

TP-00609

TP-00609

NOAA FORM 76-35	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Type of Survey Shoreline	
Job No. PH-7112	Map No. TP-00609
Classification No. Final	Edition No. 1
Field edited map	
LOCALITY	
State California	
General Locality Santa Catalina Island	
Locality Lobster Bay	
<hr/> 19 ⁷² TO 1975 <hr/>	
REGISTRY IN ARCHIVES	
DATE	

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-762-901

18719 ✓
18717 ✓
18746 ✓

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY. <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division, Rockville, Md. OFFICER-IN-CHARGE James Collins, Commander		SURVEY TP. 00609 MAP EDITION NO. (1) MAP CLASS Field edited JOB PH. 7112	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division, Rockville, Md. OFFICER-IN-CHARGE James Collins, Commander		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__	
I. INSTRUCTIONS DATED			
1. OFFICE		2. FIELD	
Aerotriangulation - Aug. 1972 Compilation - Nov. 1973 Amendment I - Jan. 1974 Amendment II - Feb. 1974		Feb. 1972	
II. DATUMS			
1. HORIZONTAL:		OTHER (Specify)	
<input checked="" type="checkbox"/> 1927 NORTH AMERICAN			
2. VERTICAL:		OTHER (Specify)	
<input checked="" type="checkbox"/> MEAN HIGH-WATER <input type="checkbox"/> MEAN LOW-WATER <input checked="" type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL			
3. MAP PROJECTION Polyconic		4. GRID(S) STATE California ZONE 6	
5. SCALE 1:20,000		STATE ZONE	
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytic LANDMARKS AND AIDS BY		I. O. Raborn	12/73
2. CONTROL AND BRIDGE POINTS METHOD: Coradomat PLOTTED BY CHECKED BY		D. Phillips	12/73
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: Wild B-8 SCALE: 1:15,000 PLANIMETRY BY CHECKED BY CONTOURS BY CHECKED BY		Solbeck & Fromm P. Dempsey Inapplicable Inapplicable	5/74 5/74
4. MANUSCRIPT DELINEATION METHOD: SCALE: 1:20,000 PLANIMETRY BY CHECKED BY CONTOURS BY CHECKED BY HYDRO SUPPORT DATA BY CHECKED BY		C. F. Lewis P. Dempsey Inapplicable Inapplicable C. F. Lewis P. Dempsey	7/74 7/74
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		P. Dempsey	7/74
6. APPLICATION OF FIELD EDIT DATA BY CHECKED BY		P. Dempsey Not checked	7/76
7. COMPILATION SECTION REVIEW BY			
8. FINAL REVIEW BY		J. B. Phillips	8/76
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY			
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		S. Blankenhaker	9/76
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		R. Cator	11/76

TP-00609

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8 "L"		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				ZONE 8th MERIDIAN 120th	<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
** 72L(C)2729 thru 2736	Mar 24, 1972	09:46	1:30,000		
* 72L(I)2784 thru 2788	Mar 24, 1972	11:08	1:30,000	+0.2 ft. of MLLW	
* 72L(I)2790 thru 2793	Mar 24, 1972	11:14	1:30,000	+0.2 ft. of MLLW	
*** 72L2673 thru 2677	Mar 24, 1972		1:30,000	Ratioed	
*** 72L2666 thru 2671	Mar 24, 1972		1:30,000	Ratioed	

REMARKS

* Tide controlled *** Hydro-support photography

2. SOURCE OF MEAN HIGH-WATER LINE:

** The mean high water line was delineated from the above listed color photographs. Models of this color photography were set on the Wild B-8 stereo instrument.

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

* The mean lower low water line was compiled from the infrared photographs listed above, which are tide controlled photography.

4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
No survey	No survey	TP-00610	TP-00608

REMARKS

TP-00609

HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Melby	3/72
	R. Melby	3/72
2. HORIZONTAL CONTROL		
RECOVERED BY		
ESTABLISHED BY		
PRE-MARKED OR IDENTIFIED BY	L. Riggers	3/72
3. VERTICAL CONTROL		
RECOVERED BY	Inapplicable	
ESTABLISHED BY	Inapplicable	
PRE-MARKED OR IDENTIFIED BY	Inapplicable	
4. LANDMARKS AND AIDS TO NAVIGATION		
RECOVERED (Triangulation Stations) BY	None	
LOCATED (Field Methods) BY	None	
IDENTIFIED BY	None	
5. GEOGRAPHIC NAMES INVESTIGATION		
TYPE OF INVESTIGATION		
<input type="checkbox"/> COMPLETE		
<input type="checkbox"/> SPECIFIC NAMES ONLY		
<input checked="" type="checkbox"/> NO INVESTIGATION		
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	Inapplicable

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

Inapplicable

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

TP-00609
HISTORY OF FIELD OPERATIONSI. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	C. K. Townsend, Cdr.	3/75
2. HORIZONTAL CONTROL	RECOVERED BY	
	ESTABLISHED BY	
	PRE-MARKED OR IDENTIFIED BY	
3. VERTICAL CONTROL	RECOVERED BY	
	ESTABLISHED BY	
	PRE-MARKED OR IDENTIFIED BY	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY	
	LOCATED (Field Methods) BY	
	IDENTIFIED BY	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION	
	<input type="checkbox"/> COMPLETE	
	<input type="checkbox"/> SPECIFIC NAMES ONLY	
	<input type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

72L2666-2671

72L2673-2677 & 2707

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☐ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☐ NONE

7. SUPPLEMENTAL MAPS AND PLANS

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

Cronaflex copy of T-sheet labeled, master index, containing field information.

TP-00609
RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation Complete, pending field edit	July 1974	Class III manuscript.		
Field edit applied	July 1976	Class I manuscript		7-12-76 PMC

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
5	Landmarks	9-03-76	Form 76-40
1	Aids	9-03-76	Form 76-40

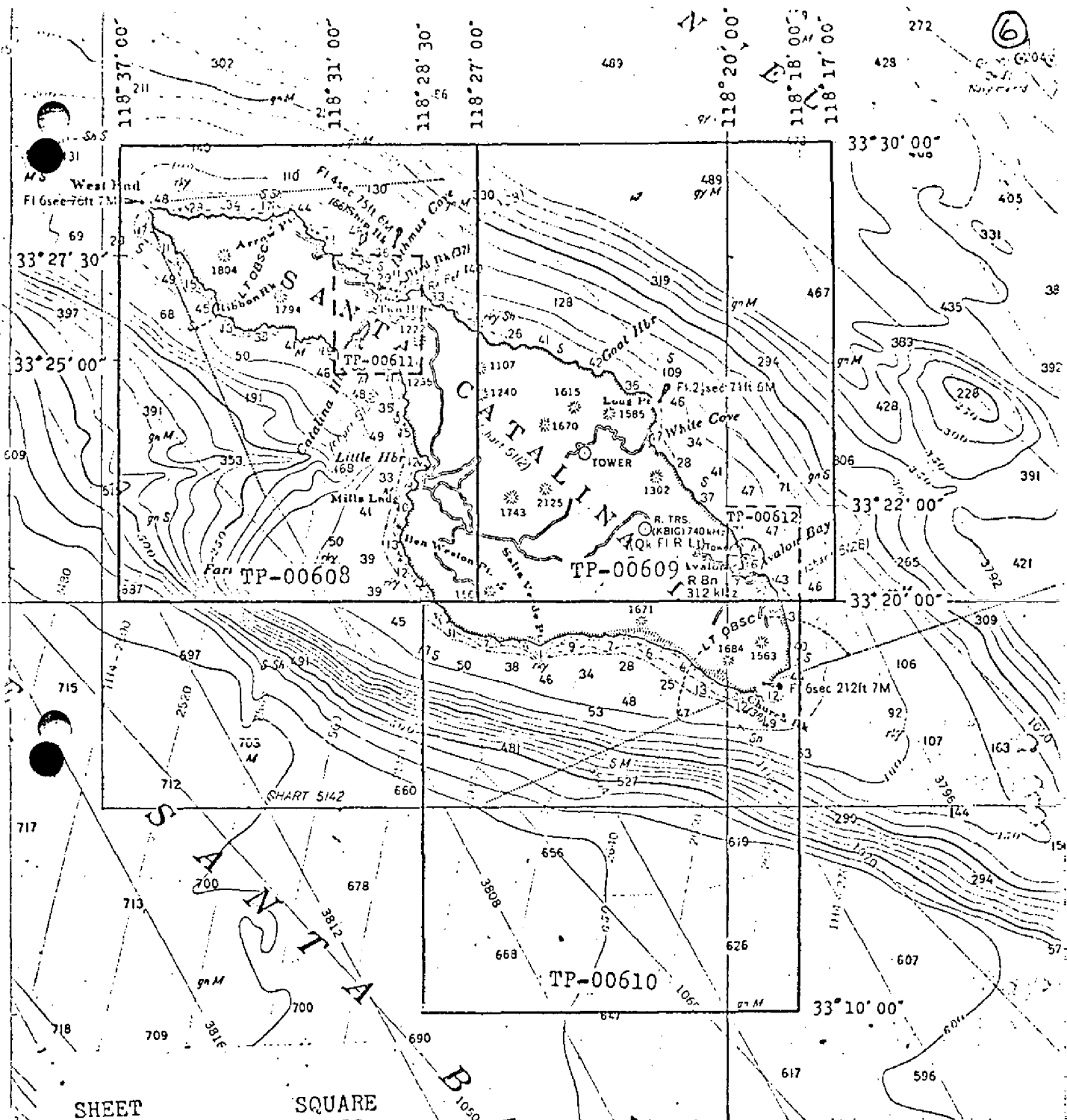
2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS ⁷⁶⁻⁴⁰ ~~40~~ SUBMITTED BY FIELD PARTIES.
3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
ACCOUNT FOR EXCEPTIONS:
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	



SHEET
NUMBER

SQUARE
MILES

TP-00608
TP-00609
TP-00610
TP-00611
TP-00612

20
12
12
4
2

Total

50

JOB PH-7112

SANTA CATALINA ISLAND

CALIFORNIA

SHORELINE MAPPING
SCALES 120,000 & 15,000

Revised 10-30-73 L.F.V.

Summary PH-7112

TP-00609 is one of 5 shoreline maps in job PH-7112 compiled for use in contemporary hydrographic survey and nautical charting operations.

Field work, prior to compilation, consisted of the recovery and pre-marking of horizontal control.

The manuscript was compiled using the Wild B-8 stereoplotter with 1:30,000 scale color photography. Infrared photography was used to graphically compile the mean lower low water line. Cronaflex positives and ozalids of the manuscript were forwarded for the use of the field editor and for the preparation of the hydrographer's boat sheets. Accompanying these were specially prepared ratio photographs to aid in the location of hydrographic signals.

Field edit was accomplished during *Spring and Fall of 1975*

Final review was accomplished at the Rockville, Maryland office in *Aug. 1976.*

A stable base positive copy of the map and a Descriptive Report will be registered in the NOS Archives.

FIELD INSPECTION

TP- 00609

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification of the horizontal control necessary for the aerotriangulation of the project.

PHOTOGRAMMETRIC PLOT REPORT
Santa Catalina Island
California
Job PH-7112
December 1973

21. AREA COVERED

The area covered by this report pertains to Santa Catalina Island of California. The island is covered by three 1:20,000 scale sheets, TP-00608, TP-00609, TP-00610, and two 1:5,000 scale sheets TP-00611, and TP-00612.

22. METHOD

Three strips of 1:30,000 scale color photography and three strips of 1:15,000 scale color photography were bridged by analytic aerotriangulation methods. Sketch number 1 shows the flight lines of the photography and the placement of the control used in the adjustment. The three strips of 1:30,000 scale color photography were controlled by field identified control paneled in 1972. The three strips of 1:15,000 scale color photography were controlled by common points from the 1:30,000 scale color photography. Ties were made between all bridging strips. Common points were located between the bridging photography and the infrared photography to determine the ratio scale. In addition, common points were located on the hydro support color photography to determine the ratio scale. Sketch number 2 shows the flight lines of the hydro-support photography.

Data for ruling projections were furnished to the Coradomat to be plotted on the California Zone 6 coordinate system.

23. ADEQUACY OF CONTROL

The control was adequate.

24. SUPPLEMENTAL DATA

USGS quadrangles were used to provide vertical control for the adjustment.

25. PHOTOGRAPHY

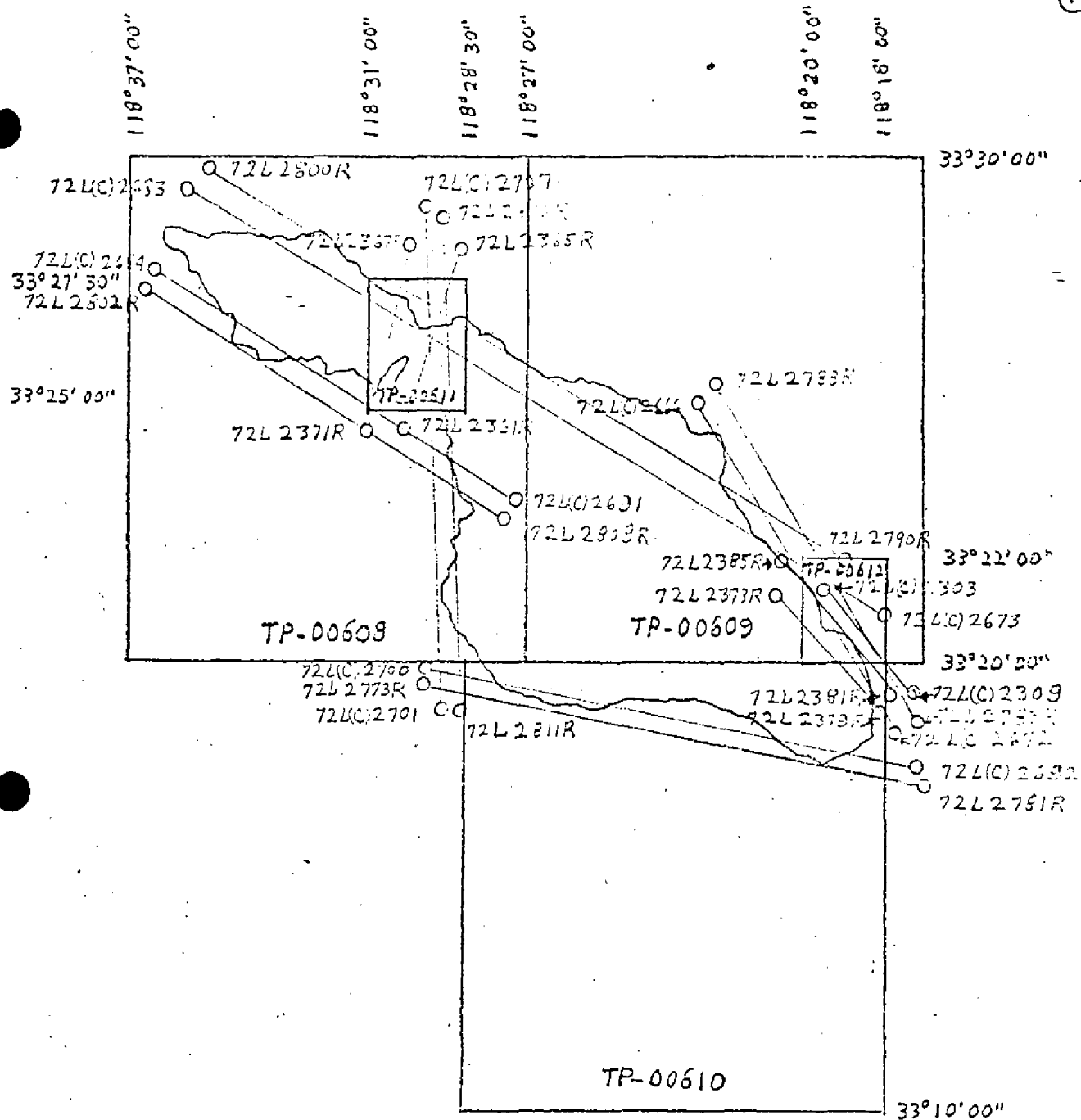
The photography was adequate as to overlap and definition.

Respectfully submitted,

Ivey O. Raborn
Ivey O. Raborn

Approved and Forwarded:

John D. Perrow, Jr.
John D. Perrow, Jr.
Chief, Aerotriangulation Section



Compilation Report
TP-00609

31. Delineation

Delineation was by the Wild B-8 stereoplotter. Due to shadows on model 72L2735-2736, ratio photograph 72L2676 was used to graphically delineate the shoreline at latitude 33°25'23" to 33°25'37" and longitude 118°24'50" to 118°26'32".

Shoreline manuscript TP-00612, scale 1:5,000 was reduced to 1:20,000 scale and delineated on TP-00609. Hydro support data will not be repeated at 1:20,000 scale for the area covered by TP-00612.

Compiled features inshore include roads, drainage features, landmarks, and the top of bluffs considered to be of landmark value.

32. Control

See the attached Photogrammetric Plot Report dated December 1973.

33. Supplemental Data - None

34. Contours and Drainage

Contours are not applicable to the project.

Drainage was delineated by the Wild B-8 stereoplotter and by office interpretation of the photographs.

35. Shoreline and Alongshore Details

The MHWL and alongshore details were delineated by the Wild B-8 stereoplotter and by office interpretation of the 1972 color photographs.

The MLLW was delineated graphically from the tide-coordinated, infrared ratio photographs.

There are numerous rocks bare and awash, and kelp areas that border most of the shoreline.

36. Offshore Details

None

37. Landmarks and Aids

Form 76-40 for 4 nonfloating aids to navigation and 9 landmarks were prepared for field edit. Additional landmarks, landmark buildings, and all aids to navigation will be located during field edit.

Reviewer's Note: Only the ldmks and aids that fall within the area mapped at 1:20,000 scale are listed on this map. (1 aid and 5 ldmks) the other aids and ldmks are on TP-00612 at 1:5,000 scale.

38. Control for Future Surveys - None

39. Junctions

North: No survey; South: TP-00610; East: No survey; West: TP-00608.

40. Horizontal and Vertical Accuracy

This map complies with the National Standard of Accuracy.

41. thru 45. Inapplicable.

46. Comparison with Existing Maps

A comparison was made with the following 1:24,000 scale USGS quads:

Santa Catalina, North; Santa Catalina, South and Santa Catalina, East, California.

47. Comparison with Nautical Charts

A comparison was made with the following NOS charts:

#5112, 1:40,000 scale, 5th Edition, dated October 1972

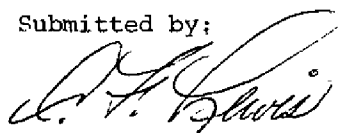
#5128, 1:10,000 scale, 7th Edition, dated April 1971.

#5142-SC, 1:80,000 scale, 11th Edition, dated April 1974.

Items to be applied to nautical charts immediately:

Items to be carried forward:

Submitted by:


C. F. Lewis

Approved & Forwarded:

Jeter P. Battley, Jr.

Chief, Coastal Mapping Section

FIELD EDIT REPORT

OPR-411-RA-1975 *SPRING*

SANTA CATALINA ISLAND

CALIFORNIA

TP-00608 thru TP-00612

NOAA Ship RAINIER

CDR Charles K. Townsend

Commanding

INTRODUCTION

The field edit of the spring project, OPR-411-RA-75, Santa Catalina Island, was started on Feb. 25, 1975 and complete on March 13, 1975. The maps were compiled without field inspection prior to compilation, therefore, a complete and thorough field edit was done. Work was carried out on shore and water.

Field edit was started at the east end of the island continued up the north side to the west end. Only the northeast side of the island was field edited.

All deletions, additions and corrections to be applied to the manuscript appear on the T-sheets. All questions on the field edit ozalids were answered on the T-sheets. The T-sheet is an index of all field edit work performed. All field edit notes on the T-sheets that are violet are items verified, those in red ink are changes. All notes on the T-sheet which are identified on the photographs, include the description, height and the photo number that it was located on. All other information is on the photographs, written in violet ink.

For a listing of photographs used, refer to the Separates following the text. Height data on all rocks are estimated. Times were referenced to 0 Longitude.

ADEQUACY OF COMPILATION

The compilation of the manuscripts were adequate and complete. Compilation of MHWL and MLLW were excellent. There were a few minor

discrepancies, and these are noted in the Shoreline Summaries. All rocks and offshore features are labeled on the T-sheet, and where-ever possible, verified on the photographs.

SHORELINE SUMMARIES

TP-00610

Field edit was started at the east end of Santa Catalina Island. Everything NE of 33 21' 10"N, 118 18' 48"W was field edited, while nothing was done SW of that point.

TP-00609

At 33 21' 10"N, 118 19' 39"W to 33 21' 22"N, 118 19' 47"W there is a change to the shoreline as compiled due to construction. Refer to TP-00612 for further information.

The microwave tower located on the compiled manuscript as 33 21' 23.9"N, 118 21' 30.6"W, is not in the correct position. A copy of a letter from the Pacific Telephone and Telegraph Co. which gives the correct position of this tower to the nearest second, is included in the separates which follow the text. This new position is 33 21' 00"N, 118 21' 05"W.

A wreck, located in the vicinity of 33 23' 50"N, 118 22' 00"W, was searched for but not found. However, the search method was wire dragging in an area foul with kelp. It would have been very easy to have missed the wreck, thus this search was not adequate.

TP-00608

The shoreline of Ship Rock on this T-sheet was used for the final smooth sheet. It's exact shape was difficult to determine due to the

triangulation symbol of Bird Rock 1875, covering the shoreline.

Along the coast from Lion's Head to Arrow Point, there are several submerged rocks, usually 2' to 6' under, about 30 yds. off the beach.

Ship Rock Light was located by measuring it's distances from the Bird Rock 1875 triangulation station and its reference marks. Sextant angles were used as a check of its position. Refer to the Separates following the text for the computations of the position of this light.

West End Light was verified but not located. The field edit ended at the tip of the west end of Santa Catalina Island, $33^{\circ} 28' 44''\text{N}$, $118^{\circ} 36' 23''\text{W}$.

TP-00611

There are floating docks connected to the pier in Isthmus cove according to the compiled manuscript. These can be changed to the end of the pier and lengthened, depending on the need during the summer.

In Fisherman Cove, there is a railway located at $33^{\circ} 26' 40''\text{N}$, $118^{\circ} 28' 58''\text{W}$. The pier shown on the T-Sheet in this cove has been verified, but does not appear on Chart 5128. This pier should be charted.

The foul area next to Ship Rock should be delineated from the 1:5000 photographs. It is shown on photo 72L2398.

The "Chimney Stack" in Cherry Cove should be re-named to "Tower". It is actually a lifeguard stand.

TP-00612

The shoreline from $33^{\circ} 21' 11''\text{N}$, $118^{\circ} 19' 40''\text{W}$ to $33^{\circ} 21' 22''\text{N}$,

118 19' 48"W, has changed completely since the 1972 photographs were taken and the shoreline was compiled. This area is under construction by the Balboa Bay Island Club, of Newport Beach, CA. They are building condominiums, and are filling in the coastline with dirt. Since the shoreline will be continuously changing until the construction is finished, an accurate location of the coastline was not compiled by the field editor. It is recommended that plans be obtained from the Balboa Bay Island Club for landscaping or that new photographs be taken when the construction is finished.

Pier ruins do exist at the end of the pier at 33 21' 03"N.

There are nets located from 118 19' 25"W to 118 19' 35"W, just north of the Casino, during the summer only. This is a scuba diving area.

Also nets and swim lines are located about 30 yds off the beach in Descanso Bay. These are located in Avalon Bay, also, from about 33 20' 35"N to 33 20' 43"N. Platforms are continuously changing positions throughout the Bay area.

The small dock on Cabrillo Mole Penninsula no longer exists. There are pier ruins where it did stand (pillbox).

The Avalon Bay Marker, R. Bcn., is located at the top of the Casino. The Avalon Bay Lights 1 and 2, were located by both theodolites and tellurometers. Refer to both the Separates following the text and the Geodetic Control Report, OPR-411-RA-75, for further information.

ADDITIONAL INFORMATION

Photo identified signals used for visual hydrography are circled in violet ink on the two 1:5000 T-sheets (TP-00611 and TP-00612) and on all photographs in which they appear. Each signal is identified with its signal number (either a 200 or 300 number). All 100 series signals are triangulation stations.

On the RA-5-2-75 boatsheet, TP-00611, one signal has two signal numbers (#243/303). Due to problems in the software of the visual hydro programs, RK171 and RK174. The digital sextant could not accept an input of any signal number which had its last two digits larger than 39. Thus signal numbers are from 200-239, 300-320, with the exception of signal number 243/303.

All 200 and 300 signal are photo located except for #318, 319 and 320. These were located by means of sextant angles to triangulation stations. Refer to the separates following the text for the computation of the location of these signals.

The computation of Ship Rock Light can also be found in the Separates that follow the text.

RECOMMENDATIONS

There were two problems involving the signal control on the T-sheet TP-00612 (boatsheet RA-5-1-75). It was extremely difficult to locate enough photo identifiable objects for signals using the black and white photographs that were provided. It is recommended that if a 1:5000 boatsheet is to be done using visual methods, color photographs be supplied instead of or in addition to the black and white, so that objects can be more easily identified, thus obtaining

stronger control.

Also it is recommended that several photographs which include the boundary limits of a 1:5000 survey and some area beyond these limits, are sent to the field editor. Near the NW edge of the RA-5-2-75 boatsheet, signals 318, 319 and 320 had to be located by hydro methods since there wasn't enough photo support in this area.

DATA PROCESSING

The computations for the signals and the positions of the lights were done on the ship's PDP8/e computer and the Wang 700 Series Advanced Programing Calculator. The following programs were used for the computations that are included in the Separates that follow the text.

<u>Program</u>	<u>Description</u>
RK 301	Visual Station Table Maker (VISTA) Ver: 12 Aug. 1974
RK 407	Geodetic Direct & Inverse Comp Ver: 10 Nov. 1972
RK 409	Geodetic Utility Package Ver: 5 Sept. 1973
Focal Scaling Program	Author: R.A. Schiro 13 Aug. 1973
Wang Intersection	
Wang Resection	

Respectfully submitted,

Kathryn A. Andreen

Kathryn A. Andreen
ENS. NOAA

MANUSCRIPT-PHOTO INDEX

T-SHEET

TP-00608

TP-00609

TP-00610

TP-00611

TP-00612

PHOTOS

72L2677-2682

72L2685

72L2666-2671

72L2673-2677 & 2707

72L2672

72L2316-2318

72L2396-2398

72L2303-2307

THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY

Avalon, California
February 26, 1975

Commander Charles Townsend
MSS 21
NOAA Rainier

Dear Sir:

The attached copy of an FCC document indicates the location of our transmitting tower at Dakin Peak, Catalina Island, 2 mi. WNW of Avalon.

Lat. 33° 21' 00" N and Long. 118° 21' 05" W is the recorded location

The flashing red beacon light atop the tower is in operation 24 hours a day and is located 1792 feet AMSL.

Corrections to existing charts may be in order.

Sincerely,

Stan Royle
Stan Royle

Equipment Supervisor
Pacific Telephone Company
Box 496
Avalon, Calif 90704

1. CO	<i>[initials]</i>
2. XO	
3. CH ENG	
4. NAV	
5. FLD OPR	<i>BLK</i>
6. ELECT	
7. SH OFF	
8. W. R.	
9. FIELD CRT	

Form 437
1956

FEDERAL COMMUNICATIONS COMMISSION

(23)

POINT TO POINT MICROWAVE

RADIO STATION LICENSE

(Nature of service)

COMMON CARRIER

Fixed

(Class of Station)

THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations before or hereafter made by this Commission, and further subject to the conditions and requirements set forth in license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities herein described for radio communication for the term beginning

ending February 1, 1966.

July 27, 1961.

(U. S. m. eastern standard time)

Peak ORIGINAL POSTED AT

WNW of Avalon, (Los Angeles), California. Lat. 33-21-00 N. Long. 118-21-05 W.

(Location of authorized control point)

125 West Fifth Street, San Pedro, California.

(Location of alarm center)

TRANSMITTING EQUIPMENT

FREQUENCIES (Mc)	POINTS OF COMMUNICATION AND DISTANCE IN KILOMETERS	DEGREES OF AZIMUTH OF CENTRE OF MAIN LOBE OF RADIATION WITH RESPECT TO TRUE NORTH	
		DEGREES	MINUTE
		06	59
		204	29

Continued use of 928.5 & 929.5 Mc and REL transmitters is authorized until September 1, 1961 only. *Wanted to 11-24-61 per telegram REL & LQ REMOVED. (when)*
Upon notice from the Commission, the use of the frequency diversity shall be forthwith terminated without hearing if, in the discretion of the Commission, such action is warranted.

NUMBER OF TRANSMITTERS	MANUFACTURER AND TYPE	EMISSION	AUTHORIZED POWER (Watts) OUTPUT
(4)	Collins, type 552A-6	FO, 15000F2, 15000F3, 15000F4, 15000F9	0.1

Construction Marking Specifications in accordance with Paragraphs 1, 3, 11 and 21 of Form 715.

Operation of this Station is governed by Part 11 of the Commission's Rules.

This license is issued on the license holder's statement that the statements furnished in licensee's application are true and that the undertakings contained, so far as they are applicable, will be carried out in good faith. The licensee shall, during the term of this license, render such service as will serve the public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee and shall not operate as any right in the use of the frequencies designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be sold or otherwise transferred in violation of the Communications Act of 1934. This license is subject to the right of use or control by the Government of the United States conferred by Section 316 of the Communications Act of 1934.

By Direction of the
FEDERAL COMMUNICATIONS COMMISSION

EXPIRATION July 27, 1961

Ben F. Waples

PHOTOSTATIC COPY

Acting

Secretary.

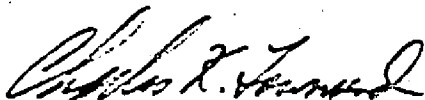
APPROVAL SHEET

FIELD EDIT

OPR-411-RA-1975

The field work and data were examined daily in the field. Standard procedures were observed in accordance with the Hydrographic Manual, PMC OPORDER, the Topographic Manual and Photogrammetry Instructions.

The T-sheets and the accompanying records have been examined by me and are considered complete and adequate for charting purposes and are approved.



Charles K. Townsend
CDR. NOAA

FIELD EDIT REPORT
OPR-411-RA-1975-FALL

SANTA CATALINA ISLAND
CALIFORNIA
TP-00608 thru TP-00611

NOAA Ship RAINIER
CDR. Charles K. Townsend
Commanding

INTRODUCTION

The field edit for the fall project, OPR-411-RA-75, Santa Catalina Island, was started on Sept. 14 (J.D. 257) and finished on Oct. 15, 1975 (J.D. 288). Since the maps were compiled without field inspection prior to compilation, a complete and thorough field edit was carried out on land and water.

Field edit began in Catalina Harbor, (TP-00611, 1:5000 T-sheet) and was then extended throughout the southwest side of the island. Junctions were made with the RAINIER's spring project (OPR-411-RA-75) field edit at both the west and east ends.

All deletions additions and corrections to be applied to the manuscript appear on the master T-sheets. All questions on the field edit ozalids were answered on the master T-sheets. The master T-sheet is an index of all field edit work performed. All field edit notes on the T-sheets that are in violet ink are items verified, those in red ink are changes. All notes on the T-sheets which are identified on the photographs, include the description, height and the photo number that they were located on. All other information is on the photographs, written in violet ink. All field edit notes on the smooth RA-5-3-75 boatsheets which are verified are in black ink, changes that are photo-located are in violet ink, changes to the manuscript (not photo-located) are in red, and unverified item are in blue ink. (Note: All field edit information for the chart adequacy survey, RA-40-1-75, smooth boatsheet, can be found on the master index T-sheets TP-00608,

TP-00610, TP-00611 and the photograph 72L2319, 1:5000.)

For a listing of photographs used, refer to the Separates following the text. Height data on all rocks are estimated, plus or minus 1/4 ft. Times were referenced to 0° Longitude.

ADEQUACY OF COMPILATION

The compilation of the manuscripts were adequate and complete. Compilation of the MHWL and the MLLW were excellent. There were many discrepancies between the photo compiled T-sheets and the 1:20,000 chart (NOAA #18757; C&GS 5112) blow-up, concerning the shoreline. In all cases, it was found that the T-sheets were compiled correctly. All rocks and offshore features are labeled on the T-sheet, and wherever possible, verified on the photographs.

SHORELINE SUMMARIES

TP-00608

Field edit started on this T-sheet at the west end of Santa Catalina Island, junctioning with OPR-411-RA-75-SPRING field edit, and continued southeastward.

The huge rock in Iron Bound Cove, 33° 26' 40"N, 118° 34' 16"W, was thoroughly searched for since something could be seen in the photographs, for that area. However, nothing could be found.

Between 33° 25' 45"N, 118° 32' 13"W and the point 33° 25' 05"N 118° 29' 12"W, field edit was transferred to the 1:5000 manuscript TP-00611. Also the photo 72L2319 (1:500 scale) contains some

field edit information which did not fall within the limits of TP-00611, and were not scaled down to fit the 1:20,000 T-sheet TP-00608.

A new geographic name should be added to the chart, "Shark Harbor". It is the harbor that is located at approximately $33^{\circ} 23' 00''\text{N}$, $118^{\circ} 28' 20''\text{W}$. "Little Harbor" should be changed to the cove north of "Shark Harbor", located at $33^{\circ} 23' 10''\text{N}$, $118^{\circ} 28' 25''\text{W}$.

West End Light ($33^{\circ} 28' 42.826''\text{N}$, $118^{\circ} 36' 17.546''\text{W}$) was located by using sextant angles between the Light and Eagle Rock, taken from a hydro launch with Raydist control positioning. Refer to the Horizontal Control Report, OPR-411-RA-75-FALL, for specific details on the procedures used.

TP-00611

There are large discrepancies around Catalin Head and on the southeastern limit of the T-sheet, with minor ones throughout the rest of the area, between the Chart blow-up and the T-sheet. The T-sheet was found to be correct.

The field edit using the 1:5000 photographs was carried out beyond the western limit of the T-sheet. This field edit was not scaled off to the 1:20,000 manuscripts, but was left on the photo 72L2319. This information needs to be processed and added to the master T-sheet (TP-00608) and the smooth boatsheets.

The question of pier ruins at $33^{\circ} 25' 55''\text{N}$, $118^{\circ} 30' 27''\text{W}$, is

actually an airplane ramp. Air Catalina Airlines flies float-planes in and out of the harbor twice daily, 0830 and 1630 local time.

No evidence could be found of any pier ruins at $33^{\circ} 25' 55''\text{N}$, $118^{\circ} 30' 24''\text{W}$. The only things found in this area were several submerged rocks, which divers verified.

A gravel ramp for boats is located at $33^{\circ} 26' 08''\text{N}$, $118^{\circ} 30' 07''\text{W}$.

A new pier was constructed after the T-sheet was compiled. Its approximate location ($33^{\circ} 25' 58''\text{N}$, $118^{\circ} 30' 07''\text{W}$) is noted on the T-sheet.

At Ballast Point, a seasonal floating pier was added onto the existing pier (refer to the T-sheet).

The platform located at $33^{\circ} 25' 44''\text{N}$, $118^{\circ} 30' 22''\text{W}$, is seasonal and did not exist at the time of the survey.

All kelp areas were delineated properly. Additions to foul areas with rocks are noted on the T-sheet.

TP-00610

One area of rocks and boulders ($33^{\circ} 19' 08''\text{N}$, $118^{\circ} 26' 31''\text{W}$), as compiled on the T-sheet, was searched for and not found. This area could be identified easily on the photographs, however when investigated at low water, nothing could be found.

Another small area of rocks on the manuscripts ($33^{\circ} 19' 07''\text{N}$, $118^{\circ} 25' 52''\text{W}$) was also searched for and not found. This area was thick with kelp, but the field editors could not find anything.

Local fishermen were also contacted, they had not found anything in that area, either.

The position for Catalina Island East End Light is correct as compiled. The field editor was unable to measure off the Light's position for a revised 76-40, Nonfloating Aids to Navigation. It is recommended that CAM 521 complete a new 76-40.

ADDITIONAL INFORMATION

Photo identified signals used for visual hydrography are circled in violet ink on the 1:5000 T-sheet, TP-00611, and on all photographs in which they appear. Each signal is identified with its signal number (a 400 number.) All other signal numbers indicate other control locating methods.

NOTE: The field edit for the Long Beach area, OPR-411-RA-75-FALL, (boatsheet RA-10-2-75) was not accomplished by the personnel of the RAINIER. Refer to the Chart Adequacy Survey, OPR-511-DA-75, Report, for field edit on this boatsheet.

DATA PROCESSING

The computations for the positions of signals were done on the Ship's PDP 8/e computer and the Wang 700 Series Advanced Programing Calculator. The following programs were used for the computations that are included in the Separates that follow the text.

Program

Description

RK 301

Visual Station Table Maker (VISTA)
Ver: 12 Aug. 1974

Focal Scaling Program

Author: RA Schiro
13 Aug. 1973

RECOMMENDATIONS

As seen in this project and in many other projects, there has been a lack of good quality photographs. Perhaps the cost of photographs that are needed for photo-picking signals should be compared to the cost of locating signals by horizontal control, since the photographs received by this ship are about 60% effective. The experience the field editor has for photo-picking signals is usually quite limited, thus extremely good quality photos are needed to locate signals within the limits set by the Hydro Manual.

Photo signals east of Pin Rock on the 1:5000 visual survey (RA-5-3-75), were impossible to pick. The photographs were out of focus and were covered with the glare from the sun off the water, i.e., 72L2319. Also there were not enough photo coverage at the edges of the survey limits, for good intersections of positioning rays. The photographs have also been only black and white, not the color originals, which cuts the effectiveness by a considerable amount.

This problem has been mentioned before, many times and nothing has resulted. So it is recommended that if good photographs can

not be taken for the purpose of photo-picking signals by personnel on board the ships, then do not expect them to be used for that purpose or send an expert into the field to support the ships.

Respectfully submitted,

Kathryn Andreen
Kathryn Andreen, Ltjg. NOAA

Manuscript-Photo IndexT-Sheet

TP-00608

TP-00610

TP-00611

Photographs

72L2681-91

72L2701-06

72L2692-2700

72L2317-20

72L2395-97


Approval Sheet

Field Edit

OPR-411-RA-1975-FALL

The field work and data were examined daily in the field. Standard procedures were observed in accordance with the Hydrographic Manual, PMC OPORDER, the Topographic Manual and Photogrammetry Instructions.

The T-sheets and accompanying records have been examined by me and are considered complete and adequate for charting purposes and are approved.


Charles K. Townsend
CDR. NOAA

REVIEW REPORT TP-00609
Shoreline Survey
August 1976

61. General Statement

The final review of job maps consisted of: (1) an edit including a general check of the field edit data and its application; (2) the completion and assembly of the Descriptive Reports and related records.

A careful comparison was made during compilation with published charts, enlarged where applicable to the manuscript scale, and with USGS quadrangles. Significant discrepancies were called to the attention of the field editor. For this reason no comparison was made during the review with other sources.

The hydrographic survey boat sheets are in the PMC. Class I manuscript copies were recently forwarded for use in smooth sheet processing. Much of the lettering and rock awash symbols had been shown smaller than the minimum size required for obtaining a good, reproduced copy. During this final review it was necessary to edit extensively. Copies of the final maps will be forwarded to the PMC.

This Descriptive Report applies only to the portion of TP-00609 that was mapped at 1:20,000 scale. The area that is excluded from this report is outlined and labeled on the map. This same area is covered at 1:5,000 scale on map TP-00612. The map was reduced to 1:20,000 scale and the detail transferred to this sheet. At this scale this area is incomplete and should not be used.

The field editor's reports are included in this Descriptive Report. The editor states that much difficulty in identification was encountered due to the poor quality of the photography. The location of rocks in the field was in excess of what was needed to depict the foreshore area at this scale. The compiler had difficulty with correctly identifying and placing on the manuscript some of the foreshore rock information. Foul limit lines were used around such areas.

Three charted rocks not visible on the photography were called to the attention of the field editor. The information furnished by the field editor was insufficient for plotting on the map. However, this information will be furnished the Marine Chart Division on the Chart Maintenance Print.

62. Comparison with Registered Topographic Surveys

See item 61.

63. Comparison with Maps of Other Agencies

See item 61.

64. Comparison with Contemporary Hydrographic Survey

See item 61.

65. Comparison with Nautical Charts

See item 61.

66. Adequacy of Results and Future Surveys


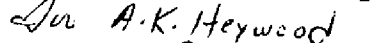
This map meets the National Standards of Map Accuracy and complies with Bureau requirements.

Submitted by:

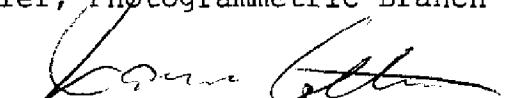


J. B. Phillips

Approved:

Chief, Photogrammetric Branch


Chief, Coastal Mapping Division

June 11, 1974

GEOGRAPHIC NAMES

FINAL NAME SHEETS

PH-7112 (Santa Catalina Island, Calif.)

TP-00609

Abalone Point
Avalon
Avalon Bay
Bannings Beach
Big Springs Canyon
Black Jack Camp
Black Jack Mountain
Buffalo Springs Reservoir
Button Shell Beach
Cabrillo Harbor CABRILLO PENINSULA
Cactus Peak
Cape Canyon
Cape Canyon Reservoir
Casino Point
Catalina Airstrip
Cottonwood Canyon
Deep Tank Reservoir
Descanso Bay
Eagles Nest
Echo Lake
Empire Landing
Gallagher Beach
Gallagher Canyon GIRL SCOUT CAMP*
Goat Harbor
Grand Canyon
Hamilton Beach
Haypress Reservoir
Hen Rock
Little Gibraltar
Long Point LOVERS COVE
Middle Canyon

Middle Ranch
Moonstone Beach
Mount Banning
Mount Orizaba
Patrick Reservoir
Patricks Shelter
Pebble Beach PRIVATE SCHOOL*
San Pedro Channel
Santa Catalina Island
Silver Canyon
Swains Canyon
Thompson Dam
Torqua Spring TOYON BAY
Twin Rocks
Valley of Ollas
White Cove
Whites Beach
Whitleys Peak
Willow Cove
Wrigley Reservoir
*YMCA Camp

*An identifiable feature, not a geographic name.

Prepared by:

C. E. Harrington
C.E. Harrington
Staff Geographer

Replaces C&GS Form 567.

WORKING WITH LANDMARKS FOR CHARTS

WORKING WITH LANDMARKS FOR CHARTS

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY			
NON-FLUORESCENT LANDMARKS FOR CHARTS				DATE				<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> COMPILATION ACTIVITY <input type="checkbox"/> FINAL REVIEWER <input checked="" type="checkbox"/> QUALITY CONTROL & REVIEW GRP. <input type="checkbox"/> COAST PILOT BRANCH (See reverse for responsible personnel)			
REPORTING UNIT (Field Party, Ship or Office)		STATE		LOCALITY		DATE					
Quality Control		Maryland		Rockville		Aug. 1976					
OPR PROJECT NO.		JOB NUMBER		SURVEY NUMBER		DATUM		METHOD AND DATE OF LOCATION (See instructions on reverse side)			
OPR-411-RA-75		PH-7112		TP-00609		N.A. 1927					
CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	LATITUDE		LONGITUDE		OFFICE		FIELD		CHARTS AFFECTED	
		° /	' D.M. Meters	° /	' D.P. Meters						
Tower		33 23	12.53 386.0	118 24	0.39 10.0	72-L(C) 2734 24 March 1972	F-V-Vis March 1975	5112 5128 5142			
Radio Tower		33 21	37.10 1143.0	118 22	17.79 460.0	24 March 1972 72-L(C) 2732	"	"			
Radio Tower		33 21	35.38 1090.0	118 22	14.35 371.0	"	"	"			
Radio Tower		33 21	34.31 1057.0	118 22	19.65 508.0	24 March 1972 72-L(C) 2732	F-V-Vis March 1975	5112 5128 5142			
Tower	Microwave Tower	33 21	00.00 00.00	118 21	050.0 129.3	Plotted July 1976 --	V-Vis 2-25-75	5112 5128 5142			
* Position furnished by Pacific Telephone & Telegraph Company.											

Replaces C&GS Form 567.

NONFLOATING AIDS, CRYSTALS AND A RACKS FOR CHARTS

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

ORIGINATING ACTIVITY:

- ☐ HYDROGRAPHIC PARTY
☐ GEODETIC PARTY
☐ PHOTO FIELD PARTY
☐ COMPILATION ACTIVITY
☐ FINAL REVIEWER
☒ QUALITY CONTROL & RE
☐ COAST PILOT BRANCH

(See reverse for responsible personnel)

<input checked="" type="checkbox"/> TO BE CHARTED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
<input type="checkbox"/> TO BE REVISED				
<input type="checkbox"/> TO BE DELETED				
Quality Control		Maryland	Rockville	Aug. 76

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

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM	METHOD AND DATA (See instructions)
OPR-411-RA-75	PH-7112	TP-00609	N.A. 1927	POSITION

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

CHARTS
AFFECTED

[illegible]

DESCRIPTIVE REPORT; CONTROL RECORD

CAA Form 76-48

U
C
S
S
A

FORMERLY FOR 45-1041

W&P T- P 00609

PROJECT NO. PH-7112

SCALE OF MAP 1:20,000

None

None

[illegible]

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. TP-00609

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.

[illegible]