9246

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. RA-10-2-71

Office No. H-9246

LOCALITY

State CALIFORNIA

General Locality SAN CLEMENTE ISLAND

Locality SOUTHEASTERLY FROM WILSON COVE

1971

CHIEF OF PARTY
CAPT. R. F. Lanier

LIBRARY & ARCHIVES

DATE 6/9/75

☆U.S. GOVERNMENT PRINTING OFFICE: 1974-763-098

18763 appd
18762 appd
18740 appd ✓
18022 appd ✓
18020 N/C ✓

9246

ORIGINAL

FORM C&GS-537 (8-66)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

REGISTER NO.

H-9246

HYDROGRAPHIC TITLE SHEET

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.

RA-10-2-71

State California

General locality San Clemente Island ~~Southern California~~

Locality Southeasterly from Wilson Cove ~~San Clemente Island~~

Scale 1:10,000 Date of survey Sept. 16-29, 1971

Instructions dated 20 August 1971 Project No. OPR-411-RA-71

Vessel NOAA Ship RAINIER's launches RA-3 & RA-4

Chief of party CAPT Roger F. Lanier

Surveyed by LTJG N.W.Wright, LTJG M.L.Adams, ENS S.J.Hollinshead, LTJG J.W.McCabe, ENS J.R.Faris, ENS N.M.Franklin, ENS W.F.Turnacliff

Soundings taken by echo sounder, ~~knudsen, ptr~~ Raytheon DE-723: RA-3, S/N 253 & 532 RA-4, S/N 256 & 534

Graphic record scaled by RAINIER Personnel

Graphic record checked by RAINIER Personnel

Protracted by _____ Automated plot by PMC-Gerber Digital Plotter

Soundings penciled by _____

Soundings in fathoms ~~feet~~ at ~~MEAN~~ MLLW

REMARKS: The boat-sheet has been split into northern (RA-10-2B-71) and southern (RA-10-2A-71) sections due to the paper size used in the Hydroplot plotter.

Applied to Stds 7-8-75

USCOMM-DC 37009-P66

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY

H-9246 (Field No. RA-10-2-71)

SCALE 1:10,000

1971

NOAA Ship RAINIER

ROGER F. LANIER
CAPT, NOAA
COMMANDING

A. PROJECT

This survey was conducted in accordance with PROJECT INSTRUCTIONS: OPR-411-RA-71, dated 20 August 1971. Subsequent changes to these instructions are not applicable to this survey.

B. AREA SURVEYED

Sheet H-9246 was bordered on the west by San Clemente Island, and on the north and south by latitude 33° 00' 15"N and latitude 32° 55' 00"N, respectively. Survey lines were run from the shoreline to 1 - 1 1/2 miles offshore where junction was made with contemporary survey H-9254 (RA-80-1-71), 1:80,000, 1971. Junction to the north was made with H-9247 (RA-10-3-71), 1:10,000, 1971. There is no junction to the south at this date with any contemporary surveys.

Prior surveys which cover H-9246 are H-5475 (1933), H-5600 (1933-34), and H-5474 (1933). These prior surveys are of a scale of 1:20,000.

Work was begun 16 September 1971 and was completed 29 September 1971.

C. SOUNDING VESSELS

The boat-sheet was divided along latitude 32° 57' 30"N into two sections. Boat-sheet RA-10-2A-71 covered the southern half of the survey area and RA-10-2B-71 covered the northern half. Soundings and position numbers were plotted utilizing the Hydroplot/Hydrolog automated system. No color designation on the boat-sheets was assigned to either launch.

D. SOUNDING EQUIPMENT

Launch RA-3 used two different Raytheon DE-723 Fathometers during the survey. Serial numbers on these fathometers were 253 and 532.

Launch RA-4 also used two different Raytheon DE-723 Fathometers during the survey. These fathometers had serial numbers 256 and 534.

Fine arc and AF scale checks were made frequently by both launches during the survey. A fine arc correction was applied to the soundings on Julian Day 259. A special correction table was constructed and called on via the TC/TI tape. Initial checks were made and an abstract of corrections was prepared. The echo sounders were routinely checked twice daily with bar checks, and the results were abstracted. Phase corrections were taken when depths permitted.

Transducer correction was obtained by summing the initial, draft, and phase corrections. These corrections were entered in the Transducer Correction/Table Indicator (TC/TI) tapes for automated processing.

Velocity corrections were computed from bar checks and water temperature and salinity observations. These observations were obtained from a Nansen Cast taken on 5 October 1971 at latitude 33° 02.3'N, longitude 118° 29.5'W. The resulting velocity correction table was entered on tape, and referenced in the TC/TI tape for automated processing. There were no apparent equipment faults which would affect soundings. Because of the steep bottom in the area, and the need to sound in depths greater than 200 fathoms in the launches it was necessary to use the DE-723 Fathometers instead of the Ross Model 5000 Fathometers. Use of the Ross fathometers would have permitted automated aquisition of survey data; however, the Ross fathometer's dual trace and it's inability to sound deep made the use of the DE-723's mandatory.

E. SMOOTH SHEET

A Modified Transverse Mercator Projection was used for the two sections of the boat-sheet. The boat-sheets as well as soundings and position numbers were plotted aboard the NOAA Ship RAINIER using the Complot DP-3 plotter coupled with a Digital Equipment Corporation PDP-8/e computer. The smooth sheet will be plotted by the Pacific Marine Center, Electronic Data Processing Division.

F. CONTROL

Decca Hi-Fix was used for horizontal control and was operated in the hyperbolic mode on Type A moderate power, transmitting on a frequency of 1799.6 KHZ. The stations operated satisfactorily and caused no problems during the work on this survey.

The master station was located on a 75 foot bluff midway between Newport Beach and Laguna Beach, California. A 35 foot whip antenna was erected on traverse station MUDDY, 1971 (latitude 33° 34' 08.845"N, longitude 117° 50' 00.744"W).

Slave station 1 was located on San Clemente Island. A 35 foot whip antenna was erected approximately 1850 feet above sea level on RM 2 of triangulation station ROGER, 1971 (RM 2 position: latitude 32° 53' 45.353"N, longitude 118° 27' 44.128"W). The hyperbolic rates established by the master station and slave station 1 were drawn on boat-sheet RA-10-2A-71 in green ink, and on RA-10-2B-71 in blue ink.

Slave station 2 was located on Point Loma near San Diego, California. A 35 foot whip antenna was erected approximately 80 feet above sea level on RM 1 of traverse station JUMP 2, 1971 (RM 1 position: latitude 32° 42' 22.995"N, longitude 117° 15' 14.950"W). The hyperbolic rates established by the master station and slave station 2 were drawn on the boat-sheet in red ink.

Calibration of Hi-Fix receivers was accomplished by visual three point sextant fixes on signals located by ground survey methods. Several signals along the eastern edge of the island were located on the top of the island while others were closer to the high tide line. During calibration procedures, signals along the same horizontal plane were used. This eliminated errors due to vertical displacement of one or more signals during calibration. A mathematical solution for three point fixes was used in conjunction with a Digital Equipment Corporation PDP-8/e computer and program AM 560. The receivers were calibrated at the beginning and end of each day's work and when there was any doubt as to the correct lane count. All full and partial lane corrections were abstracted and applied to the boat-sheet.

On H-9246 Hi-Fix signals from slave station 1 were propagated over an extensive land mass and from a very high elevation over the working area. As a result, work at the south end of the sheet, near the slave station, suffered distortion in Pattern #1. The distortion decreased as work progressed northward along the coast. The problem of distortion in Pattern #1 was solved by devising "zone correctors" which were applied to sounding lines run in northwesterly-southwesterly directions. Calibrations for the normal (roughly east-west) pattern of sounding lines were made in the specific area being surveyed and therefore zone corrections were not applied to most of the work. An exception to this occured on J.D. 263 on launch RA-4. The launch calibrated at the north end of sheet (in the area of no zone correction) and worked south with correctors applied as work proceeded through the zone correction area. The correctors were gathered from a launch which calibrated at the northern end of the island and took trial calibrations along the southern end of the sheet. These calibrations included both fixes in close to shore as well as fixes over a mile offshore. The difference between the three-point sextant fixes, with a check angle, and the dial read-outs was abstracted into "zone correctors". These correctors were applied to all sounding lines run over RA-10-2A-71 and the southern half of RA-10-2B-71 (see Appendix for a listing of the correctors and diagrams). The mylar boat-sheet which was used to establish the zone correctors is being furnished along with the survey data.

For further information on Hi-Fix control refer to Hi-Fix Report, OPR-411, NOAA Ship RAINIER, 1971, and for specific information on station and signal location see the report titled Geodetic Survey Operations, OPR-411, NOAA Ship RAINIER, 1971.

G. SHORELINE

Shoreline details were traced directly from manuscripts TP-00384 and TP-00385. Field edit of these manuscripts was completed in conjuction with this survey by ENS W. F. Turnacliff and MR. L. L. Riggers. Field edit work was begun 14 September 1971 and completed 18 September 1971. Included in the appendix are copies of NOAA Form 76-40, Nonfloating Aids or Landmarks for Charts for the

above manuscripts. For further information on the shoreline/field edit, refer to Shoreline/Field Edit Report, OPR-411, NOAA Ship RAINIER, 1971.

Due to the steep bluffs along the shore, visual control could not be used to control the inshore sounding line run along the beach on this sheet. Hi-Fix Pattern #2 was the only electronic control which was considered accurate enough for shoreline positioning. A final solution for positioning along the shoreline was achieved by using the field edit color ratio photographs. Positions were marked abeam prominent objects from the photos and a distance was estimated to the object. At the time of the mark, Pattern #2 of the Hi-Fix was also recorded. From this data the hydrographer could determine the corresponding Pattern #1 rate to complete defining the position.

H. CROSSLINES

Crosslines on sheet H-9246 (RA-10-2-71) amounted to 13% of the total miles run. The crossings compared very well with crossing discrepancies of 1 to 2 fathoms in the majority of cases. No crossings require further resolution.

The bottom terrain on the eastern edge of San Clemente Island is very rugged with a steep drop-off near shore. Crosslines near the shore showed larger discrepancies than normal due to the steep slope. The 50 fathom curve lies only 0.4 mile off shore, while the 100 fathom curve is only 0.6 mile off the beach.

I. JUNCTIONS

The northern junction with H-9247 (RA-10-3A-71) shows satisfactory agreement to within one fathom. There was no southern junction with a contemporary survey. All junctions are satisfactory and no adjustments are considered necessary.

Junction with H-9254 (RA-80-1-71), considering the large scale difference, was also in satisfactory agreement.

The junctions with H-9247(1971) on the north and H-9254(1971) on the east will be discussed in the review of those surveys.

J. COMPARISON WITH PRIOR SURVEYS

The rugged bottom contour and the 1:20,000 scale of the prior surveys makes comparison between surveys difficult. A representative sample of soundings were compared with the three prior surveys of the area, H-5475 (1933), H-5600 (1933-34), and H-5474 (1933). Prior soundings from H-5475 compared favorably except for inshore soundings on RA-10-2A-71 and scattered soundings on RA-10-2B-71. Several H-5474 soundings on RA-10-2-71 did not compare favorably and soundings from H-5600 appeared 5 to 10 fathoms deeper at the eastern boundry of RA-10-2-71. This survey, due to the superior equipment and surveying techniques used, is considered a more precise and complete survey. Soundings from this survey should replace the soundings from prior surveys of the area. There are no conflicts between the effective wire drag depths of H-6167(1933) W.D. and present survey depths.

There were no specific PRE SURVEY REVIEW items to be investigated in the area of this survey. Also, no chart deficiencies or "Local Notice to Mariners" applied to any items within the survey area of H-9246.

K. COMPARISON WITH CHART

C&GS Chart 5118 (4th Ed., 14 July 1969) is a 1:20,000 scale chart which covers the entire boat-sheet except for the extreme southern corner. Considering the chart was compiled from prior surveys, the comparison with the present chart is the same as stated in Section J, "Comparison with Prior Surveys".

The offshore rock shown on the chart at latitude 32° 57.84'N, longitude 118° 31.25'W and other rocks along the shore were located by field edit personnel and identified on field edit manuscripts and photographs. These rocks were not applied to the boatsheet because the office copies of the photos were transmitted from the ship.

The shoreline as shown on the chart is adequate and no specific revisions are considered necessary. The areas on the chart marked as numerous in buoys have been surveyed with great care. All the buoys have been located and noted on the boat-sheet. However, many of the smaller buoys (non-mooring buoys) are subject to

relocation by the U.S. Navy and their position may change from survey to survey. There are no buoys located in the buoy area outlined on C&GS Chart 5118 at latitude 32° 59'N, 118° 31'W longitude.

L. ADEQUACY OF SURVEY

Sheet H-9246 is complete at this time. This survey is considered complete and adequate to supersede prior surveys for charting.

M. AIDS TO NAVIGATION

Aids to navigation are complete as shown on C&GS Chart 5118. No new aids were observed during the survey which would benefit the mariner.

One aid which is of use to the mariner and on C&GS Chart 5118 is the U.S. Coast Guard Beacon (Navy Anchorage South End Light in Light List). This item is listed in the Appendix on NOAA Form 76-40, Non-floating Aids or Landmarks for Charts. The beacon is on a bluff overlooking a cove and housed in a white tripod. The light's characteristics are Fl. W., 2.5s and is described in the 1971 U.S. Coast Guard Light List, Volume 3, Pacific Coast and Pacific Islands. This light adequately fulfills its intended purpose; to be used as an object for anchor bearings.

N. STATISTICS

Sheet H-9246 contains 82.8 nautical miles of sounding line and covered an area of approximately 6.0 square nautical miles. There were 1001 positions taken during the survey, 19 of which were bottom samples. Tabulation of statistics by launches follows:

Launch	Nautical Miles Sounding Lines	Number of Positions	Number of Bottom Samples
RA-3	64.1	736	19
RA-4	18.7	265	0
Total	82.8	1001	19

O. DATA PROCESSING

The data acquired in the launches was hand logged on-time by using a manual data logger in combination with an ASR-33 Teletype. The logger format data tape collected by RA-3 and RA-4 was converted to Hydroplot/Hydrolog master tape format using Program AM 303.

Corrector tapes were prepared using the standard Hydroplot/Hydrolog format for all peaks, deeps, sounding and control changes.

Separate master tapes and corrector tapes were prepared for each day. Crosslines and detached positions were separated. Standard formats, as specified in the INSTRUCTION MANUAL, Automated Hydrographic Surveys, were used for the TC/TI and Velocity Correction tapes. NOTE: TRA corrector values and velocity table numbers shown on the Hydroplot/Hydrolog tapes are not necessarily correct and are to be ignored for processing at PMC. The correct data is listed on the TC/TI tape.

P. RECOMMENDATIONS

None.

Q. REFERENCES TO REPORTS

1. Corrections to Echo Soundings, OPR-411, NOAA Ship RAINIER, 1971.
2. Hi-Fix Report, OPR-411, NOAA Ship RAINIER, 1971.
3. Geodetic Surveying Operations, OPR-411, NOAA Ship RAINIER, 1971.
4. Tide Report, OPR-411, NOAA Ship RAINIER, 1971.

Respectfully submitted,

Michael L. Adams

Michael L. Adams
LTJG, NOAA

SEPARATES FOLLOWING TEXT

TIDE NOTE

H-9246 (RA-10-2-71)

The Bubbler Tide Gage established at Wilson Cove, San Clemente Island, California (latitude 33° 00' 20"N, longitude 118° 33' 23"W) is the control station for this survey. This gage operated on time meridian 105°W during the period of this survey. Hourly heights are being furnished to the Pacific Marine Center Processing Division by the RAINIER. The reduction to MLLW will be furnished by the Tides Section in Rockville. For further information on tides refer to Tide Report, OPR-411, NOAA Ship RAINIER, 1971.

Predicted tides for Wilson Cove were used to reduce soundings for the boat-sheet and were obtained from the 1971 Tide Tables for the North American Coast. The tide correctors were conviently obtained through the use of a Digital Equipment Corporation PDP-8/e computer using programs AM 500 and AM 504.

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

Survey No.

H-9246

Name on Survey	A On Chart No.	B On previous ... No.	C On U.S. ... Maps	D From local information	E On local Maps	F P.O. Guide or	G Rand McNally	H U.S. Light ...	K	
OUTER SANTA BARBARA PASSAGE										1
PACIFIC OCEAN										2
SAN CLEMENTE ISLAND ✓										3
Wilson Cove										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26

Approved
C. E. Harrington
Staff Geographer
10 July 1975

Sheet RA-10-2-71

Vessel RA-3

Julian Day	Time	Correction to Pattern 1	Correction to Pattern 2
259	101500	100025	100031 ✓
259	141645	100025	100031 ✓
259	143000	100025	100031 ✓
260	141600	100000	100000 Bottom sampl
260	143800	100015*	100021
260	144700	100010*	100021
260	145500	100005*	100021
260	145900	000000*	100021
260	150300	000005*	100021
260	150700	000010*	100021
260	151100	000015*	100021
260	160500	000010*	100021
260	161100	000005*	100021
260	161500	000000*	100021
260	161900	100005*	100021
260	162300	100010*	100021
260	240000	100015*	100021

* Zone correctors applied to work on 10-2A-71, pattern 1 basic corr. 100020; 100021

Stylus Arm Corrector Table

LAUNCH RA-3 - DE-723 #532

RA-10-2-71

000050'	0	0000	0077'	000	000000	000000			
000150'	0	0001	"	"	"	"			
000250'	0	0002'	"	"	"	"			
000350'	0	0003'	"	"	"	"			
000450'	0	0004'	"	"	"	"			
000550'	0	0005'	"	"	"	"			
000450'	0	0000'	0078'	"	"	"			
000550'	0	0001'							
000650'	0	0002'							
000750'	0	0003'							
000850'	0	0004'							
000950'	0	0005'	0078	"	"	"			
000850'	0	0000'	0079'	"	"	"			
000950'	0	0001'							
001050'	0	0002'							
001150'	0	0003'							
001250'	0	0004'							
001350'	0	0005'	0079	"	"	"			
001251	0	0000'	0080'	"	"	"			
001351	0	0001'							
001451	0	0002'							
001551	0	0003'							
001651	0	0004'							
001751	0	0005'	0080	"	"	"			
001650'	0	0000'	0081'	"	"	"			
001750'	0	0001'							
001850'	0	0002'							
001950'	0	0003'							
002050'	0	0004'							
002150'	0	0005'	0081	"	"	"			
002050'	0	0000'	0082'	"	"	"			
002150'	0	0001'							
002250'	0	0002'							
002350'	0	0003'							
002450'	0	0004'							
002550'	0	0005'	0082	"	"	"			

RA-10-2-71
Fath. # 532
Launch RA-3.

Time	Phase	Initial	Draft	Total	TAI IND	DAY
101500	0	0	.3	.3	77031	259
101703	-0.1			.2	78031	
101850	-0.3			0.0	79031	
102010	-0.3			0.0	80031	
102128	-0.4			-.1	81031	
102325	-0.3			0	82031	
103600	-0.4			-.1	81031	
103602	-0.3			0	80031	
103816	-0.3			0	79031	
103929	-0.1			.2	78031	
104135	0			.3	77031	
105805	-0.1			.2	78031	
105840	-0.3			0	79031	
110007	-0.3			0	80031	
110155	-0.4			-.1	81031	
111130	-0.3			0	82031	
111147	-0.4			-.1	81031	
111347	-0.3			0	80031	
111532	-0.3			0	79031	
111652	-0.1			.2	78031	
111742	0			.3	77031	
113213	-0.1			.2	78031	
113340	-0.3			0	79031	
113510	-0.3			0	80031	
113655	-0.4			-.1	81031	
113852	-0.3			0	82031	
133600	0			.3	77031	
150348	-0.1			.2	78031	
150525	-0.3			0	79031	
150635	-0.3			0	80031	
150837	-0.4			-.1	81031	
151053	-0.3			0	82031	
151730	-0.4			-.1	81031	
151902	-0.3			0	80031	
152027	-0.3			0	79031	
152142	-0.1			.2	78031	
152235	0			.3	77031	
163310	-0.1			.2	78031	
163502	-0.3			0	79031	
163633	-0.3			0	80031	
163810	-0.4			-.1	81031	
164027	-0.3	0	.3	0	82031	259

RA-10-2-71
Fath # 532
Launch RA-3

Time	Phase	Initial	Draft	Total	IND TAB	DAY		
143800	0	0	.3	.3	0003	260		
160500	-.1			.2				
160835	-.3			0				
161216	-.1			.2				
161503	0			.3				
162631	-.1			.2				
162916	-.3	0	.3	0		260		
095800	-.3	0	.3	0		261		
095834	-.4			-.1				
100043	-.3			0				
100232	-.3			0				
100426	-.1			.2				
100616	0			.3				
102103	-.1			.2				
102232	-.3			0				
102405	-.3			0				
102603	-.4			-.1				
102844	-.3			0				
103401	-.4			-.1				
103503	-.3			0				
103616	-.3			0				
103807	-.1			.2				
103946	0			.3				
104850	-.1			.2				
105117	-.3			0				
105212	-.3			0				
105301	-.4			-.1				
114430	0			.3				
114900	-.1			.2				
114929	0	0	.3	.3		261		
092730	-.1	0	.3	.2		262		
092740	0			.3				
094110	-.1			.2				
094405	-.3			0				
094755	-.3			0				
094901	-.4			-.1				
100200	-.1			+.2				
100404	0			.3				
101355	-.1			.2				
102133	0			.3				
103132	-.1			.2				
103402	0			.3				
104205	-.1	0	.3	.2	0003	262		

RA-10-2-71
Fathometer #532
Launch - RA-3

Time	Phase	Initial	Draft	Total	IND. TAB.	DAY		
12 20 25	0	0	13	13	0003	262		
12 39 05	-.1			12				
12 43 28	-.3			0				
12 45 53	-.3			0				
12 47 35	-.4			-.1				
12 49 03	-.3			0				
13 01 30	-.3			0				
13 01 57	-.3			0				
13 03 38	-.1			.2				
13 06 25	0			.3				
14 23 02	-.1			.2				
14 27 13	-.3			0				
14 28 20	-.3			0				
14 31 12	-.4			-.1				
15 22 30	-.3			0				
15 23 18	-.1			.2				
15 25 10	0	0	.3	.3		262		
090400	0	0	.3	.3		263		
090503	-.1			.2				
09 07 10	-.3			0				
09 09 56	-.3			0				
09 13 13	-.4			-.1				
09 26 00	-.3			0				
09 27 13	-.3			0				
09 28 28	-.3			0				
09 32 28	-.1			.2				
09 38 48	0			.3				
09 44 13	-.1			.2				
09 47 48	-.3			0				
09 48 38	-.1			.2				
09 56 30	-.4			-.1				
100058	-.3			0				
100129	-.4			-.1				
100157	-.3			0				
100259	-.4			-.1				
100523	-.3			0				
100808	-.4			-.1				
100825	-.3			0				
103800	-.1			.2				
103919	0			.3				
13 49 15	-.3			0				
13 49 47	-.4			-.1				
135[illegible]	-.3	0	.3	0	0003	263		

RA-10-2-71

Fan meter # 532

Launch RA-3

Time	Phase	Initial	Drift	Total	IND. TAB.	DAY		
135205	-.3	0	0.3	0	00031	263		
135325	-.1			.2				
135549	0	0	0.3	.3		263		
091100	0	0	0.3	.3		264		
111745	-.3			0				
112046	-.3			0				
112220	-.4			-.1				
112327	-.3			0				
114515	0			.3				
152830	-.1			.2				
152844	-.3			0				
153044	-.3			0				
153214	-.4			-.1				
152933	-.3	0	0.3	0		264		
130430	0	0	0.3	.3		271		
134720	0	-.1		.2				
144930	-.3			-.1				
145114	-.3			-.1				
145307	-.4	-.1		-.2				
150100	-.4	0		-.1				
151030	-.3			0				
151144	-.3			0				
151746	-.3			0				
152047	-.1			.2				
152316	0			.3				
153217	-.1			.2				
153905	-.3	0	0.3	0		271		
103500	-.4	0	0.3	-.1		272		
103707	-.3			0				
104320	-.3			0				
105310	-.3	-.1		-.1				
105320	-.3	0		0				
110400	0	0	0.3	.3	00031	272		

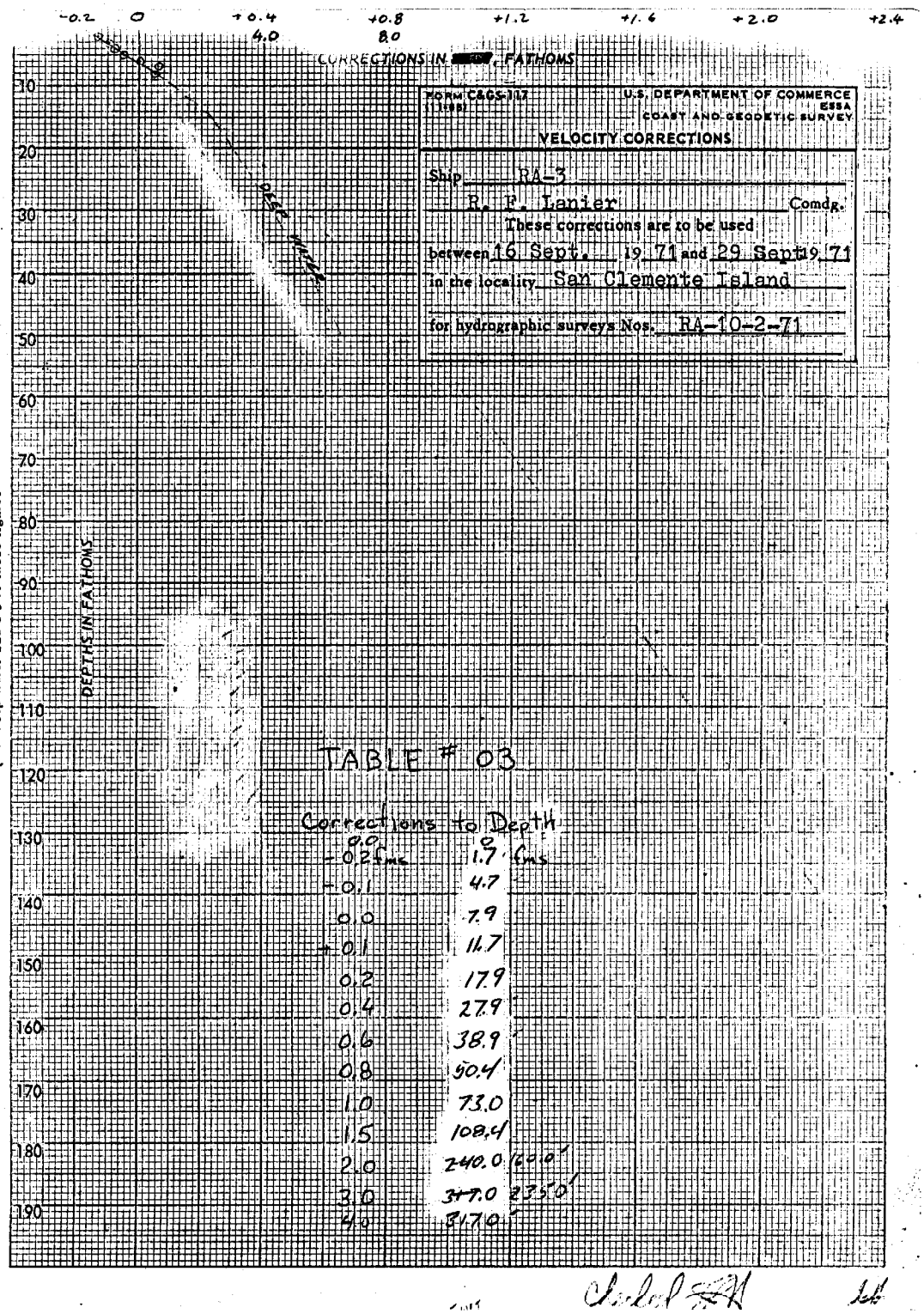
RA-5-2-71

Fathometer # 534 (JD-262-263)

Fathometer # 256 JD-271

Launch RA-4

Time	Phase	Initial	Drift	Total	IND, TAB.	JD		
134500	.5	0	013	.18	0004	262		
134927	.3			.16				
135349	.3			.16				
135555	.1			.14				
135713	.1			.14				
135701	0			.13				
140831	.1			.14				
141043	.1			.14				
141414	.3	0	.13	.16		262		
103500	0	0	.13	.13		263		
104005	.1			.14				
104317	.1			.14				
104716	.3			.16				
105330	.1			.14				
105518	.1			.14				
105953	0			.13				
112551	.1			.14				
114030	0			.13				
125800	.1			.14				
125812	0	0	.13	.13	0004	263		
114715	0	0	.13	.13	0024	271		



FORM C&GS-117 (1-1-58)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VELOCITY CORRECTIONS

Ship RA-3

R. F. Lanier, Comdr.

These corrections are to be used

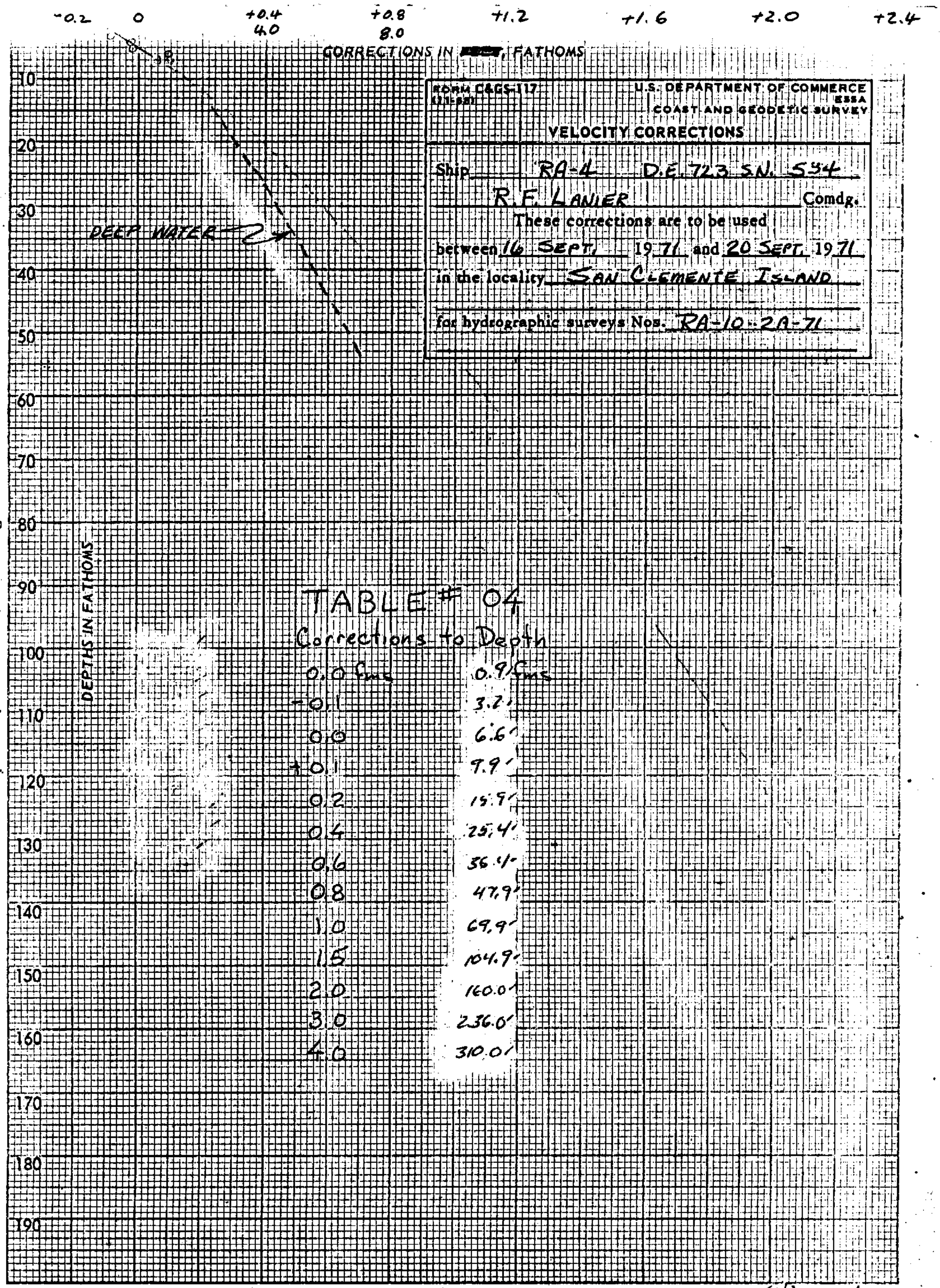
between 16 Sept. 19 71 and 29 Sept 19 71

in the locality San Clemente Island

for hydrographic surveys Nos. RA-10-2-71

TABLE # 03

Corrections to Depth	
0.0	0
+0.25	1.7 fms
+0.1	4.7
0.0	7.9
+0.1	11.7
0.2	17.9
0.4	27.9
0.6	38.9
0.8	50.4
1.0	73.0
1.5	108.4
2.0	240.0
3.0	347.0
4.0	347.0



FORM C&GS-117
(11-52)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VELOCITY CORRECTIONS

Ship RA-4 D.E. 723 S.N. 534
R.F. LANIER Comdg.

These corrections are to be used between 16 SEPT. 1971 and 20 SEPT. 1971 in the locality SAN CLEMENTE ISLAND

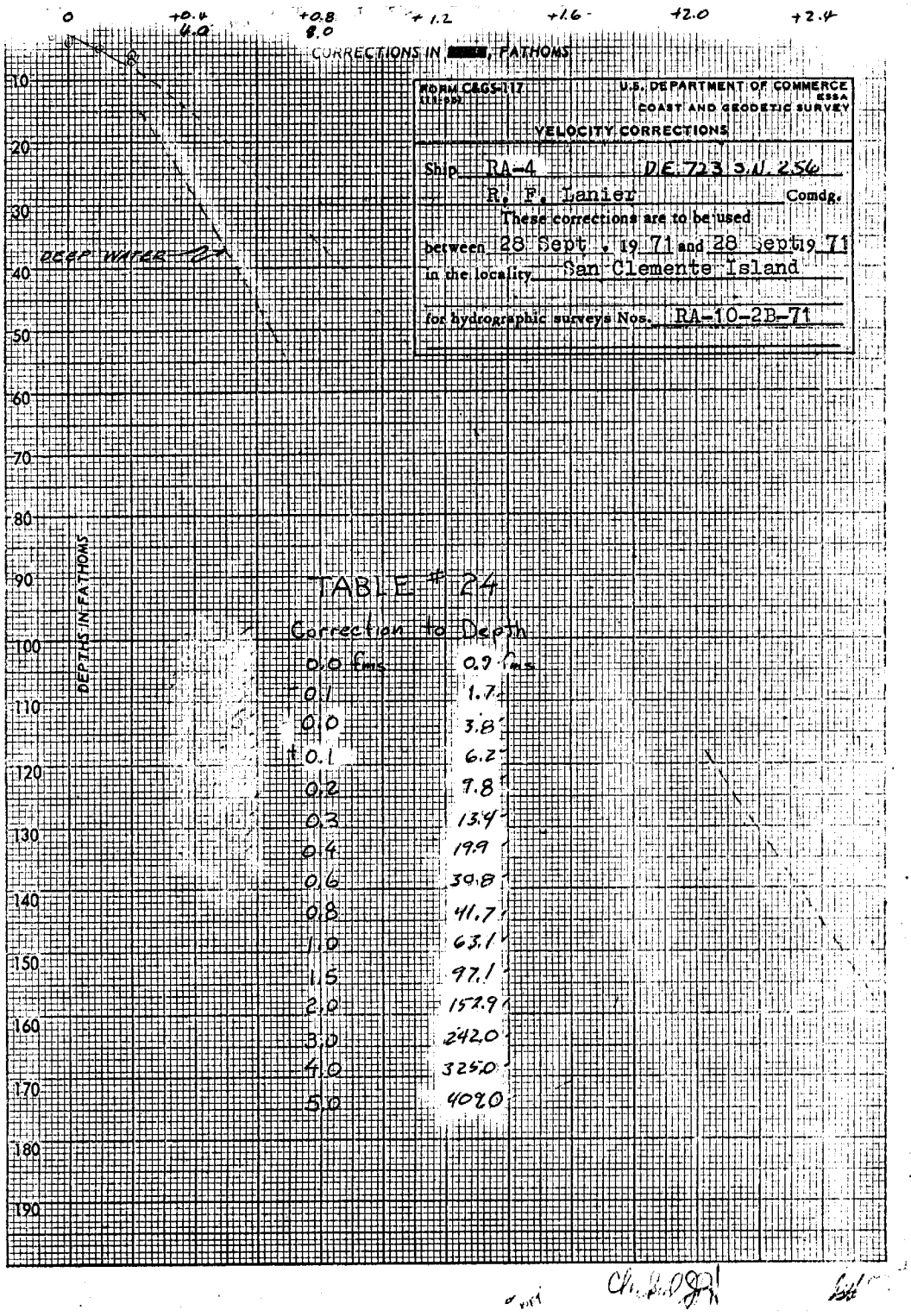
for hydrographic surveys Nos. RA-10-2A-71

TABLE # 04

Corrections to Depth

0.0 fms	0.9 fms
-0.1	3.2'
0.0	6.6'
+0.1	9.9'
0.2	15.9'
0.4	25.4'
0.6	36.1'
0.8	47.9'
1.0	69.9'
1.5	104.9'
2.0	160.0'
3.0	236.0'
4.0	310.0'

add to tape



FORM C&GS-117 (11-69)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VELOCITY CORRECTIONS

Ship RA-4 DE.723 S.N. 254

R. F. Lanier Comdg.

These corrections are to be used

between 28 Sept. 19 71 and 28 Sept 19 71

in the locality San Clemente Island

for hydrographic surveys Nos. RA-10-2B-71

TABLE # 24

Correction to Depth	
0.0 fms	0.9 fms
+0.1	1.7
0.0	3.8
± 0.1	6.2
0.2	9.8
0.3	13.4
0.4	19.9
0.6	30.8
0.8	41.7
1.0	63.1
1.5	97.1
2.0	152.9
3.0	242.0
4.0	325.0
5.0	409.0

ABSTRACT OF CORRECTIONS TO DISTANCE MEASUREMENTS

Sheet RA-10-2-71

Vessel RA-3

Julian Day	Time	Correction to Pattern 1	Correction to Pattern 2
261	095800	100008	100001
262	092730	000023	000022
263	090400	100011	000054
264	091100	100013	100049
271	090800	0000001	000000
271	144930	000034*	100003
271	151230	000029*	100003
271	151530	000024*	100003
271	151930	000019*	100003
271	152330	000014*	100003
271	152930	000009*	100003
271	153130	100043*	100003
271	153145	000009*	100003
271	153530	000004*	100003
272	085500	000003	100002

* Zone correctors applied to work on 10-2A-71 Pattern 1 basic corr. 000004, 100003

1. Positions were marked abeam prominent objects observed on color ratio photographs. At the time of the mark, Pattern #2 of the Hi-Fix was also recorded. From this data the hydrographer determened the corresponding Pattern #1 value to complete defining the position. These were essentially "See boat sheet" positions and the true values were entered on the master tape.

Sheet RA-10-2-71

Vessel RA-4

Julian Day	Time	Correction to Pattern 1	Correction to Pattern 2	
262	134500	000002	000002	
263	103500	000005*	000001	
263	104400	000000*	000000	
263	105330	000010*	000001	
263	110800	000015*	000001	
263	123530	000005*	000001	
263	124830	000000*	000001	
263	130007	000000*	000051	
263	130300	100005*	000001	
271	114715	000000	000000	No corr. "Se boatsheet pd
271	141300	000034**	000000	
271	143545	000033**	000000	
271	144015	000032**	000000	
271	144315	000031**	000000	
271	144615	000030**	000000	
271	144915	000029**	000000	

* Zone corr. applied to work on RA-10-2A-71 Pattern #1 basic corr. 100025,000001.

** Zone corr. applied to work on RA-10-2A-71 Pattern #1 basic corr. 000024,000000

TARGET	GEOGRAPHIC	TARGET COORDINATES (UTM) LAMBERT PLANE (Y=North X=East)	LOCAL PLANE (All Positive)	0 & Z
NORTH:				
	ϕ = 33°01'24.7256	X = 1,291,081.52	X = 1,081.52	0 = -01°16'15.6925"
	λ = 118°33'46.7478"	Y = 319,627.07	Y = 19,627.07	Z = +34.1 ft.
MID:				
	ϕ = 33°00'26.949"	X = 1,292,007.62	X = 2,007.62	0 = -01°16'08.8800"
	λ = 118°33'34.349"	Y = 313,765.85	Y = 13,765.85	Z = +64.5 ft.
SOUTH 1:				
	ϕ = 32°59'56.267"	X = 1,295,602.67	X = 5,602.67	0 = -01°15'45.2364"
	λ = 118°32'51.321"	Y = 310,584.75	Y = 10,584.75	Z = +144.8 ft.
SOUTH RADAR REFLECTOR:				
	ϕ = 33°00'27.1581"	X = 1,295,695.88	X = 5,695.88	0 = -01°15'45.0788"
	λ = 118°32'51.0341"	Y = 313,705.49	Y = 13,705.49	Z = -180 ft. M.L.L.W.
COVE LIGHT:				
	ϕ = 33°00'13.786"	X = 1,294,326.69	X = 4,326.69	0 = -01°15'53.7215"
	λ = 118°33'06.766"	Y = 312,383.91	Y = 12,383.91	Z = +64.5 ft.
POLE:				
	ϕ = 33°00'35.617"	X = 1,290,163.30	X = 163.30	0 = -01°16'20.9106"
	λ = 118°33'56.240"	Y = 314,683.02	Y = 14,683.02	Z = +619.5 ft.
NORTH RADAR REFLECTOR:				
	ϕ = 33°01'34.2626"	X = 1,291,588.33	X = 1,588.33	0 = -01°16'12.5607"
	λ = 118°33'41.0451"	Y = 320,579.93	Y = 20,579.93	Z = -47 ft. M.L.L.W.
RADAR TRANSPONDER:				
	ϕ = 33°01'24.966"	X = 1,291,077.59	X = 1,077.59	0 = -01°16'15.7234"
	λ = 118°33'46.801"	Y = 319,651.99	Y = 19,651.99	Z = = +60 ft.
SHALLOW TRANSDUCER:				
	ϕ = 33°00'50.240"	X = 1,296,721.23	X = 6,721.23	0 = -01°15'38.7904"
	λ = 118°32'39.591"	Y = 316,016.24	Y = 16,016.24	Z = -492.1 ft.
DEEP TRANSDUCER:				
	ϕ = 33°01'03.747"	X = 1,298,817.15	X = 8,817.15	0 = -01°15'25.4567" -1.25707
	λ = 118°32'15.326"	Y = 317,335.63	Y = 17,335.63	Z = -1,350.9 ft.

NUMERICAL LISTING

CALIBRATION SIGNAL STATIONS

H-9246 (RA-10-2-71)

Number	Origin
202	SLICK, 1952
204	STEEP, 1933
206	WORMY, 1952
208	BLUE, 1952
210	CLIFF, 1933
212	MOTHER, 1952
214	JACK, 1952
216	PELICAN, 1952
218	STICKER, 1952
220	SOUTH, 1952
222	CAIN, 1952
224	RANDALL, 1952
226	SOUTH 1, FORACS LIGHT *
228	WILSON COVE LIGHT, 1933
230	MID, FORACS LIGHT *
232	NORTH, FORACS LIGHT *

* Reference Target Coordinates (USN) on next page.

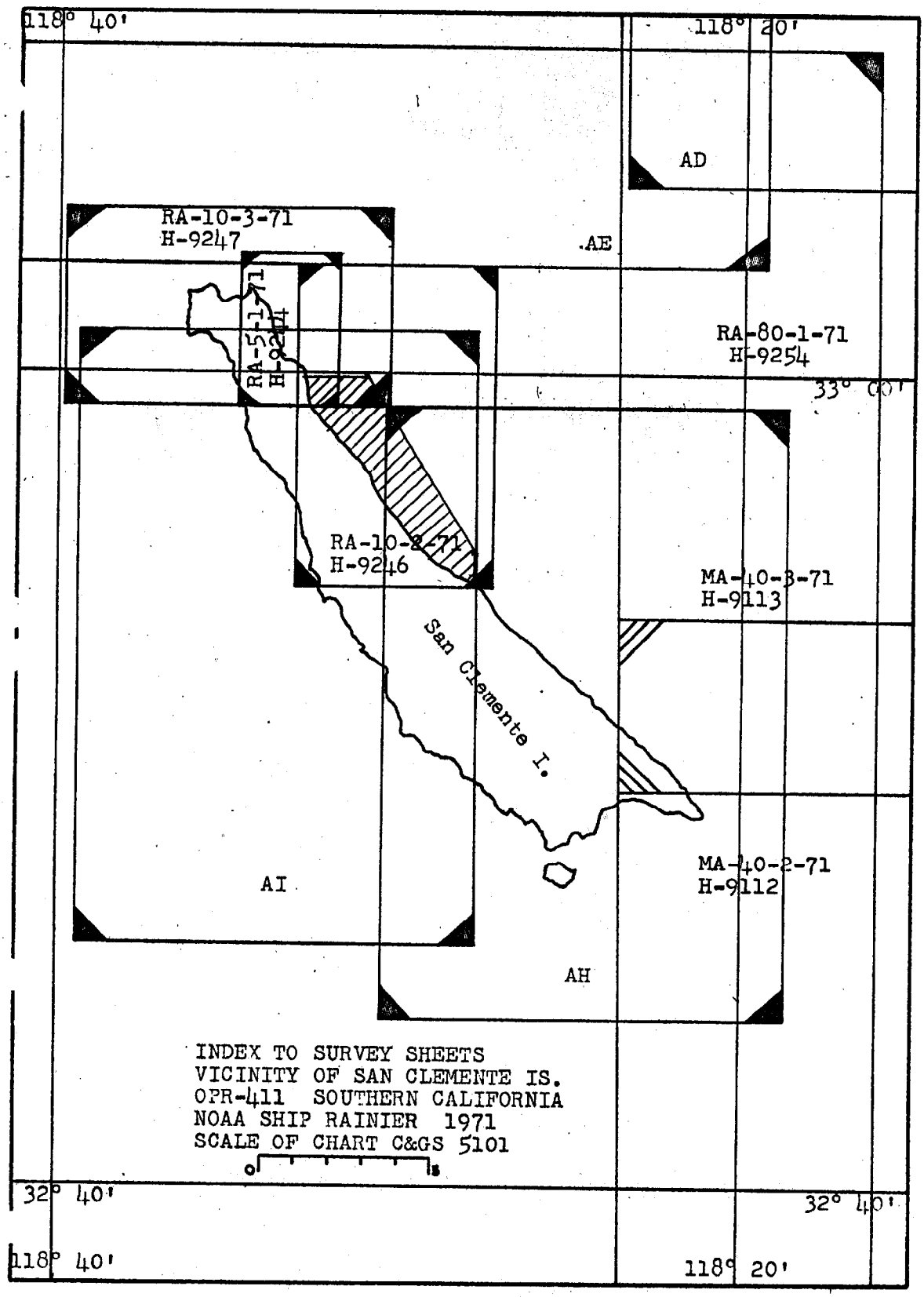
APPENDIX

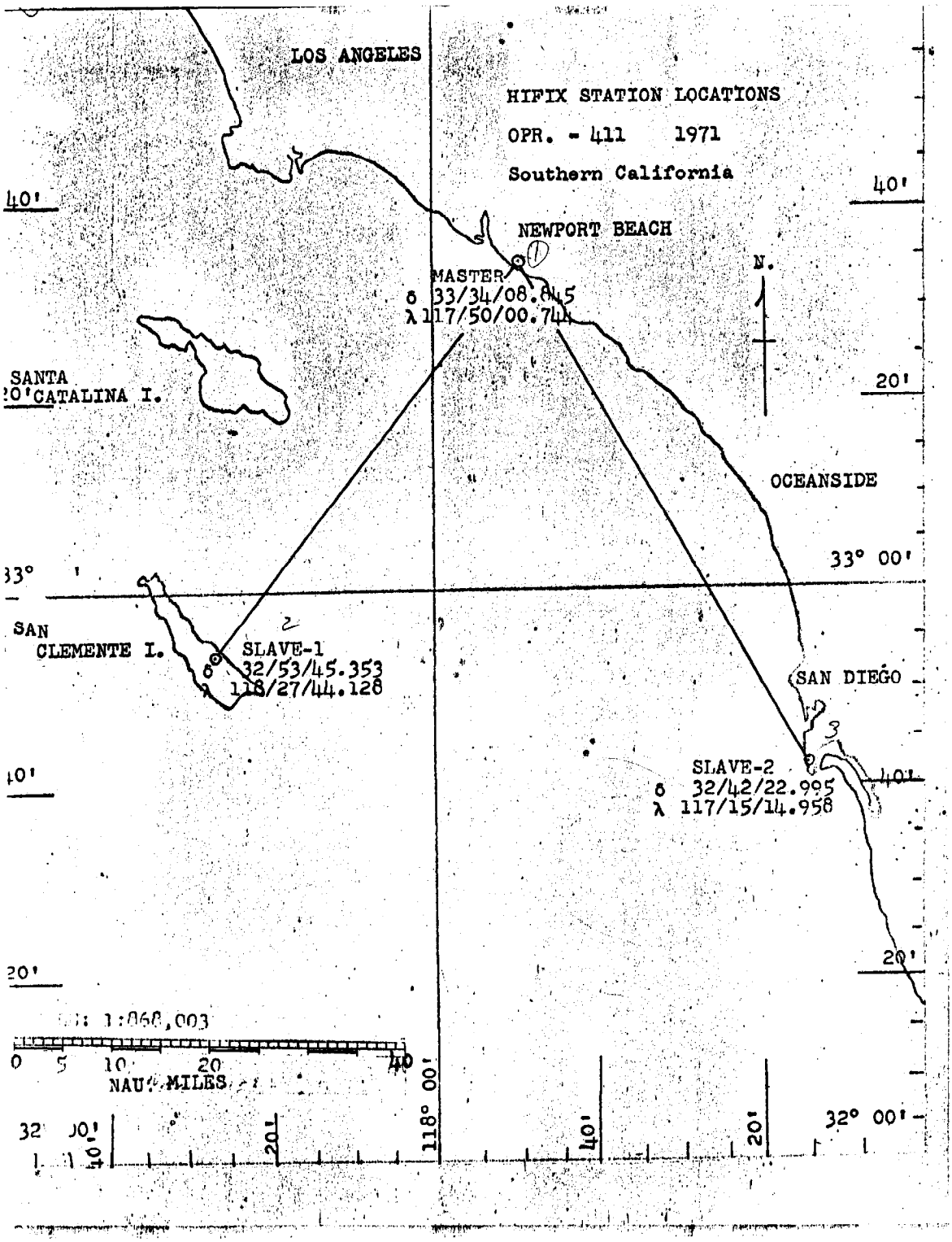
1. Position Abstract.
2. Index to Survey Sheets.
3. Sketch of Hi-Fix Station Locations.
4. Sketch of Calibration Signal Locations.
5. C&GS Form 733M, Oceanographic Log Sheet - M.
6. NOAA Form 76-40, Nonfloating Aids or Landmarks for Charts.
7. Parameter Tape Listing.
8. Sketch of Zone Correctors.
9. Approval Sheet.

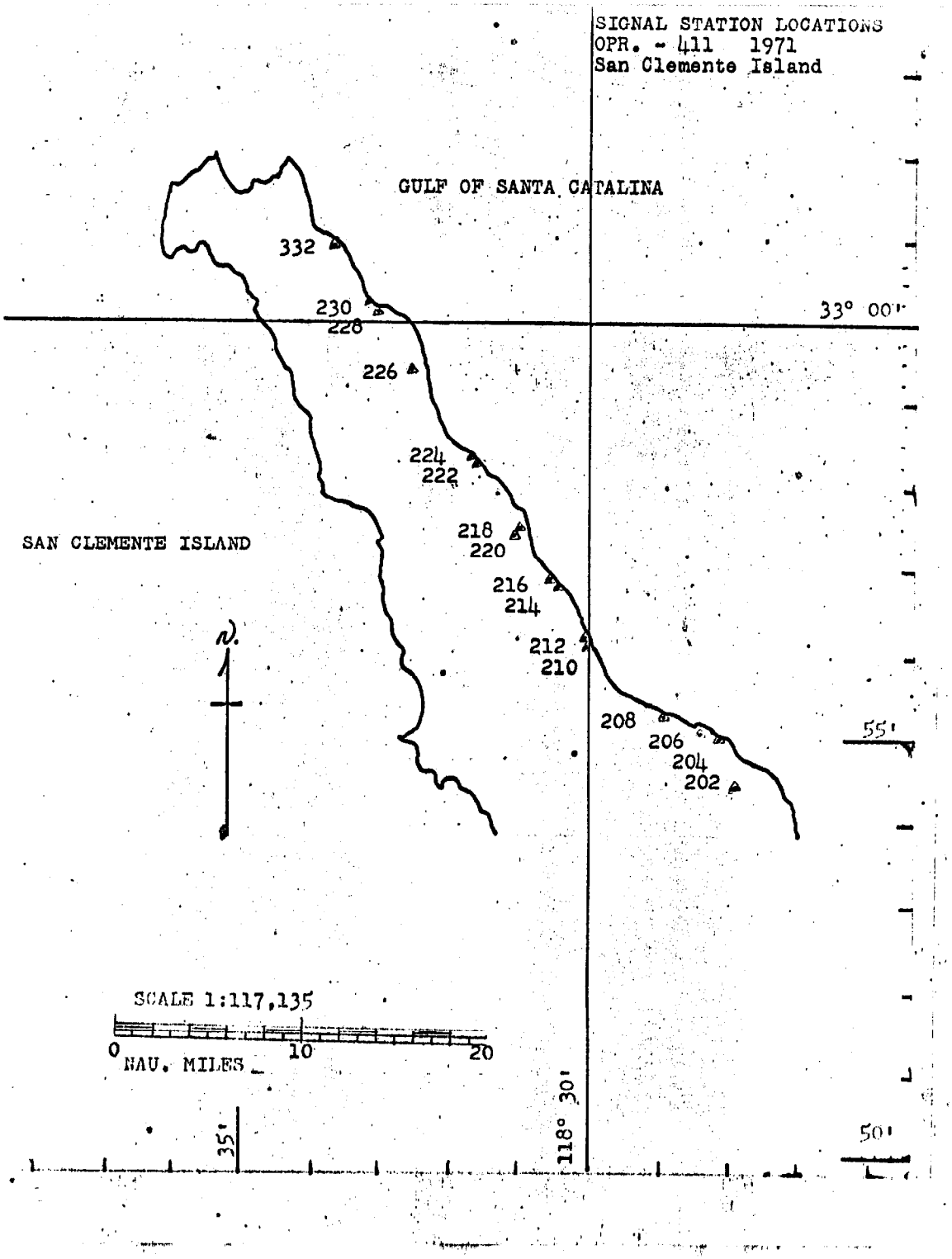
ABSTRACT OF POSITIONS

Vessel	J.D.	Position Number
RA-3	259	1-152
	260	153-189
	261	190-271
	262	272-276 - Reject
		277-381
		382-384 - Reject
		385-407
	263	408-498
	264	499-576
		577-580 - Reject
		581-600
	271	601-664
	272	665-717
RA-4	258	8001-8029 - Reject } Vol. 1
	260	8030-8053 - Reject }
	262	8054-8073
	263	8074-8099
		8100-8109 - Reject
		8110-8148
	271	8074-8141 *
		8160-8178
RA-6	262	4000-4008 - Reject

* Duplicate Position Numbers


118° 40'
118° 20'
AD
RA-10-3-71
H-9247
AE
RA-5-1-71
H-9244
RA-80-1-71
H-9254
33° 00'
RA-10-2-71
H-9246
MA-40-3-71
H-9113
San Clemente I.
MA-40-2-71
H-9112
AI
AH
INDEX TO SURVEY SHEETS
VICINITY OF SAN CLEMENTE IS.
OPR-411 SOUTHERN CALIFORNIA
NOAA SHIP RAINIER 1971
SCALE OF CHART C&GS 5101
0
1s
32° 40'
32° 40'
118° 40'
118° 20'


LOS ANGELES
HIFIX STATION LOCATIONS
OPR. - 411 1971
Southern California
40'
NEWPORT BEACH
MASTER
δ 33/34/08.845
λ 117/50/00.744
N.
SANTA
CATALINA I.
20'
OCEANSIDE
33° 00'
33°
SAN
CLEMENTE I.
SLAVE-1
δ 32/53/45.353
λ 118/27/44.128
SAN DIEGO
SLAVE-2
δ 32/42/22.995
λ 117/15/14.958
40'
20'
1:060,003
0 5 10 20 40
NAUT. MILES
32 00'
118° 00'
32° 00'


SIGNAL STATION LOCATIONS
OPR. - 411 1971
San Clemente Island
GULF OF SANTA CATALINA
SAN CLEMENTE ISLAND
332
230
228
226
224
222
218
220
216
214
212
210
208
206
204
202
33° 00'
55'
50'
35'
118° 30'
N.
SCALE 1:117,135
0
10
20
NAU. MILES

FORM 733M
(8-23-60)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

VESSEL: RA-3 | CRUISE: OPR-411 | RA-1C-2A-71 | CHECKED BY: | DATE CHECKED:

*SERIAL NO.	DATE JD 264	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF TUBE	LENGTH OF CORE	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, free fall, stat. no., trigger core no., date extruded, disposition, etc.)	OBS. INIT.
585	1244			11.6	–	–	–	–	bk S, Wd, Sh		
586	1259			11.8	–	–	–	–	Rk S, Wd		
587	1307			12.9	–	–	–	–	Sh, S, Wd		
588	1318			16.5	–	–	–	–	hrd, S, Sh		
589	1330			12.8	–	–	–	–	bk S, Sh, Wd		
599	1550			14.0	–	–	–	–	gy crs S, P, Wd		
600	1607			14.0	–	–	–	–	hrd, Sh, Wd		

Use more than one line per sample if necessary.

USCOMM-DC 25072-P6

FORM C&GS-733M
(6-66)

U.S. DEPARTMENT OF COMM
COAST AND GEODETIC S

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECK
RA-3	411	1971	RA-10-2A-71		

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, den cutter, stat. no., type of bottom relief l. slope, plain, disposition, etc.)
590	20 Sept 1971	32°56'52.2"	118°30'24.3"						Bk, S, Sh, Wd	
591	20 Sept 1971	32°56'31.2"	118°30'03.5"						Bk, S, Sh, Wd	
592	20 Sept 1971	32°26'06.0"	118°29'39.5"						Bk, S, Sh, [illegible]	
593	20 Sept 1971	32°55'42.8"	118°29'19.6"						bk, S, Sh	
594	20 Sept 1971	32°55'26.5"	118°28'53.5"						bk S, Wd	

Use more than one line per sample if necessary.

USCOMM-DC

FORM C&GS-733M
(6-66)

U.S. DEPA ENT OF COMME
COAST AND GEODETIC SUI

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
RA-3	411	1971	RA-10-2A-71		

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE N	SAMPLE POSITION LONGITUDE W	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dente cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)
153	17 Sept 1971	32° 57.5'	118° 30.8'	8.2					crs, gy, S	
174	17 Sept 1971	32° 55' 00"	118° 28.2'	5.2					fn, bk S, w/Sh	

Use more than one line per sample if necessary.

USCOMM-DC 3701

FORM C-733M (6-66)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

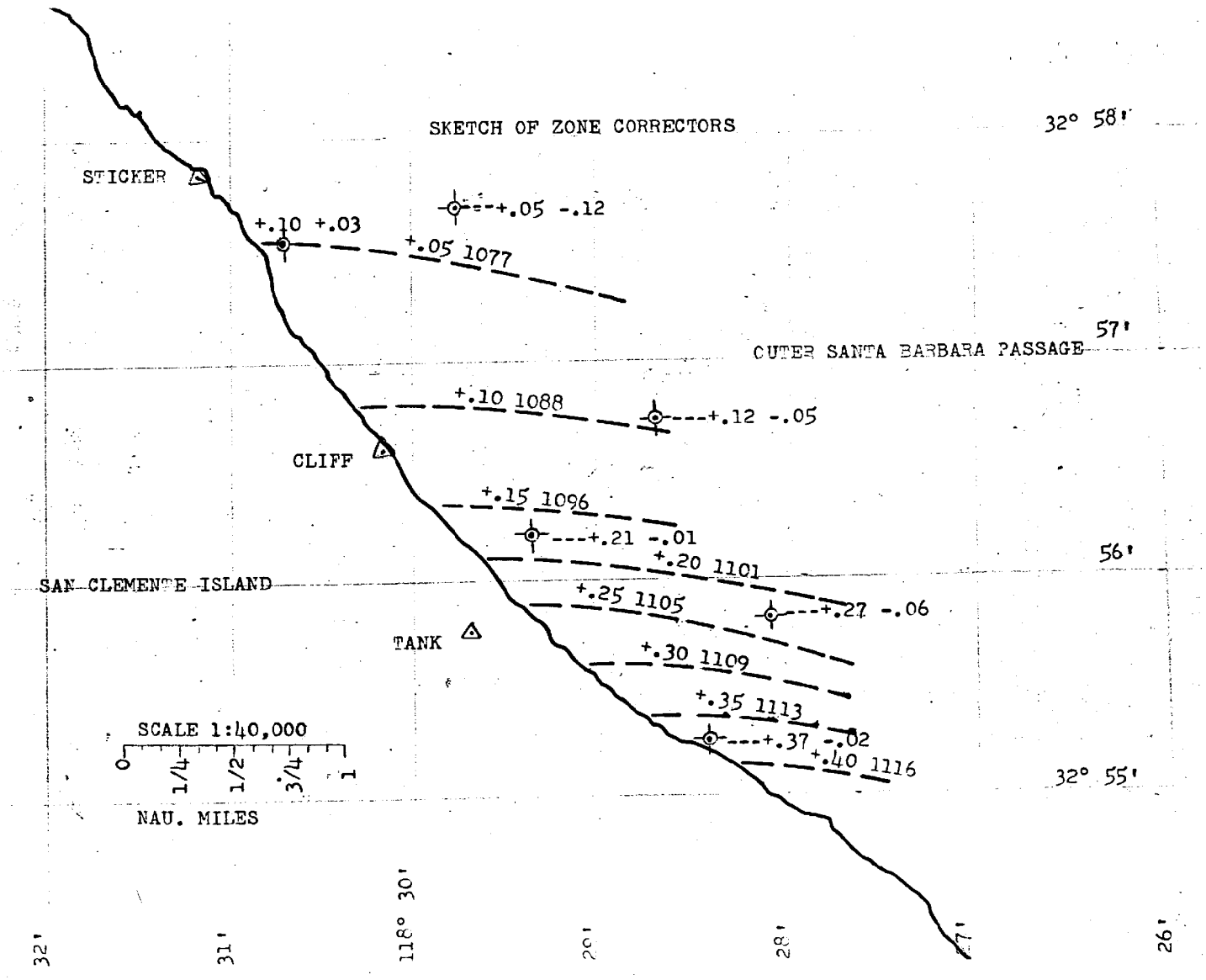
OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
RA 3	411	71	RA 10-28-71		

SERIAL NO.	DATE 1971	SAMPLE POSITION LATITUDE N	SAMPLE POSITION LONGITUDE W	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)
451	JD 263 20 SEPT	32°58'06	118 31 29	5.2					Wd Gvs	3 TRIES
452	JD 263 20 SEPT	32 58 38	118 31 54 42	3.8					Wd-S	Sand observed draining from g... Kelp Bed Observed
453	JD 263 20 SEPT	32 58 48	118 32 15 56	1.7					S	off of Pier
454	JD 263 20 SEPT	32 59 18	118 32 38	4.0					Gvs S	
455	JD 263 20 SEPT	32 59 38	118 32 48	6.0					Wd S	

Use more than one line per sample if necessary.

USCOMM-DC 37...


SKETCH OF ZONE CORRECTORS
32° 58'
STICKER
+.10 +.03
+.05 -.12
+.05 1077
57'
OUTER SANTA BARBARA PASSAGE
+.10 1088
+.12 -.05
CLIFF
+.15 1096
+.21 -.01
+.20 1101
56'
SAN CLEMENTE ISLAND
+.25 1105
+.27 -.06
TANK
+.30 1109
+.35 1113
+.37 -.02
+.40 1116
32° 55'
SCALE 1:40,000
0 1/4 1/2 3/4 1
NAU. MILES
32'
31'
118° 30'
29'
28'
27'
26'

PARAMETER TAPE LISTINGS

OPR-411-RA-71

```
RA-10-2A-71
FEST=119000
CLAT=3500000
CMER=118/25/0
GRID=30
PLSCL=10000
PLAT=32/54/48
PLON=118/33/00
MLAT=33/34/08.845
MLON=117/50/00.744
S1LAT=32/53/45.353
S1LON=118/27/44.128
S2LAT=32/42/22.995
S2LON=117/15/14.958
Q=1799.6
VESNO=2124
YR=71

RA-10-2B-71
FEST=119000
CLAT=3500000
CMER=118/25/0
GRID=30
PLSCL=10000
PLAT=32/57/34
PLON=118/33/00
MLAT=33/34/08.845
MLON=117/50/00.744
S1LAT=32/53/45.353
S1LON=118/27/44.128
S2LAT=32/42/22.995
S2LON=117/15/14.958
Q=1799.6
VESNO=2124
YR=71
```

NOAA FORM 77-27
(9-72)
(PRESC BY HYDROGRAPHIC MANUAL 20-2 6-04, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. H-9246

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & PNO	1	BOAT SHEETS	3
DESCRIPTIVE REPORT	1	OVERLAYS	4

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES			1			
CAHIERS	1 & Misc. Data					
VOLUMES	5 (VOL. 1 REJ. DATA)					
BOXES						

T-SHEET PRINTS (List)

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				1001
POSITIONS CHECKED		229		
POSITIONS REVISED		52		
DEPTH SOUNDINGS REVISED		38		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		10		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
Verification of Control		16	4	
Verification of Positions		61	12	
Verification of Soundings		182	18	
Smooth Sheet Compilation		78	23	
ALL OTHER WORK		41	0	
TOTALS		378	57	

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY		
VERIFICATION BY Matthew G. Sanders	10-4-74	3-25-75
REVIEW BY Mack J. Friese	10-8-75	10-24-75

MW. DerKazarian 45 hrs 12/24/75

U.S. G.P.O. 1972-769-562/139 REG. #6

APPROVAL SHEET

OPR-411

H-9246 (RA-10-2-71)

San Clemente Island, California

In producing this sheet hydrographic procedures were observed and the data was examined daily by CAPT Roger F. Lanier during the execution of the survey.

The smooth plotted data on the boat-sheet and the accompanying records have been examined by CAPT Lanier and are considered complete and adequate.

CAPT Lanier has been transferred and is unavailable for signature. This report and the accompanying records are approved for forwarding.

G. E. Haraden

G. E. Haraden
CAPT, NOAA
3/9/72
(Date)

VERIFIER'S REPORT

H-9246 OPR-411 RA-1Ø-2-71

This smooth sheet was constructed and plotted at the Pacific Marine Center, Seattle, Washington. Information relating to this survey will be noted under the heading by the number and letter as on the Verifier's Report, C&GS Form 946A.

PART II SHORELINE AND SIGNALS

4. The following manuscripts were utilized to transfer shoreline for this survey:

a. TP-ØØ383 (Class I):
Date of photography - March 1971
Field inspection date - none
Field edit date - April 1974

b. TP-ØØ384 (Class III with partial field edit applied):
Date of photography - March 1971
Field inspection date - none
Partial field edit date - December 1974

c. TP-ØØ385 (Class I):
Date of photography - March 1971
Field inpsection date - none
Field edit date - September - October 1974

The shoreline from Class III manuscript TP-ØØ384 has been inked since the area of field edit application has been marked on the manuscript and covers the area of this survey.

PART III JUNCTION

8. The junctions with contemporary surveys H-9247 (RA-1Ø-3-71) and H-9254 (RA-8Ø-1-71) have not been accomplished because of differing phases of processing, and therefore, have been left in pencil.

PART VII CURVES

The depth curves have been checked by Stanley Otsubo, Cartographic Technician, prior to inking.

PART VIII AIDS TO NAVIGATION

26. Updated NOAA Forms 76-4Ø, Non-Floating Aids or Landmarks for Charted, dated February 1975, have been applied to the smooth sheet (copies attached).

PART XI NOTES TO REVIEWER

33. Detached positions, such as lighted and mooring buoys, do not have check angles or electronic checks to confirm the positions. The kelp appears to be quite heavy and extends approximately 1ØØ - 2ØØ meters from the shoreline. It appears that the surf had some effect on the sounding lines.

Signals from Slave Station 1 were noted as unreliable so non-standard correctors were applied as explained in paragraph F. Control, a sketch of zone correctors and notes on the Abstracts of Corrections to Distance Measurements in the Descriptive Report. As a result, many positions close to the shore were adjusted to better depict the bottom configuration. The northwesterly - southeasterly crosslines were held and the main scheme ~~coast-work~~ east-west lines adjusted to result in consistant soundings. The effect of these adjustments can be seen by comparing the smooth sheet to the field sheets.

Respectfully submitted,

Matthew G. Sanders
4/2/75

Matthew G. Sanders
Cartographic Technician
April 1, 1975

FORM C&GS-946A
(REV. 11-65)
(PRES. BY HYDROGRAPHIC MANUAL, 8-94)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VERIFIER'S REPORT

HYDROGRAPHIC SURVEY, H 9246

INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

CL - Check List Items: should be checked as having been completed during the verification processes.

R - Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT Note: The verifier should first read the Descriptive Report for general information and problems.	CL	R
1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None	X	
2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: --None	X	
3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None	X	
art II - SHORELINE AND SIGNALS 4. Source of shoreline signals Remarks Required: -- List all surveys a. Give earliest and latest dates of photographs b. Field inspection date c. Field Edit date d. Reviewed-Unreviewed		X
5. The transfer of contemporary topographic informatica was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.	X	
6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None	X	
.. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.	X	
Part III - JUNCTIONS Note: Make a cursory comparison preliminary to inking soundings in area of overlap. 8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None		X
9. The notation in slanted lettering "JOINS H---- (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: -- None	X	

Part III - JUNCTIONS (Continued)	CL	R
10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are SUPERSEDED.	X	
Part IV - VOLUMES 11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None	X	
12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following: (a) rocks (b) line turns (c) position values of beginning and ending of lines (d) bar check or velocity correctors (e) time recording (f) notes or markings on fathograms (g) was reduction of soundings accurately done ? (h) was scanning accurate? (i) were peaks at uneven intervals missed? (j) were stamps completed? (k) references to adjacent features		X
Part V - PROTRACTING 13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None	X	
14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None	X	
15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None		X

Part V - PROTRACTING (Continued)	CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.	X	
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.	X	
Part VI - SOUNDINGS		
18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None	X	
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.		X
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None	X	
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None	X	
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.	X	
Part VII - CURVES		
23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected.	X	
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed Remarks Required: -- None	X	
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.	X	

Part VIII - AIDS TO NAVIGATION	CL	R
26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey. Remarks Required: -- Conflicts of any nature listed.		X
27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification. Remarks Required: -- None	X	
Part IX - BOATSHEET		
28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None	X	
29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.	X	
Part X - GENERAL		
30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2). Remarks Required: -- None	X	
31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None	X	
32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet. Remarks Required: -- None	X	
33. The bottom characteristics are adequately shown. Remarks Required: -- None	X	
Part XI - NOTES TO THE REVIEWER		
34. Unresolved discrepancies and questionable soundings.	X	X
35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.	X	
36. Supplemental information.	X	X

Verified by

Matthew G. Sanders, Cartographic Tech.

Date

3-25-75

PARAMETERS FOR DIGITAL COMPUTING
POLYCONIC PROJECTION

(1) Project No. OPR-411
(2) H No. 9246
(3) Field No. RA-10-2-71
(4) Requested by
(5) Ship or Office RAINIER
(6) Date Required
(7) Visual ☐ Pt.(0) or Fathoms (1) [1] (8) Electronic ☒ HYPERBOLIC (fill out form #3)

(10) XKN (SP 5) Distance from CMER to East Edge (NYX = 1) or West Edge (NYX = 0). (Origin) 4365.504256 Meters

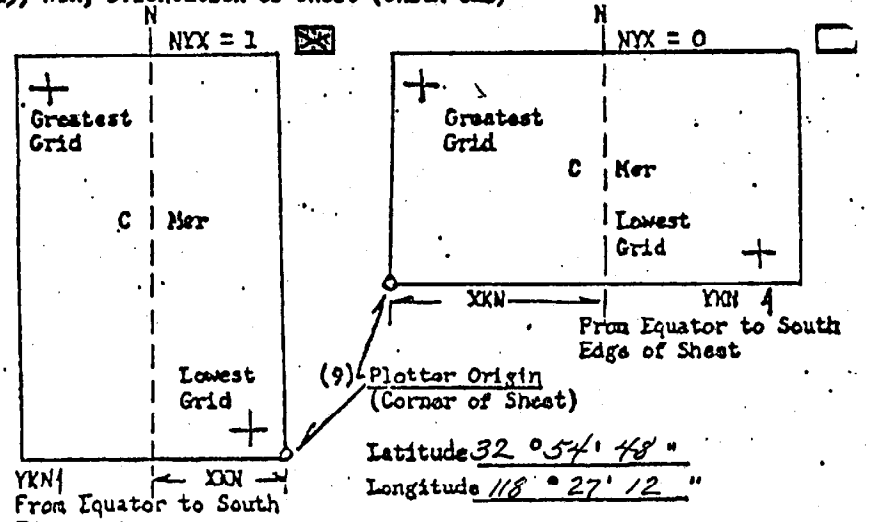
(11) YKN (SP 241) Distance from Equator to South Edge of Sheet. (Origin) 3,642,945.47338 Meters

(12) Central Meridian 118 °30 ' 00 "

(13) Survey Scale 1: 10000

(14) Size of Sheet (Check one) 36x60 ☐ 42x60 ☒

(15) NYX, Orientation of sheet (Check one)



(9) Plotter Origin (Corner of Sheet)
Latitude 32 °54 ' 48 "
Longitude 118 °27 ' 12 "

	Grid Limits		
(16) Greatest Latitude	33 °03 ' 00 "	(Projection Line Interval Page 4 Hydro Manual)	
(17) Lowest Latitude	32 °55 ' 00 "	(19)	30 "
(18) Difference	8 ' 00 "	(20)	16 YSN
(21) Greatest Longitude	118 °33 ' 00 "		
(22) Lowest Longitude	118 °27 ' 30 "	(24)	30 "
(23) Difference	5 ' 30 "	(25)	11 XSN

MASTER - SCANNED

FORM # 3 FIG. 7

COMPUTER PARAMETERS FOR ELECTRONICALLY CONTROLLED SURVEYS

(RANGE - RANGE)

(1) PROJECT NO. 41-RA-71 (2) H- NO. 7246 (3) FIELD NO. RA-10-2-71

(4) TYPE OF CONTROL: ____ SHORAN, ____ RAYDIST, ✓ HI-FIX, ____ RADAR
FREQUENCY (FOR CONVERSION OF RAYDIST OR HI-FIX LANES TO METERS) 1799.6

(5) RANGE ONE (R1)
STATION NAME Muddy, 1971
LATITUDE 33 ° 34 ' 08.245 "
LONGITUDE 117 ° 50 ' 00.744 "

(6) RANGE TWO (R2)
STATION NAME Jamp 2, 1971
LATITUDE 32 ° 42 ' 22.995 "
LONGITUDE 117 ° 15 ' 14.958 "

(7) AZIMUTH FROM R1 TO R2 ____ ° ____ ' ____ "

(8) BASELINE LENGTH IN METERS ____ M.

(9) LOCATION OF SURVEY WITH RESPECT TO ELECTRONIC BASELINE: CHECK ONE
(TO DETERMINE: IMAGINE AN OBSERVER STANDING AT R1 AND LOOKING DIRECTLY AT R2 --- IF THE SURVEY AREA IS TO THE OBSERVER'S LEFT THEN A IS NEGATIVE; IF THE SURVEY AREA IS TO THE OBSERVER'S RIGHT THEN A IS POSITIVE.)

____ -A (MINUS) ✓ +A (PLUS)

(10) IF SHORAN CORRECTIONS ARE APPLIED BY THE EQUATION, K(X) + C = D, WHERE X IS SHORAN DISTANCE AND D IS TRUE DISTANCE, ENTER THE CONSTANT COEFFICIENTS OF THE EQUATIONS HERE:

K(R1) ____, C(R1) ____, K(R2) ____, C(R2) ____

(11) NUMBER OF VELOCITY TABLES TO BE USED:
___NONE, ___ONE, ___MORE THAN ONE.

(12) ____THIS FORM IS SUBMITTED ONLY AS AN AID IN PREPARING A BOAT SHEET PROJECTION.

✓ THIS FORM APPLIES TO ALL DATA ON THIS SURVEY.

____THIS FORM APPLIES TO PART OF THE DATA ON THIS SURVEY -

TIME AND DATE LIMITATIONS: FROM ____ TO ____

POSITION NUMBER LIMITATIONS: FROM ____ TO ____

THIS IS FORM #3 SHEET #____ OF ____ SHEETS FOR THIS SURVEY.

(13) OTHER REMARKS: APPLIES TO ALL POSITIONS ON SURVEY

MA[illegible] - SLAVE I

FIG. 7

FORM # 3

COMPUTER PARAMETERS FOR ELECTRONICALLY CONTROLLED SURVEYS

(RANGE - RANGE)

(1) PROJECT No. 411-RA-71 (2) H- No. 9246 (3) FIELD No. RA-10-2-71

(4) TYPE OF CONTROL: ____ SHORAN, ____ RAYDIST, ✓ HI-FIX, ____ RADAR
FREQUENCY (FOR CONVERSION OF RAYDIST OR HI-FIX LANES TO METERS) 1799.6

(5) RANGE ONE (R1) LATITUDE 33° 34' 08.845"
STATION NAME MUDDY, 1971 LONGITUDE 117° 50' 00.144"

(6) RANGE TWO (R2) RM 2 LATITUDE 32° 53' 45.353"
STATION NAME ROGER, 1971 LONGITUDE 118° 27' 41.128"

(7) AZIMUTH FROM R1 TO R2 ____° ____' ____"

(8) BASELINE LENGTH IN METERS ____________ M.

(9) LOCATION OF SURVEY WITH RESPECT TO ELECTRONIC BASELINE: CHECK ONE
(TO DETERMINE: IMAGINE AN OBSERVER STANDING AT R1 AND LOOKING DIRECTLY AT R2 --- IF THE SURVEY AREA IS TO THE OBSERVER'S LEFT THEN A IS NEGATIVE; IF THE SURVEY AREA IS TO THE OBSERVER'S RIGHT THEN A IS POSITIVE.)

____ -A (MINUS) ✓ +A (PLUS)

(10) IF SHORAN CORRECTIONS ARE APPLIED BY THE EQUATION, K(X) + C = D, WHERE X IS SHORAN DISTANCE AND D IS TRUE DISTANCE, ENTER THE CONSTANT COEFFICIENTS OF THE EQUATIONS HERE:

K(R1) ________, C(R1) ________, K(R2) ________, C(R2) ________

(11) NUMBER OF VELOCITY TABLES TO BE USED:
____ NONE, ____ ONE, ____ MORE THAN ONE.

(12) ________ THIS FORM IS SUBMITTED ONLY AS AN AID IN PREPARING A BOAT SHEET PROJECTION.

✓ THIS FORM APPLIES TO ALL DATA ON THIS SURVEY.

________ THIS FORM APPLIES TO PART OF THE DATA ON THIS SURVEY -

TIME AND DATE LIMITATIONS: FROM ________ TO ________

POSITION NUMBER LIMITATIONS: FROM ________ TO ________

THIS IS FORM #3 SHEET # ________ OF ________ SHEETS FOR THIS SURVEY.

(13) OTHER REMARKS: [illegible]

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

2/28/73

Processing Division: PACIFIC Marine Center

Hourly heights are approved for FORM 762

Tide Station Used (NOAA form 77-12): WILSON COVE, SAN CLEMENTE Is

Period: SEPT. 15-OCT 6 1971

HYDROGRAPHIC SHEET: H 2245 H 2246 H 2247 H 2251

OPR: [illegible]

Locality: SAN CLEMENTE Is SOUTHERN CALIF.

Plane of reference (mean lower low water): 0.0 ft.

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

Remarks: HOURLY HEIGHTS HAVE BEEN COMPUTED FOR THE FOLLOWING:
SEPT. 15- 17 1971

Robert A. Cummings
Chief, Tides Branch

Reviewer - file with printouts

SHIP RAINIER
RA-10-2-71, RA-10-3-71, RA-80-1-71
H-9246, H-9247, H-9254
TIME MERIDIAN -- 105 WEST
TIDE STATION -- WILSON COVE, SAN CLEMENTE ISLAND
YEAR -- 1971
CORRECTIONS IN FATHOMS
MLLW CORRECTION -- 02.3 FEET
RANGE RATIO -- 01.00

090000	00	1008	0000	258	0	090000	000000
101500	00	1007					
110500	00	1006					
120700	00	1005					
151100	00	1004					
160000	00	1005 * (4) × (5)					
090000	00	1008	0000	259	0	090000	000000
103800	00	1007					
112700	00	1006					
122000	00	1005					
132900	00	1004					
151600	00	1003					
160600	00	1004					
164000	00	1005					
183900	00	1006					
190000	00	1007					
100600	00	1008	0000	260	0	090000	000000
110400	00	1007					
114400	00	1006					
122500	00	1005					
131900	00	1004					
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171900	00	1004					
180000	00	1005					
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OPR-411
VELOCITY CORRECTION TAPE
SAN CLEMENTE ISLAND
H-9246


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000959 0 0030
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002699 0 0060
003320 0 0070
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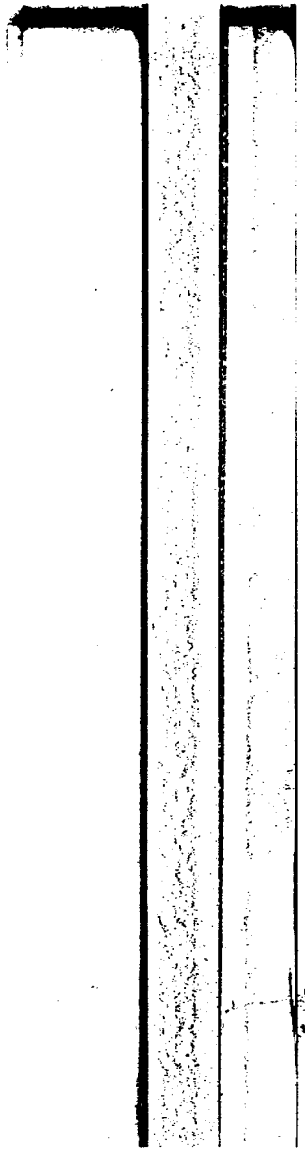

212 000 1971
OPR-411
TC/TI TAPE
RA-10-2-71

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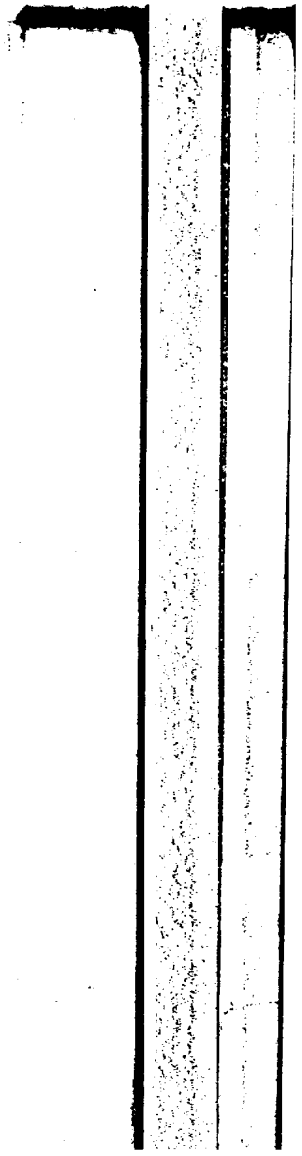

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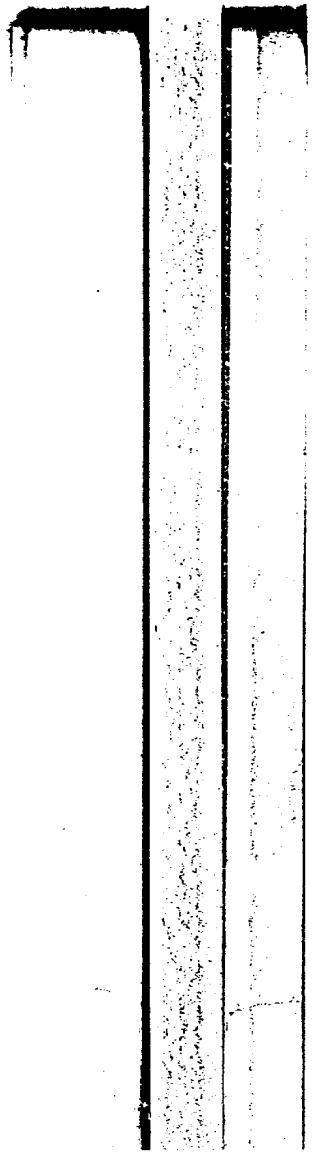

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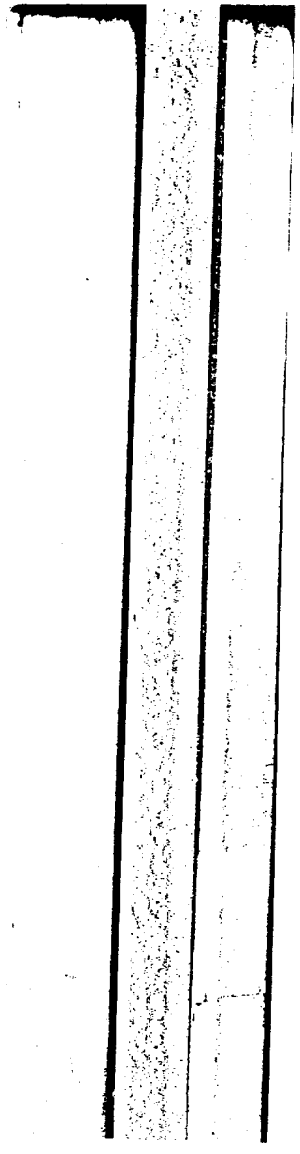

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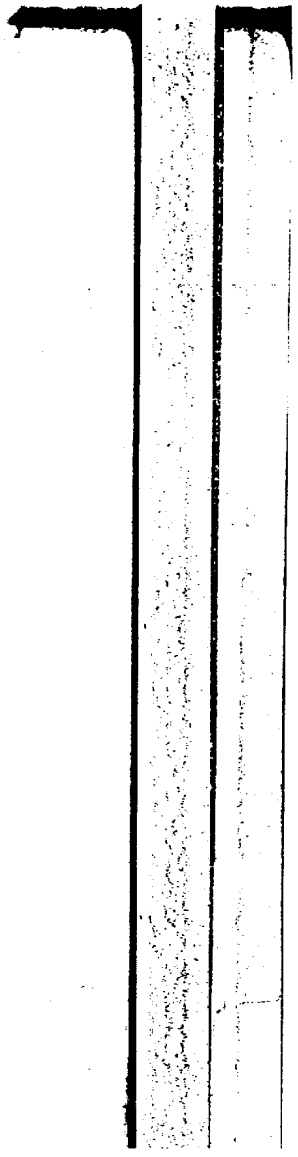

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FORM C&GS-733M
(6-66)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
RA-3	411	1971	RA-10-2A-71		

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE N	SAMPLE POSITION LONGITUDE W	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)
153	17 Sept 1971	32° 57.5'	118° 30.8'	8.2					crs, gy, S	
174	17 Sept 1971	32° 55.00'	118° 28.2'	5.2					fn, bk S, w/Sh	

Reviewer - [illegible] [illegible]

Use more than one line per sample if necessary.

USCOMM-DC 3701

FORM C&GS-733M
(6-66)

U.S. DEPARTMENT OF COMME
COAST AND GEODETIC SU

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKE
RA-3	411	1971	RA-10-2A-71		

SERIAL NO.	DATE	SAMPLE POSITION		DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dente cutter, stat. no., type of bottom relief i.e. slope, plain, disposition, etc.)
		LATITUDE	LONGITUDE							
590	20 Sept 1971	32°56'52.2"	118°30'24.3"						Bk, S, Sh, Wd	
591	20 Sept 1971	32°56'31.2"	118°30'03.5"						Bk, S, Sh, Wd	
592	20 Sept 1971	32°56'06.0"	118°29'38.5"						Bk, S, Sh	
593	20 Sept 1971	32°55'42.9"	118°29'19.6"						bk, S, Sh	
594	20 Sept 1971	32°55'26.5"	118°28'53.5"						bk S, Wd	

Use more than one line per sample if necessary.

USCOMM-DC 37

FORM 733M
(8-23-60)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

VESSEL	CRUISE		CHECKED BY	DATE CHECKED
RA-3	OPR-411	RA-10-2A-71		

SERIAL NO.	DATE JD264	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF TUBE	LENGTH OF CORE	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, free fall, stat. no., trigger core no., core extruded, disposition, etc.)	OBS. INIT.
585	1244			11.0	—	—	—	—	bk S, hd Sh		
586	1259			11.8	—	—	—	—	Bk S, hd		
587	1307			12.9	—	—	—	—	Sh, S, hd		
588	1318			12.5	—	—	—	—	hrd, S, Sh		
589	1330			12.8	—	—	—	—	bk S, Sh, hd		
599	1550			17.0	—	—	—	—	gn crs S, P, hd		
600	1607			14.0	—	—	—	—	hrd, Sh, hd		

USCOMM-DC 25072-P62

Use more than one line per sample if necessary.

FORM C&GS-733M
(6-66)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
RA 3	411	71	RA 10-28-71		

SERIAL NO.	DATE 1971	SAMPLE POSITION LATITUDE N	SAMPLE POSITION LONGITUDE W	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)
451	JD 263 20 SEPT	32° 59' 06	118 31 29	5.2					Wd Gvs	3 TRIES
452	JD 263 20 SEPT	32 58 38	118 31 42 / 56	3.8					Wd - S	Sand observed draining from gr[illegible] Kelp Bed Observed
453	JD 263 20 SEPT	32 58 48	118 32 56 / 15	1.7					S	Off of Pier
454	JD 263 20 SEPT	32 59 18	118 32 38	4.0					Gvs S	
455	JD 263 20 SEPT	32 59 38	118 32 48	6.0					Wd S	

Use more than one line per sample if necessary.

USCOMM-DC 3701

NOAA FORM 76-40 (3-74) L 290/75

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

Replaces C&GS Form 567.

NONFLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

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

(See reverse for responsible personnel)

TO BE CHARTED / TO BE REVISED / X TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
	Coastal Mapping Div. AMC- Norfolk,Va.	California	San Clemente Island	Feb.19[illegible]

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

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
L11	Ph-7108	TP-00385	N.A.1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
MARKER (lighted)	Navy Maintained	32-55.8		118-29.5		71L(C)1739 Mar.6,1971	Destroyed Sept.1971	5111
MARKER (lighted)	Navy Maintained	32-55.0		118-28.5		71L(C)1739 Mar.6,1971	Destroyed Sept.1971	5111

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS [illegible] FOR CHARTS

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

(See reverse for responsible personnel)

- [ ] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office): Coastal Mapping Div. / EMC- Norfolk Va

STATE: California

LOCALITY: San Clemente Island

DATE: Feb.1975

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

FR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
411	Ph-7108	TP-00384	N.A. 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LIGHT	Navy Anchorage South End Light (U.S.Coast Guard Beacon,1952)	32-58	30.967 954.0	118-31	51.364 1333.8	71L(C)1742 Mar.6.1971	Not Field Verified **	5111
	** This light was not field verified by the Rainier in 1971 and was evidently not verified by any subsequent hydro field party.							

32 58 30.967 (954.10)
118 31 51.364 (1333.8)

NOAA FORM 76-40
(8-74)
Replaces C&GS Form 567

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

SUPPLEMENTAL ADJUSTED LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- HYDROGRAPHIC PARTY
- GEODETIC PARTY
- PHOTO FIELD PARTY
- X COMPILATION ACTIVITY
- FINAL REVIEWER
- QUALITY CONTROL & REVIEW GRP.
- COAST PILOT BRANCH
(See reverse for responsible personnel)

	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
X TO BE CHARTED TO BE REVISED TO BE DELETED	Coastal Mapping Div. AMC - Norfolk, Va.	California	San Clemente Island	Feb.1975

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

CPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
111	Ph-7108	TP-00384	N.A.1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.F. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
RADIO MAST	Occulting Red Light on Top of 238 ft. LORAC Mast.	32-59	06.80 213.0	118-33	11.38 296.0	71L(C)1560 Mar.6,1971	Triang. Rec. April,1973	5111,5116 5101

H9246

OAA FORM 76-40
3-741

Replaces C&GS Form 567.

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

RECOMMENDATIONS FOR LANDMARKS FOR CHARTS

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

(See reverse for responsible personnel)

TO BE CHARTED / TO BE REVISED / X TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
	Coastal Mapping Div. AMC- Norfolk,Va.	California	San Clemente Island	Feb.1975

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

C&GS PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
411	Ph-7108	TP-00384	N.A.1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
RADIO MAST	Occulting Red Light	32-58	40	118-33	05		Apr.11.1973	5111,5116 5101

APPROVAL SHEET

The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report)

Examined and approved,

James S. Green
Supervisory Cartographic Technician

Approved and forwarded,

Walter F. Forster, Cdr., NOAA
Chief, Processing Division
Pacific Marine Center

NOAA FORM 76-40
(2-71)
PRESCRIBED BY
PHOTOGRAMMETRY INSTRUCTION NO. 64.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [x] FIELD INSPECTION
- [ ] FIELD EDIT
- [ ] COMPILATION
- [ ] FINAL REVIEW
- [ ] QUALITY CONTROL AND REVIEW

(See reverse for responsible personnel)

- [x] TO BE CHARTED
- [ ] TO BE DELETED

ORIGINATING LOCATION: NOAA SHIP RAINIER

DATE: 2/4/72

The following objects have (have not) been inspected from seaward to determine their value as landmarks:

JOB NUMBER: ~~PH~~ OPR-411

STATE: CALIFORNIA

SURVEY NUMBER: T-
TP-

DATUM: N.A. 1927

POSITION

METHOD AND DATE OF LOCATION (See instructions on reverse of this form)

CHARTS AFFECTED: 18762 5118/5111

CHARTING NAME	DESCRIPTION	LATITUDE ° ′	LATITUDE ″ D.M.METERS	LONGITUDE ° ′	LONGITUDE ″ D.P.METERS	FIELD INSPECTION	COMPILATION	FIELD EDIT	CHARTS AFFECTED
LIGHT	U.S. COAST GUARD BEACON	32 58	30.967	118 31	~~30.967~~ 51864	TRIANG.			C&GS 5118 5111
			954.0		1,333.8	REC 9-71			
								Remove	From D.P.

TYPE OF ACTION	NAME	TITLE
1. Objects inspected from seaward	MICHAEL ADAMS, LTJG, NOAA	☑ FIELD INSPECTOR ☐ FIELD EDITOR
2. Positions determined and/or verified		FIELD INSPECTOR
		FIELD EDITOR
		COMPILER
3. Forms originated by Quality Control and Review Group and final review activities		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR 'METHOD AND DATE OF LOCATION' SECTION

NOTE: 'Photogrammetric Positions' are dependent entirely, or in part, upon control established by photogrammetric methods. 'Field Positions' are determined by field observations based entirely upon ground control.

COLUMN TITLE	TYPE OF ENTRIES
COMPILATION	Applicable to office identified and located objects only. Enter the number and date of the photograph used to identify the object.
FIELD INSPECTION AND FIELD EDIT	1. New Position Determined–Enter the applicable data by symbols as indicated below:

F – Field	P – Photogrammetric	EXAMPLES:
1. Triangulation	1. Field identified	
2. Traverse	2. Theodolite	F. 3.c
3. Intersection	3. Planetable	
4. Resection	4. Sextant	P.2
a. Theodolite		
b. Planetable		
c. Sextant		

Immediately beneath the data described above, enter the following:

a. For 'Field Positions' enter the date of location.

b. For 'Photogrammetric Positions' enter the date of field work; and, if a photograph was used in locating the object or the object was identified on a photograph, enter the number of the photograph used.

2. Triangulation Station Recovered – Enter 'Triang. Rec. mo/day/yr.'

3. Position Verified – Enter 'Verif. mo/day/yr.'

* U.S. GOVERNMENT PRINTING OFFICE: 1971-769374/445 REG.#6

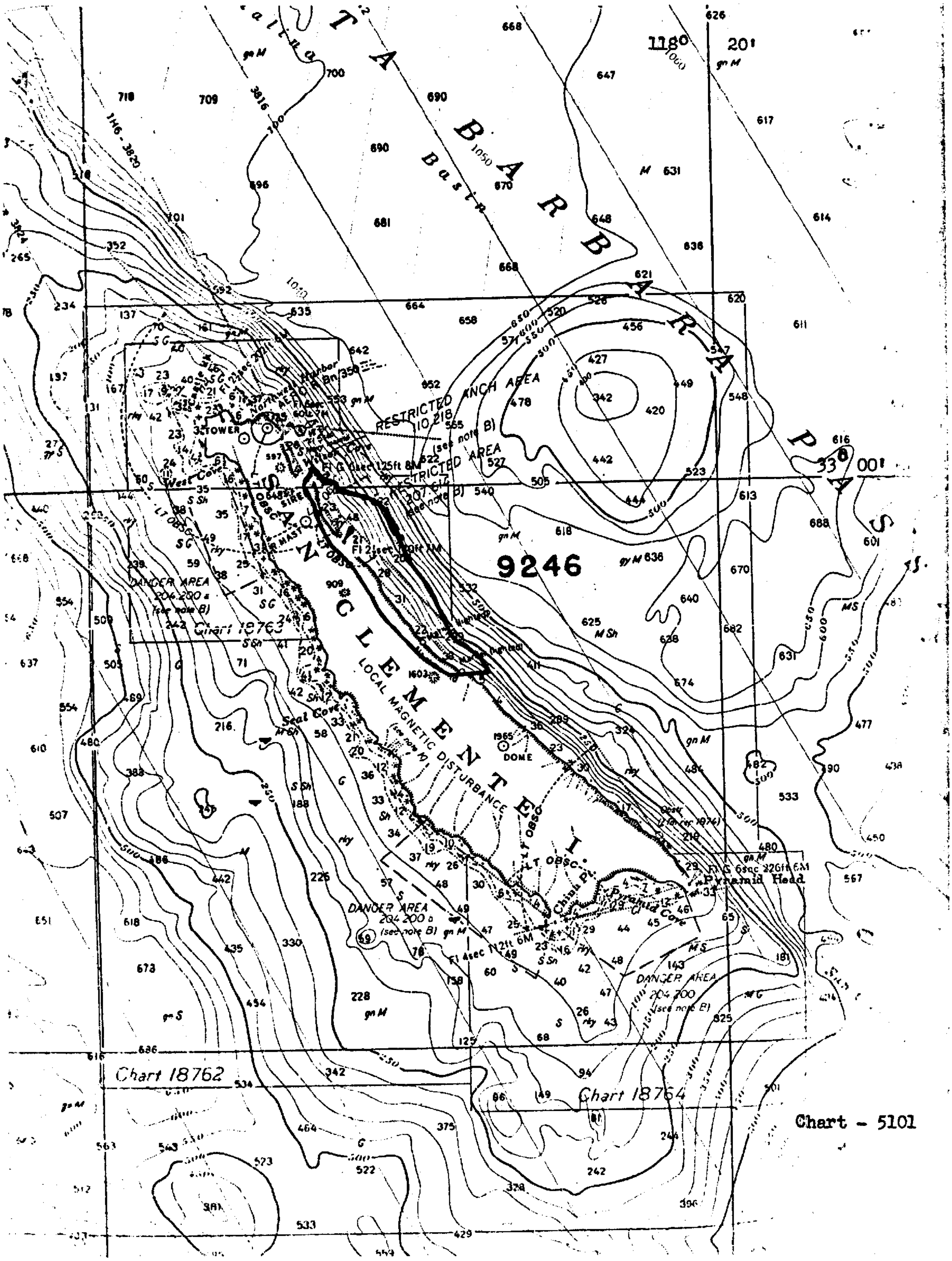
SAN CLEMENTE I.
LOCAL MAGNETIC DISTURBANCE
RESTRICTED ANCH AREA
9246
Chart 18762
Chart 18763
Chart 18764
DANGER AREA
West Cove
Seal Cove
China Pt.
Pyramid Cove
Pyramid Head
Northwest Harbor
TOWER
DOME
118° 20'
33° 00'

Chart - 5101

(3-23-63) NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9246

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
5118	11/26/75	H. Beasley	~~Full~~ Part ~~Before~~ After Verification Review before Inspection Signed Via
18763			Drawing No. Exam for critical corr only
~~18762~~ 5111	1/26/77	Ray Spencer	~~Full~~ Part ~~Before~~ After Verification Review before Inspection Signed Via
			Drawing No. Exam for critical corr thr. 5118
↑			
5118 (18763)	3/29/79	D.C. Larson	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. #12 RCS
5111 (18762)	6/25/79	P. Shumaker	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 17 POS
18740	8/22/80	Curtis 9-5-80 RCS	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 46
18022	9/3/80	Curtis 9-5-80 RCS	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 41
18020	9/4/80	Curtis 9-5-80 RCS	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 33
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975. USCOMM-DC 8558-P63