

TP-00530

NOAA FORM 76-35
(3-76)

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

DESCRIPTIVE REPORT

<i>Map No.</i> TP-00530	<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> Oakland Inner Harbor	
1977 TO 1979	
REGISTRY IN ARCHIVES	
DATE	

TP-00530

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 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 None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION	
	☐ COMPLETE	
	☐ SPECIFIC NAMES ONLY	
	☒ NO INVESTIGATION	None
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	Not Applicable

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)

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-Field Report

TP-00530

HISTORY OF FIELD OPERATIONS.

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	C. W. Hayes, CDR, NOAA	April 1979
2. HORIZONTAL CONTROL	RECOVERED BY C. B. Lawrence	April 1979
	ESTABLISHED BY C. B. Lawrence	April 1979
	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 C. B. Lawrence	April 1979
	LOCATED (Field Methods) BY C. B. Lawrence	April 1979
	IDENTIFIED BY T. A. Peasley, Ens., NOAA	April 1979
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY BY ☒ NO INVESTIGATION	None
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY T. A. Peasley, Ens., NOAA	April 1979
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY None	

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)
77B(P)3511 and 3512
77B(P)3695

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

See below.

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
77B(P)3511 77B(P)3512	Flagpole in Jack London Square Alameda Naval Air Station Beacon		

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

7. SUPPLEMENTAL MAPS AND PLANS

1 Aerial plan for new construction

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

Field Edit Report, Field Edit Ozalid and Discrepancy Print, Sounding Volume containing fix data, 2 - Forms 28d (field geographic positions), 1 - field sketch

TP-00530
RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete	Oct. 1978	Class III Manuscript	Feb. 1979	Oct. 1978
Field edit applied Compilation complete	Sept. 1980	Class I Manuscript	None	Nov. 1980
Final Review	Jan. 1982	Final Map	Mar. 1982	Mar. 1982

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
6 Pages		Mar. 1982	Appropriate forms (76-40) are attached with this Descriptive Report; no forms were forwarded prior to final review.

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. ~~185X~~ SUBMITTED BY FIELD PARTIES. 76-40
TP-00534 AND TP-00535
3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS: **TP-00530, TP-00531, TP-00532, and TP-00533, completes CM-7704. Data held for completion, is being forwarded to the Federal Record Center.
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: SEPTEMBER 14, 1982

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 ☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL

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 1:10,000 & 1:20,000

7

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORTS

TP-00530

This 1:10,000 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.

Contemporary hydrographic survey H-9810 (1979) at 1:10,000 scale and hydrographic survey H-9873 (1980-81) at 1:5,000 scale were performed in areas common to this map. Class I map copies were furnished to the Hydrographic Verification Branch for smooth sheet processing. However, revisions made during final review to the Class I map will affect these surveys. A copy of this final map was forwarded to the Hydrographic Surveys Division.

This Final Map is a 1:10,000 scale shoreline map that portrays the major industrial waters of Oakland Inner Harbor and the recreational waters west of Emeryville.

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"

TP-00530

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 Class I map.

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

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

Field edit was performed in conjunction with hydrographic survey H-9810 in April 1979 by personnel aboard the NOAA Ship DAVIDSON.

Application of field edit was performed at the Pacific Marine Center in October 1980. Copies of the Class I map were released to the Hydrographic Verification Branch for smooth sheet application.

Final review, involving a complete evaluation of all office and field activities, was performed at the Atlantic Marine Center in January 1982.

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 the Class I map was never forwarded to Marine Charts.

A copy of this final map was also forwarded to the Hydrographic Surveys Division as a "Hydrographic Maintenance Print." This print will indicate all revisions made to the previous Class III map during final review.

The context of this Descriptive Report contains all pertinent information used to compile this Final Map except for the field records used in locating the nonfloating aids to navigation during field edit. This field data was submitted with the contemporary hydrographic surveys and was not evaluated during final review. Listings of these aids are attached with this report on NOAA forms 76-40.

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 Report

TP-00530

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



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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 aircraft.

The operation was rather smooth as all observers were on station at the required time and no radio or transportation failures were experienced at the required times. The only difficulty encountered was an erratic tidal behavior during one series of projected favorable tides when during an unusual high pressure atmospheric condition the predicted tide range decreased by about 0.7 foot, causing stations to go out of range and greatly altering the tidal pattern.

Recommendations:

It is recommended that the field data, tidal predictions, etc., be furnished to the field units, with ample advance time to allow a thorough research and planning of the field phases of the project.

ESITY OF CALIFORNIA,
1912

4

BLDG, FLAGPOLE, 1925

LAND, MORMON TEMPLE, SPIRE

① YB 4 (EBHND), 1946

NORTH LIGHT, 1953

MUNI AIRPORT VORTAC

TION SKETCH

CM-TTOD

CO BAY, CALIF.

FEAN SURVEY-NUAA

0 PARTY

y - Chief of Party

1977

4 5 10
miles

MOAL CHANNEL LIGHT 1

MOAL CHANNEL LIGHT 2

MOAL CHANNEL LIGHT 4

MOAL CHANNEL LIGHT 3

BAY RADAR TOWER

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.



24. Supplemental Data

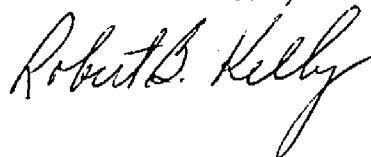
Local shoreline and USGS quadrangles were used to provide elevations for vertical adjustments of bridges.

25. Photography

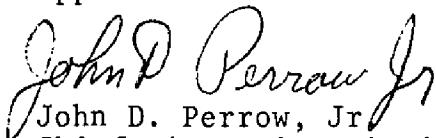
The photography was adequate as to placement of flight lines consistent quality, definition and absence of haze.

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	(-.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)

16



STRIP	1	77B	2577	-	2586
"	2	"	2629	-	2640
"	3	"	2565	-	2573
"	4	"	2598	-	2604
"	5	"	2644	-	2661
"	6	"	2619	-	2625
"	7	"	2665	-	2676
"	9	"	2501	-	2505
"	10	"	2512	-	2516
"	11	"	2529	-	2528

17

50. 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

SHORELINE MAPPING
SCALE 1:10,000 & 1:20,000

HIGH & LOW WATER INFRARED PHOTOGRAPHY

1:30,000 MLW
MHW
MLW

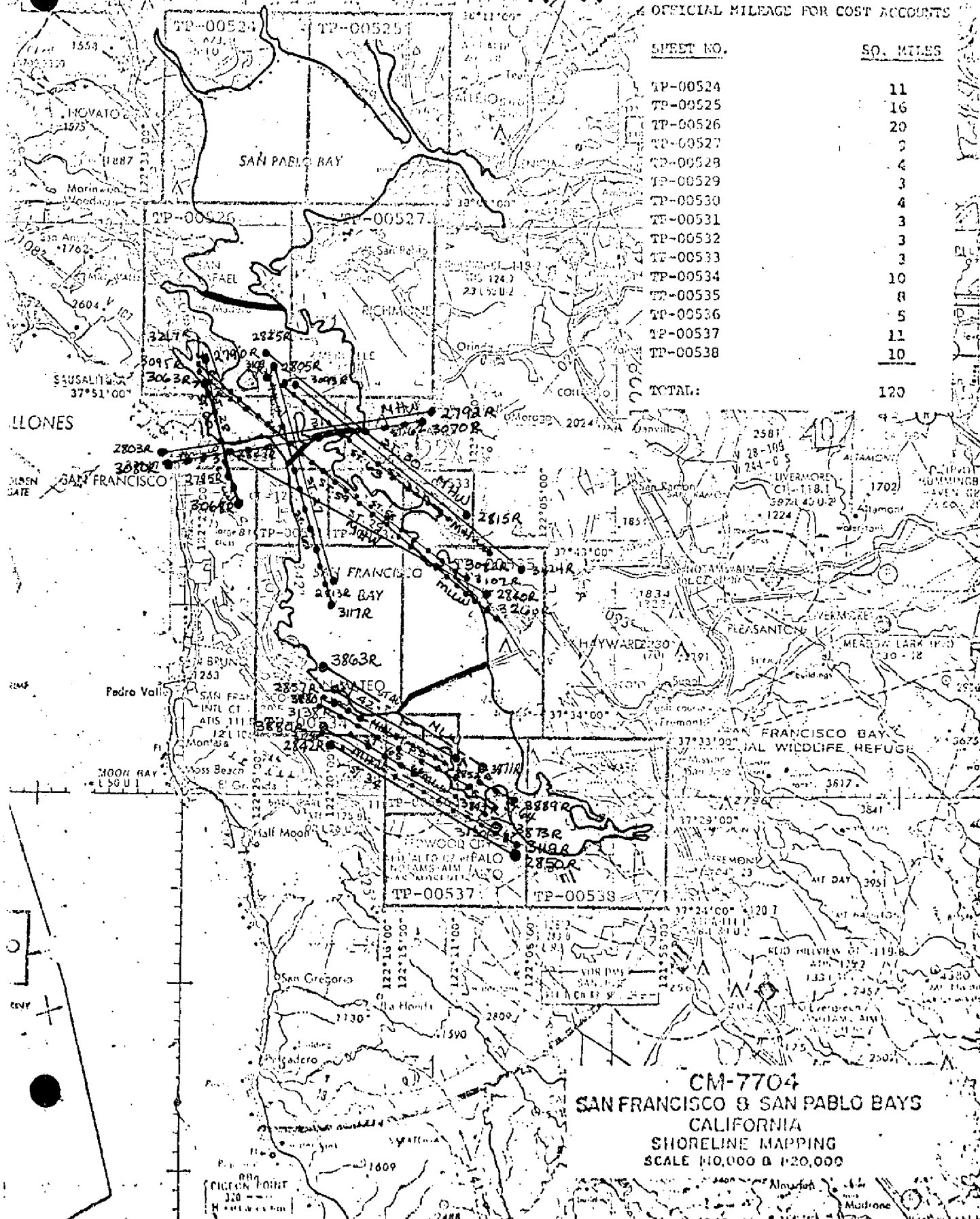
18

OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET NO.

SO. MILES

TP-00524	11
TP-00525	16
TP-00526	20
TP-00527	2
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



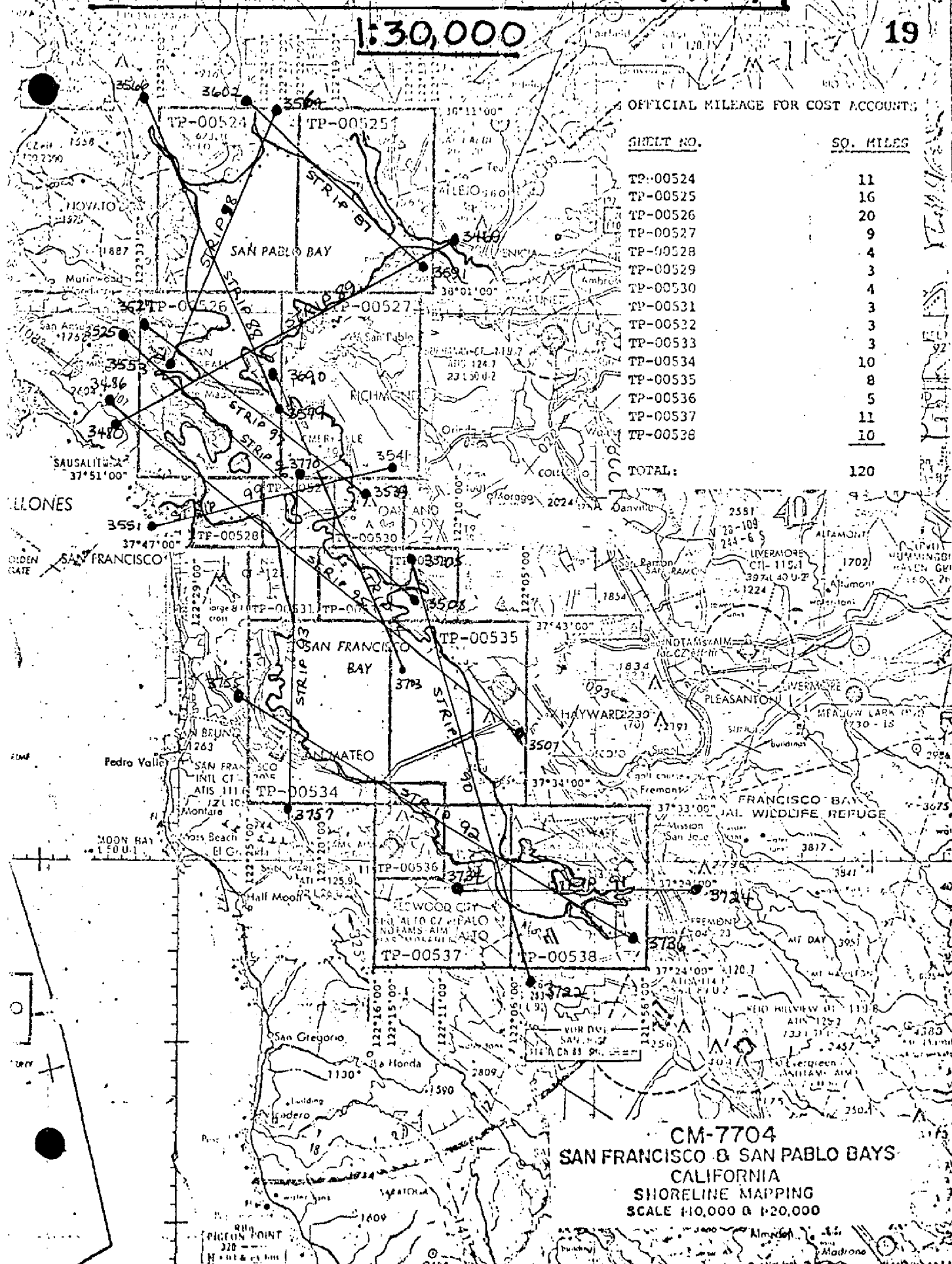
HYDRO-SUPPORT PHOTOGRAPHY

1:30,000

19

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



COMPILATION PHOTOGRAPHY

1:30,000

20

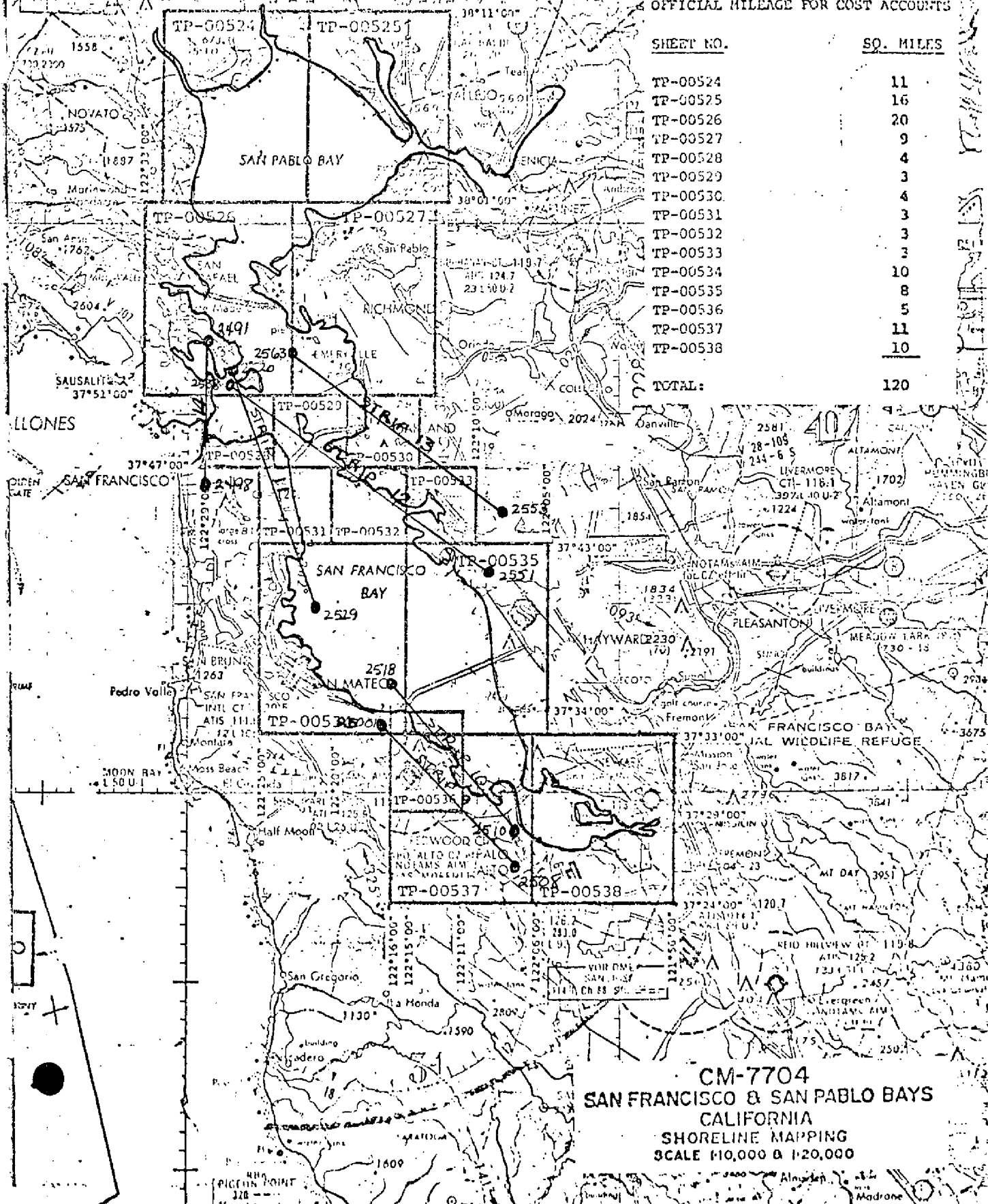
OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET NO.

SQ. MILES

TP-00524	11
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TP-00526	20
TP-00527	9
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TP-00532	3
TP-00533	3
TP-00534	10
TP-00535	8
TP-00536	5
TP-00537	11
TP-00538	10

TOTAL: 120



DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.		JOB NO.		GEODETTIC DATUM		ORIGINATING ACTIVITY	
STATION NAME		SOURCE OF INFORMATION (Index)		COORDINATES IN FEET		GEOGRAPHIC POSITION	
				STATE	ZONE	ϕ LATITUDE	λ LONGITUDE
TP-00530		CM-7704		North American 1927		Photogrammetric Br., P.M.C.	
ALAMEDA NAVAL AIR STATION BEACON, 1953	371221	209		X=		ϕ 37° 47' 08.808"	271.6m (1578.2m)
				Y=		λ 122° 18' 31.471"	770.1m (598.1m)
BERKELEY KRE RADIO MAST, 1938	371221			X=		ϕ 37° 50' 58.315"	1797.9m (52.0m)
				Y=		λ 122° 17' 43.769"	1070.1m (396.8m)
BERKELEY WESTERN WAXED PAPER COMPANY TANK, 1947	371221	196		X=		ϕ 37° 50' 37.972"	1170.7m (679.2m)
				Y=		λ 122° 17' 16.612"	406.2m (1060.8m)
EMERYVILLE JUDSON IRON WORKS CENTER STACK, 1925	371221	197		X=		ϕ 37° 49' 54.68"	1685.8m (164.0m)
				Y=		λ 122° 17' 25.86"	632.4m (834.8m)
EMERYVILLE MARINA LIGHT 3, 1979 (Unadjusted Field Pos.)	Field Geo. Pos. List			X=		ϕ 37° 50' 36.848"	1136.1m (713.8m)
				Y=		λ 122° 18' 56.071"	1370.9 (96.1m)
EMERYVILLE MARINA LIGHT 4, 1979 (Unadjusted Field Pos.)	Field Geo. Pos. List			X=		ϕ 37° 50' 35.678"	1100.0m (749.9m)
				Y=		λ 122° 18' 55.310"	1352.3m (114.7m)
EMERYVILLE MARINA LIGHT 5, 1979 (Unadjusted Field Pos.)	Field Geo. Pos. List			X=		ϕ 37° 50' 37.136"	1144.9m (704.9m)
				Y=		λ 122° 18' 30.030"	734.2m (732.8m)
EMERYVILLE MARINA LIGHT 6, 1979 (Unadjusted Field Pos.)	Field Geo. Pos. List			X=		ϕ 37° 50' 35.771"	1102.9m (747.0m)
				Y=		λ 122° 18' 32.608"	797.3m (669.7m)
EMERYVILLE MARINA LIGHT 7, 1979 (Unadjusted Field Pos.)	Field Geo. Pos. List			X=		ϕ 37° 50' 31.199"	961.9m (888.0m)
				Y=		λ 122° 18' 33.305"	814.3m (652.7m)
EMERYVILLE MARINA LIGHT 8, 1979 (Unadjusted Field Pos.)	Field Geo. Pos. List			X=		ϕ 37° 50' 31.828"	981.3m (868.6m)
				Y=		λ 122° 18' 34.239"	837.2m (629.8m)
COMPUTED BY	J. R. Minton	DATE	10/06/80	COMPUTATION CHECKED BY	W. A. Richter	DATE	Oct. 30, 1980
LISTED BY	J. R. Minton	DATE	10/06/80	LISTING CHECKED BY	W. A. Richter	DATE	Oct. 30, 1980
HAND PLOTTING BY	J. R. Minton	DATE	10/06/80	HAND PLOTTING CHECKED BY	W. A. Richter	DATE	Oct. 30, 1980

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

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	GEODETTIC DATUM		ORIGINATING ACTIVITY	
			SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	North American 1927	Photoграмmetric Branch, P.M.C.
STATION NAME			COORDINATES IN FEET		GEOGRAPHIC POSITION	
			STATE	ZONE	φ LATITUDE	λ LONGITUDE
					Departures	
TP-00530	FIFTH R.M. NUMBER 5, 1947	371221		202	φ 37° 48' 27.200"	838.6m (1011.2m)
					λ 122° 18' 11.030"	269.8m (1197.9m)
	OAKLAND ALAMEDA COUNTY	371221			φ 37° 47' 59.626"	1838.3m (11.5m)
	COURTHOUSE FLAGPOLE, 1947				λ 122° 15' 42.892"	1049.4m (418.5m)
	OAKLAND ESTUARY EAST FRONT	371221		208	φ 37° 47' 39.696"	1223.9m (625.9m)
	Range, 1953				λ 122° 18' 26.058"	637.6m (830.4m)
	OAKLAND ESTUARY EAST REAR	371221			φ 37° 47' 40.726"	1255.6m (594.2m)
	RANGE, 1953				λ 122° 18' 25.725"	629.4m (838.6m)
	OAKLAND MAIN BRANCH BANK	371221			φ 37° 48' 11.532"	355.5m (1494.3m)
	OF AMERICA BUILDING TOWER,	1925			λ 122° 16' 13.872"	339.4m (1128.4m)
	OAKLAND SHREDDER WHEAT	371221			φ 37° 48' 34.681"	1069.2m (780.6m)
	BUILDING TOWER, 1925				λ 122° 17' 17.462"	427.2m (1040.5m)
	OAKLAND TRIBUNE BUILDING	371221		200	φ 37° 48' 11.610"	357.9m (1492.9m)
	FLAGPOLE, 1925				λ 122° 16' 11.166"	273.2m (1193.2m)
	OAKLAND YERBA BUENA POWER	371221			φ 37° 49' 39.406"	1214.9m (634.9m)
	COMPANY CONCRETE CHIMNEY, 1916				λ 122° 17' 15.566"	380.7m (1086.6m)
	RADIO STATION K.R.O.W.	371221		204	φ 37° 49' 40.111"	1236.6m (613.2m)
	TOWER, 1952				λ 122° 18' 53.088"	1298.1m (169.2m)
					φ	
					λ	
COMPUTED BY	J. R. Minton		DATE	10/09/80	COMPUTATION CHECKED BY	W. A. Richter
LISTED BY	J. R. Minton		DATE	10/09/80	LISTING CHECKED BY	W. A. Richter
HAND PLOTTING BY	J. R. Minton		DATE	10/09/80	HAND PLOTTING CHECKED BY	W. A. Richter

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

COMPILATION REPORT

TP-00530

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 stereoscopic interpretation of the ratioed 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

Positions for the charted nonfloating aids to navigation in Brooklyn Basin will be directed to the field editor for location as they were not visible on the photography.

37. Landmarks and Aids

Preliminary 76-40 forms consisting of 2 pages of Navigational Aids and 3 pages of Landmarks for charts were prepared for field edit.

38. Control for Future Surveys

None

TP-00530

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 U. S. Geological Survey quadrangles:

Oakland West, Calif., 1959, photo revised 1968 and 1973
Oakland East, Calif., 1959, photo revised 1968 and 1973

Both of these quadrangles are 1:24,000 scale.

47. Comparison with Nautical Charts

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

No. 18650, 1:20,000 scale, 32nd edition, July 3, 1976

Items to be Applied to Nautical Charts Immediately

None

Items to be Carried Forward

None

Submitted by:

for *James L. Hancock*
David P. Butler
Cartographic Technician
October 16, 1978

Approved by:

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

ADDENDUM TO THE COMPILATION REPORT - FIELD EDIT

TP-00530

Field edit for this map was performed by personnel aboard the NOAA hydrographic ship DAVIDSON. Apparently, a lack of experience was the contributing factor for several discrepancies discovered when applying field edit. General delineation on the field edit copy and visual verification of charted features was practiced throughout the field edit operation. There was little employment of standard field survey methods for updating the Class III map. It appears that the primary objective was to provide general confirmation for the current nautical charts. Since this map's intended purpose was to accurately portray the shoreline and to assist the hydrographic surveys, most of the field edit data had to be thoroughly evaluated and applied cautiously.

The field edit was applied by the Photogrammetric Branch at the Pacific Marine Center rather than the original compilation activity. The edit data listed on form 76-36C, Field Edit, was applied by standard procedures except for a new marina at the junction of this manuscript and TP-00533. This marina was detailed from photographic plans the field editor acquired from the Port of Oakland. A Bausch and Lomb transfer scope was used to reduce and transfer the data by holding local common detail as control.

Several problems were encountered while processing the 76-40 and 76-41 forms. Oakland City Hall Flagpole, 1913, is "Visually Verified" on the field 76-40, but was reported destroyed in 1976 according to the published control quadrangle. Consequently, I have assumed a new flagpole has been erected, but I have not assumed it to be in the exact position the previous flagpole occupied. The triangulation symbol and name have been changed to a 2.5 mm circle labeled TOWER depicting the landmark tower bearing the flagpole. The triangulation entry was deleted from the Descriptive Report Control Record. Also, the position listed on the original forms, 76-40 and 76-41, for Oakland Tribune Building Flagpole, 1925 did not agree with the position listed in quadrangle 371221. The position from the published quadrangle has been forwarded on the final forms.

A foul with wrecks limit was compiled north of Government Island because only general information concerning those features was supplied by the field editor.

Rock and wreck heights south of 37°49' were interpolated manually from the hourly heights list supplied by the Datums and Information Branch in Rockville. Heights for items north of 37°49' were determined using the corrector listing for zone 2 of H-9810. This hydro corrector listing is based on hourly heights provided by the Datums and Information Branch in Rockville.

TP-00530

Submitted by:

James L. Hancock

for

James R. Minton
Cartographic Technician
October 14, 1980

PHOTOGRAMMETRIC OFFICE REVIEW

TP - 00530

1. PROJECTION AND GRIDS F.P.M.	2. TITLE F.P.M.	3. MANUSCRIPT NUMBERS F.P.M.	4. MANUSCRIPT SIZE F.P.M.
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY F.P.M.	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) Not Applicable		7. PHOTO HYDRO STATIONS Not Applicable
8. BENCH MARKS Not Applicable	9. PLOTTING OF SEXTANT FIXES None	10. PHOTOGRAMMETRIC PLOT REPORT F.P.M.	11. DETAIL POINTS F.P.M.
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE F.P.M.	13. LOW-WATER LINE F.P.M.	14. ROCKS, SHOALS, ETC. F.P.M.	15. BRIDGES F.P.M.
16. AIDS TO NAVIGATION F.P.M.	17. LANDMARKS F.P.M.	18. OTHER ALONGSHORE PHYSICAL FEATURES F.P.M.	19. OTHER ALONGSHORE CULTURAL FEATURES F.P.M.
PHYSICAL FEATURES			
20. WATER FEATURES F.P.M.	21. NATURAL GROUND COVER Not Applicable		22. PLANETABLE CONTOURS Not Applicable
23. STEREOSCOPIC INSTRUMENT CONTOURS Not Applicable	24. CONTOURS IN GENERAL Not Applicable	25. SPOT ELEVATIONS Not Applicable	26. OTHER PHYSICAL FEATURES F.P.M.
CULTURAL FEATURES			
27. ROADS F.P.M.	28. BUILDINGS F.P.M.	29. RAILROADS F.P.M.	30. OTHER CULTURAL FEATURES F.P.M.
BOUNDARIES			
31. BOUNDARY LINES Not Applicable		32. PUBLIC LAND LINES Not Applicable	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES F.P.M.	34. JUNCTIONS F.P.M.		35. LEGIBILITY OF THE MANUSCRIPT F.P.M.
36. DISCREPANCY OVERLAY F.P.M.	37. DESCRIPTIVE REPORT F.P.M.	38. FIELD INSPECTION PHOTOGRAPHS None	39. FORMS F.P.M.
40. REVIEWER Frank P. Margiotta		SUPERVISOR, REVIEW SECTION OR UNIT October , 1978 Albert C. Rauck, Jr.	
41. REMARKS (See attached sheet)			
FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT			
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.			
COMPILER James R. Minton		SUPERVISOR James W. Massey	
Reviewer William A. Richter		William A. Richter 30 Oct. 30, 1980	
43. REMARKS The field edit was applied from the data listed in part II of form 76-36C, Field Edit, included within this report.			

PHOTOGRAMMETRIC OFFICE PRE-HYDRO AND FIELD EDIT REVIEW

28

TP- 00530

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

REMARKS

PHOTOGRAMMETRIC OFFICE POST-HYDRO AND FIELD EDIT REVIEW

MANUSCRIPT NUMBERS W. R., J. H.	FORMAT STICK-UP J. H.	MANUSCRIPT SIZE J. H.	HORIZONTAL CONTROL J. H.
PHOTO HYDRO STATIONS W. R.	PLOTTING OF SEXTANT FIXES W. R., J. H.	AIDS TO NAVIGATION W. R., J. H.	LANDMARKS W. R., J. H.
MEAN HIGH WATER LINE W. R., J. H.	LOW-WATER LINE J. H.	ROCKS, SHOALS, ETC. W. R., J. H.	ALONG SHORE AND OTHER PHYSICAL FEATURES W. R., J. H.
WATER FEATURES W. R.	ALONG SHORE AND OTHER CULTURAL FEATURES W. R., J. H.	PIPELINES, CABLES, ETC. W. R., J. H.	BRIDGES J. H.
ROADS J. H.	BUILDINGS J. H.	RAILROADS J. H.	CONTOURS AND SPOT ELEVATIONS N. A.
GEOGRAPHIC NAMES J. H.	JUNCTIONS J. H.	FIELD EDIT PHOTOGRAPHS W. R., J. H.	FIELD EDIT OZALID W. R., J. H.
GEOGRAPHIC FIX POSITIONS W. R., J. H.	FIELD FORMS W. R., J. H.	FIELD EDIT REPORT W. R., J. H.	APPROVED TIDES W. R.
CHART MAINTENANCE PRINT AND OTHER COPIES	PREPARATION FOR FINAL REVIEW W. R., J. H.	COMPILER J. R. Minton	DATE September 1980
REVIEWER W. A. Richter	DATE October 1980	SUPERVISOR J. W. Massey	DATE October 1980

REMARKS

A complete office review after the application of field edit was not performed prior to advancing the manuscript to a Class I map. Consequently, an extensive and thorough office review was accomplished during the final review.

J. L. Hancock
J. L. Hancock
Final Reviewer
January 1982

FIELD EDIT REPORT
TP-00530
San Francisco Bay, California
OPR-L123-DA-79
NOAA SHIP DAVIDSON
MAR-APR 1979

51. METHODS

Field Edit on Manuscript TP-00530 was performed by Linda Haas, Lt(jg), NOAA, and Christopher Lawrence, LT, NOAA. Field edit was accomplished in accordance with Project Instructions OPR-L-123-DA-79, San Francisco Bay, California, dated 15 January 1979, Project Instruction Changes Nos. 1, 2, and 3, all dated 15 January 1979, and Manual of Coastal Mapping Field Procedures (Chapter 11). Features were located by photo identification or by three point sextant fix (with check angle). All discrepancies were transferred from the Discrepancy Print to the Field Print before field edit began. The field print was taken into the field along with the cronapaque photos. The following cronapaque photos were used in the field:

Nos. 77B-3509, 3510, 3511, 3512; 77B-3596; 77B-3694, 3695

It was necessary to take the cronapaque photos into the field since no matte photos were provided for field operations. Field edit was conducted entirely from a skiff on the 23rd and 30th of March 1979. (For times of field edit see appended ABSTRACT OF TIME OF FIELD EDIT). The data was compiled and inked onto the MYLAR Field Edit Sheet by Linda Haas and Tim Peasley. Data collected by field edit methods has not been duplicated on the Hydrographic Final Field Sheet. All times are referenced to Greenwich Mean Time.

Standard Ink Colors as per PMC OPORDER Change No. 2-77 dated 23 March 1977, as modified by changes suggested by the Photogrammetric Branch at the Pacific Marine Center 6th Annual Hydrographic Conference, were used to process field edit data. Colors used are as follows:

Photographs and Field Edit Sheet

Violet - verifications/additions/changes (violet only on photos)

Red - to reference hydrographic data only

Green - deletions

Final Field Sheet

Black - Manuscript, no change

Red - additions (hydro D.P.'s)

Original data was recorded on the Field Print and in a Sounding Volume. Cronapaque photos #77B-3511, 3512 and 3695 were used for clarification of detail. Weather observations for the days of field edit were generally as follows: winds - 0 - 15 knots; sky - partly cloudy, and temperatures 60 - 75°F.

Controlling tide gauges operational during times of field edit were as follows:

<u>Location (Lat./Long.)</u>	<u>Installed/Maintained by</u>
Pt. Orient (37°57.5'N, 122°25.5'W)	Pacific Tides Party
Corte Madera Creek (37°56.6'N, 122°30.8'W)	NOAA Ship DAVIDSON
Angel Island (37°51.2'N, 122°25.1'W)	California Tides Party
Berkeley Yacht Harbor (37°51.7'N, 122°19.8'W)	California Tides Party
Pier 22½ (37°47.4'N, 122°23.2'W)	NOAA Ship McARTHUR
Richmond Inner Harbor (37°54.6'N, 122°21.5'W)	Pacific Tides Party

52. ADEQUACY OF COMPILATION

The map compilation of obstructions and shallow zones is adequate. The map compilation is adequate and complete for charting with this field edit applied.

53. MAP ACCURACY

The high waterline as depicted on the map is accurate.

54. RECOMMENDATIONS

The manuscript should be considered complete with corrections compiled from this field edit.

56. MISCELLANEOUS

Photo numbers 77B-3509, 3510 and 3511 were transferred to the Pacific Hydrographic Party, San Francisco, California prior to the DAVIDSON's departure from the San Francisco, California survey area.

NOAA Form 76-40 "NONFLOATING AIDS FOR LANDMARKS" for Charts has been completed for this manuscript and has been submitted along with this report.

Submitted by:

Timothy A. Peasley
Timothy A. Peasley
ENS, NOAA
NOAA Ship DAVIDSON

Approved and Forwarded by:

C. William Hayes
C. William Hayes
CDR, NOAA
Commanding Officer
NOAA Ship DAVIDSON

TAP:jaf

REVIEW REPORT TP-00530

SHORELINE

61. GENERAL STATEMENT:

An extensive final review was performed for this final shoreline map. For a schedule of the office and field operations, refer to the Summary included 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:

Oakland West, Calif., 1959, photo revised 1968 and 1973
Oakland East, Calif., 1959, photo revised 1968 and 1973

No significant differences were noted.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Portions of two contemporary hydrographic surveys, H-9810 (1979) and H-9873 (1980-81) are common to this final shoreline map. A Class I map was forwarded to the Hydrographic Verification Branch at the Pacific Marine Center for shoreline application to the smooth sheets.

Both surveys, H-9810 at 1:10,000 scale and H-9873 at 1:5,000 scale are currently in the processing stage at PMC. Due to their present status, no comparison was made with the shoreline map during final review.

A copy of this final map labeled "Hydrographic Maintenance Print," indicating revisions to the previous Class I map, was prepared and forwarded to the Hydrographic Surveys Division. This final map will supersede all previously forwarded information pertaining to TP-00530.

TP-00530

65. COMPARISON WITH NAUTICAL CHARTS:

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

No. 18650, 36th edition, 1:20,000 scale, dated June 7, 1980
No. 18649, 48th edition, 1:40,000 scale, dated February 14, 1981
No. 18652, 20th edition, 1:80,000 scale, dated May 16, 1981

The nonfloating aids to navigation for Emerville Marina were



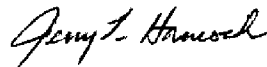
TP-00530

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This Final Map and accompanying Descriptive Report represent revised data as a result of final review, and supersedes all previous map classifications.

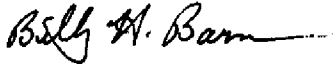
This map complies with the Project Instructions and meets the requirements for National Standards of Map Accuracy.

Submitted by:



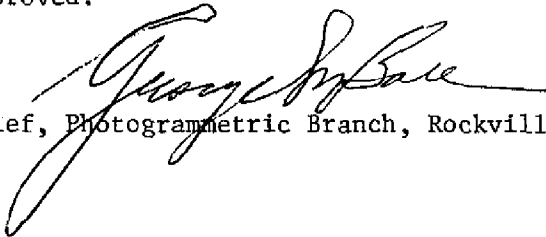
Jerry L. Hancock
Final Reviewer

Approved for forwarding:



Billy H. Barnes
Chief, Photogrammetric Branch, AMC

Approved:



Chief, Photogrammetric Branch, Rockville



Chief, Photogrammetry Division

October 14, 1981

GEOGRAPHIC NAMES

FINAL NAME SHEET

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

TP-00530

Alameda

Alameda Naval Air Station

Brooklyn Basin

East Oakland

Emeryville

Oakland

Oakland Inner Harbor

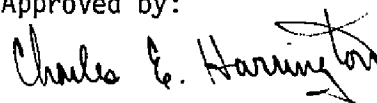
Oakland Outer Harbor

San Francisco Bay

Southern Pacific (RR)

Western Pacific (RR)

Approved by:

A handwritten signature in dark ink, appearing to read "Charles E. Harrington". The signature is written in a cursive, flowing style with some loops and flourishes.

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)

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION									
NONFLOATING AIDS FOR FOR CHARTS									
REPORTING UNIT (Field Party, Ship or Office)		STATE	LOCALITY		DATE	ORIGINATING ACTIVITY			
Photogrammetric Branch P.M.C., Seattle, Wa.		California	San Francisco and San Pablo Bays		09/30/80	☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ PHOTO FIELD PARTY ☒ COMPILATION ACTIVITY ☐ FINAL REVIEWER ☐ QUALITY CONTROL & REVIEW GRP. ☐ COAST PILOT BRANCH (See reverse for responsible personnel)			
JOB NUMBER		SURVEY NUMBER	DATUM		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED		
CM-7704		TP-00530	North American 1927						
DESCRIPTION			POSITION						
Record reason for deletion of landmark or aid to navigation. (See instructions on reverse side)			LATITUDE	LONGITUDE					
			° / ' "	° / ' "					
			D.M. Meters	D.P. Meters					
** (see remarks at bottom of this page) Oakland Inner Harbor Light 4			37 47	122 18	06.58		18649		
			37 47	122 15	161		18650		
			37 47	122 15	17.86		18652		
Brooklyn Basin South Channel Daybeacon			37 47	122 15	1437		18649		
			37 47	122 15	17.33		18650		
			37 47	122 15	1424		18652		
Brooklyn Basin North Channel Daybeacon			37 47	122 15	08.93		18649		
			37 47	122 15	219		18650		
			37 47	122 15	01.71		18652		
Brooklyn Basin North Channel Daybeacon			37 47	122 15	142		18649		
			37 47	122 14	54.68		18650		
			37 47	122 14	1338		18652		
Brooklyn Basin North Channel Daybeacon			37 47	122 14	141.95		18649		
			37 47	122 14	1027		18650		
			37 47	122 18	56.071		18652		
Emeryville Marina Light 3, 1979			37 50	122 18	1370.9		18649		
Field Position))			37 50	122 18	55.310		18650		
			37 50	122 18	1352.3		18652		
Emeryville Marina Light 4, 1979			37 50	122 18	1352.3		18649		
Field Position))			37 50	122 18	1352.3		18650		
**This position varies slightly with the current Lt. List description, "on outer end of pier"; see the Review Report, Item #65 for additional remarks.			37 50	122 18	1352.3		18652		

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	T. A. Peasley, Ens., NOAA
POSITIONS DETERMINED AND/OR VERIFIED	T. A. Peasley, Ens., NOAA J. R. Minton
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOC	
(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 entry of met date of fiel graph used t EXAMPLE: P- 8- 74
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	II. TRIANGULATION When a landmar angulation sta Rec.' with dat EXAMPLE: Tria 8-12- III. POSITION VERIF Enter 'V-Vis. EXAMPLE: V-VI 8-12- **PHOTOGRAMMETRIC F entirely, or in p by photogrammetri
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

[illegible]

TYPE OF ACTION		RESPONSIBLE PERSONNEL		ORIGINATOR	
		NAME			
OBJECTS INSPECTED FROM SEAWARD		T. A. Peasley, Ens., NOAA		☒ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER (Specify)	
POSITIONS DETERMINED AND/OR VERIFIED		T. A. Peasley, Ens., NOAA		FIELD ACTIVITY REPRESENTATIVE	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		J. R. Minton		☐ OFFICE ACTIVITY REPRESENTATIVE ☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	
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. 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) Replaces C&GS Form 567.				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY			
☒ TO BE CHARTED ☐ TO BE REVISED ☐ TO BE DELETED		REPORTING UNIT (Field, Party, Ship, or Office) Photogrammetric Br., P.M.C., Seattle, Wa.	STATE California	LOCALITY San Francisco and San Pablo Bays	DATE 09/29/80				☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ PHOTO FIELD PARTY ☒ COMPILATION ACTIVITY ☐ FINAL REVIEWER ☐ QUALITY CONTROL & REVIEW GRP. ☐ COAST PILOT BRANCH (See reverse for responsible personnel)		
The following objects HAVE ☒ BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.		JOB NUMBER CM-7704	SURVEY NUMBER TP-00530	DATUM North American 1927		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED			
CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	LATITUDE		LONGITUDE		OFFICE	FIELD				
		° /	' D.M. Meters	° /	' D.P. Meters						
TANK	south one of three	37	47	122	17	77B(P) 3512 March 18, 1977	F-V-Vis. April 23, 1979	18649 18650 18652			
TANK	center one of three	37	47	122	17	77B(P) 3512 March 18, 1977	F-V-Vis. April 23, 1979	18649 18650 18652			
TANK	north one of three	37	47	122	17	77B(P) 3512 March 18, 1977	F-V-Vis. April 23, 1979	18649 18650 18652			
RADIO TOWER		37	47	122	17	77B(P) 3512 March 18, 1977	F-V-Vis. April 23, 1979	18649 18650 18652			
RADIO TOWER		37	47	122	17	77B(P) 3512 March 18, 1977	F-V-Vis. April 23, 1979	18649 18650 18652			
✓AERO	(Alameda Naval Air Station Beacon, 1953)	37	47	122	18	77B(P) 3512 March 18, 1977	Triang. Rec. April 23, 1979	18649 18650 18652			
✓MARKER *	*No position determined for the south side measured mile markers. Field editor "visually verified charted positions". Neither marker is visible on photography.	37	47.5	122	18.5		F-V-Vis. March 30, 1979	18649 18650 18652			
✓MARKER *	(Oakland Estuary East Front Range, 1953)	37	47.5	122	18.5		F-V-Vis. March 30, 1979	18649 18650 18652			
✓FLAGPOLE	New landmark recommended by field editor: height 275 ft.	37	47	122	16		P-5 April 15, 1979	18649 18650 18652			

RESPONSIBLE PERSONNEL		ORIGINATOR	
TYPE OF ACTION	NAME		
OBJECTS INSPECTED FROM SEAWARD	T. A. Peasley, Ens., NOAA	☒ PHOTO FIELD PARTY	☐ HYDROGRAPHIC PARTY
	T. A. Peasley, Ens., NOAA	☐ GEODETIC PARTY	☐ OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	J. R. Minton	FIELD ACTIVITY REPRESENTATIVE	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER	☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
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 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		II. 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 III. 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) Replaces C&GS Form 567.				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				LANDMARKS FOR CHARTS				ORIGINATING ACTIVITY			
TO BE CHARTED ☒ TO BE REVISED ☐ TO BE DELETED		REPORTING UNIT (Field Party, Ship or Office) Photogrammetric Branch P.M.C., Seattle, Wa.	STATE California	LOCALITY San Francisco and San Pablo Bays	DATE 09/29/80					☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ PHOTO FIELD PARTY ☒ COMPILATION ACTIVITY ☐ FINAL REVIEWER ☐ QUALITY CONTROL & REVIEW GRP. ☐ COAST PILOT BRANCH (See reverse for responsible personnel)					
The following objects HAVE ☒ HAVE NOT ☐ been inspected from seaward to determine their value as landmarks.		JOB NUMBER CM-7704	SURVEY NUMBER TP-00530	DATUM North American 1927		METHOD AND DATE OF LOCATION (See instructions on reverse side)				CHARTS AFFECTED					
CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	LATITUDE		LONGITUDE		OFFICE	FIELD								
		D.M. Meters	D.P. Meters	D.M. Meters	D.P. Meters										
TANK		37 47	42.98	122 17	31.72	77B(P) 3512 March 18, 1977	F-V-Vis. March 30, 1979					18649 18650 18652			
GAS TANK	east one of three	37 47	49.50	122 16	52.03	77B(P) 3512 March 18, 1977	F-V-Vis. April 26, 1979					18649 18650 18652			
GAS TANK	center one of three	37 47	50.05	122 16	54.32	77B(P) 3512 March 18, 1977	F-V-Vis. April 26, 1979					18649 18650 18652			
GAS TANK	west one of three	37 47	50.24	122 17	03.80	77B(P) 3512 March 18, 1977	F-V-Vis. April 26, 1979					18649 18650 18652			
TOWER (COURTHOUSE)	(Oakland - Alameda County Courthouse, Flagpole, 1947)	37 47	59.626	122 15	42.892	77B(P) 2559 March 18, 1977	F-V-Vis. March 30, 1979					18649 18650 18652			
SPIRE	(Oakland Tribune Building Flagpole, 1925)	37 48	11.610	122 16	11.166	77B(P) 2559 March 18, 1977	Triang. Rec. March 30, 1979					18649 18650 18652			
TOWER (CITY HALL)		37 48	19.34	122 16	17.25	77B(I) 3087 Mar. 10, 1977	F-V-Vis. March 19, 1979					18649 18650 18652			
TOWER	(Oakland, Shredded Wheat Building Tower, 1925)	37 48	34.681	122 17	17.462	77B(P) 2559 March 18, 1977	F-V-Vis. April 10, 1979					18649 18652			
TOWER		37 49	08.17	122 17	10.79	77B(P) 2559 March 18, 1977	F-V-Vis. March 23, 1979					18649 18652			
RADIO TOWER	(K.I.Q.I.) southwest tower; not the same SW tower as currently charted, see pg. 5 of these forms for remarks.	37 49	32.99	122 18	39.70	77B(P) 3696 March 18, 1977	F-V-Vis. March 30, 1979					18649 18650 18652			

TYPE OF ACTION		RESPONSIBLE PERSONNEL	
		NAME	
OBJECTS INSPECTED FROM SEAWARD		T. A. Peasley, En	
POSITIONS DETERMINED AND/OR VERIFIED		T. A. Peasley, En	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW		J. R. Minton	
ACTIVITIES	INSTRUCTIONS FOR ENTRIES UNDER METHOD AND (Consult Photogrammetric Instructions)		

OFFICE	FIELD (Consult Photogrammetric Instructions)
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 (Consult Photogrammetric Instructions) B. PH en da 9T EX

FIELD

I. 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

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

DEPARTMENT OF COMMERCE 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)																																	
DATE																																			
Id San	09/29/80																																		
Remarks.																																			
<table border="1"> <thead> <tr> <th colspan="2">METHOD AND DATE OF LOCATION (See instructions on reverse side)</th> <th rowspan="2">CHARTS AFFECTED</th> </tr> <tr> <th>OFFICE</th> <th>FIELD</th> </tr> </thead> <tbody> <tr> <td>77B(P)3696 Mar. 18, 1977</td> <td>F-V-Vis. March 30, 1979</td> <td>18649 18650 18652</td> </tr> <tr> <td>77B(P)3696 Mar. 18, 1977</td> <td>F-V-Vis. March 30, 1979</td> <td>18649 18650 18652</td> </tr> <tr> <td>77B(P)3695 March 18, 1977</td> <td>F-V-Vis. March 28, 1979</td> <td>18649 18650 18652</td> </tr> <tr> <td>77B(P)3696 March 18, 1977</td> <td>F-V-Vis. March 18, 1979</td> <td>18649 18650 18652</td> </tr> <tr> <td>77B(P)3695 March 18, 1977</td> <td>F-V-Vis. March 28, 1979</td> <td>18649 18650 18652</td> </tr> <tr> <td>77B(P)3695 March 18, 1977</td> <td>F-V-Vis. March 28, 1979</td> <td>18649 18650 18652</td> </tr> <tr> <td>77B(P)3695 March 18, 1977</td> <td>F-V-Vis. March 28, 1979</td> <td>18649 18650 18652</td> </tr> <tr> <td>77B(P)3695 March 18, 1977</td> <td>F-V-Vis. March 28, 1979</td> <td>18649 18650 18652</td> </tr> <tr> <td>77B(P)3695 March 18, 1977</td> <td>F-V-Vis. March 28, 1979</td> <td>18649 18650 18652</td> </tr> </tbody> </table>				METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED	OFFICE	FIELD	77B(P)3696 Mar. 18, 1977	F-V-Vis. March 30, 1979	18649 18650 18652	77B(P)3696 Mar. 18, 1977	F-V-Vis. March 30, 1979	18649 18650 18652	77B(P)3695 March 18, 1977	F-V-Vis. March 28, 1979	18649 18650 18652	77B(P)3696 March 18, 1977	F-V-Vis. March 18, 1979	18649 18650 18652	77B(P)3695 March 18, 1977	F-V-Vis. March 28, 1979	18649 18650 18652	77B(P)3695 March 18, 1977	F-V-Vis. March 28, 1979	18649 18650 18652	77B(P)3695 March 18, 1977	F-V-Vis. March 28, 1979	18649 18650 18652	77B(P)3695 March 18, 1977	F-V-Vis. March 28, 1979	18649 18650 18652	77B(P)3695 March 18, 1977	F-V-Vis. March 28, 1979	18649 18650 18652
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77B(P)3695 March 18, 1977	F-V-Vis. March 28, 1979	18649 18650 18652																																	

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	T. A. Peasley, Ens., NOAA
POSITIONS DETERMINED AND/OR VERIFIED	T. A. Peasley, Ens., NOAA
FORMS ORIGINATED BY QUALITY/CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	J. R. Minton
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 entry of method of date of field work graph used to locate EXAMPLE: P-8-V 8-12-75 74L(C)298
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	II. TRIANGULATION STATION When a landmark or triangulation station is Rec. with date of re EXAMPLE: Triang. Rec 8-12-75 III. POSITION VERIFIED VIS Enter 'V-Vis.' and date EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITION entirely, or in part, up by photogrammetric method
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

[illegible]

TYPE OF ACTION
OBJECTS INSPECTED FROM SEAWARD
POSITIONS DETERMINED AND/OR VERIFIED
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES
OFFICE 1. OFFICE IDENTIFIED Enter the number of day, and year of identify and local EXAMPLE: 75E(C)6 8-12-75
FIELD 1. NEW POSITION DETERMINED Enter the applicable F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection A. Field positions location and date EXAMPLE: F-2-1 8-12-75
*FIELD POSITIONS are based on entire

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.		TYPE OF SURVEY		SURVEY TP. 00530	
DESCRIPTIVE REPORT - DATA RECORD				☒ ORIGINAL		MAP EDITION NO. 1	
				☐ RESURVEY		MAP CLASS Final	
				☐ REVISED		JOB PH. 7704	
PHOTOGRAMMETRIC OFFICE				LAST PRECEDING MAP EDITION			
Coastal Mapping Division, AMC, Norfolk, VA				TYPE OF SURVEY		JOB PH. _____	
OFFICER-IN-CHARGE				☐ ORIGINAL		MAP CLASS _____	
Roy K. Matsushige, CDR				☐ RESURVEY		SURVEY DATES:	
				☐ REVISED		19__ TO 19__	
I. INSTRUCTIONS DATED							
1. OFFICE				2. FIELD			
Aerotriangulation April 13, 1977				Control-Premarking February 7, 1977			
Compilation August 3, 1978							
Compilation Amendment 1 April 20, 1978							
Compilation Amendment 2 April 6, 1979							
Compilation Amendment 3 July 30, 1979							
Compilation July 2, 1981							
II. DATUMS							
1. HORIZONTAL: ☒ 1927 NORTH AMERICAN				OTHER (Specify)			
2. VERTICAL: ☒ MEAN HIGH-WATER				OTHER (Specify)			
☐ MEAN LOW-WATER							
☒ MEAN LOWER LOW-WATER							
☐ MEAN SEA LEVEL							
3. MAP PROJECTION				4. GRID(S)			
Lambert Conformal				STATE		ZONE	
				California		3	
5. SCALE				STATE		ZONE	
1:10,000							
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				D. Butler		Sept. 1978	
COMPILATION CHECKED BY				L. Neterer		Sept. 1978	
INSTRUMENT: Wild B-8				CONTOURS BY		Not Applicable	
SCALE: 1:15,000				CHECKED BY		Not Applicable	
4. MANUSCRIPT DELINEATION PLANIMETRY BY				D. Butler		Oct. 1978	
CHECKED BY				L. Neterer		Oct. 1978	
METHOD: Graphic Smooth Drafted				CONTOURS BY		Not Applicable	
CHECKED BY				Not Applicable			
SCALE: 1:10,000 HYDRO SUPPORT DATA BY				D. Butler		Oct. 1978	
CHECKED BY				F. Margiotta		Oct. 1978	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY				F. Margiotta		Oct. 1978	
6. APPLICATION OF FIELD EDIT DATA BY				J. Minton		Sept. 1980	
CHECKED BY				W. Richter		Oct. 1980	
7. COMPILATION SECTION REVIEW BY				W. Richter		Oct. 1980	
8. FINAL REVIEW BY				J. Hancock		Jan. 1982	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY				J. Hancock		Jan. 1982	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY				R. Kelly		Apr. 1982	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY				H. D. Wolfe			

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYTP-00530
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild R. G. 10 "B" (B = 152.74 MM)		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE ☐ PREDICTED TIDES ☒ REFERENCE STATION RECORDS ☒ TIDE CONTROLLED PHOTOGRAPHY *				ZONE Pacific	☒ STANDARD ☐ DAYLIGHT
				MERIDIAN 120 W.	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
77B(P)2543 thru 2545	Mar. 4, 1977	11:21	1:30,000	Not determined	
77B(P)2556 thru 2560	Mar. 4, 1977	11:43	1:30,000	Not determined	
77B(I)2794*	Mar. 5, 1977	09:57	1:30,000	0.22 _h below MHW	
77B(I)3072*	Mar. 10, 1977	10:54	1:30,000	0.35 _h below MLLW	
77B(I)3087 and 3089*	Mar. 10, 1977	11:12	1:30,000	0.01 _h below MLLW	
77B(I)3431 and 3433*	Mar. 18, 1977	10:16	1:30,000	0.37 _h below MHW	
77B(P)3511 thru 3513	Mar. 18, 1977	11:24	1:30,000	Not determined	
77B(P)3695 and 3696	Mar. 18, 1977	12:45	1:30,000	Not determined	

REMARKS Photo's 77B(P)2543-2545 and 77B(P)2556-2560 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. Photo's

2. SOURCE OF MEAN HIGH-WATER LINE: 77B(P)3511-3513 and 77B(P)3695-3696 were prepared for hydro support.

The above listed Mean High Water tide controlled infrared photography was used to graphically compile the Mean High Water Line. The photography was controlled with pass points that were selected and dropped during the stereo instrument compilation of the interior detail. Corrections and modifications to the Mean High Water Line may have resulted from the application of the field edit data listed in part II of form 76-36C.

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

The Mean Lower Low Water Line was compiled graphically from the above listed Mean Lower Low Water tide controlled infrared photography and controlled with pass points selected and dropped during the stereo compilation of the interior detail. Changes to the original Mean Lower Low Water line may have resulted from the application of the field edit data listed in part II of form 76-36C.

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
H-9810	1979	None; see Review			
H-9873	1980	Report, item #64			

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
TP-00527	No Survey	TP-00532 and TP-00533	TP-00529

REMARKS

TP-00527 is 1:20,000 scale; all others are 1:10,000 scale.