

12606

Diag. Cht. Nos. 5402-2 & 5530-4.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey **Shoreline-Chart Topography**

Field No. _____ Office No. **T-12606**

LOCALITY

State **California**

General locality **S. San Francisco**

Locality **Colma to Half Moon Bay**

19 63-64

CHIEF OF PARTY
P.A. Stark, Chief of Party
V.R. Sobieralski, Div. of Photo. D.C.

LIBRARY & ARCHIVES

DATE **December 1967**

COMM-DC 61300

12606

DESCRIPTIVE REPORT - DATA RECORD
T-12606

PROJECT NO. (II): PH-6405(Project 21418)			
FIELD OFFICE (II): Portland, Oregon		CHIEF OF PARTY P.A. Stark	
PHOTOGRAMMETRIC OFFICE (III): Washington, D.C.		OFFICER-IN-CHARGE V.R. Sobieralski	
INSTRUCTIONS DATED (II) (III):			
Field: Oct. 14, 1963		Office: June 11, 1965	
Oct. 29, 1963		July 13, 1965	
Nov. 10, 1964		Memos (revising schedules and require- ments): Aug. 1963	
Hydro: Dec. 23, 1964		July 12, 1965	
Aerotriangulation: Mar. 1965		Sept. 1, 1965	
		Oct. 26, 1965	
		Apr. 27, 1966	
		Aug. 18, 1966	
METHOD OF COMPILATION (III): B-8 Stereoplotter			
MANUSCRIPT SCALE (III): 1:40,000		STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):	
DATE RECEIVED IN WASHINGTON OFFICE (IV):		DATE REPORTED TO NAUTICAL CHART BRANCH (IV):	
APPLIED TO CHART NO.		DATE:	DATE REGISTERED (IV):
GEOGRAPHIC DATUM (III): N.A. 1927		VERTICAL DATUM (II): MEAN SEA LEVEL EXCEPT AS FOLLOWS: <i>Elevations shown as (25) refer to mean high water</i> <i>Elevations shown as (5) refer to sounding datum</i> <i>i.e., mean low water or mean lower low water</i>	
REFERENCE STATION (III):			
LAT.:	LONG.:	<input type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED	
PLANE COORDINATES (IV):		STATE	ZONE
Y =	X =		
ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE, OR (IV) WASHINGTON OFFICE. WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.			

DESCRIPTIVE REPORT - DATA RECORD

FIELD INSPECTION BY (II): R. B. Melby		DATE: June 1964
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): Delineated on field photos during field inspection		
PROJECTION AND GRIDS RULED BY (IV): A.E. Roundtree		DATE 8-25-65
PROJECTION AND GRIDS CHECKED BY (IV): R. Kornspan		DATE 8-26-65
CONTROL PLOTTED BY (III): J. Phillips		DATE Dec. 1966
CONTROL CHECKED BY (III): R.A. Youngblood		DATE Dec. 1966
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): G. M. Ball		DATE May 1965
STEREOSCOPIC INSTRUMENT COMPILATION (III): R.A. Youngblood H. Lucas	PLANIMETRY	DATE Jan. 1966
	CONTOURS	DATE Feb. 1966
MANUSCRIPT DELINEATED BY (III): H. Lucas		DATE Feb. 1966
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): J.P. Battley		DATE Aug. 1967

REMARKS:

NOTE: THIS MAP WAS NOT FIELD EDITED

(3)

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):
Wide angle and super wide angle

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
63 SC 7571-7575	21 Aug 1963	17:45-17:48	1:20,000	1.5 above MLW
63 SC 7566-7568	"	17:41	"	"
63 M 2494-2497	"	12:44-12:45	1:60,000	4.0 above MLW

TIDE (III)

Diurnal

	RATIO OF RANGES	MEAN RANGE	RANGE RANGE
REFERENCE STATION: San Francisco		4.2	6.0
SUBORDINATE STATION: Shelter Cove			
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV): **J.P. Battley, Jr.** DATE: **Aug 1967**

PROOF EDIT BY (IV): DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): RECOVERED: IDENTIFIED:

NUMBER OF BM(S) SEARCHED FOR (II): RECOVERED: IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

REMARKS:

SUMMARY TO ACCOMPANY THE DESCRIPTIVE REPORT
T-12606 (2418)
AUGUST 1967

T-12606 was one of five surveys, within project PH-6405, originally laid out to provide photo-hydro support, nautical chart topography, a horizontal accuracy check of published charts and the location by photogrammetric methods of field identified landmarks and aids. The project area extended along the California coast from Bodega Head south to Pillar Point, and, in addition, covered a part of San Francisco Bay from San Pedro Point to Hunters Point. Of the five surveys, only T-12606 was completed as originally planned. Numerous changes in requirements and instructions resulted in the dropping of T-numbers for the four remaining surveys. The requirements and final disposition of those surveys is discussed in the Project Completion Report*. Briefly, "chart letters" were compiled to reflect shoreline changes, a partial compilation was made in the San Francisco Bay area to reflect new horizontal positioning in the area and a complete location and/or verification of landmarks and aids was made thruout the project area. (See the Amendment to Instructions for Office and Field Phases, dated April 1967⁶, outlining the final requirements for project completion).

** Field inspection was completed for the project in June 1964. It encompassed the identification of horizontal control, landmarks and aids and other features considered of value to charts. Offshore rocks and foul areas were defined and a geographic names report was submitted.

The area was bridged with four strips of 1:60,000 scale "M" photography taken August 1963. This photography and 1:20,000 color photography taken at the same time were used to compile the manuscript.

The manuscript was compiled in the Washington Office in February 1966, using the photogrammetric instructions for compiling nautical chart topography. Field edit was originally planned but was dropped when the requirement changes were made for the other surveys of the project.

Revised schedules for delivery to the Marine Charts Division resulted in completion of this project being delayed for higher priority jobs until October 1967.

A Chart Division Manuscript Copy was supplied the Marine Charts Division prior to registration.

** and 1965.

* APPLICABLE INSTRUCTIONS ACCOUNTING FOR FINAL CHANGES IN PROJECT REQUIREMENTS AND FINAL DISPOSITION MADE OF THE PARTIAL COMPILATION AND FORMS 567 ARE INCLUDED IN THE DESCRIPTIVE REPORT (Pages 23 THRU 28) 568

⑤

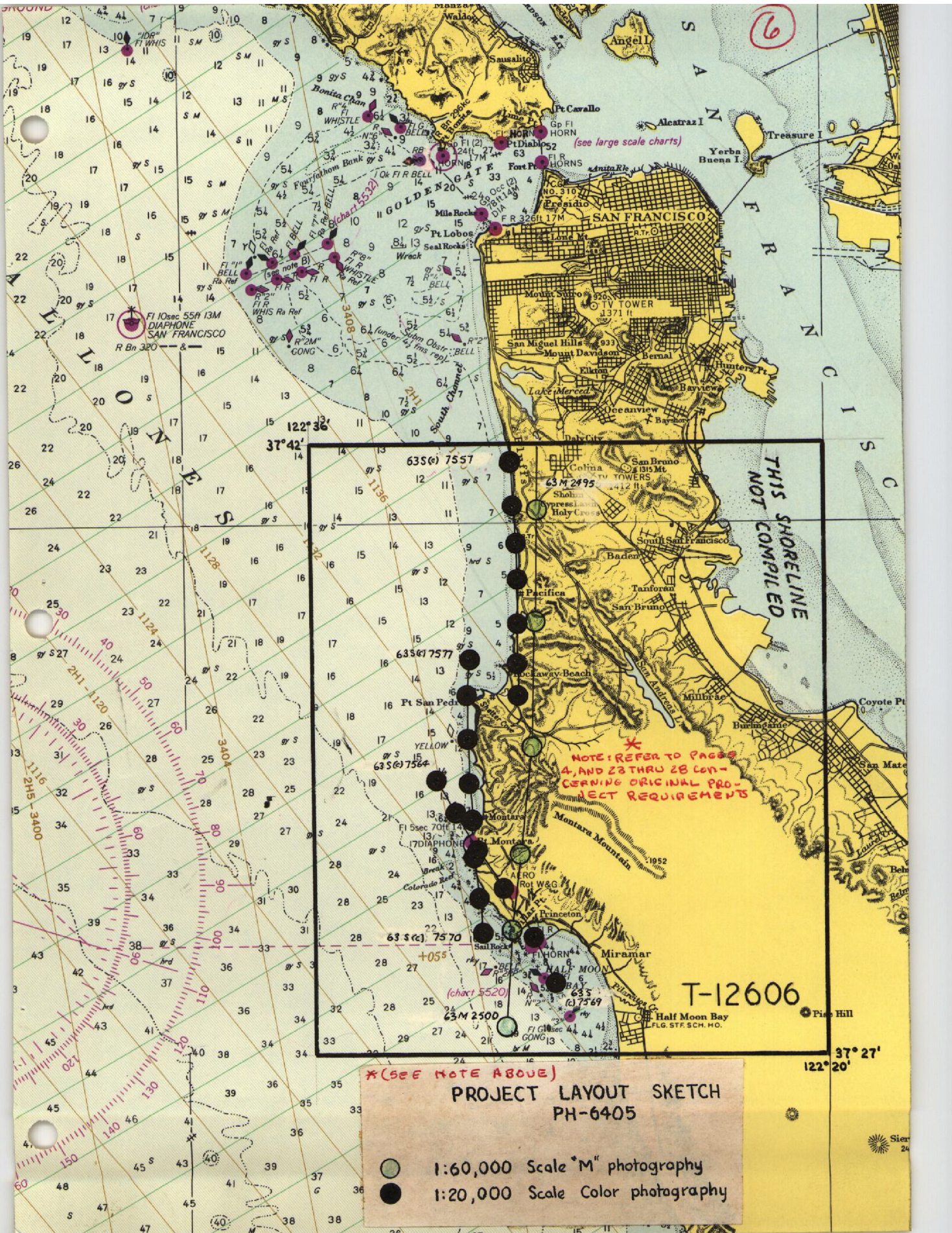
- 2 -

A Registration Manuscript Copy will be registered in the Bureau Archives under T-12606.

Submitted by:

Jeter P. Battley, Jr.
J.P. Battley, Jr.

6



(SEE NOTE ABOVE)
 PROJECT LAYOUT SKETCH
 PH-6405

● 1:60,000 Scale *M" photography
 ● 1:20,000 Scale Color photography

THIS SHORELINE
 NOT COMPILED

NOTE: REFER TO PAGES
 4, AND 23 THRU 28 CONCERNING
 ORIGINAL PROJECT REQUIREMENTS

T-12606

37° 27'
 122° 20'



FIELD INSPECTION REPORT

Project 21,418

Bodega Head to Pillar Point California

Jan 1964

June 1964

* (see below)

2. Areal Field Inspection:

The project area extends along the Pacific Coast of the state of California, from the vicinity of Bodega Head southward to the vicinity of Pillar Point, including the Golden gate and portions of the city of San Francisco.

The area is served by U.S. Highway 101, California State Highway 1 and numerous secondary roads and streets.

The quality of the photography furnished the field was considered adequate for field inspection and identification of horizontal control, although the photographs lacked the desired amount of contrast.

3. Horizontal Control:

(a) Four supplemental control stations were established for photo-control. Stations BY, n.m., n.d. 1964, MU, n.m., n.d. 1964, were unmarked horizontal stations, used for photo-control only. Marshall, McDonald Ranch, Red Barn, West Gable, 1964 and Half Moon Bay Airport, Rotating Aero Beacon, 1964 are described intersection stations used for photo-control. Station OKE, 1948, a former no-check position station, was reobserved and re-computed with a checked position, and identified. Station McDonald's House South Chimney, 1906, was considered for identification purposes, but an azimuth check from a triangulation station failed to agree by a noticeable margin. The chimney was intersected again and a new position computed for the station.

(b) No datum adjustments were made in the field.

(c) Only control established by the Coast and Geodetic Survey was searched for or recovered.

(d) All horizontal control required by the project instructions for stereoplanigraph bridging was positively identified.

(e) The disposition of all of the Coast and Geodetic Survey's stations have been noted on form 526.

The following stations were searched for and are reported as lost or destroyed:

Sheet 5603

- Bodega Harbor Channel Daybeacon 2, 1957
- Bodega Harbor Entrance Range Rear Light, 1957

* ADDITIONAL FIELD WORK - IN SAN FRANCISCO BAY, IDENTIFICATION OF CONTROL FOR BRIDGING AND LANDMARK AND AID INVESTIGATION - WAS DONE BY R. B. MELBY IN 1966. REFER TO PAGES 4, AND 23 THRU 28 CONCERNING DISPOSITION OF THIS DATA. SBB

Bodega Harbor Lower Range Rear Light, 1957
 Bodega Harbor North Range Front Light 21, 1957
 Bodega Harbor Upper Range Front Light 8, 1957
 Bodega Harbor Upper Range Rear Light, 1957
 Huff's House, West Gable, 1906
 Point Reyes Ranch, White Barn Cupola, 1930
 PRESTON 2, 1906
 Preston Ranch Barn, North Gable, 1906

Sheet 5599

Bolinas Coast Guard Mast, 1929
 GARD, 1929
 DAVIS, 1954
 Kentfield Radio Station KTIM MAST, 1960
 Radio East, 1929
 Radio West, 1929
 RIDGE, 1929

South of 5532

Lone Tree Near Beach, South of Princeton, 1931

(f) The quality of identification of each station is stated on the control station identification cards. None of the identification was considered substandard.

4. Vertical Control:

Vertical control not applicable.

5. Contours and Drainage:

Contours not applicable.

The drainage pattern is apparent on the field photographs. The majority of the streams is intermittent.

6. Woodland Cover:

Native woodland cover consists mostly of scrub pines, eucalyptus and brush on the slopes of the hills.

7. Shoreline and Alongshore Features:

(a) The mean high waterline was delineated on the field photographs. Along the steep bluffs and cliffs the mean high waterline is at the base of these features.

(b) The low waterline was not delineated.

(c) The character of the foreshore has been indicated on the field photography. Rocky, offshore ledges have also been indicated on the field photos.

(d) Bluffs and cliffs are characteristic of most of the shoreline. These have been indicated on the photographs.

(e) Docks, wharves, piers, landings, slips, etc. have been indicated on the field photos except in the city of San Francisco area where these features are apparent.

(f) Submarine cables have not been indicated.

(g) Other shoreline features consist of new Coast Guard Station and pier at Bodega Bay. Half Moon Bay Harbor is formed on the south by two boulder breakwaters. A surfaced small craft launching ramp is found at Horseshoe Bay.

8. Offshore Features:

Certain offshore rocks were indicated on the field photographs. In some instances the shoreline area was labeled as "foul w/rocks" due to numerous rocks. These rocks are apparent on the photographs. Heights of rocks are referenced to "P.S.T." (Pacific Standard Time) or "P.D.S.T." (Pacific Daylight Saving Time).

Kelp has been noted on the field photographs.

9. Landmarks and Charts:

(a) All charted landmarks were investigated. Those still in existence and of landmark value were recommended to be retained. Charted landmarks that were no longer considered to be of landmark value or have been removed, were recommended to be deleted from future charts. New landmarks were recommended to be adopted. New landmarks were located by either photogrammetric or triangulation methods. All landmarks were listed on form 567.

(b) No interior landmarks were selected.

(c) Four aeronautical lighted aids were located by triangulation methods. These aids are also nautical aids. They are Bolinas Aero Light, Golden Gate Bridge North Aero Light, Golden Gate Bridge South Aero Light and Half Moon Bay Airport, Rotating Aero Beacon.

(d) All fixed aids to navigation were located by triangulation or traverse unless they were previously so located, except the aids in the city of San Francisco area, which were photo-identified.

The following is a list of the aids so located:

- Bodega Harbor, Entrance Light 2
- Bodega Harbor, North Range Front Light 39
- Bodega Harbor, Upper Range Front Light 14
- Bodega Harbor, Upper Range Rear Light
- Bolinas Aero Light
- Bonita Channel Range Rear Light
- Golden Gate Bridge, North Aero Light

- Golden Gate Bridge, South Aero Light
- Golden Gate Bridge, South Pier Light
- Half Moon Bay Airport, Rotating Aero Beacon
- Half Moon Bay East Breakwater Light
- Half Moon Bay West Breakwater Light
- Lime Point Light
- San Francisco Bay, Yellow Bluff Light

The azimuth of Bonita Channel Range (at the north entrance to the Golden Gate) can be determined as the front object, Mile Rocks Light and the rear object, Bonita Channel Range Rear Light, are triangulation stations. A daybeacon (Bonita Channel Range Lower Rear Daybeacon) consisting of a white, rectangular-shaped design painted on the steep face of a cliff, is located on range between Mile Rock Light and Bonita Channel Range Rear Light. The daybeacon's position was determined by a theodolite fix. The plotted position is considerably closer to the rear range light than it appears on chart 5532 edition 6 May 1963.

(e) Floating Aids are not applicable.

10. Boundaries, Monuments and Lines:

Boundaries, monuments and lines are not applicable.

11. Other Control:

No other control was established by the field party. The establishment of topographic or photo-hydro stations was not required.

12. Other Interior Features:

Interior features were limited to landmarks and the main roads, or shoreline access roads. These features have been indicated.

There are no navigable rivers in the area. Navigable waters are the Pacific Ocean, its bay and lagoons.

13. Geographic Names:

Geographic Names is the subject of a separate report.

14. Special Reports and Supplemental Data:

Five triangulation sketches of the locations of new horizontal control stations.

Approved:

Respectfully submitted:

P.A. Stark, CDR, C&GS
Portland District Officer

Robert B. Melby
Robert B. Melby
Surveying Technician, C&GS

Photogrammetric Plot Report

Project 21418

California

May 1965

21. Area Covered

This report covers an area of the coast of California in the vicinity of San Francisco, from Bodega Point to Pillar Pt.

22. Method

Analytic Aerotriangulation methods were used; to bridge four strips of photography at the scale of 1:60,000. The attached sketch of photography bridged shows both field and office identified control used in the adjustments. Closures to control and tie points have been tabulated.

23. Adequacy of Control

Horizontal control identified and required to adjust strips was adequate. One station, OKE, 1948 and its sub point, was not used in the adjustment due to the poor image definition of both points.

The four sheets, (T-12503, T-12504, T-12505 and T-12606) can be compiled to meet the National Standards of Map Accuracy. Seventy-six Shoran Calibration points were identified and positions determined on the Oceanographic Equipment Evaluation Range, outer coast, Bodega Head to Pillar Point.

24. Supplemental Data

None

25. Photography

Photography was adequate with regard to overlap, coverage and definition.

Respectfully submitted:

George M. Ball
George M. Ball

Approved & Forwarded

Henry P. Eichert

Henry P. Eichert
Acting Chief, Aerotriangulation Section

trip #1

BY, 1964

SS "A" (+2 +1)
SS "B" (+4 -5)

BODEGA HARBOR, NORTH RANGE, REAR LIGHT

HOME (-1 -1)
SS "A" (-3 +1)

TETON 2, BARN, NORTH OF NORTH GABLE, 1964

HOME (+2 +3)
SS "A" (+1 +2)

MARSHALL, McDONALD RANCH, RED BARN, W. GABLE, 1964

HOME (+1 -1)
SS "A" (+2 +1)

INVERNESS YACHT CLUB, NORTHEAST GABLE

HOME (+4 -11)
SS "A" (-1 -1)

TIE POINTS TO STRIP #2

66401 (+3 +1)
66402 (-2 -1)
66403 (-1 -6)
66404 (+2 +1)

Strip #2

MARSHALL, McDONALD RANCH, RED BARN, W. GABLE, 1964

HOME (0 0)
SS "A" (-2 -1)

PATTON, 1921

SS "A" (0 0)
SS "B" (+4 0)

POINT REYES HEAP 2, 1907

HOME (-3 -3)
SS "A" (0 0)

Strip #3

PATTON, 1921

SS "A" (-3 -4)
SS "B" (-5 -6)

MO, 1964

SS "A" (+5 +3)
SS "B" (+6 +5)

R.C.A., 1954

SS "A" (-4 -2)
SS "B" (-1 +3)

MT. TAMALPAIS 2, 1951

SS "A" (+2 +2)
SS "B" (+2 +4)

OKE, 1948 (IMAGE DEFINITION VERY POOR)

HOME "A" (+11 -5)
 (+15 -3)

CROSSING, 1955

SS "A" (-5 0)
SS "B" (0 0)

MT. DAVIDSON CROSS (OFFICE IDENTIFIED)

(-1 +2)

TIE POINTS TO STRIP #2

72401 (0 +10)
72402 (0 -5)
72403 (+6 0)
72404 (+9 +8)

Strip #4

FLEISHACHER POOL STACK, 1929

HOME (-5 0)
SS "A" (0 +1)

MT. DAVIDSON CROSS (OFFICE IDENTIFIED)

(0 -1)

CASTLE, N. W. CORNER, 1929

HOME { -1 0 }
SS "A" { 0 -2 }

BLACK MOUNTAIN, 1938

SS "A" { 0 0 }
SS "B" { -3 -3 }

POINT MONTARA LIGHTHOUSE, 1921

HOME { -6 -1 }
SS "A" { +3 -1 }

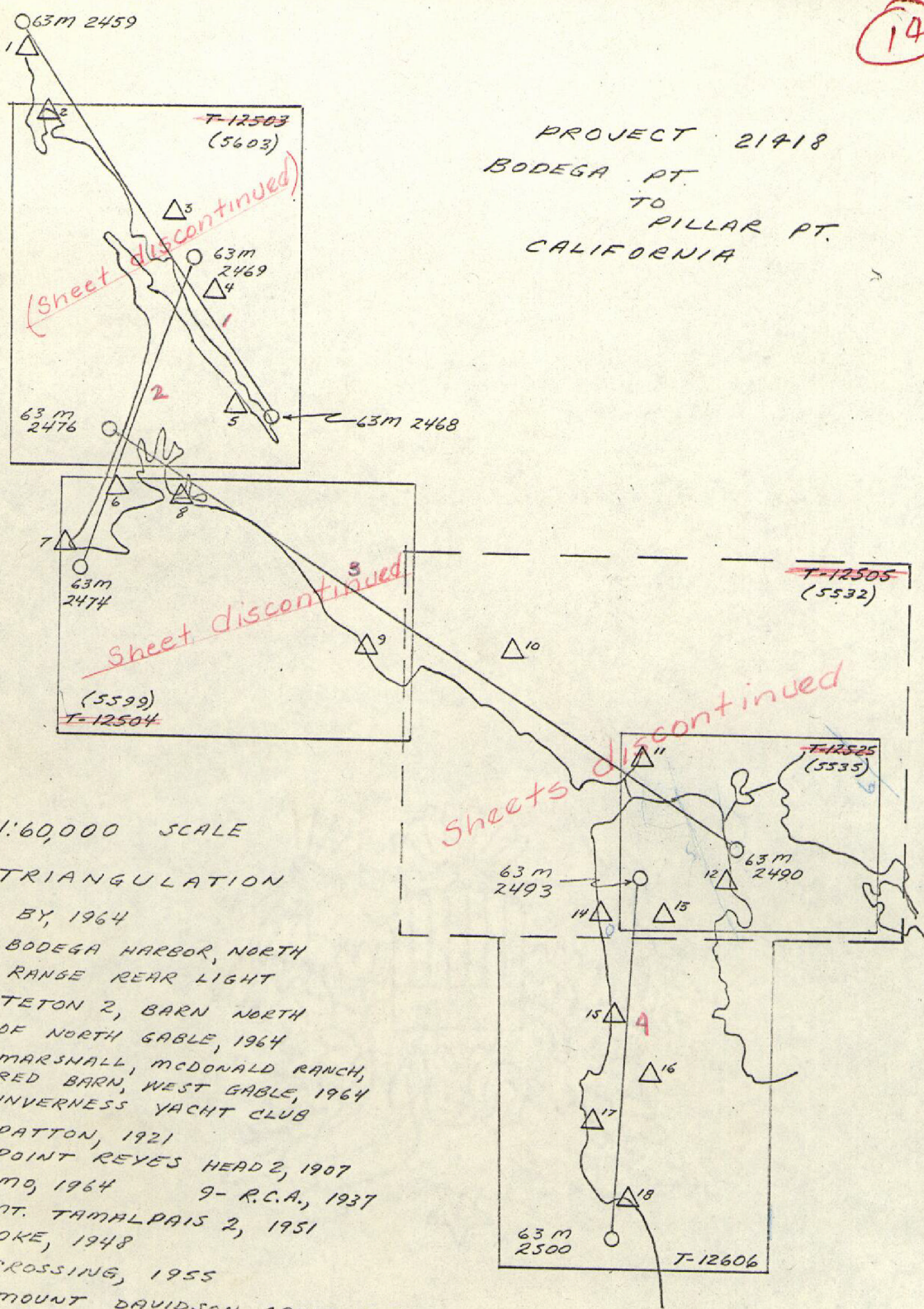
HALF MOON BAY, AIRPORT ROTATING AERO BEACON, 1964

HOME { -3 -1 }
SS "A" { -5 -1 }

TIE POINTS TO STRIP #3

87401 { +1 -8 }
87402 { 0 +2 }
87403 { +1 -3 }

PROJECT 21418
BODEGA PT.
TO PILLAR PT.
CALIFORNIA



○ 1:60,000 SCALE

△ TRIANGULATION

- 1- BY, 1964
- 2- BODEGA HARBOR, NORTH RANGE REAR LIGHT
- 3- TETON 2, BARN NORTH OF NORTH GABLE, 1964
- 4- MARSHALL, McDONALD RANCH, RED BARN, WEST GABLE, 1964
- 5- INVERNESS YACHT CLUB
- 6- PATTON, 1921
- 7- POINT REYES HEAD 2, 1907
- 8- M9, 1964
- 9- R.C.A., 1937
- 10- MT. TAMALPAIS 2, 1951
- 11- OKE, 1948
- 12- CROSSING, 1955
- 13- MOUNT DAVIDSON CROSS, 1938
- 14- FLEISHACHER POOL STACK, 1929
- 15- CASTLE, N.W. CORNER, 1929
- 16- BLACK MTN, 1938
- 17- POINT MONTARA LIGHTHOUSE, 1921
- 18- HALF MOON BAY AIRPORT ROTATING AERO BEACON, 1964

strips #3 + #4 have not been plotted on the 1:20,000 (T-12525) comps - were not available

COMPILATION REPORT
CHART TOPOGRAPHY
PH-6405
T-12606
April 1966

31. Delineation

T-12606 was compiled to provide topography for nautical charting. The area compiled extends from Daly City southward to Half Moon Bay, California. Interior compilation was extended to the photographic coverage which was approximately the eastern limits of Chart 5072. The San Francisco Bay shoreline, which falls within the survey limits, was not compiled. Compilation was achieved in the Washington Office on the B-8 stereoplotter. (See the Preface for the disposition of the adjoining surveys in this project.)

32. Control

(See the Photogrammetric Plot Report.)

33. Supplemental Data

Details south of latitude 37 28'00", (to the 37 27' neatline) were transferred from Chart 5520. This area lacked photographic coverage.

34. Contours and Drainage

Inapplicable

35. Shoreline and Alongshore Details

The area of this survey was field inspected in June 1964. The MHWL was delineated on the field photos. The low water line was not delineated. Shoreline inspection was adequate to compile this survey.

36. Offshore Details

Offshore rocks, fowl and kelp areas were field inspected. These were shown and referenced to datum, along with numerous rocks visible on the photography.

37. Landmarks and Aids

Four previously charted aids were recommended to be retained by the field inspector. Of these, Half Moon Bay

East Breakwater Light, 1964 had an erroneous listing on the 567 Form for its latitude position. This light was an intersection station. The correct position was obtained from Geodesy and corrected on the 567 Forms, including the Marine Charts Copy. Two towers were shown on Chart 5520 (1:20,000 scale, 4th Edition). These towers were visible on the color photography and were positioned on the B-8 stereoplotter.

38. Control for Future Surveys

None

39. Junctions

* T-125²0⁵ (Chart 553⁵2), that junctions to the north, was only partially compiled. (See Project Completion Report). The junctioning area was not compiled, thus a junction was not made.

40. Horizontal and Vertical Accuracy

This survey complies with the National Standards of Accuracy.

41. thru 45.

Inapplicable

46. Comparison with Existing Maps

Comparison was made with USGS quadrangle San Francisco South, California and Montara Mountain, California, scale 1:24,000, dated 1956.

47. Comparison with Nautical Charts

Comparison was made with Chart 5520, 4th Edition, June 1964 and Chart 5502, 7th Edition, dated November 1963.

"Items to be applied to Nautical Charts immediately": None.

A comparison was made with Chart 50725C, scale 1:100,000, dated July 1965.

Approved by:

K.N. Maki

K.N. Maki

Submitted by:

H. Lucas

H. Lucas

* T-12525 WAS CANCELLED - PARTIAL COMPILATION FILED AS A BLUEPRINT

REVIEW REPORT
T-12606
CHART TOPOGRAPHY
AUGUST 1967

61. General Statement

(See Summary) AND PAGES 23 THRU 28 CONCERNING CHANGES
IN PROJECT REQUIREMENTS

62. Comparison with Registered Topographic Surveys

Comparison was made with surveys T-4523 and 4524, dated 1929, 1:10,000 scale and T-4786, dated 1932, 1:10,000 scale. The alongshore features and offshore details were substantially in agreement. Field edit of this survey was not made. The breakwater and pier development in Half Moon Bay were made after the older surveys.

63. Comparison with Maps of Other Agencies

Comparison was made with USGS Quadrangles: San Francisco South, 1:24,000, dated 1956; Montara Mountain, 1:24,000, dated 1956 and Half Moon Bay, California, 1:24,000, dated 1961.

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Nautical Charts

Comparison was made with Chart 5520, scale 1:20,000, 4th Edition, dated June 1964 with corrections to March 1967 and with Chart 5072 SC, scale 1:100,000, 3rd Edition, dated June 1967. T-12606 was compiled in January-February 1966 utilizing 1964 field inspection data. Copies of the completed manuscript were made, but the survey was set aside pending the disposition of the other surveys within the project. (See the descriptive report summary). A copy of T-12606 was supplied the Marine Charts Division. Revisions were taken from this copy for the new Editions of Chart 5072 SC and 5520. In addition, the new issues reflect additions, particularly to the breakwater at Pillar Point Harbor, that were made after survey T-12606.

66. Adequacy of Results and Future Surveys

This map complies with the National Standards of Accuracy.

The alongshore area of this survey was replete with rocks, bare, awash and sunken. All rocks field inspected were shown. Many rocks were delineated from Office interpretation only, utilizing 1:20,000 scale color and 1:60,000 scale panchromatic photography. The ocean shoreline has continual surf, and as the compilation scale was 1:40,000 a verification survey of the compiled rocks should be made.

Approved by

Charles L. Hemm DLS.

J. Ralph Sobiewalski
Chief, Photogrammetric
Division 11-24-67

Reviewed by

John F. Hatley Jr. DCI.7

John A. Boyer
Chief, Marine Charts
Division

GEOGRAPHIC NAMES

Ph 21418 (Bodega Pt. to Pillar Pt., Cal.)

T-12606

- Pacific Manor
- Milagra Valley
- Milagra Ridge
- Sharp Park
- Laguna Salada
- Edgemar
- Mussel Rock
- Thornton Beach State Park
- Westlake
- Daly City
- Colma
- Colma Creek
- San Bruno Mountain
- Br sbane
- Guadalupe Valley
- San Francisco Bay
- Sierra Point
- Visitacion Point
- Oyster Point
- Point San Bruno
- San Bruno Canal
- San Bruno
- Twelvemile Creek
- Seaplane Harbor
- Cattle Hill
- Sweeney Ridge
- Buri Buri Ridge
- Hillsborough
- Hillsdale
- Belle Monte
- San Carlos
- Pulgas Ridge
- Lower Crystal Springs Reservoir
- Sawyer Ridge
- Spring Valley Ridge
- Cahall Ridge
- Pilarcitos Creek
- Scarper Peak
- Ox Hill
- Frenchmans Creek
- Arroyo de en Medio
- N. Granada
- El Granada
- Princeton
- Seal Cove
- Moss Beach
- Montara Point
- Devils Slide
- Pedro Mountain
- Point San Pedro
- Shelter Cove
- Rockaway Beach
- Sharp Park
- Salt Valley
- San Vicente Creek
- San Pedro Terrace
- Shelter Cove
- Brewer Island
- Guano Island
- Mills Creek
- Albert Canyon
- Adobe Gulch
- Upper Crystal Springs Reservoir
- Adobe Point
- Sail Rock
- Pillar Point
- Kings Rock
- Half Moon Bay
- El Granada Beach
- Vallejo Beach
- San Mateo Beaches State Park
- Miramar Beach
- Naples Beach
- Venice Beach
- Dunes Beach
- Elmar Beach
- Francis Beach
- Miramar
- Arroyo de en Medio
- Digges Canyon
- Corinda Los Trancos Creek
- Nuff Creek
- Wash Rock
- Denniston Creek

GEOGRAPHIC NAMES

Ph 21418 (Bodega Pt. to Pillar Pts., Cal.)

T-12606

Princeton
Seal Cove
Moss Beach
Point Montara
Montara
Montara Beach
Martini Creek
Green Valley
San Pedro Mountain

Lomita Park
Pulgas Ridge
Polhemus Creek
Black Mountain
Cherry Canyon
Sanchez Creek

Mori Point
Calera Valley
Valleamar
Rockaway Beach
Cattle Hill
Pedro Valley
North Fork
Middle Fork
South Fork
North Peak
Montara Knob
South Peak
Peak Mountain
Vicenta Creek
Whiting Ridge
San Mateo Creek
San Andreas Lake
Fifield Ridge
Spring Valley Ridge
Pilarcitos Lake

Ox Hill
Locks Creek
Stone Dam Reservoir
Easton Creek
Millbrae
Burlingame
Millbrae Meadows
San Bruno

A. J. Wraight

A. J. Wraight
Geographic Branch

~~NONFLOATING AIDS OR LANDMARKS FOR CHARTS~~

TO BE CHARTED }
TO BE REVISED } STRIKE OUT TWO
~~TO BE DELETED~~

WASH. D.C. Half Moon Bay, California - April 14, 1966

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.

The positions given have been checked after listing by Henri Lucas

Jeter P. Battley, Jr.
Chief of Party

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION			METHODOF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE*	LONGITUDE*	DATUM						
				° ' "	° ' "							
	Tower	N. Tower at Pillar Point		3730	380.4	12229	1196.3	NA 1927	Aug-1963			5520
	Tower	S. Tower at Pillar Point		3729	1595.3	12229	1262.1	"	"			
								T-12606				
		THESE OBJECTS ARE CHARTED ON CHART 5520. THEY ARE NOT SUBMITTED BY PH-6405 FIELD PARTIES. THE OBJECTS POSITIONS WERE DETERMINED DURING COMPILATION. 567										
		SHOW ON FORMS 567 WERE OFFICE IDENTIFIED.										

(21)

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 6-36, Fig. 79. Positions of charted landmarks and non-floating aids to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

Previously charted, to be retained

NONFLOATING AIDS OR ANCHORAGES FOR CHARTS

BE CHARTED
~~TO BE CHARTED~~
~~TO BE CHARTED~~ } STRIKE OUT TWO

Sebastopol, California

21 May 1964

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on ~~NEW CHARTS~~ the charts indicated.

The positions given have been checked after listing by _____

P. A. Stark CDR, C&GS

Chief of Party

STATE	CHARTING NAME	DESCRIPTION	Light LIST NO. SIGNAL NAME	POSITION				METHOD OF LOCATION SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED	
				LATITUDES		LONGITUDE*								DATUM
				° ' "	D.P. METERS	° ' "	D.P. METERS							
DAY BN	Bonita Channel Range Lower Rear Daybeacon	283	37 47.3	43.366	122 30.2	N.A.	1927	Theodo-rite fix 5/19/64	X			5532		
LIGHT 11	Half Moon Bay East Breakwater Light, 1964	269.6	37 29	44.005	122 29	"	"	T-12606 Triang. 5/4/64	X			5520		
LIGHT 12	Half Moon Bay West Breakwater Light, 1964	269.7	37 29	40.681	122 29	"	"	T-12606 " "	X			"		
AERO LIGHT 13	Half Moon Bay Airport Rotating Aero Beacon, 1964	---	37 30	57.928	122 29	"	"	T-12606 " "	X			"		
LIGHT 14	Point Montara Light Point Montara Lighthouse, 1921	218	37 32	11.52	122 31	"	"	T-12606 " "	"	X	X	5502		

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

RBM

USCOM:MM-DC 16234-P&I

27

(23)

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
U.S. COAST AND GEODETIC SURVEY

C141/FILE

Chief, Photogrammetric Branch *Return to C141P* April 27, 1966

6320

Chief, Photogrammetry Division

Amendment to Instructions for Office and Field Phases, Job PH-6405, Chart Topography, Pacific Coast, California (Bodega Head to Pillar Point) and San Francisco Bay (San Pedro Point to Hunters Point)

- References:
- (1) Instructions - FIELD - Project 21418 (PH-6405) dated October 14, 1964
 - (2) Instructions - FIELD - Project 21418 Amendment I dated November 10, 1964
 - (3) Instructions - OFFICE - Job PH-6405 dated June 11, 1965 (Part 1 of 2)
 - (4) Instructions - OFFICE - Job PH-6405 dated July 13, 1965 (Part 2 of 2)
 - (5) Instructions (memorandum) - OFFICE - Job PH-6405 dated October 26, 1965

1. Subject

The requirements for this project have been changed several times. This amendment outlines the work that has been accomplished and provides the requirements for project completion.

2. Background

The project was planned to provide (1) hydro support data along the outer California Coast from Bodega Head to Duxbury Point, (2) and new topography for the reconstruction of published charts covering the entire project area. In addition to the outer coast mapping, topography for two charts covering a part of San Francisco Bay was to be mapped.

As originally planned, the hydro support phase included the compilation of Pacific Coast shoreline for three maps (T-12503, T-12504 and T-12505). The hydro support phase for T-12505 was canceled. Requirements for T-12503 and T-12504 were changed to include only the provision of positions of hydro signals. This phase has been completed.

20 SGBLankenbaker Jn 4/27/66

CODE	SURNAME	DATE	CODE	SURNAME	DATE
6320	<i>Blankenbaker</i>	<i>4/27/66</i>	<i>C141P</i>		
<i>C142</i>	<i>Spencer</i>	<i>4/27/66</i>	<i>C141</i>	<i>Craval</i>	

As originally planned the chart topography phase included the compilation of five maps. Pre-compilation field work included the identification of control and limited field inspection along the outer coast; and control identification and an investigation of landmarks and aids to navigation in San Francisco Bay. Field edit of the maps was required.

Pre-field edit compilation of map T-12606 has been completed. Map T-12504 and the outer coast portion of map T-12505 were canceled by agreement with the Marine Charts Division for the following reasons: (1) project photography had been previously applied to the drawings for the published charts covering the area; (2) and verification of accuracy of position of details shown on the drawings was obtained by comparison with B-S models controlled by the new bridge. Applicable field inspected data were applied to sections of published charts and forwarded to the Marine Charts Division. Project photography has been applied to the two San Francisco Bay charts (drawings of the published charts) and forwarded to the Marine Charts Division.

3. Project Completion

The Washington Office, Compilation Section, will locate and plot the positions of landmarks and aids on the Mercator projection provided for the compilation of T-12525 (San Francisco Bay). In addition, sufficient alongshore details (such as pier ends, etc.) to provide a check on the horizontal accuracy of the published chart will be compiled in pencil on the map projection. This work will be completed and forwarded to the Marine Charts Division by the end of the second week in August.

That portion of T-12505 (San Francisco Bay), scale 1:40,000, outside the common area with T-12525, scale 1:20,000, will be handled in the same manner as described in the previous paragraph except that the completion date for the subject work is March 1967.-

Compilation of the two San Francisco Bay maps is contingent upon results of the previously mentioned accuracy checks. These maps will be completed only upon request by the Marine Charts Division.

For the present, no field edit of map T-12606 is planned. This map will be field edited only in the event that maps

25

T-12505 and T-12525 are compiled and field edited. Map T-12503
is canceled.

(signed) L.F. Woodcock

L. F. Woodcock

cc:
6320, C32, C32.2
6314

UNITED STATES GOVERNMENT

26 - Cat, C141, C1411

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

Memorandum ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

TO : Chief, Photogrammetry Division

DATE: August 18, 1966

FROM : Chief, Marine Chart Division

In reply refer to: C32

Ref: 6320 dated 4/27/66
Amendment to Instructions
Job Ph-6405

SUBJECT: Job PH-6405, sheet T-12525

The horizontal accuracy check referred to in paragraph 3 of reference has been made and it is requested that you please furnish a complete compilation of the San Francisco shoreline including offshore details and prominent buildings along the waterfront, to the extent possible from available office data for this project. Shoreline for the eastern portion of chart 5535 will not be required unless further need develops during completion of the aids - and - landmarks requirement.

Delivery of this compilation is requested by March 1967, coinciding with programmed completion of T-12505.

Lorne G. Taylor
Lorne G. Taylor



(27)

Memorandum ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

TO : Operations Officer
Marine Charts Division

DATE: October 16, 1967

In reply refer to:

FROM : Chief, Compilation Section
Photogrammetry Division

SUBJECT: Revised shoreline (Chart 5535) and Forms 567 (Charts 5532 and 5535) submitted as a part of Job PH-6405, San Francisco Bay.

- References: (1) Photogrammetry Division Instructions-Job PH-6405-Amendment, dated April 1967.
(2) Memorandum, Chief, Marine Charts Division to Chief, Photogrammetry Division, dated August 18, 1967.

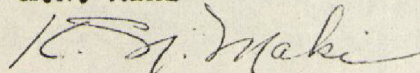
The Forms 567 submitted reflect office completion of a field investigation of Landmarks and Aids to Navigation accomplished in December 1964 and February 1965.

The new bridge (analytic aerotriangulation) for Ph-6405 was utilized in checking the horizontal accuracy of shoreline topographic information shown on Charts 5532 and 5535. The *only errors found are accounted for by the submitted revised shoreline (Chart 5535). Photography utilized was taken February 1964 at a scale of 1:40,000 and 1:60,000.

The field inspection report, aerotriangulation report and the field inspection photographs will be filed with other applicable PH-6405 data in the Federal Records Center.

Field inspection consisted only of the identification of horizontal control for bridging and either the location or identification of Landmarks and Aids to Navigation.

K.N. Maki



* THE NEW COMPILATION WILL BE FILED AS A BLUEPRINT BY THE MARINE CHART DIVISION. INSTRUCTIONS DATED APRIL 27, 1966 REQUIRED THE "PLOTING" OF AID AND LANDMARKS. SOME OBJECTS WERE PLOTTED ON THE MANUSCRIPT FOR CHART 5534.

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN
HOWEVER, BY VERBAL AGREEMENT, SUBMISSION OF FORMS 567 ONLY WAS REQUIRED 568



JOB PH-6405 NAUTICAL CHART TOPOGRAPHY Bodega Pt. to Pillar Pt., California

SCALE:
1:30,000

~~CANCELLED~~

SCALE:
1:40,000

~~CANCELLED~~

SCALE:
1:20,000

~~CANCELLED~~

SCALE:
1:40,000
Pacific

~~COMPILED~~

REVISION WORK FILED BY
MARINE CHART DIVISION
AS BLUE PRINT

LANDMARK AND AN
WORK ON CHART 5535
& CHART 5532 (FIELD
AND OFFICE) REFER
TO INSTRUCTIONS

