

TP-00708

TP- 00708

NOAA FORM 76-35  
(6-80)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT

THIS MAP EDITION WILL NOT BE FIELD EDITED

Map No.

TP-00708

Edition No.

1

Job No.

CM-7604

Map Classification

CLASS III (FINAL)

Type of Survey

SHORELINE

## LOCALITY

State

CALIFORNIA

General Locality

POINT CONCEPTION TO POINT ESTERO

Locality

CHORRO CREEK

19 76 TO 19 77

REGISTERED IN ARCHIVES

DATE

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.		TYPE OF SURVEY		SURVEY TP. 00708	
DESCRIPTIVE REPORT - DATA RECORD				<input checked="" type="checkbox"/> ORIGINAL		MAP EDITION NO. (1)	
				<input type="checkbox"/> RESURVEY		MAP CLASS Class III	
				<input type="checkbox"/> REVISED		JOB Final CM-7604	
PHOTOGRAMMETRIC OFFICE				LAST PRECEDING MAP EDITION			
Coastal Mapping Division, Norfolk, VA				TYPE OF SURVEY		JOB PH.	
OFFICER-IN-CHARGE				<input type="checkbox"/> ORIGINAL		MAP CLASS	
Jeffrey G. Carlen, CDR				<input type="checkbox"/> RESURVEY		SURVEY DATES:	
				<input type="checkbox"/> REVISED		19__ TO 19__	
I. INSTRUCTIONS DATED							
1. OFFICE				2. FIELD			
Aerotriangulation June 10, 1976				Pre-marking January 12, 1976			
Compilation August 20, 1976				Tide Observations January 23, 1976			
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 type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL				OTHER (Specify)			
3. MAP PROJECTION				4. GRID(S)			
Lambert Conformal				STATE California		ZONE 5	
5. SCALE 1:5,000				STATE		ZONE	
III. HISTORY OF OFFICE OPERATIONS							
OPERATIONS				NAME		DATE	
1. AEROTRIANGULATION BY METHOD: Analytic LANDMARKS AND AIDS BY				B. Thornton		Aug 1976	
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Coradomat CHECKED BY				H. Jones		Aug 1976	
				H. Jones		Aug 1976	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY				GM		June 1977	
INSTRUMENT: Wild B-8				JLB		June 1977	
SCALE: 1:7,500				N.A.			
				N.A.			
4. MANUSCRIPT DELINEATION PLANIMETRY BY				R. R. Kravitz		Nov 1977	
				L. O. Neterer, Jr.		Dec. 1977	
METHOD:				N.A.			
				N.A.			
SCALE: 1:5,000 HYDRO SUPPORT DATA BY				R. R. Kravitz		Nov 1977	
				L. O. Neterer, Jr.		Dec 1977	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY				L. O. Neterer, Jr.		Dec 1977	
6. APPLICATION OF FIELD EDIT DATA BY				G. Morris		July 1978	
				J. Massey		July 1978	
7. COMPILATION SECTION REVIEW Class III BY				C. Blood		Sept 1984	
8. FINAL REVIEW Class III (final) BY				C. Blood/J. Byrd		Sept 1984	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY				J. Byrd		Jan. 1985	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY				J. Schad		May 1985	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY				E. DAUGHERTY		JUN 85	

TP-00708  
COMPILATION SOURCES

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) (Focal length= Wild R.C. - 10"B" 152.74 mm)		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE	<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT
<input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY					
				MERIDIAN	
		120th			
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
76B(C)2613-2616#	Mar 14, 1976	11:14	1:15,000	3.0 ft. above MLLW	
76B(I)2812-2814*	Mar 15, 1976	10:43	1:15,000	0.03 ft. below MHW	
76B(I)3199-3201**	Mar 21, 1976	10:58	1:15,000	0.03 ft. below MLLW	
				Mean tide range=3.5 ft.	

## REMARKS

#The stage of tide for 76B(C)2613 thru 2616 was determined from predicted tides for Morro Beach, Estero Bay. MHW was computed to be MLLW plus 4.5 ft.

## 2. SOURCE OF MEAN HIGH-WATER LINE:

\*The mean high water line was compiled graphically from the above listed tide coordinated infrared photographs at mean high water.

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

\*\*The mean lower low water line was compiled graphically from the above listed tide coordinated infrared photographs at mean lower low water.

## 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	No survey	TP-00707 TP-00709

## REMARKS

# HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION

☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Melby	Mar 1976
2. HORIZONTAL CONTROL	RECOVERED BY R. Melby ESTABLISHED BY None PRE-MARKED OR IDENTIFIED BY L. Riggers	Mar 1976
3. VERTICAL CONTROL	RECOVERED BY N.A. ESTABLISHED BY N.A. PRE-MARKED OR IDENTIFIED BY N.A.	
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 None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY N.A.	

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
76B(C) 2267	BLACK HILL, 1881		

### 3. PHOTO NUMBERS (Clarification of details)

None

### 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

None

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

2 Form 277 (Tides book)--covers entire project  
1 Form 152

TP-00708  
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	November 1977	Class III manuscript	None	None
Field edit applied.	July 1978	(Canceled) Class I manuscript	July 1978 Chart Main.	None
Final Review Class III	September 1984	Final Class III Map	May 1985	

## II. LANDMARKS AND AIDS TO NAVIGATION

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

PAGES NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1		7/18/78	1 Landmark to be deleted.

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

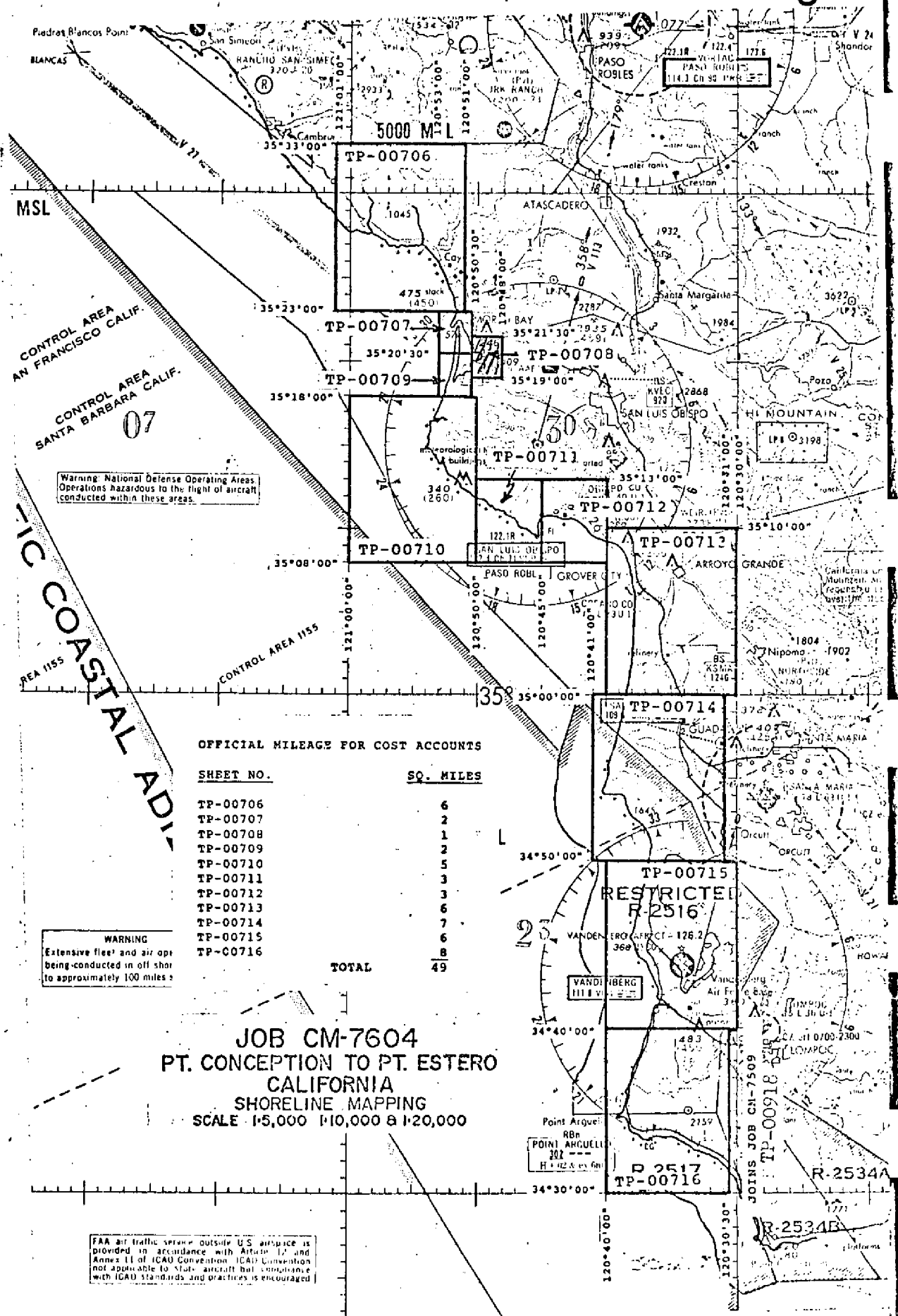
1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.  
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS 567 SUBMITTED BY FIELD PARTIES.  
3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.  
ACCOUNT FOR EXCEPTIONS:

Field edit mylar ozalid were lost.

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



6

SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT

TP-00708

This 1:5,000 scale Class III shoreline manuscript is one of eleven maps designated as CM-7604, Point Conception to Point Estero, California.

The purpose of this project is to provide current charting information for nautical chart maintenance and to furnish support data for hydrographic operations.

This final Class III map portrays the west limits of Morro Bay and includes streams entering into the west side of the Bay and a marina at White Point. Except for channels, Morro Bay is a mud flat at low tide.

Field work prior to compilation consisted of the recovery and identification of the horizontal control necessary for the aerotriangulation of the project and establishing and monitoring tide gages while the photography was being taken for the tide coordinated infrared photographs. This activity was completed March 1976.

Photo coverage was adequately provided by natural color and tide coordinated infrared photographs. All photographs were taken with the RC-10 (B) camera, March 1976 at 1:15,000 scale. The black-and-white infrared photos were ratioed to the manuscript scale. They were used for graphic delineation of all detail and includes the MLLW and MHW lines.

Analytic aerotriangulation was adequately provided by the Washington Science Center in August 1976. Aerotriangulation operations included ruling the base manuscripts, determining ratio values for photographs and locating visible non-floating navigation aids and landmarks.

Compilation, based upon photo interpretation, was performed by the Coastal Mapping Unit at the Atlantic Marine Center December 1977. Compilation included the use of MHW and MLLW tide coordinated infrared photographs ratioed to the manuscript scale. Refer to the Compilation Report, Item #31 and NOS Form 76-36B for specific usage of the photography.

Project material was forwarded from AMC to PMC for field edit. Field edit was performed at PMC in conjunction with Hydrographic Survey OPR L-100-FA-78. The field edit material was lost and could not be verified at AMC during final review. The map was classified as a Class I map at PMC, but was reclassified as a Class III at AMC final review inspection.

Final review was performed at the Atlantic Marine Center August 1984. A Chart Maintenance Print was prepared and forwarded to the Marine Charts Branch.

TP-00708

This Descriptive Report contains all pertinent information used to compile this Final Class III map. The original base manuscript and all related data were forwarded to the Washington Science Center for final registration.



FIELD INSPECTION  
TP-00708

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification (premarking) of the horizontal control necessary for the aerotriangulation of the project and the monitoring of tide gages for the tide coordinated infrared photography.

Photogrammetric Plot Report  
Pt. Conception to Pt. Estero, California  
CM-7604  
August 1976

Area Covered

The area covered by this report is the southwest coast of California from Pt. Conception to Pt. Estero. This area is covered by six 1:20,000 scale sheets:

TP-00706  
TP-00710  
TP-00713 thru TP-00716

Two 1:10,000 scale sheets:

TP-00711  
TP-00712

Three 1:5,000 scale sheets:

TP-00707 thru TP-00709

Method

Four strips of color photography were bridged by analytic aerotriangulation methods. Three bridging strips were at a 1:60,000 scale and one strip at 1:30,000 scale photography.

The four strips were controlled by field identified control including some office identified control which was used as checks.

Common points were located on the bridging photography and the tide-controlled IR for ratio purposes. Ratios were ordered on August 11, 1976. In addition, common points were located on the bridging and compilation photography. The points read on the bridging strips are more than adequate for compilation purposes. Tie points were used in all four strips to insure an adequate junction of all strips during the adjustments. Sheets were ruled on the coradomat.

Adequacy of Control

Control checked well within map accuracy standards and is more than sufficient for its intended use at the varying manuscript scales.

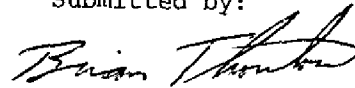
Supplemental Data

USGS quadrangles were used to provide vertical control for the strip adjustments.

Photography

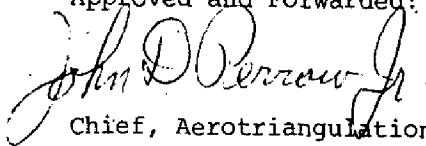
The coverage, overlap, and quality of the photography was adequate for the job.

Submitted by:

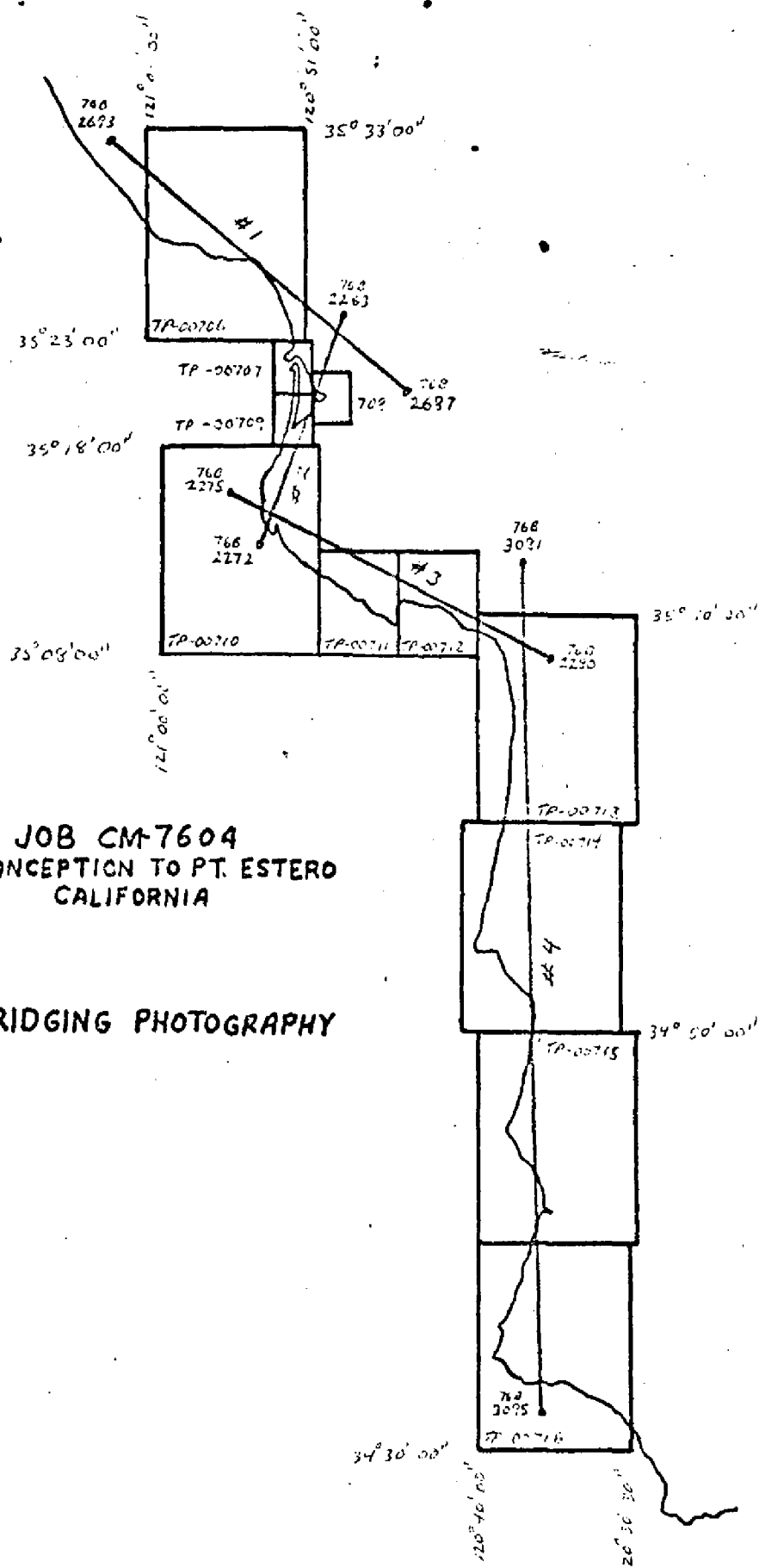


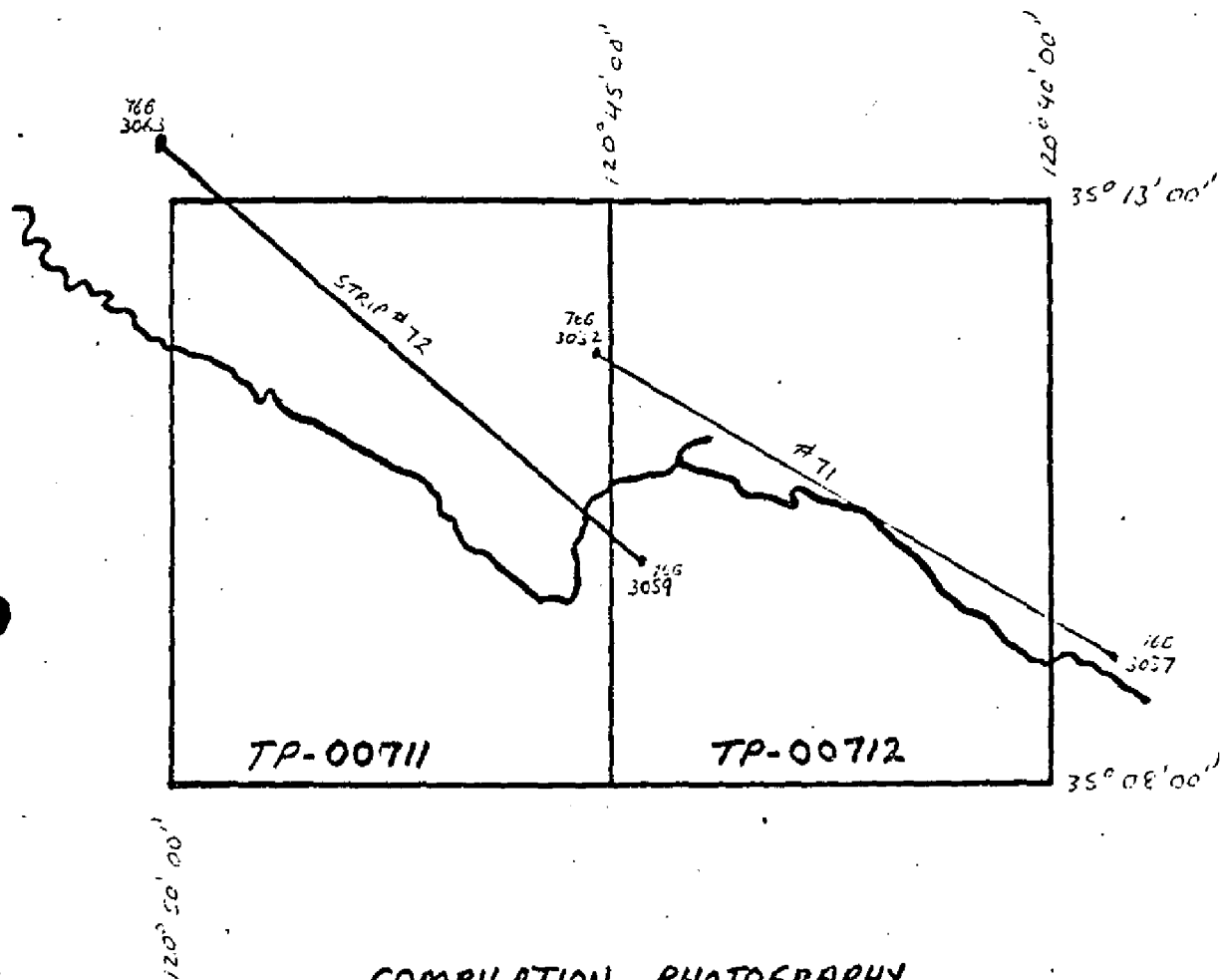
Brian F. Thornton

Approved and Forwarded:

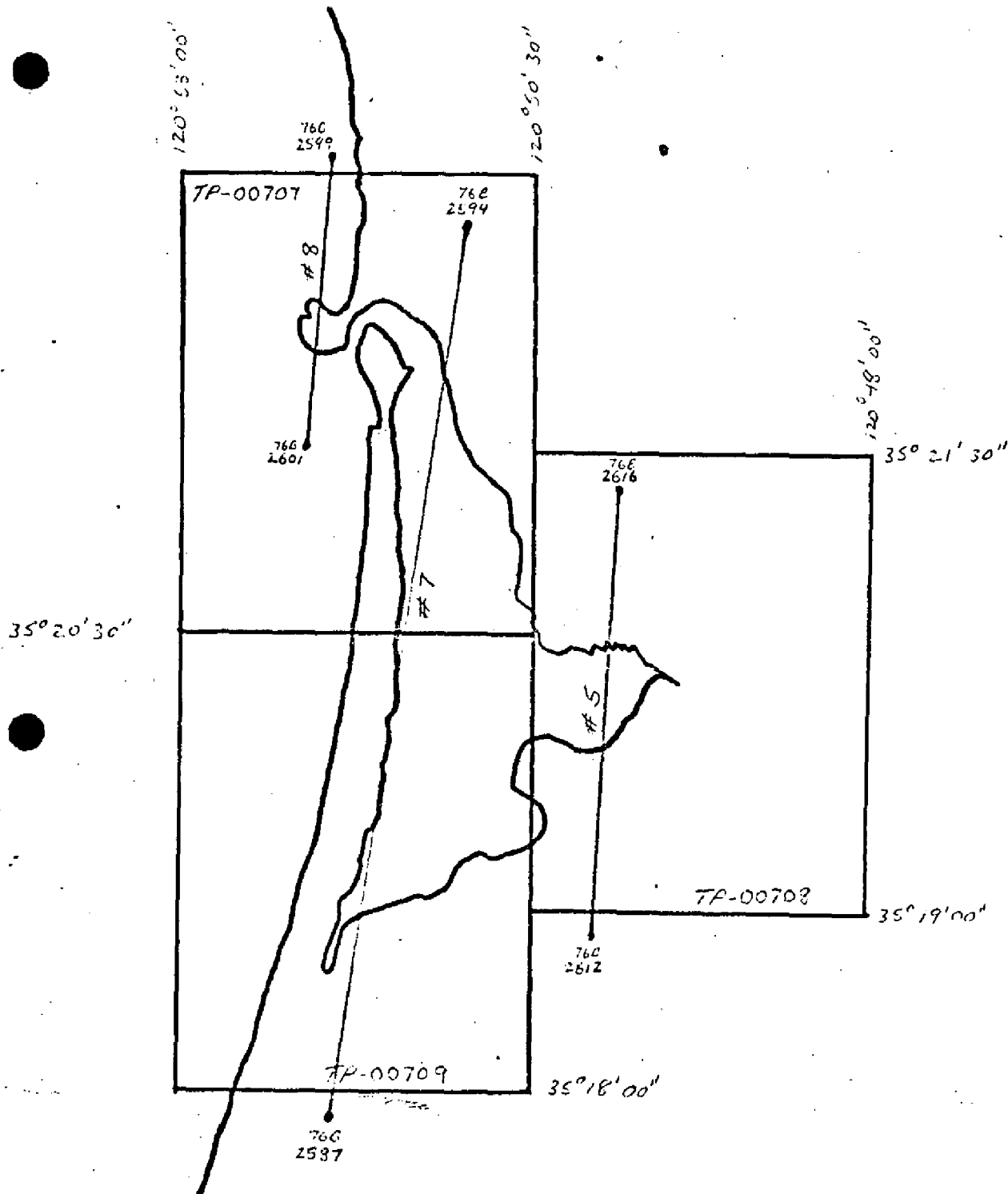


Chief, Aerotriangulation Section





COMPILATION PHOTOGRAPHY  
for  
1:10,000 SHEETS



COMPILATION PHOTOGRAPHY  
FOR  
1:5,000 SHEETS

# Accuracy of Control Used In Strip Adjustment

		X	Y
STRIP #1	267100	-1.4	1.3
	263100	-0.7	2.3
	689100	-1.2	0.3
	691100	0.6	-0.1
	692100	-0.1	0.2

STRIP #2	263100	0.1	-0.1
	267100	-0.2	0.7
	268101	-0.3	-0.6
	269100	0.6	-0.1
	275100	-0.2	0.1

STRIP #3	275100	0.1	0.7
	276100	0.1	-1.5
	278100	-0.0	0.8
	81100	0.4	0.0

STRIP #4 STRIP #4 WAS SENT WITH JOB CM-7509

PT. CONCEPTION TO PT. HUENEME

COMPILATION REPORT

TP-00708

31 - DELINEATION

Delineation was accomplished using stereo instrument and graphic compilation methods. Instrument compilation was used to delineate shoreline, scale bridging/compilation color photographs. Tide coordinated MHW infrared photographs were used to graphically compile the mean high water line. Tide coordinated MLLW infrared ratio photographs were used to graphically compile the approximate mean lower low water line. Control for graphic delineation was provided by the instrument compilation of shoreline detail and common image points.

32 - CONTROL

Horizontal control was adequate. Refer to the Photogrammetric Plot Report dated August 1976.

33 - SUPPLEMENTAL DATA

None.

34 - CONTOURS AND DRAINAGE

Contours are not applicable to the project. Drainage was compiled by office interpretation of the photographs.

35 - SHORELINE AND ALONGSHORE DETAILS

The shoreline and alongshore detail compilation is described in item #31. All detail is compiled as of date of photography.

36 - OFFSHORE DETAILS

NONE.

37 - LANDMARKS AND AIDS

There are no landmarks or non-floating aids within the limits of this manuscript.

38 - CONTROL FOR FUTURE SURVEYS

None.



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39 - JUNCTIONS

Refer to the Data Record Form 76-36B, Item #5.

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to Item #32 of this report.

46 - COMPARISON WITH EXISTING MAPS

The following U.S. Geological Survey Quadrangle was compared with the manuscript: Cayucos, CA, scale 1:62,500, dated 1951.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison has been made with the following NOS Charts: 18700, scale 1:216,116, dated July 3, 1976, 11th edition; and 18703, scale 1:40,000 with 1:10,000 inset, dated December 27, 1975, 12th edition.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

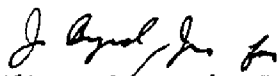
None.

Submitted by,



Robert R. Kravitz  
Cartographic Technician  
November 1977

Approved,



Albert C. Rauck, Jr.  
Chief, Coastal Mapping Section

April 27, 1984

## GEOGRAPHIC NAMES

## FINAL NAME SHEET

CM-7604 (Point Conception to Point Estero, California)

TP-00708

Baywood Park (locality)

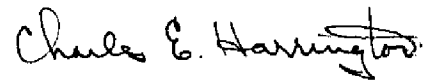
Chorro Creek

Los Osos Creek

Morro Bay

Morro Bay (locality)

Approved by:

Charles E. Harrington  
Chief Geographer  
Nautical Charting Division

REVIEW REPORT  
TP-00708  
SHORELINE

61 - GENERAL STATEMENT

See Summary included with this Descriptive Report.

62 - COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Not applicable.

63 - COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with the following U.S.G.S. quadrangle: Cayucos, CA, scale 1:62,500, dated 1951.

64 - COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Hydrographic Survey H-9737, January-February 1978, 1:5,000 scale was used for comparison. This map compares well.

65 - COMPARISON WITH NAUTICAL CHARTS

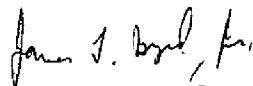
A comparison was made with the following NOS Charts: 18703, scale 1:40,000 with 1:10,000 inset, dated June 11, 1983, 18th edition; and 18700, scale 1:216,116, dated November 8, 1980, 13th edition.

A final Class III Chart Maintenance Print indicating all changes was prepared and forwarded to Marine Charts Branch.

66 - ADEQUACY OF RESULTS AND FUTURE SURVEYS

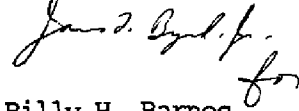
This map complies with the Project Instructions and meets the requirements for National Standards of Map Accuracy.

Submitted by,

  
James L. Byrd, Jr.  
Final Reviewer

TP-00708

Approved for forwarding,



Billy H. Barnes  
Chief, Photogrammetric Section, AMC

Approved,



Chief, Photogrammetric Section,  
Rockville



Chief, Photogrammetry Branch,  
Rockville

