

IMPORTANT
PAGES 8 AND 9 WERE ADDED
THEY ARE NOT IN THE REPORT
THEY SHOW DETAIL MISSING FROM
ORIGINAL DOCUMENT PAGE 7 SCAN

F00032

NOAA FORM 76-35A	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT (HYDROGRAPHIC)	
Type of Survey	Field Examination
Field No.	
Office No.....	FE-32
LOCALITY	
State	California
General Locality	San Francisco Bay
Locality	Mission Rock
.....	
1941	
CHIEF OF PARTY H.A. Cotton	
LIBRARY & ARCHIVES	
DATE	1942

F00032

☆ U.S. GOV. PRINTING OFFICE: 1976-669-441

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as: FE No.2 1942

FE2
1942

U. S. COAST & GEODETIC SURVEY

LIBRARY AND ARCHIVES

MAR 18 1942

Acc. No. _____

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

L. O. Colbert, Director

State: California

DESCRIPTIVE REPORT

~~Topographic~~ } SPECIAL SURVEY FOR
Hydrographic } Sheet No. NAVY

LOCALITY

Mission Rock

San Francisco Bay

1942

CHIEF OF PARTY

L. D. Graham

U. S. GOVERNMENT PRINTING OFFICE: 1931

FE2
1942

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. Mission Rock

REGISTER NO.

State California

General locality San Francisco Bay, California.

Locality Mission Rock

Scale 1 to 1000 Date of survey December 11, 19 41

Vessel PIONEER, Launch No. 80

Chief of Party Harold A. Cotton

Surveyed by Gilbert R. Fish

Protracted by

Soundings penciled by

Soundings in ~~fathoms~~ feet

Plane of reference Mean Lower Low Water

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated Letter of November 1⁹, 1941, 19

Remarks: This is a special survey requested by the Navy Department
and comes within the area of Project HT - 256.

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SHEET FIELD - MISSION ROCK
SPECIAL SURVEY FOR NAVY DEPARTMENT
SAN FRANCISCO BAY, CALIFORNIA.

1941

U.S.C. & G.S.S. P I O N E E R

L.D. GRAHAM COMMANDING.

INSTRUCTIONS: No regular Instruction were received.

Letter of November 19, 1941 from Commandant,
Twelfth Naval District and Naval Operating Base, San Francisco,
California to Inspector, Coast and Geodetic Survey, San Francisco,
California.

Letter from Inspector, Coast and Geodetic Survey,
San Francisco, California to Director, U. S. Coast & Geodetic Survey.

Telegram from Director to Inspector, Coast and Geo-
detic Survey, San Francisco, Calif.

PURPOSE AND LIMITS OF SURVEY: This survey was requested by the
Navy Department in order to find a
suitable location for a magnetic survey range for degaussing activi-
ties in the San Francisco District. For this purpose a more detail-
ed survey of depths in certain parts of San Francisco Bay was nec-
essary.

The area surveyed is immediately east and adjacent
Mission Rock. It is a rectangle approximately 250 yards by 375 yards
located between latitudes $37^{\circ} 46' 32''$ and $37^{\circ} 46' 17''$ and between
longitudes $122^{\circ} 22' 41''$ and $122^{\circ} 22' 52''$. A survey on a scale of 1:
1000 with line spacings of 30 feet was desired.

SURVEY METHODS: The small amount of topography necessary for control
was done on the same sheet as the hydrography. There
was no existing control in the area so it was first necessary to ex-
ecute triangulation. Second order triangulation station "MISSION" was
established on Mission Rock and a third order station, "PIER 50 B, FLAG
POLE, EAST END", was located. In executing the topographic control
the plane table was set up first on station "MISSION" and oriented on
a distant station. The positions of control stations were then obtain-
ed by the usual plane table method. Station "PIER 50B" was used as a
check on the plane table work.

The work was done with Launch No. 80 of the U.S. C. & G.S.S. PIONEER using the Portable Depth Recorder Type No. 808. C&GS No. 59. Soundings were recorded in the record book at 5 second intervals and less than this at a few critical points. Positions were determined by sextant angles at 30 second intervals generally. The positions were protracted afterwards on board the ship.

The area was small and the scale large, the lines short and closely spaced, so in executing the hydrography no attempt was made to plot the positions and lines while the work was in progress. Instead the lines were run on ranges estimating the spacing as close to 10 meters as possible.

DEPTH RECORDER CORRECTIONS: Bar-checks were taken before starting work, at noon, and at end of day for depths of 6, 12 and 18 feet. From an inspection of the fathogram and record book of the bar checks for this day's work, it appears that the initial was set with bar held at the 6 foot depth and that it read correct at this depth within 0.1 foot throughout the day. It is recommended that the reductions for the fathogram readings be used from the complete bar checks obtained for sheet 1141 which are in the same general area.

DISCREPANCIES: No discrepancies.

The survey was made on the scale requested, 1 :1000. The lines were planned for 10 meter spacing but somewhat exceeded this at times. The plotting was not done until later and it was not deemed necessary to run any splits as enough information for the purpose of the survey was obtained.

TIDAL DATA: The predicted tides at Alameda Airport were used for plotting the soundings on the boat sheet.

The tide station at Alameda Airport is to be used for the smooth sheet plotting.

STATISTICS:		Statute Miles	Number of	Number of
Volume	Day	of	Soundings	Positions.
		Sounding Lines		
1	"a"	14.5	1339	261

A tracing of the boat sheet was made and submitted to the Navy Department immediately upon completion of the field work. A note was made on this tracing that the work was subject to slight change after actual instead of predicted tide corrections were applied.

Respectfully submitted,

APPROVED AND FORWARDED:

L. D. Graham

L. D. Graham, Lieut. Comdr. C&GS.
Commanding Ship PIONEER.

Frank G. Johnson
Frank G. Johnson,
Lieutenant, C&GS.

March 10, 1942.

PROCESSING OFFICE REPORT

The boat sheet with sounding volume, fathogram and descriptive report was transferred to the Oakland Processing Office from the Ship PIONEER.

Since the Navy Department already has a tracing of the boat sheet, which is satisfactory for their purposes, and the area is too small for extensive chart revision, the records have not been reduced and no smooth sheet prepared.

If it is later desired to smooth plot this sheet, the tidal data for reducing soundings should be taken from the gage at the Alameda Airport, which records are in the Division of Tides in the Washington Office. Fathometer corrections can be determined from the bar-check recorded on page 66 of the sounding volume.



S. B. Grenell,
Officer in Charge,
Oakland Processing Office.

Washington Office
April 10, 1942

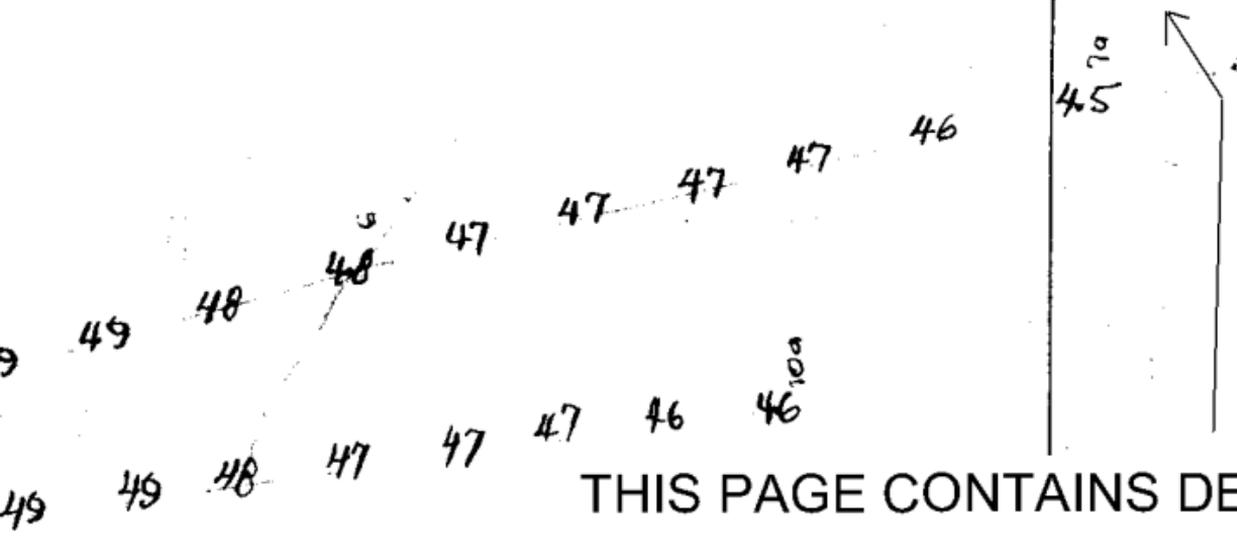
Smooth sheet was not plotted as bar-checks were not made to sufficient depth for the reduction of soundings.

Boat sheet should not be used for charting, inasmuch as soundings were not properly reduced.

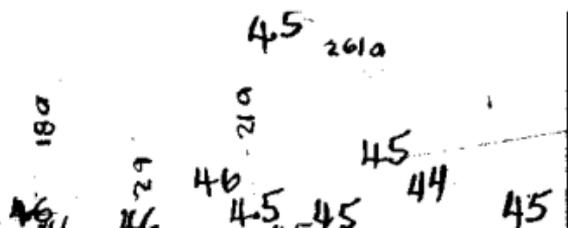


H. R. Edmonston
Asst. Chief, Surveys Section

122° 22' 40"



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NOT SHOWN ON ORIGINAL
SCAN OF PAGE 7





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Proj. by GTF
Scale 1:1000

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NOT ON PAGE 7 ORIGINAL SCAN