 1931
- 13 MALAGA, 1962 - 1933 (MINI-RANGER)
- 14 REEF, 1962 - 1933 (MINI-RANGER)
- 15 LAT'GO, 1927 - 1942 (MINI-RANGER)
- 16 TRESTLE, 1933 (MINI-RANGER)
- 17 PT DUKE RM 3, 1976 (MINI-RANGER) ESTE
- 18 PT DUKE, 1956 - 1947
- 19 PT DUKE, 1956 - 1947 ECC 2 (MINI-RANGER)
- 20 GRENSPUR, 1976 - ESTE (RAYOIST)
- 21 KIRCALD, 1927 (MINI-RANGER)
- 22 LINE, 1927 (MINI-RANGER)

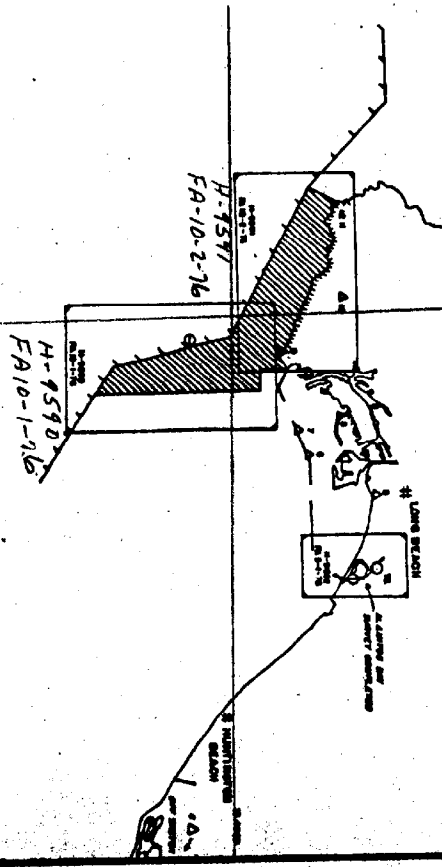
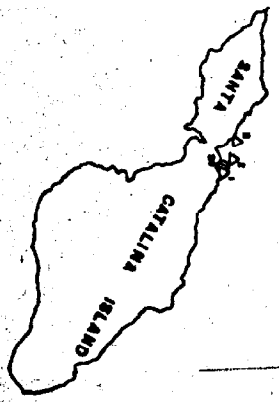
OPR-411
 PROGRESS SKETCH
 SOUTHERN CALIFORNIA
 NOAA SHIP FAIRWEATHER (MSS-20)
 CDR RICHARD E. ALDERMAN, CMDG
 1976

	MARCH	APRIL
LM SOUNDING LINE	6099	3269
SO NM SOUNDING LINE	35.1	37.9
BOTTOM SAMPLE	47	58
TDC CAST (MARTEN)	1	0
STD CAST (NANSEN)	1	1

- ⊙ MARKER
- MARKER
- _h TIDE GAUG
- _h FIELD BORT
- △ STA. RECOVERED
- STA. ESTABLISHED

HORIZONTAL CONTROL RECOVERED - APRIL

- 23 BIRD, 1931
- 24 PACIFIC, 1927
- 25 MUGU POINT, 1932 (MINI-RANGER)
- 26 CLUB, 1963 - RESET, 1969
- 27 PULSADES RM 2, 1927 (MINI-RANGER)



DESCRIPTIVE REPORT

NOAA SHIP FAIRWEATHER (MSS-20)

OPR-411-FA-76

SURVEY H-9592 (FA-5-1-76)

✓ A. PROJECT

This survey was accomplished under project instructions OPR-411-FA-76, Southern California, dated November 12, 1975 and change number five dated February 5, 1976, PMC OPORDERS and the 1976 FIELD REQUIREMENTS.

✓ B. AREA SURVEYED

The area encompassed by FA-5-1-76 is all of Alamitos Bay inside the ends of the jetties and all navigable waters associated with the main channel surrounding Naples Island, the Long Beach Marine Stadium, Los Ceritos channel to the limits of navigation, the channel into Marina Pacifica and the San Gabriel River entrance to the limits of navigation. Hydrography was done from March 1, 1976 through March 17, 1976.

✓ C. SOUNDING VESSEL

All hydrography, bottom samples and detached positions, on this sheet, was accomplished using survey launch FA-4 (hull number 1233).

✓ D. SOUNDING EQUIPMENT

A Ross Fineline Fathometer, Model 200A, Serial number 1036 was used for all soundings. Frequent leadline comparisons showed a TRA corrector of 1.9 to 2.3 feet. On day 070 the fathometer initial trace could not be zeroed, hence there are five TRA correctors, for that day. Sound velocity corrections are based on one Martek TDC cast taken on March 15, 1976 in the center of Alamitos Bay proper. For details see Report of Corrections to Echo Soundings, OPR-411-FA-76. The depths of soundings, on this sheet, range from approximately 0 feet to 25 feet.

✓ E. BOAT SHEET

A 90 degree skewed computer sheet, 22 inches by 60 inches, was used for this survey. All hydrography and signal locations fall within the limits set by PMC and the computer sheet is within the limits of the provided boatsheet layout. The projection is a modified transverse mercator at a scale of 1:5000. One computer sheet was required. The origin is at 33°42'45" North latitude and 118°06'10" West longitude. A parameter tape printout is appended. All data was plotted on the shipboard hydroplot system.

/F. STATION CONTROL

Horizontal control, for this survey, consisted of existing triangulation intersection stations, visual signals located by standard photogrammetric methods and eight stations located by traverse methods. See attached section of Horizontal Control Report, OPR-411-FA-76 for the latter. All station positions are based upon the 1927 North American Datum.

/G. POSITION CONTROL

The major portion of the hydrography, on this survey, was controlled by three-point visual sextant fixes observed on the stations mentioned in paragraph F. There were some control problems, mainly due to poor photos and manuscripts that were poorly junctioned and with poor photo center locations. As a result, many of the positions had to be adjusted for computer plotting. This was not a severe handicap, as visual reference to points, in the harbor allowed for logical and accurate adjustment, but it was a very time consuming process.

A portion of the hydrography southwest of Naples Island was accomplished by using range-azimuth assistance to the available three-point visual fixes. Positions that were obtained by range-azimuth were then converted to normal visual three-point fixes. This was done to allow timely progress, of the survey. Otherwise, a lengthy time consuming traverse would have been necessary to support less than one day of hydrography.

The narrow channel North and West of Naples Island, the two small boat harbors, the channel into Marina Pacifica and Los Cerritos Channel from the limits of photo coverage to the limits of navigation was controlled by dead reckoning. The launch was located by visual reference to distinctive piers, bulkheads and other definitive points and its position plotted on the field sheet. Three-point sextant fixes were then scaled to permit automated processing.

/H. SHORELINE

The shoreline details were obtained from existing Class III manuscripts numbers TP 00395, TP 00396 and TP 00403 which were not up to date. Shoreline and topographic details were previously verified by Field Edit. However, the extensive recent changes in the area occupied by Marina Pacifica and the lack of photo coverage for Los Cerritos channel requires that contemporary photos be obtained to provide current and up to date shoreline details and features.

The low water line was not delineated by soundings due to the small tide range and numerous piers, bulkheads and boats in the harbor.

I. CROSSLINES

The 31.4 n.m. of hydrography run, on this sheet, includes 6.8 n.m. of crosslines and sounding overlap. The crosslines and overlap are 22% of the main scheme hydrography. Comparison at crossings is good with a maximum two foot variation due to swell action at the entrance and the inability of the computer to accurately depict positions with narrow horizontal angles.

J. JUNCTIONS

This survey junctions, to the south, with the 1:10,000 scale contemporary survey H-9580 and agrees within 1 foot in depths of 18 to 23 feet.
9493 (1975)

K. COMPARISON WITH PRIOR SURVEYS

Prior surveys, of Alamitos Bay, most probably done by the Corps of Engineers, were not available for comparison.

Item 40 of Pre-survey Review dated 24 September 1970 is a large cement dolphin, with three legs, and should be charted as shown on the present survey. *revised light position*

There was a questionable 13 foot sounding, also shown on the Pre-survey Review dated 24 September 1970 at Lat. 33°44'54" North, Long. 118°07'00" West. This item was not sufficiently developed to prove or disprove its existence. However, the general 2 to 4 foot shoaler depths, in Alamitos Bay, obtained during this survey as opposed to the depths charted, would indicate that this 13 foot sounding should be charted as presently shown on Chart 18749 (5148). *Chart present depths*

L. COMPARISON WITH CHART

This survey was compared with chart 18749 (5148) SAN PEDRO BAY, 19th edition, 22 February 1975, scale 1:18,000. *NOT USED*

In general, the survey shows shoaler soundings for the entire survey area. There is also extensive shoaling on the west side of the San Gabriel River entrance. Detached positions were taken, to determine the extent of shoal areas, in the San Gabriel River and these areas should be charted as indicated on the ~~computer~~ *survey* sheet.

There were three items, from change number five, to the project instructions, to be investigated.

Item one was a controlling depth for the channel into Marine Pacifica. This is plotted on the ~~computer~~ *survey* sheet and should be charted as shown. *33°45.6' N 118°06.7'*

Item two was a determination of the navigability, of an apparent large bay or slough shown as area "B" on the survey limits chart. This area is, at present, now almost a complete landfill and is not navigable. It should be deleted from the chart.

Item ~~three~~ was a determination of navigation in the San Gabriel River. The existing shoaling is discussed in paragraph two of this section. This, along with the breakers at low tide should preclude navigation. However, if soundings are to be shown on future charts for the area in question, a cautionary note advising local knowledge for navigation should be made prominent.

/M. ADEQUACY OF SURVEY

All fathogram records were scanned for peaks and deeps, checked and appropriate changes made to the original records. The survey is considered complete and adequate to supersede prior surveys for charting.

/N. AIDS TO NAVIGATION

There are numerous navigational aids located in this survey area. Lights one, two, three and mooring buoy CG5C are Coast Guard maintained. The remaining aids are maintained by the City of Long Beach Harbor Patrol. Detached positions for all channel buoys, speed buoys and swim area buoys are in the original records. Only those pertinent for safety and navigation are plotted on the ~~computer~~ ^{survey} sheet.

/O. STATISTICS

<u>Vessel</u>	<u>Total Positions</u>	<u>Hydrography</u>
FA-4	699	31.4 n.m.
Total area - 0.7 n.m.		
Total bottom samples - 18		

/P. MISCELLANEOUS

Greenwich Mean Time was used for all records.

/Q. RECOMMENDATIONS

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

Since the City of Long Beach had no dredging survey prints available and dredging operations had been started in the area South and West of Naples by the conclusion of hydrography, it is imperative that contemporary dredging prints be obtained to correctly depict the depths in this area. In conversation, with the engineer onboard the dredge, it was learned that the intended depth is to be 20 feet and the possibility exists of more boat slip construction on the southern shore, opposite Naples.

The Marina Pacifica Complex is rapidly growing and will eventually alter the character of Los Cerritos Channel and the associated shoreline. It is recommended that contact be maintained, with the City of Long Beach and the Marina Pacifica Corporation for the purpose of keeping this area current and up to date.

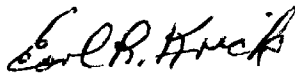
/R. REFERENCES TO REPORTS

Report on Corrections to Echo Soundings, OPR-411-FA-76
Horizontal Control Report, OPR-411-FA-76
Field Tide Note, OPR-411-FA-76
Field Edit Report, OPR-411-75 and OPR-411-FA-76

/S. DATA PROCESSING PROCEDURES

All original data was recorded in three sounding volumes (C&GS 275), manually logged in logger format, on an ASI logger, converted to master format via program RK 337 version 2/20/76. Program RK 212, version 4/1/74 was used for the station plot and program RK 215, version 8/16/74 was used to generate the positioning and sounding plot.

Submitted by:



Earl R. Krick CST

APPROVAL SHEET

Fiel No. FA-5-1-76

Register No. H-959²

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



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

SIGNAL LIST OPR-411-FA-76

FA 5-1-76 (H-9592) VISUAL

ALAMITOS BAY ENTRANCE EAST JETTY LIGHT /
101 0 33 44 11260 118 07 09750 243 0000 000000

ALAMITOS BAY ENTRANCE WEST JETTY LIGHT /
102 0 33 44 14220 118 07 16160 243 0000 000000

CUPOLA /
104 7 33 44 44862 118 06 57098 243 0000 000000

CUPOLA /
105 7 33 44 52170 118 06 51653 243 0000 000000

CORNER BULKHEAD
106 7 33 44 50511 118 06 59444 243 0000 000000

UNION 76 BALL
107 4 33 45 02781 118 06 47730 243 0000 000000

CORNER BULKHEAD
108 2 33 45 07525 118 06 41693 243 0000 000000

CORNER BULKHEAD (LIGHT STANDARD) /
109 3 33 45 11014 118 06 45527 243 0000 000000

BUILDING CORNER /
110 1 33 45 23818 118 06 52414 243 0000 000000

SPIRE (HYATT HOUSE SIGN) /
111 7 33 45 27889 118 06 37473 243 0000 000000

RADIO TOWER (KFOX)
112 0 33 45 55240 118 07 09990 243 0000 000000

MARINE STADIUM QUARTER MILE MARKER /
113 1 33 45 50234 118 07 21558 243 0000 000000

MARINE STADIUM (APEX OF SIGN)
114 1 33 45 53145 118 07 24602 243 0000 000000

MARINE STADIUM QUARTER MILE MARKER /
115 1 33 46 02631 118 07 34867 243 0000 000000

BUILDING PEAK /
116 3 33 46 00532 118 07 42311 243 0000 000000

CORNER BUILDING /
117 3 33 45 51579 118 07 32687 243 0000 000000

CORNER BUILDING

118 3 33 45 42071 118 07 22164 243 0000 000000

CORNER BUILDING

119 0 33 45 37001 118 07 23538 243 0000 000000

BUILDING AIR INTAKE (CENTER)

120 0 33 45 38565 118 07 34702 243 0000 000000

BUILDING PEAK

121 0 33 45 30201 118 07 44384 243 0000 000000

ELEVATOR SHAFT (ANTENNA ON CENTER)

122 7 33 45 26475 118 07 41101 243 0000 000000

CORNER BULKHEAD

123 2 33 45 09864 118 07 36778 243 0000 000000

FIREPLACE CHIMNEY (CENTER)

124 7 33 45 09572 118 07 27214 243 0000 000000

FIREPLACE CHIMNEY (CENTER)

125 1 33 45 01219 118 07 24442 243 0000 000000

CORNER BULKHEAD (LIGHT STANDARD)

126 2 33 45 13458 118 06 41847 243 0000 000000

LIGHT STANDARD ON BRIDGE

127 3 33 45 23801 118 06 55271 243 0000 000000

LIGHT STANDARD ON BRIDGE

128 4 33 45 24490 118 06 56046 243 0000 000000

CORNER BULKHEAD

129 1 33 45 06595 118 06 52184 243 0000 000000

TRAVERSED SIGNAL

130 0 33 44 19941 118 07 12362 243 0000 000000

TRAVERSED SIGNAL
131 0 33 44 17030 118 07 14417 243 0000 000000

TRAVERSED SIGNAL
132 0 33 44 18861 118 07 04823 243 0000 000000

TRAVERSED SIGNAL
133 0 33 44 26795 118 06 59540 243 0000 000000

TRAVERSED SIGNAL
134 0 33 44 24672 118 07 09276 243 0000 000000

TRAVERSED SIGNAL
135 0 33 44 32229 118 07 04137 243 0000 000000

TRAVERSED SIGNAL
136 0 33 44 33071 118 06 55273 243 0000 000000

TRAVERSED SIGNAL
137 0 33 44 43989 118 06 49758 243 0000 000000

END BULKHEAD
138 5 33 44 58440 118 07 12580 243 0000 000000

CENTER OF DECK (LIFE GUARD BUILDING)
139 3 33 45 15000 118 07 47714 243 0000 000000

DOLPHIN
140 3 33 45 13350 118 07 47597 243 0000 000000

VELOCITY TABLE 0002

SOUND VELOCITY CORRECTOR ABSTRACT

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

FA-5-1-76

H-9592 ✓

Depth (feet)

Corrector (feet)

0 - 3.7
3.8 - 11.4
11.5 - 19.1
19.2 - 27.0

+ 0.0
0.2
0.4
0.6

FIELD TIDE NOTE

/ Field tide reductions of soundings are based on Los Angeles Outer Harbor predicted tides, and were interpolated by PDP 8/e computer utilizing AM 500. All times of both predicted and recorded tides are based on GMT.

One Bristol Bubbler and one F&P ADR gage were installed in the project area. Locations and periods of operation were as follows:

<u>SITE</u>	<u>LOCATION</u>	<u>PERIOD</u>
Alamitos Bay	33/45/25 N 118/06/53 W	40 days 26Feb76 to 5Apr76
Mugu Lagoon (ocean pier)	34/05/54 N 119/05/48 W	30 days 24Mar76 to 23Apr76

/ ALAMITOS BAY

Bubbler gage s/n 723275 was installed and began operating 26Feb76 and ran adequately to 4Mar76, when it was removed because of fluctuations in the marigram from something other than swell or waves. Replaced was bubbler s/n 736618 which ran satisfactorily for only 14 hours when the trace stopped recording even tide cycles. No usable data was recorded until the gage was replaced on 9Mar76 by bubbler s/n 63A17967 which ran satisfactorily for the remainder of the period. The staff was the same one left by the FAIRWEATHER installation of 1975. The marigram reads 5.5ft greater than the staff for gage 723275, 5.6 greater than the staff for gage 736618, and 6.2 ft greater than the staff for gage 63A17967.

MUGU LAGOON (ocean pier)

ADR gage s/n 6903A5568M8 and staff were installed on 24Mar76 and ran satisfactorily to 0600 28Mar where a loss of time occurred. Since very few checks were made on the gage it was difficult to determine the correction to apply. By comparing the gage highs and lows to the predicted it was apparent that a 28 hr 20 min addition is required starting at 0600 28Mar to 2114 1Apr. From 1Apr on the gage was reset and checked often enough to allow using standard corrections. The gage reads 6.2ft greater than the staff.

Time & Height Differences

Hourly height tabulations for Alamitos Bay were tabulated and compared to Los Angeles Outer Harbor predicted tides and show insignificant differences. It is recommended that time and height differences be compared to existing or observed data from Los Angeles Outer Harbor, and Santa Monica Pier for the Mugu gage.

Levels

All levels closed within the required limits of accuracy. Comparison of levels made at installation and removal of both gages show no apparent tide staff shifts.

Zoning

No zoning was required or attempted in the field. It is recommended that any necessary zoning be done by the Tides Branch after review of existing and observed data.

7/12/76

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 Form 362

Tide Station Used (NOAA Form 77-12): Alamitos Bay

Period: March 1-17, 1976

HYDROGRAPHIC SHEET: H-9592

OPR: 411

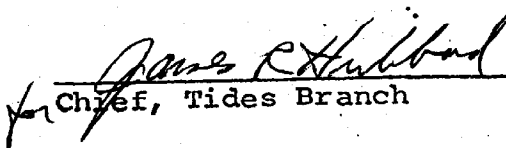
Locality: Alamitos Bay

Plane of reference (mean lower low water): 9.2ft. 2/26-3/6
9.9ft. 3/7-4/5

Height of Mean High Water above Plane of Reference:

4.8 ft.

Remarks: Zone direct.



Chief, Tides Branch

GEOGRAPHIC NAMES

Survey No.

H-9592

Name on Survey

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On Chart No</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On previous survey</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On U.S. Quadrangle Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">From local information</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On local maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">P. O. Guide or Map</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Rand McNally Atlas</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">U. S. Light List</div> </div>										
	A	B	C	D	E	F	G	H	K		
ALAMITOS BAY ✓	18749										1
NAPLES ✓	"										2
BELMONT SHORE ✓	"										3
LONG BEACH MARINA ✓	"										4
MARINE STADIUM ✓	"										5
SAN GABRIEL RIVER ✓	"										6
SAN PEDRO BAY ✓	"										7
LOS CERRITOS CHANNEL ✓	"										8
LONG BEACH											9
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APPROVED

Chas. B. Harrington

STAFF GEOGRAPHER - CBS/x2

6 MAY 1977

APPROVAL SHEET

FOR

SURVEY H- 9592

- 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: 23 March 1977

Signed: _____

Title: Chief, Verification Branch

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9592

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET with smooth PNO & excess overlay		1	BOAT SHEETS (mylar)		1	
DESCRIPTIVE REPORT		1	OVERLAYS (preliminary)		23	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1 with printouts					
LUMES	3					
BOXES			1-Smooth & tides			

T-SHEET PRINTS (List) not received at registration 4/10/77
Class I Shoreline Manuscripts: TP-00395, TP-00396 and TP-00403 mCR

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	REVIEW	TOTALS
POSITIONS ON SHEET				684
POSITIONS CHECKED		684		
POSITIONS REVISED		33		
DEPTH SOUNDINGS REVISED		30		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		-		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		-		
	TIME (MANHOURS)			
Verification of Control	3	4		
Verification of Positions		15		
Verification of Soundings		123		
Smooth Sheet Compilation		79		
ALL OTHER WORK		4		
TOTALS	3	225	H/T = 8	
PRE-VERIFICATION BY James S. Green	BEGINNING DATE 5/21/76	ENDING DATE 5/21/76		
VERIFICATION BY Isagani A. Almacan	BEGINNING DATE 6/9/76	ENDING DATE 3/11/77		
REVIEW BY QC Insp. F.W. Derkizovian 24 hrs	BEGINNING DATE	ENDING DATE 5/18/77		

Reg. No. H-9592

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:

H-9592

Information for Future Presurvey Reviews

This survey falls in an area of a changeable bottom due to river runoff and cultural improvements. Future surveys should include the determination of the charted wreck in latitude 34°44.5', longitude 118°06.9' not disproved on the present survey and the pier ruins in latitude 34°44.75', longitude 118°06.85'.

<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>
334	1181	3	4	25 years

VERIFIER'S REPORT

H-9592

FA-5-1-76

This sheet was constructed and plotted at the Pacific Marine Center, Seattle, WA. Information relating to the survey follows as specified on Chapter 6 of the Provisional Hydrographic Manual.

I. INTRODUCTION

This is a basic hydrographic survey of Alamitos Bay including the main channel around Naples Island, Long Beach Marine Stadium, Los Cerritos Channel and San Gabriel River Entrance.

Hydrography was accomplished by NOAA Ship FAIRWEATHER from March 1 through March 17, 1976.

Three-point visual sextant fixes were utilized to control the major portion of hydrography on this survey. A portion of the area southwest of Naples Island was accomplished using range-azimuth positioning method and those positions obtained were later converted to normal visual three-point fix format to facilitate processing of field data. Dead reckoning method was used in some areas particularly along Los Cerritos Channel.

II. CONTROL AND SHORELINE

Horizontal control used on this survey consisted of existing triangulation intersection stations and visual signals located by photogrammetric and traverse methods.

Shoreline detail information was obtained from unreviewed Class I manuscripts TP-00395 and TP-00396, 1972 - 1976 and TP-00403, 1972-1975. No shoreline information along Los Cerritos Channel is available.

III. HYDROGRAPHY

Crossline soundings were in good agreement. The development of bottom configuration of navigable waters inside Alamitos Bay with its adjoining channels and the entrance to San Gabriel River is adequate, except for a portion, indicated on the smooth sheet, along the SW channel off Naples Island where dredging operations had started during the time of the survey. As per information obtained in the field, they intend to dredge it up to 20 feet to provide for the possible construction of an additional boat slip in the area.

IV. CONDITION OF SURVEY AND COMPLIANCE WITH INSTRUCTIONS

The automated plotting, sounding records, reports and field procedures are adequate. It conforms to the requirements of the hydrographic manual and complies with the project instructions.

V. JUNCTIONS

This para. has been superseded by para 1 of the A.C. Report.

This survey junctions to the south with H-9493 (1975) instead of H-9580 mentioned in the Ship's Descriptive Report. It agrees to within 1-foot in depths of 4 to 22 feet, except for a 5-foot and a 6-foot sounding in an area of 8 feet depths near the entrance to San Gabriel River. These two (2) soundings from H-9493 were carried forward to supplement the junction on this survey.

VI. COMPARISON WITH PRIOR SURVEYS

There are no prior surveys of the area. According to the Corps of Engineers, they have not accomplished surveys in Alamitos Bay (refer to the attached letter of the Corps of Engineers, Los Angeles district, to the Director, Pacific Marine Center, dated 2 January 1976).

VII. COMPARISON WITH CHART

- A. This survey was compared with Chart 18749 (5148), San Pedro Bay, 20th Edition, 14 February 1976. The source of charted hydrography covered by this survey could not be ascertained. There is a possibility that these charted depths might have originated from an old survey by a private company.

Comparison shows that this survey generally has shoaler soundings, with extensive shoaling on the west side of the entrance to San Gabriel River.

Field investigation has been done on the following three (3) items mentioned on Change No. 5, Amendment to Project Instructions, dated 5 February 1976.

1. Item b - Area "A" shown on the enclosed diagram is being developed by Marina Pacifica Corporation. A line was run along this area to determine its navigability and the soundings were plotted on the smooth sheet. *φ 33°45.6' λ 118°06.7'* N. *COV 5/15/76*
2. Item C - Area "B" in the diagram which is shown apparently as a large bay or slough on the chart was found to be almost complete landfill and is not now navigable. *φ 33°45.9' λ 118°06.5'* No. *COV 5/15/76*
3. Item d - The extensive shoaling on the west side of San Gabriel River Entrance along with breakers at low tide should preclude navigation on this particular area. *Revised 5/15/76*

Revised DBN
(10-27-78)

$\phi 33^{\circ}45.59' \lambda 118^{\circ}07.22'$

Pre-survey review Item 40, which is a large cement dolphin with three legs, was verified in the field and should be charted as shown on the smooth sheet. Origin C/L 988 of 1968

Another pre-survey review item is a 13-foot sounding at Latitude $33^{\circ}44'54''N$, Longitude $118^{\circ}07'00''W$. This charted depth appears to agree with this survey, which is generally 1 to $\frac{1}{3}$ feet shoaler. Origin SP 54668 No Corr DBN

The Ship's Descriptive Report does not mention the charted wreck at Latitude $33^{\circ}44'32.0''N$, Longitude $118^{\circ}06'55.5''W$, - PSR Item BX near the entrance to San Gabriel River previously charted Origin LNM 500 of 1974 with position approximate. Instead, the field party located a wreck about 1/2 mile southwest of the old charted wreck. It is recommended that the old wreck be retain on the chart and the newly located wreck be charted as shown on the smooth sheet. No Corr DBN

Charted bridge and overhead cable clearances have not been checked in the field.

B. Aids to Navigation

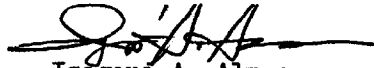
Lights #1, #2, #3 and mooring buoy CG50 on this survey are maintained by the coast guard. The remaining aids to navigation including channel buoys, speed buoys, turn buoys, swim area buoys and shoal buoys are all privately maintained. A separate list of these privately maintained aids is included in this report. Privately maintained lights should be retained as charted.

This survey is adequate to supersede charted hydrography of the area.

VIII. ADDITIONAL FIELD WORK

This is a good basic hydrographic survey and no additional field work is necessary. However, because of the continuing improvements in the area, particularly along Los Cerritos Channel and the area SW of Naples Island, changes to the character of its bottom and shoreline configuration are expected. Therefore, it is recommended that contact with the Corps of Engineers, City of Long Beach and other private companies involved in this development be maintained for the purpose of updating the chart of the area.

Respectfully submitted,


Isagani A. Almacen

Examined and approved,


James S. Green
Chief, Verification Branch

LIST OF PRIVATELY MAINTAINED AIDS TO NAVIGATION

- a. CFC 80, Directional Buoy
- b. CFC 81, Red and white nun, Midchannel and speed buoy
- c. CFC 82, -do-
- d. CFC 83, -do-
- e. CFC 84, Directional Buoy
- f. CFC 85, Red and white nun, Mid-channel and speed buoy
- g. CFC 86, -do-
- h. CFC 87, -do-
- i. CFC 88, Flat top can, Directional buoy (PLEASE KEEP RIGHT, DO NOT CROSS)
- j. CFC 89, Nun buoy, Mid-channel and speed buoy (5 MPH)
- k. CFC 90, -do-
- l. CFC 91, Red and White nun, Mid-channel and speed buoy (5 MPH)
- m. CFC 92, -do-
- n. CFC 93, -do-
- o. CFC 94, -do-
- p. CFS 97, White and orange ball, ramp buoy
- q. CFC 98, Red and white nun, Mid-channel and speed buoy (5MPH)
- r. CFS 99, White and orange ball, swim buoy
- s. CFC 104, Red and white nun, Mid-channel and speed buoy (5MPH)
- t. CFS 105, White and orange ball, swim buoy
- u. CFC 106, Red and white nun, Mid-channel and speed buoy (5MPH)
- v. CFC 107, -do-
- w. CFC 108, -do-
- x. CFC 109, Red and white nun, Mid-channel and speed buoy (5MPH)
- y. CFC 110, -do-
- z. CFC 111, -do-
- aa. CFC 112, -do-
- bb. CFC 114, -do-
- cc. CFS 115, Red and white ball, speed buoy (3MPH)
- dd. CFS 119, Red and white ball, swim buoy
- ee. CFS 120, Red and white nun, Mid-channel and speed buoy (5MPH)
- ff. CFS 123, Red and white ball, swim buoy
- gg. CFS 127, -do-
- hh. CFS 130, -do-
- ii. CFC 131, Red and white nun, Mid-channel and speed buoy (5MPH)
- jj. CFC 132, -do-
- kk. CFC 133, White and orange nun, Mid-channel and speed buoy (5MPH)
- ll. CFS 134, White and orange ball, shoal buoy
- mm. CFS 135, White and orange ball, speed buoy (3 MPH)
- nn. CFC 136, Red and white nun, Mid-channel and speed buoy (5MPH)
- oo. CFC 137, -do-
- pp. CFS 141, Red and white ball, shoal buoy
- qq. CFS 143, White and orange ball, shoal buoy
- rr. CFS 144, -do-
- ss. CFS 145, White and orange ball, speed buoy (5MPH)
- tt. CFS 146, -do-
- uu. CFS 147, -do-
- vv. CFS 148, -do-

ww. CFS 149, White and orange ball, speed buoy (5 MPH)
xx. CFC 150, Red and white nun, turn buoy
yy. CFC 151, -do-
zz. CFS 152, White and orange ball, speed buoy (5 MPH)
aaa. CFS 153, -do-
bbb. CFS 154, -do-

Black and white nun, Mid-channel buoy #A

RECEIVED



APR 4 1977

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

Pacific Marine Center

PACIFIC MARINE CENTER

April 1, 1977

TO: Eugene A. Taylor, RADM
Director, Pacific Marine Center

FROM: *Donald E. Nortrup*
Donald E. Nortrup, LCDR
Chief, Processing Division

SUBJECT: PMC Hydrographic Survey Inspection Team Report,
H-9592

This survey is a basic hydrographic survey of Alamos Bay, CA. The survey was conducted by NOAA Ship FAIRWEATHER in March 1976 in accordance with Project Instructions OPR-411-FA-76, dated 12 November 1975 and CHANGE NO. 5, dated 05 February 1976.

This survey is an adequate delineation of the bottom configuration of the harbor area with the exception of that portion of the area subject to dredging at the time of the survey. The area affected by dredging has been indicated on the smooth sheet. The post dredging condition survey should be obtained and used for charting the affected area.

Hydrography in areas of no photo coverage was controlled by dead reckoning and is considered to be of reconnaissance value only. This area includes Los Cerritos Channel and the Marina Pacifica development centered at 33° 45.6' N, 118° 06.9' W.

Descriptive Report section 6 states that Mini-Ranger range/azimuth control was utilized as the source of control for a limited portion of the survey area. Prior approval for the use of electronic control on this 1:5000 scale survey was not obtained from PMC as required by the PMC OPORDER. Resultant hydrography is adequate.

Although an exposed wreck was located in the entrance to the San Gabriel River during the survey the existence of a dangerous sunken wreck, charted nearby as position approximate, was not addressed. The existence of the P.A. wreck is not considered to be disproven and the inspection team concurs in the verifier's recommendation to chart both wrecks.



Director, PMC

-2-


No forms 76-40, "Nonfloating Aids or Landmarks for Charts" were included in the data package.

The inspection team finds survey H-9592 to be a good basic survey, adequate for charting and to supersede common areas of prior surveys. Administrative approval is recommended.


Donald E. Northrup, LCDR


Arnold E. Eichelberger

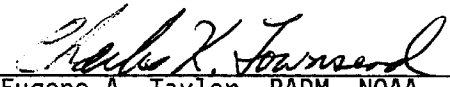

John C. Albright, LCDR


Dean R. Seidel, LCDR

ADMINISTRATIVE APPROVAL

H-9592

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, NOAA
Director, Pacific Marine Center



Date



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

C352

May 18, 1977

TO: *for R.H. Carstens*
A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

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

SUBJECT: Quality Control Report for H-9592 (1976), Alamitos Bay, San Pedro Bay, California

Survey H-9592 was inspected to evaluate the accuracy and adequacy of the survey 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, it was found to conform to the National Ocean Survey's standards and requirements except as follows:

1. The junction with H-9493 (1975) has been further considered due to questionable soundings in the entrance of San Gabriel River. A 5-foot and 6-foot sounding were falling in depths of 8 feet on the present survey. A partial butt junction has been effected in this entrance which is subject to excessive change attributed to river runoff. An adequate junction was effected with the remaining hydrography. See Provisional Hydrographic Manual section 6.3.4.7.

2. Additional information regarding prior surveys is submitted.

A portion of the present survey falls within a small area of H-5487 (1933-34); 1:10,000.

Construction of two jetties forming a channel into Alamitos Bay subsequent to the prior work precludes an objective comparison. The present survey is adequate to supersede this prior survey in the common area.

3. Reviewed topographic manuscript T-11648 (1959-60) also falls in the area common to the present survey. A pier in the vicinity of latitude $33^{\circ}44.74'$, longitude $118^{\circ}06.85'$ has not been located or disproved by the present survey. The pier has been carried forward as pier ruins.



Revised 2/87



4. The charted hydrography originates exclusively with surveys of the Engineer's Office, Long Beach, CL 9 of 1957 (Bp-54667, 668, and 671).

5. The black letters at privately maintained buoys provide a code to buoy numbers listed in the Descriptive Report.

6. The existence of a hazard as indicated by the dashed line in latitude $33^{\circ}45.15'$, longitude $118^{\circ}06.75'$ on chart 5148 has not been identified by the present survey. The source of the charted information is not readily ascertainable and the existence of a navigational hazard is questionable. Present survey depths in the area are from 13 to 17 feet.

cc:
C351

Removed JBN

9498	C.K. Townsend	20,000
9575	R.E. Alderman	10,000
9560	" " "	10,000
9499	C.K. Townsend	20,000

