

TP-00534

TP-00534

NOAA FORM 76-35 (3-76) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
<h1>DESCRIPTIVE REPORT</h1>	
<i>Map No.</i> TP-00534	<i>Edition No.</i> 1
<i>Job No.</i> CM-7704	
<i>Map Classification</i> FINAL, FIELD EDITED MAP	
<i>Type of Survey</i> SHORELINE	
LOCALITY	
<i>State</i> California	
<i>General Locality</i> San Francisco and San Pablo Bays	
<i>Locality</i> Coyote Point	
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 1977 TO 1980 </div>	
REGISTRY IN ARCHIVES	
DATE	

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED		SURVEY TP. 00534 MAP EDITION NO. (1) MAP CLASS Final JOB SMCM -7704	
DESCRIPTIVE REPORT - DATA RECORD				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__	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division, Norfolk, VA				OFFICER-IN-CHARGE Roy K. Matsushige, CDR, NOAA			
I. INSTRUCTIONS DATED							
1. OFFICE				2. FIELD			
Aerotriangulation April 13, 1977 Compilation August 3, 1977 Amendment 1 April 20, 1978 Amendment 2 April 6, 1979 Amendment 3 July 30, 1979 Compilation July 2, 1981				Control - Premarking February 7, 1977			
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 Lambert Conformal				4. GRID(S) STATE California ZONE 3			
5. SCALE 1:20,000				STATE ZONE			
III. HISTORY OF OFFICE OPERATIONS							
OPERATIONS				NAME		DATE	
1. AEROTRIANGULATION BY R. Kelly						July 1977	
METHOD: Analytic LANDMARKS AND AIDS BY							
2. CONTROL AND BRIDGE POINTS PLOTTED BY S. Solbeck						July 1977	
METHOD: Coradomat CHECKED BY S. Solbeck						July 1977	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY J. Roderick						Oct. 1978	
COMPILATION CHECKED BY D. Butler, R. Kravitz, F. Mauldin						Oct. 1978	
INSTRUMENT: Wild B-8							
SCALE: 1:25,000							
4. MANUSCRIPT DELINEATION PLANIMETRY BY J. Roderick						Oct. 1978	
METHOD: Graphically smooth drafted CHECKED BY F. Margiotta						Dec. 1978	
SCALE: 1:20,000							
HYDRO SUPPORT DATA BY J. Roderick						Oct. 1978	
CHECKED BY F. Margiotta						Dec. 1978	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY F. Margiotta						Dec. 1978	
6. APPLICATION OF FIELD EDIT DATA BY G. A. Morris						Feb. 1981	
CHECKED BY J. Hancock						April 1982	
7. COMPILATION SECTION REVIEW BY J. Hancock						April 1982	
8. FINAL REVIEW BY J. Hancock						April 1982	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY J. Hancock						April 1982	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY R. Kelly						July 1982	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY H. D. WOOD						MAR 10 1983	

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYTP-00534
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild R. C. 10 "B" (B = 152.74 mm)		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES <input checked="" type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY *		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE Pacific	<input checked="" type="checkbox"/> STANDARD
				MERIDIAN 120th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
77B(P)2619-2621	Mar. 4, 1977	13:36	1:50,000	Not computed	
77B(P)2673-2676	Mar. 4, 1977	14:32	1:50,000	Not computed	
77B(P)3759-3764**	Mar. 18, 1977	14:39	1:30,000	Not computed	
77B(P)3748-3751**	Mar. 18, 1977	14:23	1:30,000	Not computed	
77B(I)3274-3282 alternate*	Mar. 11, 1977	12:14	1:40,000	0.27 ft. below MLLW	
77B(I)3939-3943	Mar. 29, 1977	14:39	1:40,000	0.03 ft. above MLLW	
77B(I)2897, 2899, 2901*	Mar. 5, 1977	12:18	1:40,000	0.09 ft. above MHW	
77B(I)2958-2966 alternate	Mar. 5, 1977	12:54	1:40,000	0.13 ft. below MHW	

REMARKS Photographs 77B(P)2619-2621 and 2673-2676 were used for stereoscopic instrument compilation of the interior detail and the selection of pass points common to the hydro support and tide controlled infrared photography. **Hydro support photography

2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high-water line was compiled specifically from the above listed tide

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(3-72)U. S. DEPARTMENT OF COMMERCE
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HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION (Premarking) ☐ FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Melby	Feb. 1977
2. HORIZONTAL CONTROL	RECOVERED BY R. Melby	Feb. 1977
	ESTABLISHED BY R. Melby	Feb. 1977
	PRE-MARKED OR IDENTIFIED BY R. Melby	Feb. 1977
3. VERTICAL CONTROL	RECOVERED BY None	
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY R. Melby	Feb. 1977
	LOCATED (Field Methods) BY R. Melby	Feb. 1977
	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

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
77B(P)2676	Point San Bruno, 1925 (Sub Pt.)		
77B(P)2673	Guano Island, 1851 (Sub Pt.)		

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 ☒ NONE6. 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-forms 76-53, 1 field report, 1 form 77-53(BK)

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

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HISTORY OF FIELD OPERATIONS

- I. ☐ FIELD INSPECTION OPERATION ☒ FIELD EDIT OPERATION. (Original field edit, see item #8)

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	D. Taylor LCDR, NOAA	Oct. 1980
2. HORIZONTAL CONTROL	RECOVERED BY F. Rosario	Oct. 1980
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
3. VERTICAL CONTROL	RECOVERED BY None	
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY F. Rosario	Oct. 1980
	LOCATED (Field Methods) BY F. Rosario	Oct. 1980
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY BY <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

None

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

77B(P)3750,3751,3759-3764 (ratio photos, 1:20,000 scale)

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

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(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

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HISTORY OF FIELD OPERATIONS.

- I. ☐ FIELD INSPECTION OPERATION ☒ FIELD EDIT OPERATION. (Supplemental field edit, see item #8)

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	D. Taylor, LCDR, NOAA	Jan. 1982
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None
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	None
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	N.A.

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED
None2. VERTICAL CONTROL IDENTIFIED
None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

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 ☒ NONE6. 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)

1 "Addendum to Field Edit Report" (clarification remarks responsive to the original field edit).

NOTE: This is additional field edit information as requested by PMC concerning discrepancies associated with the original field edit.

NOAA FORM 76-36D
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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RECORD OF SURVEY USE

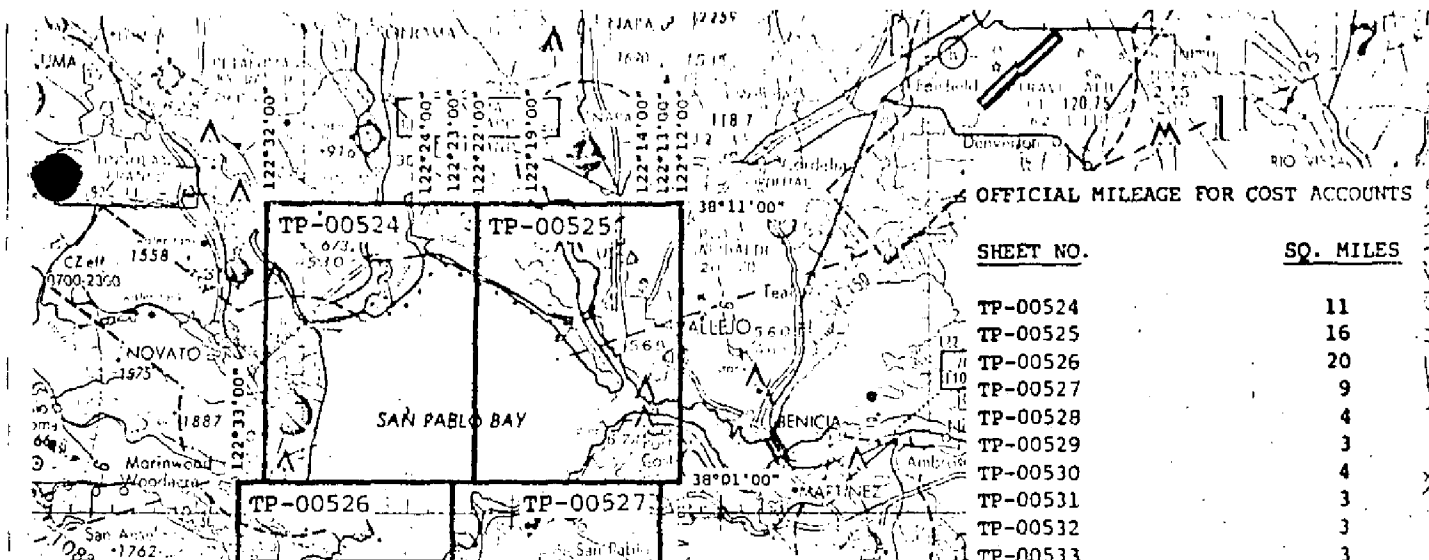
I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete pending field edit.	Oct. 1978	Class III manuscript	Feb. 1979	Feb. 1979
Partial field edit applied.	March, 1981	*Class III manuscript	None	March 1981
Final reviewed; supplemental field edit applied and reviewed.	April 1982	Final Map	April 1982	April 1982
*Manuscript was never advanced to a Class I Map prior to final review. See Review Report, item #61 for remarks.				

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
Pages 7			Appropriate forms (76-40) are attached with this Descriptive Report; no forms were forwarded prior to final review.



OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET NO.

SQ. MILES

TP-00524	11
TP-00525	16
TP-00526	20
TP-00527	9
TP-00528	4
TP-00529	3
TP-00530	4
TP-00531	3
TP-00532	3
TP-00533	3

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-00534

This 1:20,000 scale final shoreline map is one of fifteen maps, TP-00524 thru TP-00538 that comprise project CM-7704, San Francisco and San Pablo Bays, California. This project consists of eight 1:20,000 maps, six 1:10,000 maps featuring San Francisco Bay entrance and one 1:10,000 inset map of the Redwood Creek area.

The initial purpose of this project was to provide data in support of hydrographic operations beginning in the Fall of 1978. However, due to rapid cultural coast development, field activity has been temporarily delayed. Photogrammetry memo/instruction dated July 2, 1981, has reassigned this project, in its present stage, for final review and registration. Registration will include 10 Final Maps and 5 Final Class III Maps. Immediately afterwards, a Revision Survey using 1981 photography is scheduled to facilitate hydrography that has not been accomplished and to provide Nautical Charts with current shoreline information.

This shoreline map corresponds geographically with portions of hydrographic surveys H-9819 (1981) and H-9952 (1981). At the time of final review, processing of these surveys had been deferred pending receipt of the final shoreline maps. A copy of this final map was forwarded to the Hydrographic Surveys Division.

This final map is a 1:20,000 scale shoreline map that portrays the western coast of the southern part of San Francisco Bay from Candlestick Point to Little Coyote Point.

Field work prior to compilation was accomplished in March 1977; this involved the establishment of horizontal control in order to meet aerotriangulation requirements. During this period, ground support was provided for obtaining tide-coordinated photography and several of the project's navigational aids and landmarks for Charts were field determined.

Photo coverage was provided in March 1977 for aerotriangulation and compilation using panchromatic film with the "B" camera at 1:50,000 and 1:30,000 scales. Hydro support photography was taken using panchromatic film with the "B" camera at 1:30,000 scale. Tide coordinated black and white infrared photography at MHW and MLLW was supplied using the "B" camera at 1:40,000 and 1:30,000 scales. At the time of final review, the 1981 revision survey photography, at 1:40,000 scale, became available and was used to evaluate the existing maps.

Analytic aerotriangulation was adequately provided by the Washington Science Center in July 1977.

Compilation was performed at the Atlantic Marine Center in December 1978. The Class III manuscript was forwarded to the Pacific Marine Center for the combined field edit and hydrographic operations.

TP-00534

Field edit was performed in conjunction with hydrographic survey H-9819 in October 1980 by personnel assigned to the Pacific Hydrographic Party. Because of the combined operations, several navigational aids and various offshore features are referenced to hydrographic field data. Consequently, source data for these items were submitted with the hydrographic surveys.

Application of field edit was performed at the Pacific Marine Center in March 1981. However, additional field edit was requested and the map was forwarded to the Atlantic Marine Center for final review as a partial field edited Class III map.

Additional field edit data, submitted as clarification remarks to the original field edit, was forwarded to final review in February 1982.

Final review was performed at the Atlantic Marine Center in April 1982. The additional field edit data was applied and reviewed in accordance with the original field edit. Based on the review results, this map was advanced from a Class III classification to a final map.

A final Chart Maintenance Print was prepared during final review and forwarded to the Marine Charts Division. This information will supersede the previous Class III maintenance print submitted in February 1979.

A copy of this final map was forwarded to the Hydrographic Surveys Division as a "Hydrographic Maintenance Print". This print will indicate all revisions and additions made to the previous Class III map (partial field edit applied). Accompanying this map copy will be a complete set of 76-40 forms for the landmarks and nonfloating aids to navigation.

This Descriptive Report contains all pertinent information used to compile this final map except for the field records used to establish horizontal control and locate the nonfloating aids to navigation. The horizontal control data was previously forwarded to the National Geodetic Survey and the navigational aids records were submitted with contemporary hydrographic survey H-9819. Listings of these features are attached with this report on NOAA forms 76-40 and 76-41.

The original base manuscript and all pertinent data was forwarded to the Washington Science Center for final registration and preparation for the 1981 Revision Survey.

FIELD INSPECTION

TP-00534

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



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

April 4, 1977

CPM17/RBM

TO: C3415 Coastal Mapping

FROM: *Robt. B. Melby* 4/5/77
Robert B. Melby
Chief, PMC Photo Party

SUBJECT: Field Operations Project CM-7704, San Francisco and San Pablo Bays, California

Horizontal Control:

Twenty-five horizontal control stations were paneled for aerial photography as indicated on the project diagram that was furnished to the photo-field party. A majority of the stations were paneled by the sub. pt. method as the stations did not lend themselves to being paneled direct. Distances up to about 2 miles were determined to the sub. points (panels), utilizing a Ranger III, laser distance measuring instrument. It was rapid, accurate and unaffected by electronic disturbances, normal to a high population and/or industrial area like the project encompassed.

Vandalism was a problem, in regard to panels, as several were disturbed and required relaying or substituting with photo identifiable points.

Several aids to navigation and landmarks for charts were located by third-order tirangulation intersection methods. The aids to navigation (lights) marking the channel through San Bruno shoal would have been difficult to positively photo-identify.

All photo-panels were removed after photography to verify their being in place at the required time and to maintain a "cleanup" policy. All panels were in place by March 1, 1977.

Tide Controlled Photography:

The South San Francisco Bay shoreline was photography and controlled by nine, preselected tide stations. With the aid of the Pacific Tide Party, California Boundary Project, all nine stations were manned at the same time. A coordination point was selected in the southeast section of the City of Oakland that was capable of direct F.M. radio communications with all the stations and the photo-mission aircraft.



C3415 Coastal Mapping
April 4, 1977
Page 2

The coordinator would transmit time checks and receive tide staff readings of involved stations and filter and transmit to the aircraft the flight lines that were within the required tide ranges and maintain a summary of staff readings.

Because of the elevation of the coordination site a Motorola Walkie-Talkie was sufficient to maintain communications to all sites and the



PHOTOGRAMMETRIC PLOT REPORT
SAN FRANCISCO & SAN PABLO BAYS
CALIFORNIA

Job CM-7704

July 22, 1977

21. Area Covered

This report covers eight 1:20,000 sheets, TP-00524, TP-00525, TP-00526, TP-00527, TP-00534, TP-00535, TP-00537, TP-00538, and seven 1:10,000 sheets TP-00528, TP-00529, TP-00530, TP-00531, TP-00532, TP-00533, and TP-00536 of San Francisco Bay and San Pablo Bay, California

22. Method

Seven strips of 1:50,000 scale panchromatic photography, taken with the "B" camera were bridged by analytic aero-triangulation methods and adjusted to ground on the California Zone 3. Common pass points were positioned between the 1:50,000 scale and 1:30,000 scale panchromatic photography, also taken with the "B" camera to provide horizontal control for compilation of the 1:10,000 and 1:20,000 scale maps.

Tide-coordinated supplemental photography, 1:30,000 and 1:40,000 scale MHW and MLLW were tied to the 1:50,000 scale bridging photography for shoreline compilation of 1:10,000 and 1:20,000 scale maps by means of positioning common points for ratio prints.

The 1:30,000 scale hydro support photography was also tied to 1:50,000 scale bridging photography by common points to determine the exact ratios. Tie points were used to augment datum between bridging strips. After running a strip adjustment on strip 5, it was found, for no apparent reason, that the control and tie points did not fit. This was resolved by running a block adjustment. Ruling of manuscripts and plotting of points was done on the Coradomat. A list was forwarded with this job, CM-7704, to AMC for selection of ratios to be ordered.

23. Adequacy of Control

The horizontal control provided was adequate except for Bench Mark H - 111, 1932 paneled substation, which did not hold in strips 5 and 7. The home station was plotted on a USGS quadrangle and did not fall in the area given in the description. All other control held within the accuracy required by National Standards of Maps at 1:10,000 and 1:20,000 scale.

24. Supplemental Data

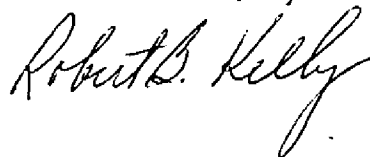
Local shoreline and USGS quadrangles were used to provide elevations for vertical adjustments of bridges.

25. Photography

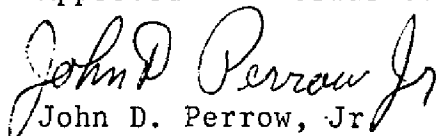
The photography was adequate as to placement of flight lines consistent quality, definition and absence of haze.

Submitted by:

Robert B. Kelly



Approved and Forwarded:



John D. Perrow, Jr
Chief, Aerotriangulation Section

KEY TO NUMBERED CONTROL
STATIONS USED IN ADJUSTMENT
AND CLOSURES

1 LAKEVILLE, SQUARE TANK ON HILL, 1951	TANK(1.04, -3.77)
	PANEL(-.25, .23)
2 BUG (SLC), 1951	COULD NOT SEE
3 SLAUGHTERHOUSE PT. 3, 1921	(-2.22, .52)
4 MARE ISLAND SOUTHEAST=, 1952	(3.02, -.23)
5 PINOLE HERCULES POWDER CO., TANK, 1947	(.38, -.17)
6 WILSON, 1852	(.08, -.10)
7 POINT PINOLE ATLAS DOCK, SHED E. GABLE, 1950	COULD NOT SEE
8 SAN PABLO RIDGE, 1897	(2.14, -1.21)
9 GROVE POINT 2, 1887	(-.65, .49)
10 PETALUMA CREEK, 1851	(1.70, -.24)
11 RICHARD, 1932	(-2.08, .91)
12 ALAMRDA N.A.S. E. BREAKWATER N. LT. 1953	(.00, .00)
13 CROSSING, 1955 (S.P. 1)	(-.09, -.42)
14 T I C9, 1947	(.00, .00)
15 CLARK, 1948	(.45, .74)
16 BARRY, 1932	(-3.36, -.98)
17 SAN BRUNO MTN. (RADIO STA. KNBC MAST), 1899	(.03, .49)
18 POINT SAN BRUNO, 1925	(.04, -.19)
19 GUANO ISLAND, 1851	(3.33, -1.50)
20 DUM, 1930	(-1.31, 1.01)
21 RED HILL, 1851	(-.05, .01)
22 SAN, 1947	(.27, .20)
23 BENCH MARK H 111, 1932	DID NOT FIT ADJUSTMENT
24 COFFIN 2, 1974	(.07, -.02)
25 BALDOPRAK (EBMUD), 1946	(-.15, .02)
26 BUCK, 1949	(-1.04, -.52)
27 MANZANITA (CADH), 1972	(-1.01, -1.09)

HIGH & LOW WATER INFRARED PHOTOGRAPHY

1:40,000

MLLW

MHW

18

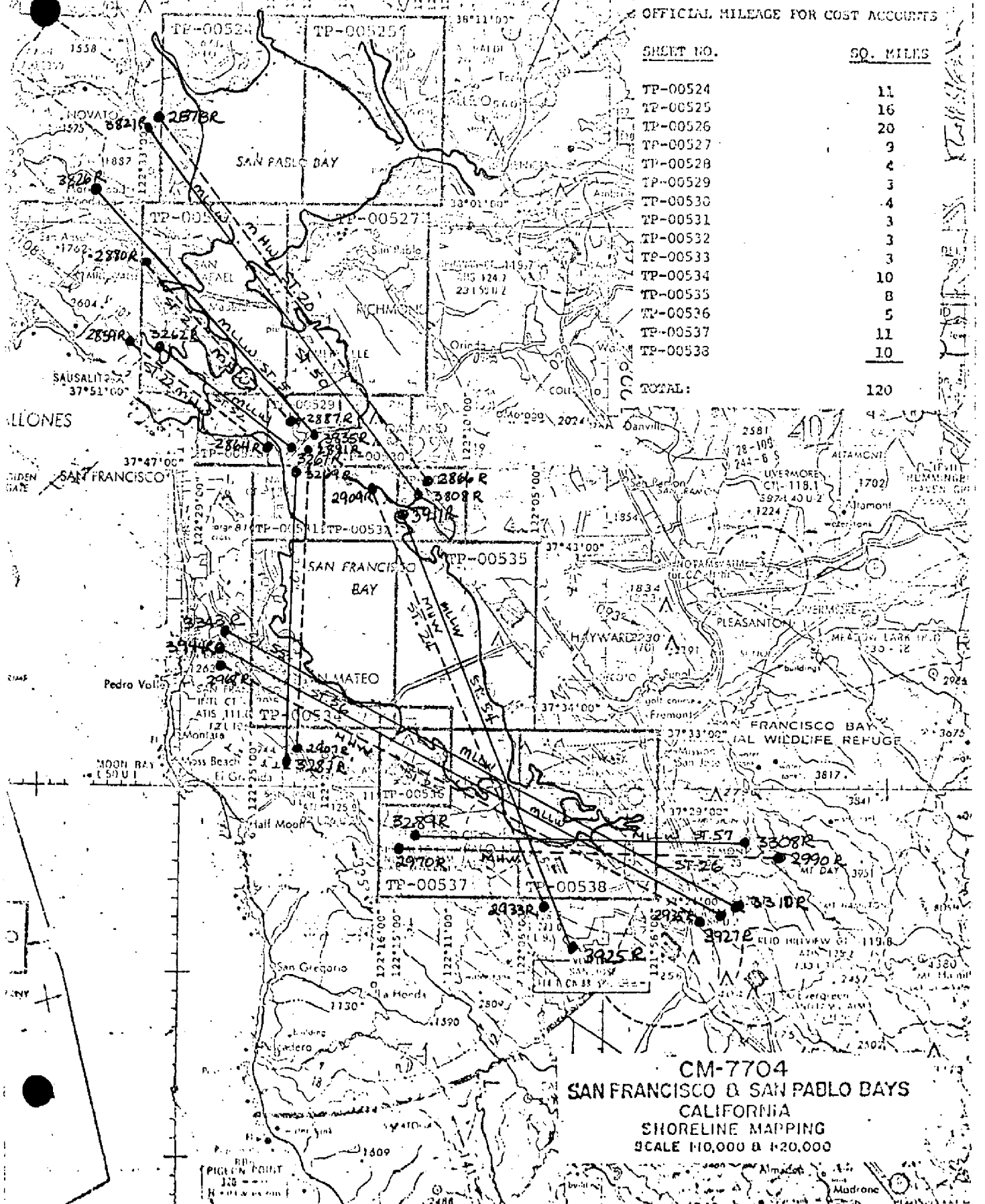
OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET NO.

SQ. MILES

TP-00524	11
TP-00525	16
TP-00526	20
TP-00527	9
TP-00528	4
TP-00529	3
TP-00530	4
TP-00531	3
TP-00532	3
TP-00533	3
TP-00534	10
TP-00535	8
TP-00536	5
TP-00537	11
TP-00538	10

TOTAL: 120



CM-7704
SAN FRANCISCO & SAN PABLO BAYS
CALIFORNIA
SHORELINE MAPPING
SCALE 1:40,000 & 1:20,000

HIGH & LOW WATER INFRARED PHOTOGRAPHY

1:30,000 MLLW
MHW
MLW

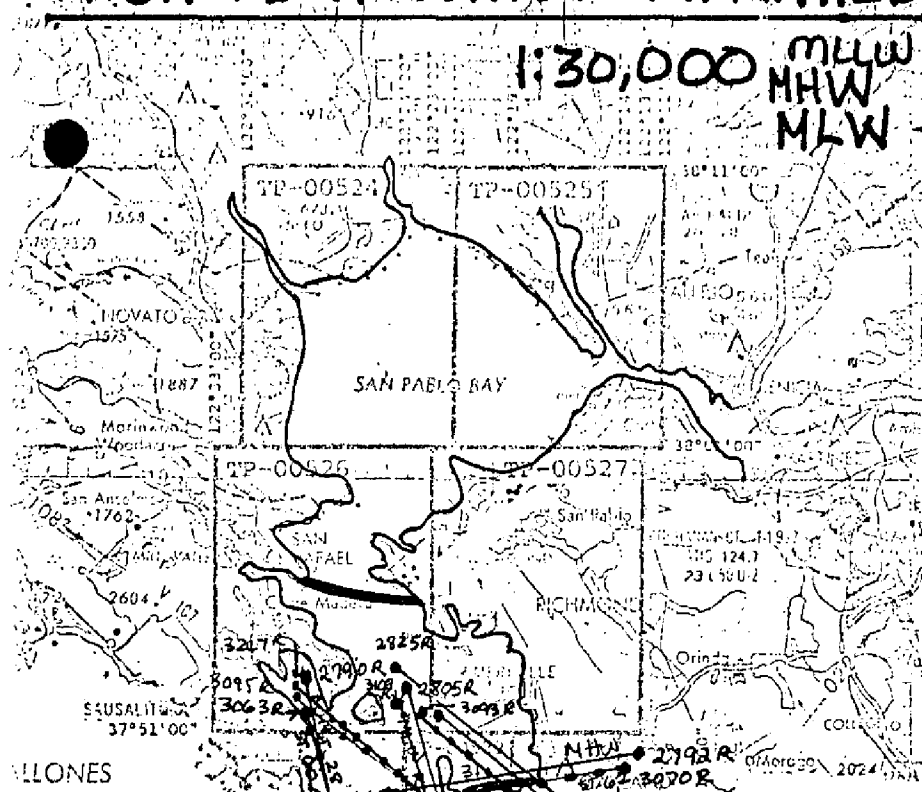
19

OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET NO.

SO. MILES

TP-00524	11
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TP-00528	4
TP-00529	3
TP-00530	4
TP-00531	3
TP-00532	3
TP-00533	3
TP-00534	10
TP-00535	8
TP-00536	5
TP-00537	11
TP-00538	10
TOTAL:	120



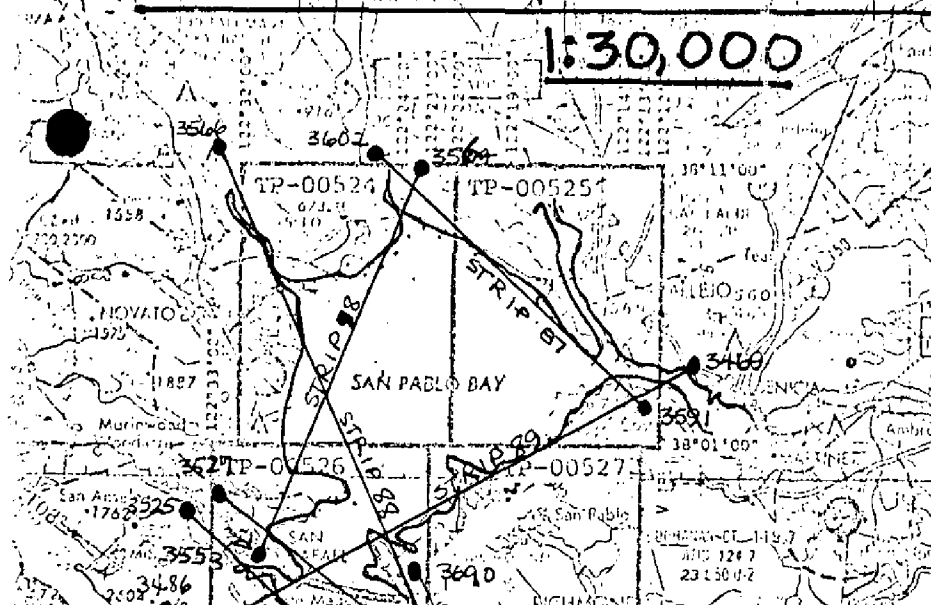
ALLONES

2581 407

HYDRO-SUPPORT PHOTOGRAPHY

1:30,000

20



OFFICIAL MILEAGE FOR COST ACCOUNTS

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TP-00524	11
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TP-00530	4
TP-00531	3
TP-00532	3
TP-00533	3
TP-00534	10
TP-00535	8

COMPILATION PHOTOGRAPHY

21

1:30,000

OFFICIAL MILEAGE FOR COST ACCOUNTS

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SQ. MILES

TP-00524	11
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TP-00530	4
TP-00531	3
TP-00532	3
TP-00533	3
TP-00534	10
TP-00535	8
TP-00536	5
TP-00537	11
TP-00538	10

TOTAL: 120

CM-7704
SAN FRANCISCO & SAN PABLO BAYS
CALIFORNIA
SHORELINE MAPPING
SCALE 1:10,000 & 1:20,000

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8.7)

1.4)

6.4)

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODEIC DATUM		ORIGINATING ACTIVITY		Departures REMARKS Front - Back
					COORDINATES IN FEET STATE California ZONE 3	N.A. 1927	φ LATITUDE λ LONGITUDE	PMC Photogrammetric Br. CPM33	
TP-00534		CM-7704			x= 1,489,453.77		φ 37/34/22.546		695.1 (1154.7)
	GUANO ISLAND, 1851	371221		673100	y= 395,459.75		λ 122/15/42.240		1,036.5 (435.8)
	GUANO ISLAND SUB PT	COMP		673101	x= 1,489,537.69		φ 37/34/21.787		671.7 (1178.1)
					y= 395,381.41		λ 122/15/41.180		1010.5 (461.8)
	HILLSIDE, (T), 1938	371221		289	x= 1,452,356.30		φ 37/34/39.036		1203.5 (646.3)
					y= 397,851.71		λ 122/23/23.561		578.1 (894.1)
	KYA-RADIO TOWER, 1937	371221			x= 1,452,192.39		φ 37/42/58.177		1793.6 (56.2)
					y= 448,348.72		λ 122/23/38.291		937.8 (531.7)
	POINT SAN BRUNO, 1925	371221		288	x= 1,454,662.21		φ 37/39/12.095		372.9 (1476.9)
					y= 425,428.03		λ 122/23/01.817		44.5 (1426.2)
	POINT SAN BRUNO SUB PT.	COMP		676101	x= 1,453,536.91		φ 37/38/19.149		590.4 (1259.4)
					y= 420,094.65		λ 122/23/14.470		354.8 (1116.3)
	POINT SAN MATEO, 1925	371221		288	x= 1,473,182.17		φ 37/35/28.848		889.4 (960.4)
					y= 402,478.01		λ 122/19/06.017		147.6 (1324.4)
	SAN BRUNO MOUNTAIN EAST TRANSMISSION TOWER, 1932	371221			x= 1,448,251.08		φ 37/40/30.590		943.1 (906.7)
					y= 433,498.55		λ 122/24/23.568		577.6 (892.8)
	SAN BRUNO MOUNTAIN MIDDLE TRANSMISSION TOWER, 1932	371221		279	x= 1,448,176.41		φ 37/40/30.508		940.6 (909.2)
					y= 433,491.78		λ 122/24/24.495		600.3 (870.1)
	SAN BRUNO MOUNTAIN WEST TRANSMISSION TOWER, 1932	371221			x= 1,448,119.94		φ 37/40/30.451		938.8 (911.0)
					y= 433,487.16		λ 122/24/25.196		617.5 (852.9)
COMPUTED BY	G. A. Morris			DATE	2/20/81	COMPUTATION CHECKED BY			
LISTED BY	G. A. Morris			DATE	2/20/81	LISTING CHECKED BY			
HAND PLOTTING BY	G. A. Morris			DATE	2/20/81	HAND PLOTTING CHECKED BY			

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	GEODETIC DATUM		ORIGINATING ACTIVITY		Departures REMARKS Front - Back
					COORDINATES IN FEET STATE California ZONE 3	N.A. 1927	PHOTOGRAMMETRIC Br. CPM33	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	
TP-00534	CM-7704	SAN BRUNO SHOAL CHANNEL LIGHT 2, 1977	371221	613	x= 1,467,446.31	φ 37/41/42.024	PMC Photogrammetric Br. CPM33		1295.6 (554.2)
					y= 440,340.51	λ 122/20/26.522			649.8 (820.2)
		SAN BRUNO SHOAL CHANNEL LIGHT 3, 1977	371221	614	x= 1,471,770.31	φ 37/40/10.840			334.2 (1515.6)
					y= 431,031.61	λ 122/19/30.474			746.8 (723.6)
		SAN BRUNO SHOAL CHANNEL LIGHT 4, 1977	371221	615	x= 1,471,067.99	φ 37/40/08.334			256.9 (1592.9)
					y= 430,791.80	λ 122/19/39.150			959.5 (511.0)
		SAN BRUNO SHOAL CHANNEL LIGHT 6, 1977	371221	617	x= 1,474,666.22	φ 37/38/35.290			1088.0 (761.8)
					y= 421,309.51	λ 122/18/52.118			1277.7 (193.2)
		SAN BRUNO SHOAL NORTH DOLPHIN (DOL), 1955	371221	281	x= 1,475,452.	φ 37/41/11.47			353.6 (1496.2)
					y= 437,093	λ 122/18/46.15			1130.8 (339.4)
		SAN BRUNO SHOAL SOUTH DOLPHIN(PIL), 1955	371221	283	x= 1,480,704	φ 37/38/43.55			1,342.6 (507.2)
					y= 422,029	λ 122/17/37.23			912.7 (558.2)
		SAN FRANCISCO AIRPORT SIGNAL(SIG), 1955	371221	286	x= 1,459,654	φ 37/37/39.04			1203.6 (646.2)
					y= 415,915	λ 122/21/57.40			1407.5 (63.8)
		SAN FRANCISCO BAY RADAR TOWER, 1977	371221		x= 1,478,466.45	φ 37/39/46.614			1437.1 (412.7)
					y= 428,451.16	λ 122/18/06.586			161.4 (1309.2)
		SAN FRANCISCO BAY SOUTH CHANNEL DAYBEACON 8A, 1980 (Unadj. Field Position)			x=	φ 37/35/19.971			615.7 (1234.1)
					y=	λ 122/16/07.022			172.3 (1299.8)
		SAN FRANCISCO BAY SOUTH CHANNEL LIGHT 8, 1977	371221	611	x= 1,481,711.88	φ 37/36/17.794			548.6 (1301.2)
					y= 407,264.91	λ 122/17/21.194			519.9 (951.9)
COMPUTED BY	G. A. Morris	COMPUTATION CHECKED BY				DATE			
LISTED BY	G. A. Morris	LISTING CHECKED BY				DATE			
HAND PLOTTING BY	G. A. Morris	HAND PLOTTING CHECKED BY				DATE			

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

U.S. DEPARTMENT OF COMMERCE
OCEANIC AND ATMOSPHERIC ADMINISTRATION

ORIGINATING ACTIVITY

Photogrammetric Br. CPM33

ION SIDE	Departures REMARKS
ITUDE	Front - Back
5 -	1736.2 (113.6)
0 -	46.6 (1425.6)
9 -	1276.9 (572.8)
6 -	447.7 (1024.5)
3 -	895.7 (954.1)
1 -	780.9 (691.5)
8 -	567.2 (1282.6)
3 -	1069.8 (402.6)
2 -	849.1 (1000.7)
2 -	815.1 (655.2)
9 -	449.5 (1400.3)
1 -	63.0 (1407.7)
7 -	1568.5 (281.3)
9 -	266.6 (1203.9)
4 -	1603.3 (246.5)
3 -	280.7 (1189.9)
2 -	1567.8 (282.0)
6 -	428.3 (1042.2)
8 -	1569.5 (280.3)
8 -	124.9 (1345.6)
	DATE
	DATE
	DATE

April 1982

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODETTIC DATUM		ORIGINATING ACTIVITY	
					COORDINATES IN FEET STATE <u>California</u> ZONE <u>3</u>	GEOGRAPHIC POSITION ϕ LATITUDE λ LONGITUDE	PMC Photogrammetric Br. CPM33	Departures REMARKS Front - Back
TP-00534	CM-7704	SOUTH SAN FRANCISCO YACHT HARBOR LIGHT 1A, 1980 (Unadj. Field Position)			x=	ϕ 37/39/53.631		1653.4 (196.4)
					y=	λ 122/22/24.070		589.9 (880.6)
		SOUTH SAN FRANCISCO YACHT HARBOR LIGHT 2, 1979 (Unadj. Field Position)			x=	ϕ 37/39/52.110		1606.5 (243.2)
					y=	λ 122/22/05.186		127.1 (1343.5)
		SOUTH SAN FRANCISCO YACHT HARBOR LIGHT 2A, 1980 (Unadj. Field Position)			x=	ϕ 37/39/52.355		1614.1 (235.7)
					y=	λ 122/22/24.064		589.8 (880.8)
		SOUTH SAN FRANCISCO YACHT HARBOR LIGHT 8, 1980 (Unadj. Field Position)			x=	ϕ 37/39/51.846		1598.4 (251.4)
					y=	λ 122/22/20.173		494.4 (976.1)
		SOUTH SAN FRANCISCO YACHT HARBOR LIGHT 9, 1980 (Unadj. Field Position)			x=	ϕ 37/39/51.879		1599.4 (250.4)
					y=	λ 122/22/22.858		560.2 (910.3)
					x=	ϕ		
					y=	λ		
			x=	ϕ				
			y=	λ				
			x=	ϕ				
			y=	λ				
			x=	ϕ				
			y=	λ				
			x=	ϕ				
			y=	λ				
			x=	ϕ				
			y=	λ				
COMPUTED BY	G. A. Morris				COMPUTATION CHECKED BY			DATE
LISTED BY	G. A. Morris				LISTING CHECKED BY		<i>J. Harbeck</i>	DATE <i>April 1982</i>
HAND PLOTTING BY	G. A. Morris				HAND PLOTTING CHECKED BY			DATE

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

COMPILATION REPORT

TP-00534

31. DELINEATION

Delineation was by instrument methods using the Wild B-8 stereoplotter. Compilation photography was adequate. The mean high water and the mean lower low water lines were compiled graphically from the tide coordinated infrared ratio photos indicated on form 76-36B.

32. CONTROL

Horizontal control was adequate. See the attached Photogrammetric Plot Report, dated July 22, 1977.

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

Alongshore details were delineated by the Wild B-8 stereoplotter and by office interpretation of the photographs.

See form 76-36B, Items 2 and 3 for delineation of the mean high water and mean lower low water lines.

36. OFFSHORE DETAILS

No unusual problems.

37. LANDMARKS AND AIDS

Preliminary 76-40 forms consisting of 3 pages of Navigational Aids and 1 page of Landmarks for charts were prepared for field edit.

TP-00534

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

See the attached form 76-36B, Item 5 of the Descriptive Report concerning junctions.

40. HORIZONTAL AND VERTICAL ACCURACY

See Item #32.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with the following 1:24,000 scale U.S. Geological Survey Quadrangles.

San Francisco South, Calif.; 1956, photorevised 1968 and 1973
San Mateo, Calif.; 1956, photorevised 1968 and 1973
Hunters Point, Calif; 1956, photorevised 1968.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following National Ocean Survey charts: No. 18652; scale 1:80,000; 16th ed., March 26, 1977
No. 18651; scale 1:40,000; 27th ed., July 3, 1976.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted by:

*Joanne Roderick*Joanne Roderick
Cartographer

Date: November 9, 1978

ADDENDUM TO THE COMPILATION REPORT-FIELD EDIT

TP-00534

Field edit was performed by the Pacific Hydrographic Party in October 1980. This data was applied to the manuscript by the Photogrammetric Branch at the Pacific Marine Center in March 1981. However, a few minor discrepancies became apparent during the application of field edit and additional field data was requested. This delayed the progress for this map and its classification remained Class III. In preparation for registration of the project, this map was forwarded as a Class III map to final review at AMC.

During final review the additional field data became available and was evaluated along with the original field edit information. As a result, the original field edit data was reapplied in accordance with the additional descriptive data submitted. Since very little of the additional edit data was beneficial to this photogrammetric shoreline map, this product will reflect the 1980 original field edit date.

Several nonfloating navigational aids were located and submitted as part of the contemporary hydrographic survey. Positions on the 76-40 forms were not evaluated other than comparing them with the hydrographic horizontal control readouts.

For additional remarks concerning the field edit operations and application of field data see the Review Report, Item #61 and the Summary bound with this Descriptive Report.

Jerry L. Hancock
Final Review
April 1982

JLH

ADDITIONAL INFORMATION SUBMITTED AS PART
OF FIELD EDIT FOR ADJOINING MAP TP-00535

The submerged pipeline delineated in the northeast portion of this map was added during the reapplication of field edit by final review. This information was submitted as part of the field edit package for adjoining map TP-00535. According to the July 1981 field edit report, construction for the new sewage outfall pipeline, known as the ORO LOMA Sanitation Project, has been completed. Graphic portrayal of this feature is based on the blueprint copy of the construction plans, "East Bay Discharge Authority" dated August 8, 1977, and conformation by the TP-00535 field edit report.

Jerry L. Hancock

JLH

PHOTOGRAMMETRIC OFFICE PRE-HYDRO AND FIELD EDIT REVIEW

TP- 00534

PROJECTION AND GRIDS FM	TITLE FM	HORIZONTAL CONTROL FM	PHOTOGRAMMETRIC PLOT REPORT FM
DETAIL POINTS AND PASS POINTS FM	PROCESSED RATIOS FM	AIDS TO NAVIGATION FM	LANDMARKS FM
MEAN HIGH WATER LINE FM	LOW-WATER LINE FM	ROCKS, SHOALS, ETC. FM	ALONG SHORE AND OTHER PHYSICAL FEATURES FM
WATER FEATURES FM	ALONG SHORE AND OTHER CULTURAL FEATURES FM	BRIDGES FM	ROADS FM
BUILDINGS FM	RAILROADS FM	CONTOURS AND SPOT ELEVATIONS NA	GEOGRAPHIC NAMES FM
JUNCTIONS FM	LEGIBILITY OF THE MANUSCRIPT FM	COMPILATION REPORT FM	FIELD EDIT OZALID FM
COMPARISON WITH NAUTICAL CHARTS FM	COMPARISON WITH PRIOR SURVEYS FM	COMPARISON WITH EXISTING MAPS FM	FIELD PRINTS AND OTHER COPIES FM
REVIEWER Frank Margiotta	DATE December 1978	SUPERVISOR Albert Rauck	DATE December 1978

REMARKS

PHOTOGRAMMETRIC OFFICE POST-HYDRO AND FIELD EDIT REVIEW

MANUSCRIPT NUMBERS JH	FORMAT STICK-UP JH	MANUSCRIPT SIZE JH	HORIZONTAL CONTROL JH
PHOTO HYDRO STATIONS JH	PLOTTING OF SEXTANT FIXES JH	AIDS TO NAVIGATION JH	LANDMARKS JH
MEAN HIGH WATER LINE JH	LOW-WATER LINE JH	ROCKS, SHOALS, ETC. JH	ALONG SHORE AND OTHER PHYSICAL FEATURES JH
WATER FEATURES JH	ALONG SHORE AND OTHER CULTURAL FEATURES JH	PIPELINES, CABLES, ETC. JH	BRIDGES JH
ROADS JH	BUILDINGS JH	RAILROADS JH	CONTOURS AND SPOT ELEVATIONS NA
GEOGRAPHIC NAMES JH	JUNCTIONS JH	FIELD EDIT PHOTOGRAPHS JH	FIELD EDIT OZALID JH
GEOGRAPHIC FIX POSITIONS JH	FIELD FORMS JH	FIELD EDIT REPORT JH	APPROVED TIDES JH
CHART MAINTENANCE PRINT AND OTHER COPIES JH (April 1982)	PREPARATION FOR FINAL REVIEW JH	COMPILER George Morris (PMC)	DATE February 1981
REVIEWER Jerry Hancock (AMC)	DATE April 1982	SUPERVISOR Billy Barnes (AMC)	DATE April 1982

REMARKS

The initial application of field edit was accomplished at the Pacific Marine Center but was not reviewed due to discrepancies associated with the field edit data. During the final review "operation," all application of field data and a complete office review for this map was accomplished.

Jerry L. Hancock
Jerry L. Hancock

Final Review, April 1982

FIELD EDIT REPORTTP-00534I. METHODS

Field edit for TP-00534 was conducted in accordance with Chapter 11 of the "Manual of Coastal Mapping Procedures" by personnel of the Pacific Hydrographic Party. Shoreline inspection was accomplished by walking (marsh areas north of San Francisco Airport), by truck in areas accessible by road, and a 17-foot Boston Whaler (NOAA 594), at tides that allowed close visual inspection of the areas of extensive mud flats and shoals.

Compilation of the sheet was verified by direct inspection of the photos during field edit. Features which were not visible on the photography or had changed since the time of photography were located by ground survey methods or depicted on engineering drawings accompanying this report. The area covered by drawings was verified as accurate by the field editor.

Positions on uncompiled features were obtained either by three-point sextant fixes with check angles or by three-point intersection methods utilizing a Wild T-2 theodolite, serial number 68721. Positions obtained by the intersection method have been compiled on a set of forms identifying the various stations occupied, the initial objects and their respective azimuths.

Changes, additions, and deletions were noted on the field edit sheet and chronopaque photographs NOS 18 Mar 3749, 3750, 3751, 3759, 3760, 3761, 3762, 3763, and 3764 all of which are 1:20,000 scale ratio prints. Fixed aids to navigation leading into South San Francisco Yacht Harbor and Coyote Point Yacht Harbor were located to third-order class I specifications by intersection.

Landmarks were inspected from seaward and verified or revised as necessary on Form 76-40. All elevations were recorded in feet at Greenwich Mean Time.

Copies of horizontal control station recovery notes and new station descriptions for the area covered by this survey are included with the data package.

II. ADEQUACY AND COMPLETENESS OF COMPILATION

Generally, the shoreline compilation of this manuscript was complete and adequate. Most changes to compilation made during field edit were due to changes in features (i.e., construction, natural erosion, etc.) since the 1977 photography.

Most of the shoreline detail is composed of filled or built up areas (Candlestick Point, James Lick Freeway north of Sierra Point, Sierra Point, Oyster Point, Oyster Point Marina (also named South San Francisco Yacht Harbor), San Francisco International Airport, Coyote Point Yacht Harbor), piers and bulkheads. The remaining shoreline is either riprap, dirt banks, or marsh with extensive mud flats in the foreshore areas.

Most changes to compilation made during field edit are self explanatory as recorded on the manuscript. The following items require further clarification:

1) South San Francisco Yacht Harbor or Oyster Point Marina, as it is now called, has undergone extensive changes. Additional fill and new breakwaters have been added to the site. Berthing facilities were under construction at the time of field edit.

Refer to the final approved plans of the engineering drawings titled, "Oyster Point Marine/Park," sheets 2 thru 5 (by the architectural firm of Daniel, Mann, Johnson, & Mendenhall), accompanying this report for delineation of construction. (Note: This construction already appears on the latest edition of Charts 18651 and 18652, presumably from U.S. Army Corps of Engineers' sources).

The non-floating aids to navigation leading into South San Francisco Yacht Harbor were located by ground survey methods. These include the following items from Volume III, U.S. Coast Guard Light List: Nos. 669, 670, 670.10, 670.15, 670.20, 670.30. In addition, the daymarkers were located. These items have been added to NOAA Form 76-40 and corrected or newly computed field positions listed. (Note: Daymarker No. 6 at South San Francisco Yacht Harbor was destroyed just prior to the last set of observations from Sierra Point on October 15, 1980. Consequently, this daymarker was left out of final computations).

2) Coyote Point Yacht Harbor's non-floating aids to navigation were also located by ground survey methods. These include the following items from Volume III, U.S. Coast Guard Light List, 1980: Nos. 675, 676. The daymarkers were also located. See NOAA Form 76-40.

3) The following items shown on Chart 18651 are not present and should be deleted.

a) Pole at Latitude $37^{\circ}38'50''\text{N}$, Longitude $122^{\circ}23'05''\text{W}$. (Area bares at low water).

b) Pile at Latitude $37^{\circ}38'40''\text{N}$, Longitude $122^{\circ}27'56''\text{W}$. (Area bares at low water).

c) Pole at Latitude $37^{\circ}38'28''\text{N}$, Longitude $122^{\circ}27'56''\text{W}$. (Area bares at low water).

4) Two piers are depicted on the manuscript, one about 530 meters southwest of San Francisco Airport Channel Light 1, and the second 460 meters southwest of the same light. Visual inspection at low tide (1604Z, 6/15/80, J.D. 167) revealed no signs of even ruins of these piers at Latitude $37^{\circ}37'50.24''\text{N}$, Longitude $122^{\circ}21'50.00''\text{W}$. The presence or absence of submerged ruins where the piers were located will be determined during hydrographic operations.

5) A stake shown at Latitude $37^{\circ}37'15''\text{N}$, Longitude $122^{\circ}21'20''\text{W}$ was not visible at 1550Z on day 167, 1980. Further investigation will be conducted during hydrography.

6) A stake shown at Latitude 37°35'54"N, Longitude 122°20'45"W was not visible at 1624Z on day 225, 1980. Further investigations will be conducted during hydrography.

7) San Bruno Shoal Channel Light 1 (No. 663 in Light List) has been destroyed and replaced by a temporary lighted buoy (LNM #34, 1980).

8) San Bruno Shoal Channel Light 5 (No. 667 in Light List) has been destroyed and replaced by a temporary lighted buoy (LNM #01, 1980).

9) A charted duck blind at Latitude 37°35.8'N, Longitude 122°20.6'W was not visible between 1540Z and 1850Z on day 170, 1980. Considering that five other previously charted duck blinds in this area are now in ruins, it is recommended that this feature also be considered in ruins (submerged) until hydrographic operations can absolutely resolve the question.

10) The two charted sets of ruins, both of which are connected to the

northern of two San Francisco Airport approach light system piers, were not visible at 1600Z on day 167, 1980. The first set is at Latitude 37°36.7'N, Longitude 122°21.1'W. The second is about 190 meters to the northwest.

11) Two outfalls were located southwest of San Francisco Airport Channel Light 1. Ruins extend 20 meters offshore of the outfall identified on photograph 3760. See photograph 3761.

III. GEOGRAPHIC NAMES

The geographic names on the manuscript are adequate and accurate except for the following.

1) South San Francisco Yacht Harbor is now called Oyster Point Marina.

2) The "NW Gable" charted at the west end of the San Mateo Bridge at Latitude 37°34'22"N, Longitude 122°15'43"W is no longer present and should be deleted.

IV. MANUSCRIPT ACCURACY

South of Bayview Park is an area of piles in ruins (photo 3764). Near the midpoint of the stretch of shoreline paralleling the James Lick Freeway is a foul area shown on photo 3763. Further south is the shore end of a petroleum pipeline, fix #1003.

Photo 3762 is the source of numerous piles, dolphins, and wrecks in the inlet waterway west of Oyster Point.

Chart 18651 shows a sewer line at Latitude 37°39'24"N. Longitude 122°22'30"W. Fix #1008 establishes the shore end of a set of ruins extending approximately 25 meters offshore and in the general direction of the charted sewer line. However, no visual sighting was actually made of the pipeline even at the onshore end.

Approximately 0.7 nautical miles south of the above ruins, where the shore



Submitted by:

Felipe L. Rosario

Felipe L. Rosario
Pacific Hydrographic Party

Approved and forwarded by:

Dirk R Taylor

Dirk R. Taylor
LCDR, NOAA
Chief, Pacific Hydrographic Party

REVIEW REPORT TP-00534

SHORELINE

61. GENERAL STATEMENT:

Final review was performed at the Atlantic Marine Center in April 1982. For a schedule of the office and field operations, refer to the Summary contained in this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Not applicable.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

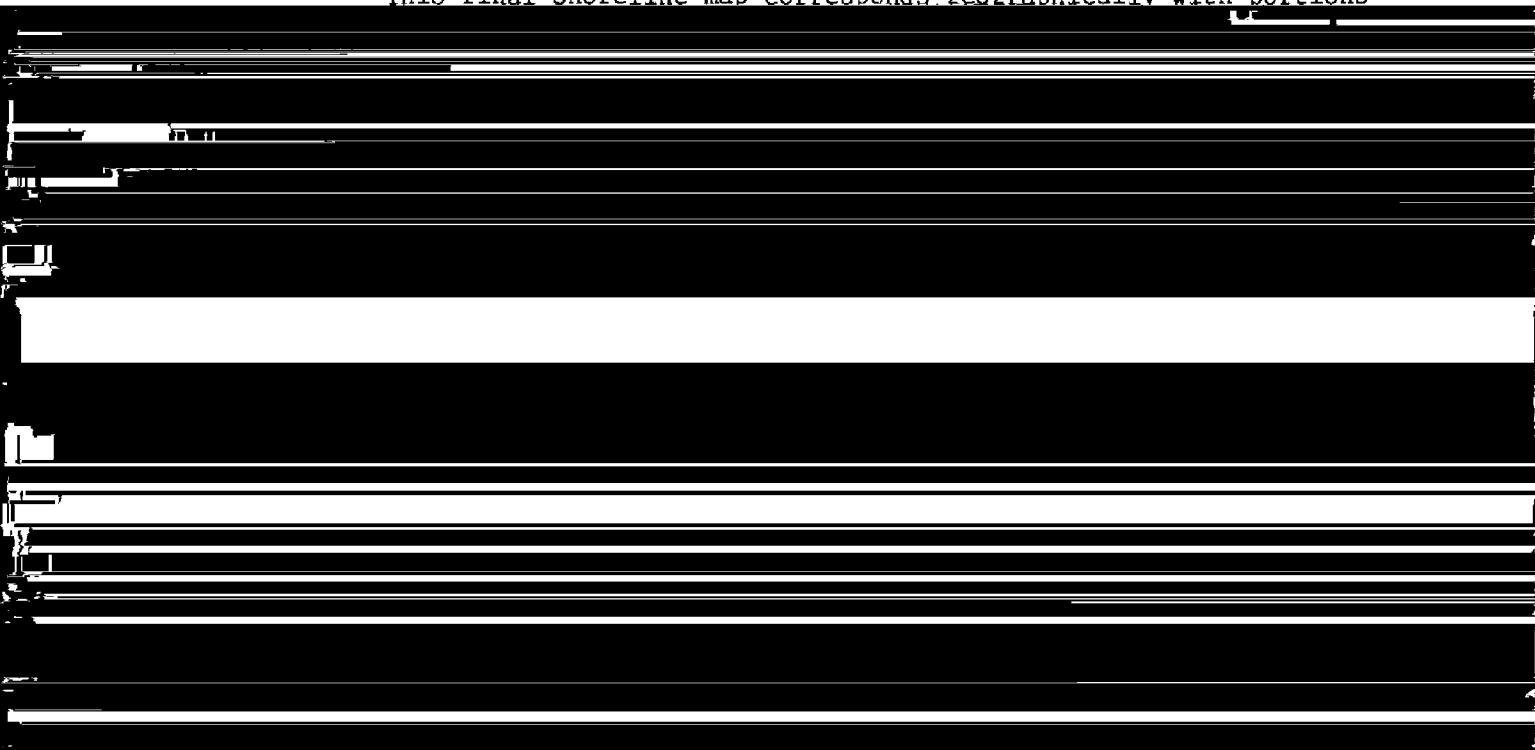
A comparison was made with the following 1:24,000 scale U.S.G.S. quadrangles:

Hunters Point, Calif., 1956, photorevised 1968
San Francisco South, Calif., photorevised 1968 and 1973
San Mateo, Calif., 1956, photorevised 1968 and 1973

A significant discrepancy was noted on the San Francisco South, Calif. quadrangle. Two islets, the most easterly being very prominent, located just north of Oyster Point Marina entrance do not exist. The pattern of breakwaters and ruins protecting the marina as indicated on this final map are the only features apparent in this area.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

This final shoreline map corresponds geographically with portions



TP-00534

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with the following National Ocean Survey charts:

No. 18651, 32nd edition, 1:40,000 scale, dated August 1, 1981
 No. 18652, 20th edition, 1:80,000 (1:20,000) scales, dated May 16, 1981.

The majority of nonfloating aids to navigation delineated on this final shoreline map were field determined by ground survey methods during the hydrographic survey operation. All field records for the preliminary positions listed on the attached 76-40 forms were submitted with hydrographic survey H-9819. No evaluation was performed for these aids during final review.

There are several important field remarks and recommendations addressed to the Marine Charts Division concerning various chartable features corresponding to this map. These remarks are located in the field edit report contained in this Descriptive Report.

Affinal Chart Maintenance Print for this map was prepared during final review and forwarded to Marine Charts. This information will supersede the previous Class III maintenance print submitted in February 1979 from the original compilation office at A.M.C. Remarks on the final Chart Maintenance Print will indicate discrepancies associated with the above listed charts.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This final map and accompanying descriptive report represents revised data as a result of final review and supersedes all previous map classifications.

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

Submitted by:

Gerry L. Hancock
 Gerry L. Hancock
 Final reviewer

Approved for forwarding:

Billy H. Barnes
 Billy H. Barnes
 Chief, Photogrammetric Branch, AMC

Approved:

George M. Ball
 Chief, Photogrammetric Branch, Rockville

John D. Perraw Jr.
 Chief, Photogrammetry Division

October 13, 1981

GEOGRAPHIC NAMES

FINAL NAME SHEET

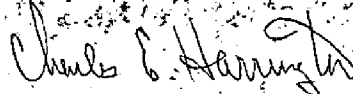
CM-7704 (San Francisco and San Pablo Bays, California)

TP-00534

Bayshore
Brewer Island
Brisbane
Burlingame
Candlestick Point
Coyote Point
Coyote Point Yacht Harbor
Little Coyote Point
Millbrae
Mills Creek
Oyster Point
Point San Bruno

San Bruno
San Francisco Bay
San Francisco International Airport
San Mateo
San Mateo Creek
Seal Slough
Seaplane Harbor
Sierra Point
Southern Pacific (RR)
South San Francisco
Visitation Point

Approved by:



Charles E. Harrington
Chief Geographer, OA/C3x5

DISSEMINATION OF PROJECT MATERIAL

CM-7704

San Francisco and San Pablo Bays

NATIONAL ARCHIVES/FEDERAL RECORD

PACKAGE (BOX)

Field Edit Ozalid(s)
Engineer Plan(s)
Field Sketch(es)
NOAA Forms 76-40
Master Station Lists
Fix Vol(s) (275)
NOAA Forms 76-41
Revision Survey Photographs
Field Edit Ratio Photographs
Plot Report(s) (Duplicate copy(ies))

Project Completion Report

BUREAU ARCHIVES

Registered Copy(ies) of Map(s)
Descriptive Report(s) of Map(s)

REPRODUCTION DIVISION

8x Reduction Negative(s) of Map(s)

OFFICE OF STAFF GEOGRAPHER

Geographer Name Standard(s)

MARINE CHART DIVISION

Chart Maintenance Print(s) of Map(s)

Replaces C&GS Form 567.

NONFLOATING AIDS 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 (Field Party, Ship or Office)
PMG Photogrammetric Br.
Seattle, WA CPM33
STATE
California
LOCALITY
San Francisco and
San Pablo Bays
DATE
2/20/81

The following objects HAVE ☒ BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	LATITUDE			LONGITUDE			POSITION		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED
		°	'	D.M. Meters	°	'	D.P. Meters	OFFICE	FIELD			
										DATUM	NA-1927	
RADIO TOWER	(K. Y. A. Radio Tower, 1937)	37-42	58.177	122-23	38.291	77B(P) 3764 3/18/77	Triang-Rec 7/19/80	18651				
TOWER	(San Bruno Mountain Middle Transmission Tower, 1932)	37-40	30.508	122-24	24.495	77B(P) 3763 3/18/77	Triang-Rec 7/19/80	18651				
RADIO TOWER	(San Francisco Bay Radar Tower, 1977)	37-39	46.614	122-18	06.586		Triang-Rec 6/15/80	18651				
MONUMENT	(South San Francisco Forbes Tower Light, 1977)	37-39	14.579	122-23	02.571	77B(P) 3761 3/18/77	Triang-Rec 6/15/80	18651				
RADIO TOWER	K.O.F.Y.	37-34	12.68	122-17	41.77	77B(P) 3749 3/18/77	V-Vis 6/20/80	18651				
AERO Rot. W & G	Airport Beacon atop control tower at San Francisco International Airport.	37-37	01.65	122-22	55.76	77B(P) 3760 3/18/77	V-Vis 6/20/80	18651				

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	D. R. Taylor
POSITIONS DETERMINED AND/OR VERIFIED	D. R. Taylor
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	G. A. Morris
J. Hancock, Final Review 3/11/82	
INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE OF LOCATION* (Consult Photogrammetric Instructions No. 64.)	
OFFICE	FIELD (Cont'd)
<p>I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75</p>	<p>B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982</p>
<p>FIELD</p> <p>I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field P - Photogrammetric L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection</p> <p>5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant</p> <p>A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-1 8-12-75</p>	<p>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75</p> <p>**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.</p>
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	D. R. Taylor
POSITIONS DETERMINED AND/OR VERIFIED	D. R. Taylor
	G. A. Morris
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	J. Hancock, Final Review, 3/11/82
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64.)	
OFFICE 1. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) 8. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD 1. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection P - Photogrammetric Vis - Visually 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	11. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 111. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

NOAA FORM 76-40 (8-74)				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY			
NONFLOATING AIDS				FOR CHARTS							
REPLACES C&GS FORM 567.		REPORTING UNIT (Field Party, Ship or Office)		STATE		LOCALITY		DATE			
<input checked="" type="checkbox"/> TO BE CHARTED		PMC Photogrammetric Br.		California		San Francisco and San Pablo Bays		2/20/81			
<input type="checkbox"/> TO BE REVISED		CPM33									
<input type="checkbox"/> TO BE DELETED											
The following objects HAVE <input checked="" type="checkbox"/> BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.				DATUM							
OPR PROJECT NO.		JOB NUMBER		SURVEY NUMBER		NA 1927					
123		CM-7704		TP-00534							
CHARTING NAME		DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)		LATITUDE		LONGITUDE		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED	
				° / ' / ''		° / ' / ''		OFFICE		FIELD	
				D.M. Meters		D.P. Meters					
LIGHT	(San Bruno Shoal Channel Light 2, 1977)	37-41	42.024 1295.6	122-20	26.522 649.8	77B(P) 3764 3/18/77	Triang-Rec 8/6/80	18651			
LIGHT	(San Bruno Shoal Channel Light 3, 1977)	37-40	10.840 334.2	122-19	30.474 746.8	77B(I) 2899 3/5/77	Triang-Rec 8/6/80	18651			
LIGHT	(San Bruno Shoal Channel Light 4, 1977)	37-40	08.334 256.9	122-19	39.150 959.5	77B(I) 2899 3/5/77	Triang-Rec 8/6/80	18651			
LIGHT	(San Bruno Shoal Channel Light 6, 1977)	37-38	35.290 1088.0	122-18	52.118 1277.7	Beyond photo Coverage	Triang-Rec 8/6/80	18651			
LIGHT	(South San Francisco Yacht Harbor Light 1, 1979 (Unadj. Field Position))	37-39	50.908 1569.5	122-22	05.098 124.9	77B(P) 3762 3/18/77	F-3-6-L 10/15/80	18651			
LIGHT	(SOUTH SAN FRANCISCO YACHT HARBOR LIGHT 2, 1979 (Unadj. Field Position))	37-39	52.110 1606.5	122-22	05.186 127.1	77B(P) 3762 3/18/77	F-3-6-L 10/15/80	18651			
LIGHT	(South San Francisco Yacht Harbor Light 8, 1980 (Unadj. Field Position))	37-39	51.846 1598.4	122-22	20.173 494.4		F-3-6-L 10/15/80	18651			
LIGHT	(South San Francisco Yacht Harbor Light 9, 1980 (Unadj. Field Position))	37-39	51.879 1599.4	122-22	22.858 560.2		F-3-6-L 10/15/80	18651			

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	D. R. Taylor
POSITIONS DETERMINED AND/OR VERIFIED	D. R. Taylor
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	G. A. Morris
J. Hancock, Final Review 3/11/82	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64.)	
OFFICE 1. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) 8. Photogrammetric field positions* require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD 1. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field P - Photogrammetric L - Located Vis - Visually V - Verified 1 - Triangulation 5 - Field identified 2 - Traverse 6 - Theodolite 3 - Intersection 7 - Planetable 4 - Resection 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	11. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 111. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

NOAA FORM 76-40 (6-74) Replaces C&GS Form 567.				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY			
NONFLOATING AIDS				FOR CHARTS							
REPORTING UNIT (Field Party, Ship or Office) PMC Photogrammetric Br. Seattle, WA CPM33		STATE California		LOCALITY San Francisco and San Pablo Bays		DATE 2/20/81					
OPR PROJECT NO. 123		JOB NUMBER CM-7704		SURVEY NUMBER TP-00534		DATUM NA 1927		METHOD AND DATE OF LOCATION (See instructions on reverse side)			
CHARTING NAME		DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)		LATITUDE ° / ' " D.M. Meters		LONGITUDE ° / ' " D.P. Meters		OFFICE		FIELD	
LIGHT	(South San Francisco Yacht Harbor Light 1A, 1980 (Unadj. Field Position))	37-39	53.631 1653.4	122-22	24.070 589.9					F-3-6-L 10/80	18651
LIGHT	(South San Francisco Yacht Harbor Light 2A, 1980 (Unadj. Field Position))	37-39	52.355 1614.1	122-22	24.064 589.8					F-3-6-L 10/80	18651
LIGHT	(San Francisco Bay South Channel Light 8, 1977)	37-36	17.794 548.6	122-17	21.194 519.9				77B(I)2962 3/5/77	Triang. Rec. 8/6/80	18651
DAYBEACON	San Francisco Airport Daybeacon 1, NOTE: Light List approx. position is incorrect	37-37	50.24 1549	122-21	50.00 1226				77B(P)3761 3/18/77	V-Vis 6/15/80	18651
DAYBEACON	San Francisco Airport Daybeacon 3	37-37	56.33 1737	122-22	39.56 970				77B(P)3761 3/18/77	V-Vis 6/15/80	18651
LIGHT	(Coyote Point Yacht Harbor Light 1, 1980 (Unadj. Field Position))	37-35	36.726 1132.2	122-18	41.302 1013.2				77B(P)3750 3/18/77	F-3-6-L 10/80	18651
LIGHT	(Coyote Point Yacht Harbor Light 2, 1980 (Unadj. Field Position))	37-35	37.573 1158.4	122-18	43.025 1055.5				77B(P)3750 3/18/77	F-3-6-L 10/80	18651
DAYBEACON	(San Francisco Bay South Channel Daybeacon 8A, 1980 (Unadj. Field Pos.))	37-35	19.971 615.7	122-16	07.022 172.3					F-3-6-L 11/80	18651

TYPE OF ACTION		RESPONSIBLE PERSONNEL		ORIGINATOR	
OBJECTS INSPECTED FROM SEAWARD		D. R. Taylor		<input type="checkbox"/> PHOTO FIELD PARTY	
		D. R. Taylor		<input checked="" type="checkbox"/> HYDROGRAPHIC PARTY	
		D. R. Taylor		<input type="checkbox"/> GEODETIC PARTY	
		D. R. Taylor		<input type="checkbox"/> OTHER (Specify)	
POSITIONS DETERMINED AND/OR VERIFIED		D. R. Taylor		FIELD ACTIVITY REPRESENTATIVE	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		G. A. Morris		OFFICE ACTIVITY REPRESENTATIVE	
		J. Hancock, Final Review, 3/11/82		<input checked="" type="checkbox"/> REVIEWER	
				<input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'					
(Consult Photogrammetric Instructions No. 64.)					
OFFICE			FIELD (Cont'd)		
1. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75			8. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982		
FIELD			11. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75		
1. NEW POSITION DETERMINED OR VERIFIED. Enter the applicable data by symbols as follows: F - Field P - Photogrammetric L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant			111. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75		
A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75			**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.		
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.					

NOAA FORM 76-40 (8-74)				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY			
NONFLOATING AIDS				FOR CHARTS							
REPLACES C&GS FORM 567.		REPORTING UNIT (Field Party, Ship or Office)		STATE		LOCALITY		DATE			
<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED		PMC Photogrammetric Br. Seattle, WA CPM33		California		San Francisco and San Pablo Bays		2/20/81			
The following objects HAVE <input checked="" type="checkbox"/> BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.				DUTY							
OPR PROJECT NO.		JOB NUMBER		SURVEY NUMBER		DATUM					
123		CM-7704		TP-00534		NA 1927					
CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	LATITUDE		LONGITUDE		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED			
		° / ' "	D. M. Meters	° / ' "	D. P. Meters	OFFICE	FIELD				
*	Daybeacons located by field methods but not listed in U.S. Coast Guard Light List. Recommended to be charted.										
DAYBEACON	(South San Francisco Yacht Harbor Daybeacon 4, 1980 (Unadj. Field Pos.))	37-39	52.004 1603.3	122-22	11.453 280.7		F-3-6-L 10/80		18651		
DAYBEACON	(South San Francisco Yacht Harbor Daybeacon 3, 1980 (Unadj. Field Pos.))	37-39	50.877 1568.5	122-22	10.879 266.6		F-3-6-L 10/80		18651		
DAYBEACON	(South San Francisco Yacht Harbor Daybeacon 5, 1980 (Unadj. Field Pos.))	37-39	50.852 1567.8	122-22	17.476 428.3		F-3-6-L 10/80		18651		
DAYBEACON	(Coyote Point Yacht Harbor Daybeacon 4, 1980 (Unadj. Field Position))	37-35	35.177 1084.5	122-18	45.128 1107.1		F-3-6-L 10/80		18651		
DAYBEACON	(Coyote Point Yacht Harbor Daybeacon 3, 1980 (Unadj. Field Position))	37-35	34.234 1055.4	122-18	43.483 1066.8		F-3-6-L 10/80		18651		
DAYBEACON	(Coyote Point Yacht Harbor Daybeacon 6, 1980 (Unadj. Field Position))	37-35	32.815 1011.7	122-18	47.243 1159.0		F-3-6-L 10/80		18651		
DAYBEACON	(Coyote Point Yacht Harbor Daybeacon 5, 1980 (Unadj. Field Position))	37-35	31.821 981.07	122-18	45.587 1118.4		F-3-6-L 10/80		18651		
DAYBEACON	(Coyote Point Yacht Harbor Daybeacon 8, 1980 (Unadj. Field Position))	37-35	30.362 936.0	122-18	49.394 1211.8		F-3-6-L 10/80		18651		
DAYBEACON	(Coyote Point Yacht Harbor Daybeacon 7, 1980 (Unadj. Field Position))	37-35	29.224 901.0	122-18	47.881 1174.7		F-3-6-L 10/80		18651 <i>Alt</i>		

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	D. R. Taylor
POSITIONS DETERMINED AND/OR VERIFIED	D. R. Taylor
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	G. A. Morris
J. Hancock, Final Review, 3/11/82	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64)	
OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection P - Photogrammetric Vis - Visually 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	III. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

OBJECTS INSPECTION

EXPLANATIONS DETAIL

FORMS ORIGIN
AND REVIEW
ACTIVITIES

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*FIELD
variation



NOAA FORM 76-40 (8-74)				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY			
NONFLOATING AIDS.				FOR CHARTS				<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> COMPILATION ACTIVITY <input type="checkbox"/> FINAL REVIEWER <input type="checkbox"/> QUALITY CONTROL & REVIEW GRP. <input type="checkbox"/> COAST PILOT BRANCH (See reverse for responsible personnel)			
REPLACES C&GS FORM 567.		REPORTING UNIT (Field Entry, Ship or Office)		STATE		LOCALITY		DATE			
TO BE CHARTED		FMC Photogrammetric		California		San Francisco and San Pablo Bays		2/20/81			
TO BE REVISED		Branch-CPM33									
TO BE DELETED											
The following objects HAVE <input checked="" type="checkbox"/> BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.				DATUM				METHOD AND DATE OF LOCATION (See instructions on reverse side)			
OPR PROJECT NO.		JOB NUMBER		SURVEY NUMBER		POSITION		OFFICE		FIELD	
123		CM-7704		TP-00534		NA 1927					
CHARTING NAME		DESCRIPTION		LATITUDE		LONGITUDE				CHARTS AFFECTED	
		(Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)		D.M. Meters		D.P. Meters					
*	LIGHT	(San Bruno Shoal Channel Light 1, 1977) NGS Sta. #3091, Quad 371221; Lt. list #663		37-41	44.959	122-20	18.062	77B(P) 3764 3-18-77	Destroyed 8-6-80	18651	
*	LIGHT	(San Bruno Shoal Channel Light 5, 1977) NGS Sta. #3905, Quad 371221; Lt. list #667		37-38	37.615	122-18	43.286	Beyond photo coverage	Destroyed 8-6-80	18651	
		*Light's destroyed, replaced by temporary buoy's according to field editor. See attached field editors NGS recovery forms 75-82A for descriptive remarks.									
**	LIGHT	South Channel Tower Light (San Mateo Bridge Transmission Tower No. 18, 1955)		37 34	56.315 1736.1	122 15	01.900 46.6	Triang. Rec 8/6/80	18651		
		**NGS station recovered, Quad 371221, #3070; field editor indicates Nav. Aid #678 has been destroyed.									

RESPONSIBLE PERSONNEL		ORIGINATOR	
TYPE OF ACTION	NAME		
OBJECTS INSPECTED FROM SEAWARD	D. R. Taylor	<input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)	
POSITIONS DETERMINED AND/OR VERIFIED	D. R. Taylor	FIELD ACTIVITY REPRESENTATIVE	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	G. A. Morris	OFFICE ACTIVITY REPRESENTATIVE	
J. Hancock, Final Review 3/11/82		<input checked="" type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'			
(Consult Photogrammetric Instructions No. 64.)			
OFFICE 1. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75		FIELD (Cont'd) 8. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982	
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75		III. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75	
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.		**PHOTOGRAMMETRIC FIELD POSITIONS are dependant entirely, or in part, upon control established by photogrammetric methods.	

