

TP-00608

TP-00608

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-00608...
Classification No. Final Edition No. ...1.....
Field Edited Map

LOCALITY

StateCalifornia.....
General Locality ..Santa Catalina Island.....
Locality ..West End.....

1972 TO 1975

REGISTRY IN ARCHIVES

DATE

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

18759 ✓
18757 ✓
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.		SURVEY TP- 00608 MAP EDITION NO. (1) MAP CLASS Field edited JOB PH- 7112	
OFFICER-IN-CHARGE James Collins, Cdr.		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: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify)	
2. VERTICAL: <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		OTHER (Specify)	
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 BY METHOD: Analytic LANDMARKS AND AIDS BY		I. O. Raborn Dec. 1973	
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Coradomat CHECKED BY		D. Phillips Dec. 1973	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY INSTRUMENT: Wild B-8 SCALE: 1:15,000 CONTOURS BY CHECKED BY		Solbeck & Fromm May 1974 P. Dempsey May 1974 N.A. N.A.	
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY CONTOURS BY CHECKED BY METHOD: SCALE: 1:20,000 HYDRO SUPPORT DATA BY CHECKED BY		Solbeck June 1974 P. Dempsey June 1974 N.A. N.A. Solbeck June 1974 P. Dempsey June 1974	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		P. Dempsey July 1974	
6. APPLICATION OF FIELD EDIT DATA BY CHECKED BY		J. Battley July 1976 Not checked	
7. COMPILATION SECTION REVIEW BY		J. B. Phillips Aug. 1976	
8. FINAL REVIEW BY		J. B. Phillips Aug. 1976	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		S. Blankenbaker 9/76	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		R. Cator 11/76	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		R. Cator 11/76	

TP-00608
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8 "L"		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY		(C) COLOR X (P) PANCHROMATIC (I) INFRARED X		ZONE 8th	<input checked="" type="checkbox"/> STANDARD
				MERIDIAN 120th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
72L(C)-2736 thru 2742	3/24/72	09:50	1:30,000	1.3 ft. above MLLW.	
72L(C)-2715 " 2719	3/24/72	09:32	1:30,000	1.7 ft. above MLLW.	
* 72L(I)-2794 " 2799	3/24/72*	11:15	1:30,000	± 0.2 ft. of MLLW	
* 72L(I)-2803 " 2809	3/24/72*	11:20	1:30,000	± 0.2 ft. of MLLW	
* 72L(I)-2811 " 2816	3/24/72*	11:26	1:30,000	± 0.2 ft. of MLLW	
** 72L -2701 " 2707	3/24/72			N.A.	
** 72L -2684 " 2691	3/24/72			N.A.	
** 72L -2678 " 2783	3/24/72			N.A.	

REMARKS *Tide controlled.

**Black & white ratio (not 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 with models set on the Wild B-8 stereoplottter.

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

*The mean lower low water line was compiled from the tide-controlled infrared photograph listed above.

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	TP-00609	TP-00610	No survey

REMARKS

NOAA FORM 76-36C
(3-72)

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

TP-00608
HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION

☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Melby	3/72
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	R. Melby None L. Riggers
		3/72
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	N.A. N.A. N.A.
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None None 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	N.A.

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

N.A.

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 ☒ NONE

6. 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-00608

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	Charles 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	Kathryn Andreen, ENS. 3/75
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input checked="" type="checkbox"/> SPECIFIC NAMES ONLY BY <input type="checkbox"/> NO INVESTIGATION	C. K. Townsend, Cdr. 3/75
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER

STATION NAME

PHOTO NUMBER

STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

72L 2677-2691

72L 2701-2706

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

One landmark verified.

Two aids located by field method.

PHOTO NUMBER

OBJECT NAME

PHOTO NUMBER

OBJECT NAME

5. GEOGRAPHIC NAMES:

☐ REPORT☒ NONE

6. 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-00608
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:	June 1974	Class III manuscript.		
Field edit applied	July 1976	Class I manuscript.		7/27/76 PMC

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
2	Aids	9-03-76	Form 76-40
1	LDMK	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: _____

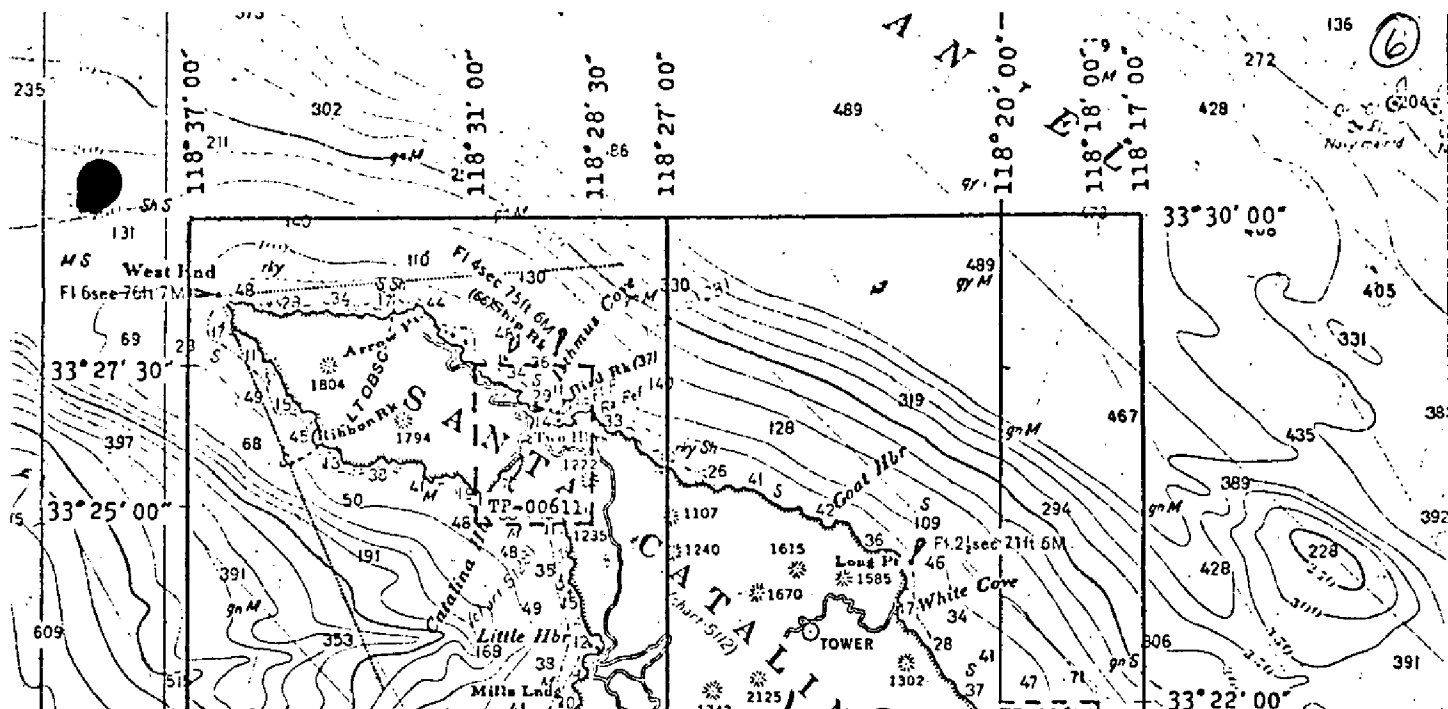
III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS ⁷⁶⁻⁴⁰ ~~507~~ 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	



Summary PH-7112

TP-00608 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 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-00608

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

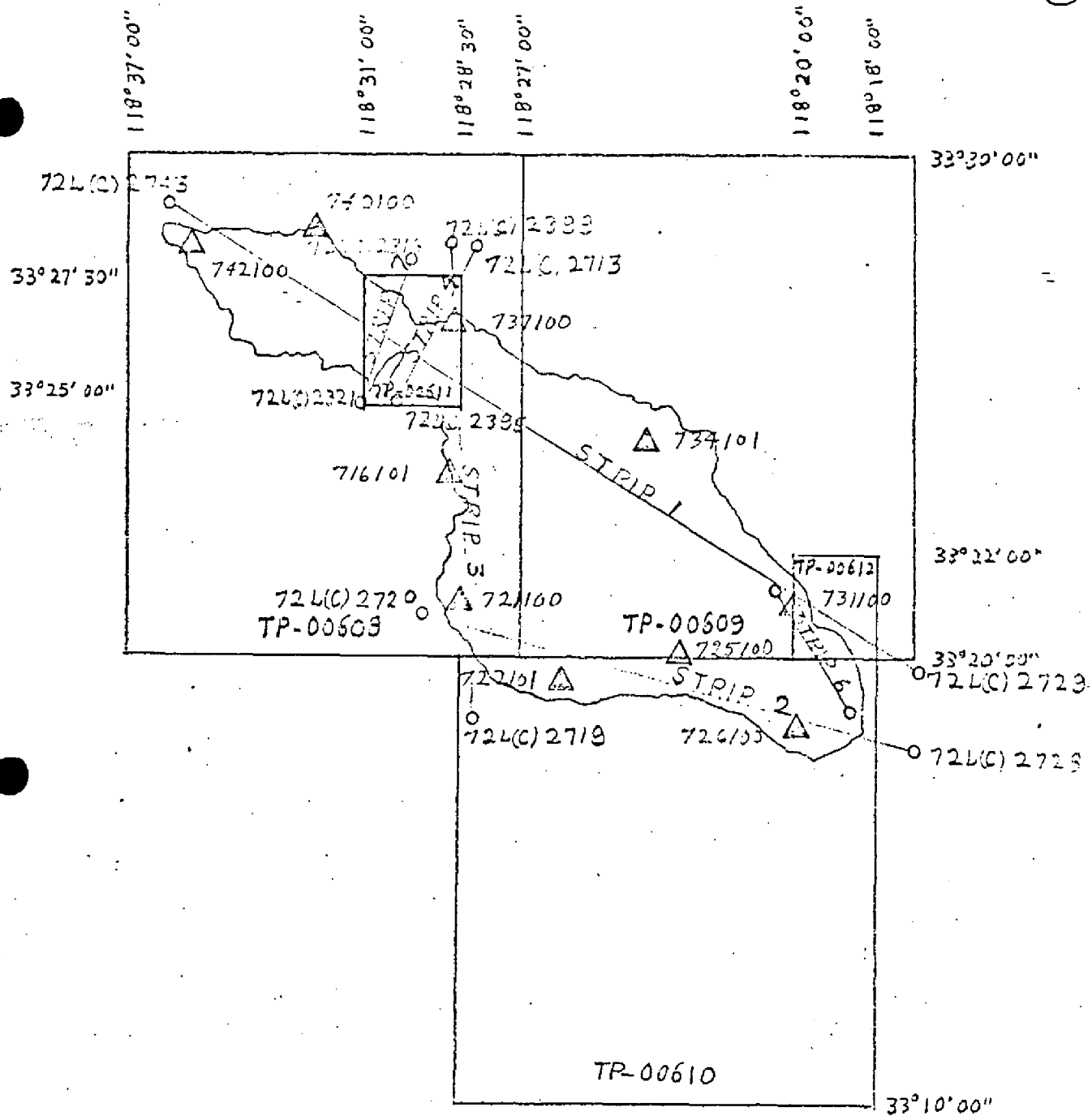
The photography was adequate as to overlap and definition.

Respectfully submitted,

Ivey O. Raborn
Ivey O. Raborn

Approved and Forwarded:

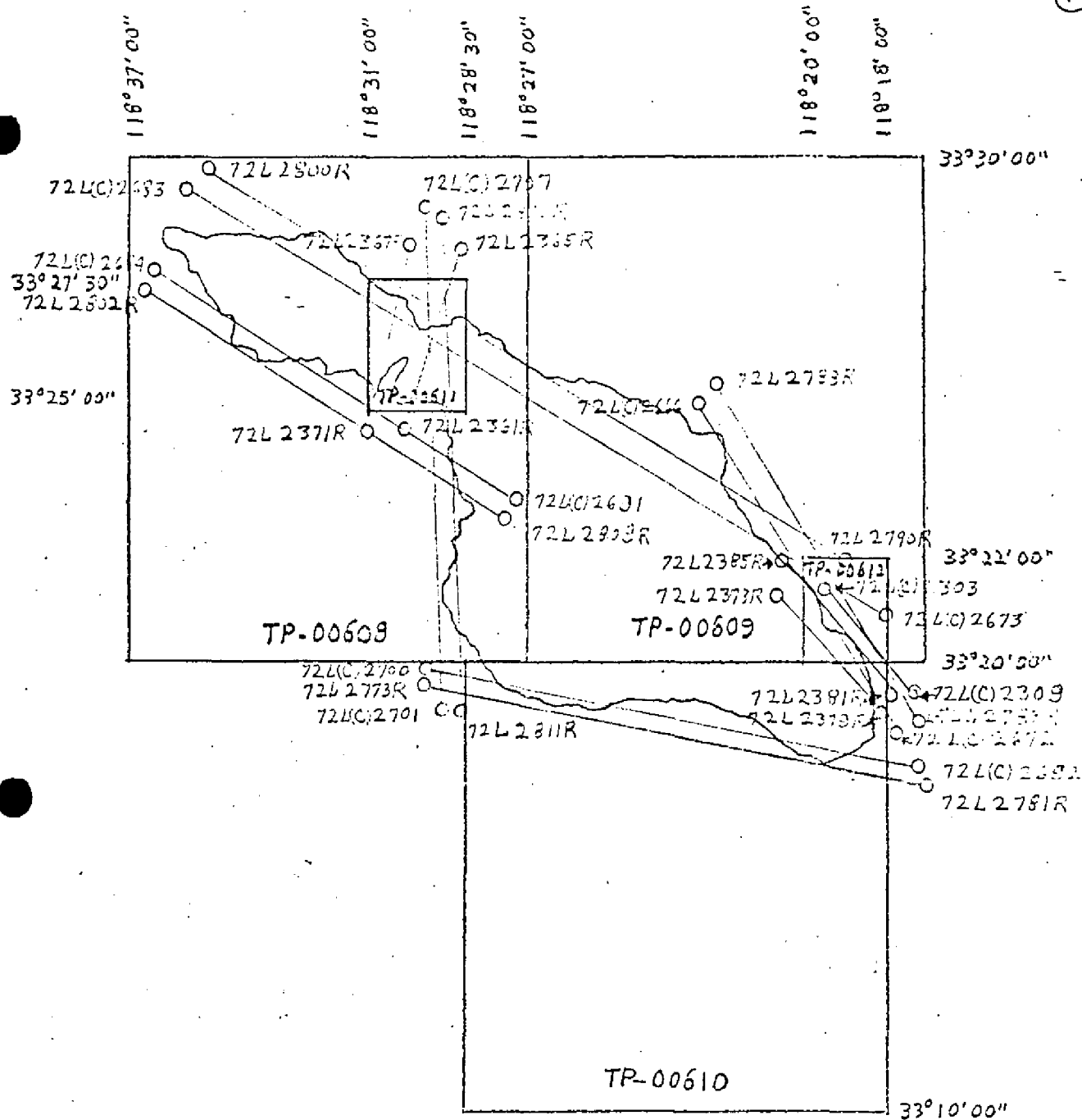
John D. Perrow, Jr.
John D. Perrow, Jr.
Chief, Aerotriangulation Section



JOB PH-7112

SANTA CATALINA ISLAND
CALIFORNIA

SKETCH # 1



JOB PH-7112

SANTA CATALINA ISLAND
CALIFORNIA

SKETCH # 2

COMPILATION REPORT
TP-00608
Scale 1:20,000
June 1974

31. Delineation

This manuscript was delineated using the Wild B-8 Stereoplotter with color photography taken March 1972. Points common to the photography used for photo-hydro support and the MLLW infrared photography were dropped on the B-8 and pricked on the Cronapaque black and white ration prints. Compiled features inshore include roads, drainage, landmarks (physical and cultural), and the top of bluffs considered to be of landmark value.

The portion of this sheet covering the Two Harbors area was transferred from the 1:5,000 sheet which was reduced to 1:20,000.

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 using the Wild B-8 Stereoplotter and by office interpretation of the photographs.

35. Shoreline and Alongshore Details

The mean high water line and alongshore features were delineated using the Wild B-8 Stereoplotter and office interpretation of the 1972 color photographs.

The mean lower low water line was delineated graphically using tide controlled black and white infrared photography.

36. Offshore Details

To the north of Two Harbors, Eagle Reef and Ship Rock were not compiled on the Wild B-8 Stereoplotter. They were cut in and plotted graphically.

COMPILATION REPORT
TP-00608

-2-

37. Landmarks and Aids

One landmark was located and plotted on the Wild B-8 Stereoplotter. Other aids or landmarks will be located during field edit.

Reviewers Note: Only the landmarks and aids that fall within the area mapped at 1:20,000 scale are listed on this map. Refer to TP-00611 at 1:5,000 for other landmarks,

38. Control for Future Surveys

None.

39. Junctions

See the attached Form 76036b, Item #5 of the Descriptive Report concerning Junctions.

40. Horizontal and Vertical Accuracy

This map complies with the National Standard of Accuracy.

41. Inapplicable.
thru
45.

46. Comparison with Existing Maps

All work was compared to the existing (7.5') Quads:

- (a) Santa Catalina West, California 1:24,000 1943
- (b) Santa Catalina South, California 1:24,000 1943
- (c) Santa Catalina North, California 1:24,000 1943

47. Comparison with Nautical Charts

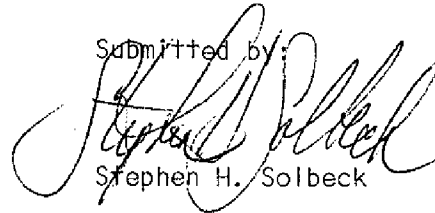
All work was compared to the following National Ocean Survey charts:

COMPILATION REPORT
TP-00608

47. (Contd.)

- (a) C&GS 5112, 5th Ed, 7 Oct 72 1:40,000
- (b) C&GS 5142, 11th Ed, 1 Apr 72 1:80,000
- (c) C&GS 5142-sc, 11th Ed, 20 Apr 74 1:80,000

Submitted by:


Stephen H. Solbeck

Approved and Forwarded by:

J. 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 wherever 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 fogged 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 (pillings).

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.

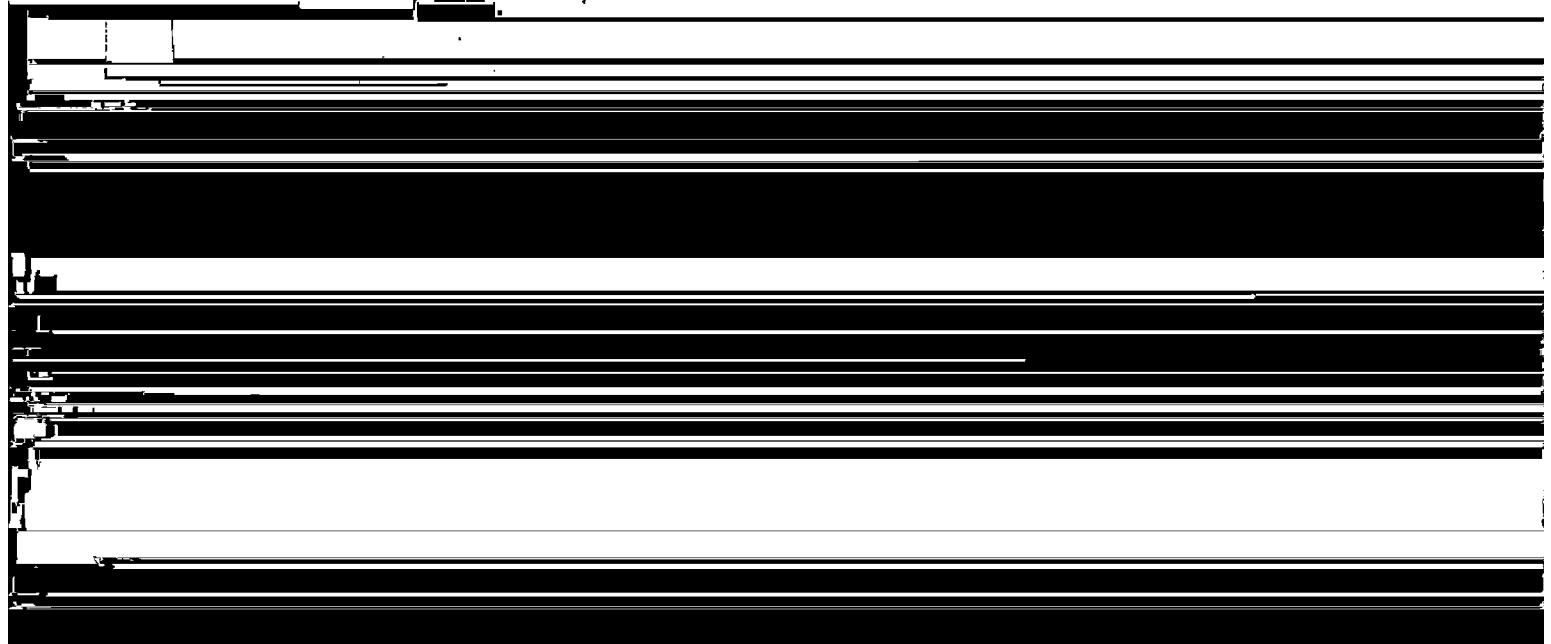
Lat. 33° 21' 00" N and Long. 118° 21' 05" W is the recorded location

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



Form 437
1956

FEDERAL COMMUNICATIONS COMMISSION

24

AT 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 made 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 July 27, 1961.

ending February 1, 1966.

(U. S. M. eastern standard time)

Peak ORIGINAL POSTED AT

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

(Location of station)

(Location of authorized control point)

125 West Fifth Street, San Pedro, California.

(Location of main center)

TRANSMITTING EQUIPMENT

FREQUENCIES (Mc)	POINTS OF COMMUNICATION AND DISTANCE IN KILOMETERS	DEGREES OF AZIMUTH OF CENTER 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. *Excluded to 11-24-61 per telegram REL EQ REMIND. (when notice from the Commission, the use of the frequency diversity shall be forthwith terminated without hearing in, 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, 1500F2, 1500F3, 1500F4, 1500F9	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 2 of the Commission's Rules.

This license is issued on the licensee's representation that the statements made in licensee's application are true and that the undertakings therein contained, so far as they are applicable hereto, will be fulfilled 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 to give him 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 6 of the Communications Act of 1934.

By Direction of the
FEDERAL COMMUNICATIONS COMMISSION

DATE OF GRANT 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, ~~the Hydrographic Manual and Photogrammetric Techniques~~



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.

ProgramDescription

RK 301

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

Focal Scaling Program

Author: RA Schiro
13 Aug. 1973RECOMMENDATIONS

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 Index

T-Sheet

TP-00608

TP-00610

TP-00611

Photographs

72L2681-91

72L2701-06

72L2692-2700

72L2317-20

72L2395-97

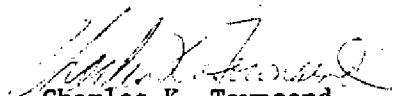
Approval Sheet

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

REVEIW REPORT TP-00608
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-00608 mapped at 1:20,000 scale. The area excluded from this report is outlined and labeled on the map. This same area is covered at 1:5,000 scale on map TP-00611. 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 identifying and placing on the manuscript some of the foreshore rock information. Foul limit lines were used around such areas.

"Whale Rock," as indicated on the field edit photograph March 24th 72 L 2687, does not agree with the rock labeled "Whale Rock" on the chart and quad. The furnished elevation has been applied to the designated rock. The name has not been changed on the map to agree with the field edit.

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


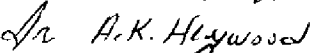
This map meets the National Standards of Map Accuracy and complies with Bureau requirements.

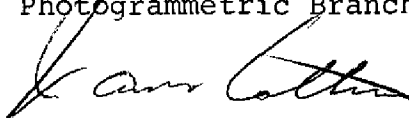
Submitted by:



J. B. Phillips

Approved:



Chief, Photogrammetric Branch


Chief, Coastal Mapping Division

January 1977

The hydrographic survey covering the area of this map is being reviewed at this time. The reviewer has brought to the attention of the photogrammetric office information furnished by the field editor, but written on the hydrographers ~~smooth~~^{boat} sheet. It appears to duplicate the "Master Index" which was used in the compilation office for application of field edit. The information indicates a few changes, mainly of rocks shown that should have been omitted. These changes are within the limits of foul areas. The photogrammetric location and delineation of features offshore from the mean high water line may not be complete or final. The contemporary reviewed hydrographic survey of the area should be consulted for the final delineation.

J.B. Phillips

June 11, 1974

GEOGRAPHIC NAMES

FINAL NAME SHEETS

PH-7112(Santa Catalina Island, Calif.)

TP-00608

Arrow Point
Ballast Point
Ben Weston Beach ~~Ben Weston Point~~
Big Springs Canyon
Big Springs Reservoir
Bird Rock
Black Point
Blue Cavern-Point
Cactus Bay
Cape Cortes
Catalina Harbor
Catalina Head
Cherry Cove
Cherry Valley
Cottonwood Canyon
Deep Tank Reservoir
Eagle Reef
Eagle Rock
Emerald Cove
Fisherman's Cove
Fourth of July Cove
*Girl Scouts Camp
Howland Landing
Indian Rock
Iron Bound Cove
Isthmus Cove
Johnsons Landing
Kelp Point
Lions Head
Little Harbor
Little Springs Canyon
Lobster Bay
Lobster Point
Lorenzo Beach

Lower Buffalo Corral Reservoir
~~Mount Torquemada~~ ~~Mills Landing~~
Outer Santa Barbara Passage
Parsons Landing
Pin Rock
Ribbon Beach
Ribbon Rock
San Pedro Channel
Santa Catalina Island
Sentinel Rock
Ship Rock
Spring Landing
Star Bay
Stony Point
Summit Reservoir
Two Harbors
Upper Buffalo Corral Reservoir
West End
West Peak
Whale Rock
Wrigley Ranch
Catalina Canyon ? cch
Farnsworth Bank } 16 July 74
* An identifiable feature, not
a geographic name.

Prepared by: .

C.E. Harrington

C.E. Harrington
Staff Geographer

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ORLAND MARKS FOR CHARTS		ORIGINATING ACTIVITY <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 <i>(See reverse for responsible personnel)</i>	
DATE Maryland	LOCALITY Rockville	DATE Aug. 76	

SER	DATUM	N.A. 1927				METHOD AND DATE OF LOCATION (See instructions on reverse side)				CHARTS AFFECTED
		POSITION				OFFICE	FIELD			
		LATITUDE		LONGITUDE						
		° /	// D.M. Meters	° /	// D.P. Meters					
Station, parentheses										5112 5142-SC 5142
		33 27	47.370 1459.4	118 29	26.656 688.4		F-2-4-8-L 3-30-75			5112 5142-SC 5142
										5112 5142-SC 5142
										5112 5142-SC 5142

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

NON-DELETION OR LANDMARKS 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 & REVIEW GRP.
☐ COAST PILOT BRANCH
(See reverse for responsible personnel)

REPORTING UNIT
(If field Party, Ship or Office)

Quality Control

STATE

Maryland

LOCALITY

Rockville

DATE

Aug. 1976

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

OPR PROJECT NO.

OPR-411-RA-75

JOB NUMBER

PH-7112

SURVEY NUMBER

TP-00608

DATUM

N.A. 1927

POSITION

LATITUDE

° / ' " D.M. Meters

LONGITUDE

° / ' " D.P. Meters

CHARTING NAME

Tank

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

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

OFFICE

FIELD

CHARTS AFFECTED

5142
5142-SC
5112, 5128

41

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- TP-00608

PROJECT NO. PH-7112

SCALE OF MAP 1:20,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 FT. = 304.800 METERS)	N.A. 1927 - DATUM
Grave, 1876	Quad. 331182	N.A.	33°22'16.547"	509.8	(1338.7)
	Sta. No. 1023	1927	118°28'47.876"	1237.6	(313.4)
Slip, 1933	Quad. 331182	N.A.	33°21'23.032"	709.6	(1138.9)
	Sta. No. 1043	1927	118°29'10.934"	282.7	(1268.6)
Channel, 1933	Quad. 331182	N.A.	33°26'48.080"	1481.2	(367.3)
	Sta. No. 1010	1927	118°28'38.316"	989.6	(560.1)
Fish Hook, 1933	Quad. 331182	N.A.	33°24'04.554"	140.3	(1708.2)
	Sta. No. 1017	1927	118°29'04.773"	123.3	(1427.2)
White Bluff, 1876	Quad. 331182	N.A.	33°23'30.442"	937.2	(911.3)
	Sta. No. 1051	1927	118°28'41.942"	1083.9	(466.8)
Santa Catalina Island South Base, 1875	Quad. 331183	N.A.	33°25'58.649"	1806.9	(41.6)
	Sta. No. 1026	1927	118°30'04.703"	121.5	(1428.4)
Santa Catalina Island North Base, 1875	Quad. 331182	N.A.	33°26'20.864"	642.8	(1205.7)
	Sta. No. 1041	1927	118°29'52.181"	1347.8	(201.9)
Carlos, 1876	Quad. 331182	N.A.	33°21'20.735"	638.8	(1209.7)
	Sta. No. 1008	1927	118°28'33.467"	865.3	(686.0)
West Point 2, 1933	Quad. 331183	N.A.	33°28'20.269"	624.4	(1224.1)
	Sta. No. 1034	1927	118°35'46.851"	1209.7	(339.5)
White Rock, 1875	Quad. 331182	N.A.	33°27'04.406"	135.7	(1712.8)
	Sta. No. 1052	1927	118°29'10.363"	267.6	(1282.0)
Glo No. 1, 1933	Quad. 331182	N.A.	33°26'34.796"	1072.0	(776.5)
	Sta. No. 1021	1927	118°29'57.251"	1478.8	(70.9)
IMPUTED BY A.C. RAUCK JR.	DATE 1/8/76	CHECKED BY F.R. Gustafson	DATE 1/11/74	42	

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- TP-00608

PROJECT NO. PH-7112

SCALE OF MAP 1:20,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	DISTANCE FROM CAPD OR PROJECTION LINE IN METERS (2 PT. = 304800 METERS) FORWARD	N.A. 1927 - DATUM
Black Point, 1875	Quad. 331183 Sta. No. 1001	N.A. 1927	33°28'29.779"	917.4	(931.1)
Isle, 1933	Quad. 331183 Sta. No. 1014	N.A. 1927	118°34'42.969"	1109.5	(439.7)
Stony Point, 1874	Quad. 331183 Sta. No. 1030	N.A. 1927	33°28'32.420"	998.8	(849.7)
End 1934	Quad. 331183 Sta. No. 1008	N.A. 1927	118°34'06.903"	178.2	(1370.9)
Red Peak 2, 1933	Quad. 331183 Sta. No. 1022	N.A. 1927	33°28'22.252"	685.5	(1163.0)
Pablo, 1875	Quad. 331183 Sta. No. 1020	N.A. 1927	118°33'17.901"	462.2	(1087.0)
Cherry 2, 1933	Quad. 331183 Sta. No. 1005	N.A. 1927	33°28'39.665"	1222.0	(626.5)
Cone, 1875	Quad. 331183 Sta. No. 1006	N.A. 1927	118°36'13.298"	343.4	(1205.7)
Gull, 1934	Quad. 331183 Sta. No. 1011	N.A. 1927	33°28'13.989"	985.5	(863.0)
Horn, 1934	Quad. 331183 Sta. No. 1014	N.A. 1927	118°32'12.404"	320.3	(1228.8)
Spur, 1875	Quad. 331183 Sta. No. 1028	N.A. 1972	33°27'54.658"	1683.9	(164.6)
Harbor, 1933	Quad. 331183 Sta. No. 1012	N.A.	118°31'17.979"	464.3	(1085.0)
			33°27'10.897"	335.7	(1512.8)
			118°30'02.584"	66.7	(1482.8)
			33°25'22.460"	691.9	(1156.6)
			118°30'43.896"	1134.1	(416.0)
			33°26'56.890"	1752.7	(95.8)
			118°34'47.146"	1217.6	(332.0)
			33°25'59.771"	1841.4	(7.1)
			118°33'12.897"	333.2	(1216.7)
			33°25'51.942"	1600.2	(248.3)
			118°31'58.208"	1503.7	(46.3)
			33°25'40.510"	1248.0	(600.5)
			118°30'20.398"	527.0	(1023.0)
INPUTED BY A.C. Rauck Jr.	DATE 1/8/74	CHECKED BY F.R. Gustafson	DATE 1/11/74	(43)	

