8068

Diag. Cht. No. 5402-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. WCFP-1353 *Office No.* H-8068

LOCALITY

State CALIFORNIA

General locality MONTEREY BAY

Locality MONTEREY HARBOR

1953

CHIEF OF PARTY

C. J. BEYMA

LIBRARY & ARCHIVES

DEC 10 1954

DATE

B-1870-1 (1)

8068

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

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.

REGISTER No. H-8068

Field No. WCFP 1353

State California

General locality Monterey Bay

Locality Monterey Harbor

Scale 1:10,000 Date of survey 22 Oct. 1953 to 8 Jan. 1954

Instructions dated 16 September, 1953

Vessel West Coast Field Party

Chief of party C. J. Beyma

Surveyed by G. E. Haraden, H. J. Weese, H. L. Runge

Soundings taken by fathometer, [illegible]

Fathograms scaled by W. F. B. and J. M. H.

Fathograms checked by G. E. H. and H. J. W.

Protracted by L. W. Eason, II

Soundings penciled by L. W. Eason, II

Soundings in [illegible] feet at [illegible] MLLW and are true depths

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY

H-8068 Field Sheet (WCFP 1353)

MONTEREY HARBOR, CALIFORNIA

Project CS-362
West Coast Field Party
Surveyed by: G. E. Haraden
H. J. Weese
H. L. Runge

Season of 1953
C. J. Beyma, Chief of Party

Scale 1:10,000

A. PROJECT

The work was done in accordance with instructions for Project CS-362, Monterey Harbor, California, dated 16 September 1953. All instructions were addressed to Commander C. J. Beyma, Officer in Charge, West Coast Field Party.

B. SURVEY LIMITS AND DATES

The limits of this survey include the part of Monterey Harbor which lies south of latitude 36° 37.50' and east of Point Cabrillo.

Field work was begun 22 October 1953 and was completed 8 January 1954. This survey joins prior survey H-5278 on the north. Survey H-5415, 1:5,000, 1953 covered the same area as this survey.

Generally good weather prevailed and progress was satisfactory throughout the project. In Monterey Harbor there is a constant northwesterly swell of from three to six feet which is evident on the fathograms.

Inside the breakwater no uniformity of lines could be maintained because of the many fishing boats moored there.

C. VESSEL AND EQUIPMENT

The hydrography was performed with PIONEER Launch No. 4 which was tied up at the Monterey Coast Guard Life Boat Station. The turning radius of the launch is approximately 10 meters.

One fathometer 808-J 152 SPX was used for sounding during the entire survey. 800 fm/sec

D. TIDE AND CURRENT STATIONS

One tide station was used for reducing the soundings of the entire survey. The tide gage was located on the Monterey Municipal Wharf at latitude 36° 36.16', longitude 123° 53.31'.

One current station was occupied at latitude 36° 36.39', longitude 121° 53.27'. The current was too weak to be measured by the pole and so was discontinued after six hours observations.

E. SMOOTH SHEET

The smooth sheet for this survey is to be drawn and completed by the Seattle Processing Office.

F. CONTROL STATIONS

A total of 31 stations were used to control the hydrography. Eight existing triangulation stations were used as hydrographic signals. The position of one triangulation station was re-established by the California State Lands Commission, verified by this party, and used as a signal. Ten topographic stations were recovered and used as signals. Twelve stations were located by triangulation and used as control signals. Two of the twelve are recoverable intersection stations; one is a second order marked station, and one is a third order, marked intersection station. Refer to report on Triangulation for this project, to be submitted.

One station was located by this party by sextant cuts from other plotted signals. These cuts are recorded in Volume I page 23 of the sounding records.

See page 9 of this report for origin and dates regarding control stations.

No difficulty was encountered with any of the control signals.

G. SHORELINE AND TOPOGRAPHY

The shoreline was transferred to the boat sheet from film positives RS-496 and RS-497. BP 50669-65 HWL on smooth sheet from T-11426 (1953-54)

The photographs were field inspected to verify the present shoreline, and all changes are noted on the photos. At latitude 36° 37.12', longitude 121° 51.05' the high water line has moved eastward and erosion of the bank is taking place. The revised highwater line was not plotted by this party, but the necessary information is on the photos. Refer to "Special Report on Photogrammetry" to be submitted. HWL connect on T-11426

The low water line was not defined by soundings because of breakers along the beaches on the southern and eastern limits and because of the rocky shoreline along the western limit of the project. Sextant fixes were taken at low tide along the beaches and the low water line is sketched on the boat sheet.

H. SOUNDINGS

Fathometer 152 SPX was used exclusively during this survey. (800 fm/sec) Bar checks were taken each day. Because of the difficulty in recording an echo from the conventional flat bar at depths over 40 feet, a receiver unit was used in deep water.

With the launch tied up at a protected dock, flat bar checks were taken to 30 feet with generally good results. However the launch used was not equipped with a regulator to control the filament voltage to the fathometer and some descrepancies resulted. Furthermore the fathometer ran from batteries which could be charged only when the launch was not in use. This made it impossible to keep the voltage constant.

The soundings were corrected by using the results of the flat type bar checks. No correction was applied to the A-Scale. Phase corrections were obtained by taking soundings at a given depth on two overlapping scales. Phase corrections for each day were abstraced at each scale and used to reduce the soundings. These corrections are tabulated on page 8 of this report.

The unit bar checks were not used because of inconsistent results.

An initial correction was applied when the initial failed to register 2.0 feet on the fathogram.

In depths over 24 feet the fathograms were scaled to the nearest one foot and corrections applied to the nearest one-half foot. In depths less than 24 feet the fathograms were scaled to the nearest one-half foot and corrections applied to the nearest two-tenths of a foot.

I. CONTROL OF HYDROGRAPHY

Sextant fixes, using the three point method were used for horizontal control of the survey with the exception of one short line. The soundings from 61 1 to 62 1 are plotted by dead reckoning to locate a rock at position 62 1.

J. ADEQUACY OF SURVEY

The survey is considered complete and adequate for charting purposes. No holidays exist, and depth curves can be drawn for the entire area. No special submarine features exist, however the 90 foot curve was drawn in addition to the standard depth curves.

K. CROSSLINES

Crosslines to the extent of 8 % were run with agreement at crossings generally less than 2 %. A few crossings from 118 g to 120 g show a descrepancy of 4 feet in 135 feet.

L. COMPARISON WITH PRIOR SURVEYS

The most recent prior survey of this area is H-5415, scale 1:5,000, 1933. Soundings from that survey agree very well with those obtained on this project. The 10 fathom curve, however, appears to be approximateley 100 meters inshore from that shown on the old survey. 10 fm curve in agreement with present survey

Soundings from H-5278 scale 1:40,000, 1933 are in good agreement with this survey.

Soundings from the Corps of Engineers survey of the area inside the breakwater and wharves, dated August 1953, scale 1 inch equals 100 feet, agree within one foot with those obtained by this survey. Later Engineers Survey of August 1954

M. COMPARISON WITH CHART

Soundings compared with chart 5403, January 1948 (8th Edition), scale 1:50,000 are in good agreement.

There are numerous fish hoppers and mooring bouys along the western limits of the survey which are not shown on the published chart. The positions of these are not shown on the boat sheet but the position data is recorded in Volume II, pages 49 to 53 of the sounding records. Plotted on smooth sheet

No indications of the following charted features were found during the survey and they should be deleted from the chart. Refer to form 567 page 12 of this report.

Charted feature	latitude	longitude	
Tank	36° 37.41'	121° 50.63'	not charted
Stack	36° 36.28'	121° 53.56'	not charted (in water)
Mooring Buoy	36° 36.84'	121° 52.90'	

N. DANGERS AND SHOALS

There are no newly found dangers or shoals to report within the limits of this survey.

O. COAST PILOT INFORMATION

The following are corrections to the Coast Pilot Notes for Monterey Harbor. Page and line numbers refer to publication "United States Coast Pilot, Pacific Coast, Seventh (1951) Edition".

Page 227, Line 40	Strike out "mostly lumber".
Page 228, Line 6	Strike out "Montery" insert "Monterey"

O. COAST PILOT INFORMATION, CONT.

Page 228, Line 36	Strike out "1950", insert "1953".
Page 228, Line 37	Strike out "24 feet", insert "22 feet".

P. AIDS TO NAVIGATION

Aids to navigation are reported on form 567, see pages 10&11 of this report. A fog signal on the northerly end of the Municipal Wharf and a red and green light on the northwest and northeast corners of the Wharf Warehouse respectively are maintained by the City of Monterey. Positions of these aids are to be determined by photogrammetric methods.

Q. LANDMARKS FOR CHARTS.

There are no additional landmarks for charts within the limits of this survey. Two landmarks should be deleted as described in section M, page 12 of this report.

Z. TABULATION OF APPLICABLE DATA

1. Triangulation report, Project CS-362, to be submitted.
2. Special Report on Photogrammetry, to be submitted.
3. Special report on Serial Temperatures, to be submitted.

Respectfully submitted
G. E. Haraden
G. E. Haraden
Ens. USC&GS

Approved & Forwarded
C. J. Beyma
C. J. Beyma
CDR., USC&GS
Chief of Party

STATISTICS FOR HYDROGRAPHIC SURVEY

H-8068 FIELD SHEET NO. WCFP 1353

PIONEER Launch No. 4 Project CS-362

Vol. No.	Day Letter	Date	No. HL Soundings	No. Pos.	No. Stat. Miles Sdg.
I	*a*	11/3/53	140	140	1.8
I	*b*	11/24/53	70	70	0.3
1	*c*	12/16/53	17	17	3.2
I	*d*	12/18/53	4	4	0.1
I	*e*	1/4/54	5	5	-
II	*a*	11/25/53		31	6.1
II	*b*	11/30/53		74	6.1
II & III	*c*	12/1/53		67	11.6
III & IV	*d*	12/2/53		105	18.7
IV	*e*	12/3/53		98	16.6
V	*f*	12/7/53		30	5.3
V & VI	*g*	12/8/53		120	16.2
VI	*h*	12/9/53		76	6.9
VI	*j*	12/10/53		40	0.9
VI	*k*	12/11/53		19	-
VI & VII	*l*	12/15/53		62	8.9
VII	*m*	1/5/54		29	2.9
		TOTALS	236	987	105.6
		TOTAL SQUARE STATUTE MILES		3.54	

TIDE NOTE

Sheet H-8068 Field Sheet WCFP 1353

An automatic recording portable tide gage at latitude 36° 36.16' longitude 121° 53.31' was used to reduce the sounding for survey H-8068. Mean lower low water is 2.5 feet on the staff.

No corrections to the observed readings were applied for differences in time or height.

ABSTRACT OF PHASE CORRECTIONS BY DAYS

Day Letter	Date	Correction to A-Scale	B-Scale	C-Scale	D-Scale
a	11/25/53	0.0	+0.5	-1.0	-3.5
b	11/30/53		+0.5	-1.0	-4.0
c	12/1/53		0.0	-1.0	-3.0
d	12/2/53		+0.5	+1.0	-1.0
e	12/3/53		+2.0	+0.5	-
f	12/7/53		+2.0	+1.0	0.0
g	12/8/53		+2.0	+2.0	0.0
h	12/9/53		+2.5	+1.5	-
j	12/10/53		+2.5	+0.5	-1.0
k	12/11/53		+1.0	+1.0	-0.0
l	12/15/53		+0.5	+1.5	-3.5
m	1/5/54	0.0	+0.5	-	-

NAMES OF HYDROGRAPHIC SIGNALS
USED ON SHEET H-8068

FIELD SHEET NO. WCFP 1353

HYDRO NAME	ORIGIN	YEAR
BAY	West Coast Field Party	1953
BEATH 2	" " " "	1953
BOX	" " " "	1953
CAN	Monterey American Can Co. Stack	1932
DOG	West Coast Field Party	1953
FIR	" " " "	1953
HAR	" " " "	1953
MAST	KMBY Radio Tower Mast (USE)	1937
MON	Monterey Presidio Monument	1932
MUSSEL	MUSSEL 1932	1932
PIT	West Coast Field Party	1953
POST	Naval Post Graduate School Radar Tower	1953
SAN	West Coast Field Party	1953
SEA	SEASIDE 2 (CSLC) (1932)	1953
SEW	West Coast Field Party	1953
SID	Presidio Flagpole	1910
SLAB	West Coast Field Party	1953
TEL	San Carlos Hotel	1932
TOW	U. S. Naval Reserve Radar Tower	1953
WAT	Breakwater Light (USE)	1937
	RECOVERED TOPOGRAPHY	
BEL	Topographic Sheet No. T-4790	1933
CHIM	" " " "	1933
CHURCH	Topographic Sheet No. 4813	1933
DALE	Topographic Sheet No. T-4790	1933
GAB	" " " "	1933
JAP	" " " "	1933
PUL	" " " "	1933
STAK	" " " "	1933
TANK	Topographic Sheet No. 4813	1933
TOWN	" " " "	1933
	LOCATED BY SEXTANT CUTS FROM OTHER SIGNALS	
PIL	West Coast Field Party	1953

Name	Latitude ° ' Meters	Longitude ° ' Meters	Depth	Pos. No.	Date of Location
Lighted Bell Buoy "4"	36 37 888	121 53 1055	134	2 a	11/25/53
Anchorage Buoy "A"	36 36 867	121 53 381	41	2 b	11/30/53
Anchorage Buoy "B"	36 36 885	121 53 419	41	1 b	11/30/53
Anchorage Buoy "D"	36 36 993	121 53 711	27	76 h	12/9/53

Form 562
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~NON~~FLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

TO BE CHARTED
TO ~~BE DELETED~~ | STRIKE OUT ONE

Monterey, California 6 January, 19 54

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

The positions given have been checked after listing by _____

C. J. Hayes *Chief of Party.*

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE * ° ′	LATITUDE * ″ D.M. METERS	LONGITUDE * ° ′	LONGITUDE * ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	Lighted Bell Buoy "4"		36 37	888	121 53	1055	NA 1927	Hydro CS-362	11/25/53		X	X	~~5402~~ ~~5403~~
	Anchorage Buoy "A"		36 36	867	121 53	321	"	"	11/30/53		X		5403
	Anchorage Buoy "B"		36 36	885	121 53	439	"	"	11/30/53		X		5403
	Anchorage Buoy "D"		36 36	993	121 53	772	"	"	12/9/53		X		5403

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. 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

M-2836-3

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
TO BE DELETED
STRIKE OUT ONE

Monterey, California 6 January 1954

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 C. E. Harsden

C. J. Boyan
Chief of Party.

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	Tank, on bluff 2.5 miles NE of Monterey		36 37.43		121 50.63		NA 1927				X	X	5403 5402
	Stack, near Fisherman's Wharf in Monterey		36 36.28		121 53.56		*				X	X	5403 5402

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. 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

APPROVAL SHEET

. The field work was personally supervised and the boat sheet was inspected daily. The survey is considered complete and adequate.

C. J. Beyma.

C. J. Beyma
CDR, USC&GS
Chief of Party

SHEET H-8068

PROCESSING OFFICE NOTES

Smooth Sheet

The projection was handmade by office personnel on Whatman paper. Standard methods were employed in plotting control stations except as noted under "Control" of this report.

Control

At the time the projection was made there were only available in this office greatly distorted photostats of the topographic control sheets, T-4790 and T-4813. An unsuccessful attempt was made to accurately plot the topo signals from this source. The smooth sheet was placed aside awaiting the receipt of Shoreline Manuscript T-11426.

Topographic signal GAB, 1953 (from T-11426) was found to be ~~4~~ 5 or ~~8~~ not important to charting or control of soundings meters displaced as compared to GAB, 1933 (from T-4790). Assuming that the stations are one and the same, the position of the offshore end of the Monterey Municipal Wharf was effected by the same amount (in a east-west direction). The following reasons are given as argument for accepting the topographic location:

(1) The source given for the station in question is T-4790, however, the manuscript position does not agree and there is a 1953 date thereafter. Quoting from the Photo Field Inspection Report, "The horizontal control was identified directly on the photographs - - - -." It is possible that there was an error made in the pricking of the photo and this position accepted by the compiler.

(2) An attempt was made to prove one location or the other by means of resecting cuts to GAB from time spacing along the sounding lines. Although this method is not in itself conclusive, there is some evidence that the more westerly position (from T-4790, 1933) is correct.

The tide station at Lat 36° 36'.16, Long. 121° 53'.32 was plotted from measurements along the Municipal Wharf recorded in Volume 1, pages 5 and 8.

Control stations for the hydrography within the enlargement were plotted by dm's and dp's on large dog-ears secured to the sheet and later removed after the smoothplotting was completed. The fixes were more rigidly controlled in this manner, rather than enlarging the plotting errors from the 1/10,000 scale.

Shoreline

The shoreline was transferred direct from the Shoreline Manuscript T-11426. The detail on the enlargement, scale 1/2,500, was produced by enlarging that portion of T-11426 four times and correlating the same with measurements supplied by the hydrographer. Where these combined methods failed to agree the detail was left in pencil as sketched by the hydrographer.

The dock detail on the Municipal Wharf was shifted westward from the Manuscript position to agree with the accepted position of signal GAB as explained under "Control" of this report.

Comparison with Prior Surveys

Comparison with the following prior surveys were made:

Chart No. 5403
H-5278, scale 1/40,000
H-5415, scale 1/5,000
H-5414, scale 1/10,000

U.S.Army Engrs. Chart of Monterey Harbor
dtd. August and September 1953.

Smooth sheet values are in closer agreement with prior surveys, however, there seems to be little change in the 10 fathom curve displacement noted under "L" of the Descriptive Report.

Crosslines

The reduced field scanned soundings, in general, produced crossings which were 5% or more in disagreement. Much rescanning was necessary to bring crosslines in closer agreement. Jagged profiles, believed caused by sand ridges as well as rough seas were responsible for these irregularities. Many 3 and 4 foot crossings were either justified or eliminated by rescanning the graphs. The crossings noted under K of the Descriptive report were improved in this manner.

An attempt was made to plot lines 34g - 35g and 9h - 11h (Lat. 36° 36'.2, Long. 121° 53'.2). However, too many assumptions would have to be made and the soundings were not plotted. It is noted that the same discrepancies were prevalent on the Boat Sheet. Sounding on the turns with only one fix (ie. position 9h) is a handicap to the smooth plotting of such large scale sheets, since the loss of launch speed is evident and in the event of wrong objects or errors in angles the plotter is only justified in rejecting the soundings.

Adjusted on smooth sheet

Geographic Names

The following geographic names were penciled on the smooth sheet:

MONTEREY BAY
MONTEREY HARBOR
POINT CABRILLO (Previously known as MUSSEL POINT)
PACIFIC GROVE
MONTEREY
DEL MONTE
SEASIDE
CALIFORNIA

B.G.N decision in 1934. L.H.

Leo W. Eason, II
Cartographer, USC&GS

APPROVED:

Charles Pierce, Captain, C&GS
Supervisor, NW District

14 FEB 1-1954

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: West Coast Field Party

TELEGRAPH ADDRESS: P.O. Box 1429

EXPRESS ADDRESS: San Diego 12, California

26 January 1954

To: The Director
U. S. Coast & Geodetic Survey
Washington 25, D. C.

Subject: Serial Temperatures Project CS-362

Serial temperatures, Project CS-362 Monterey Harbor, California were observed during the course of the survey. The serial temperatures were computed graphically, but the final results were not used in the reduction of soundings.

If the office desires to use the corrections in lieu of the bar checks when the smooth sheet is reviewed the data is available.

C. J. Beyma.

C. J. Beyma
CDR., USC&GS
Chief of Party

GEOGRAPHIC NAMES

Survey No. H-8068

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
California									B.G.N.	1
Monterey Bay										2
Monterey Harbor										3
Pacific Grove										4
Point Cabrillo									B.G.N.	5
Monterey										6
Del Monte										7
Seaside										8
										9
					Names approved 12-7-54. L. Heck					10
										11
										12
										13
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										24
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										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8068....

Records accompanying survey:

Boat sheets .1...; sounding vols. ..7..; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls .3.ENV;

special reports, etc. 1 smooth sheet, 1 Descriptive Report,.....

.1 cahier of Salinity & Temperature Computations & Corrections.....

The following statistics will be submitted with the cartographer's report on the sheet:

		Preliminary V.
Number of positions on sheet		..987.. 987
Number of positions checked		..10.. 199
Number of positions revised		 2
Number of soundings revised (refers to depth only)		..18.. 0
Number of soundings erroneously spaced		Spacing halved on Subplan 5
Number of signals erroneously plotted or transferred		..... ✓
Topographic details	Time	..8... ✓
Junctions	Time	..... ✓
Verification of soundings from graphic record	Time	..4... 8

Preliminary Verification A.R. Stirni 61 hrs 6/8/55

Verification by g.b. Chambers Total time 60... Date 12/20/55

Reviewed by....A.R...Stirni..... Time 82 hrs Date 6/22/55

Addendum A.R. Stirni 20 hrs 3/29/56

M-2232-1

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

Division of Charts: R. H. Carstens

Plane of reference approved in 7 volumes of sounding records for

HYDROGRAPHIC SHEET 8068

Locality Monterey Harbor, Calif.

Chief of Party: C. J. Beyma
Plane of reference is mean lower low water, reading
2.5 ft. on tide staff at Monterey
15.6 ft. below B. M. 2 (1924)

Height of mean high water above plane of reference is 4.6 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Tides Branch
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 756675

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8068 FIELD NO. WCFP-1353

California, Monterey Bay, Monterey Harbor

Project No. CS-362

Surveyed - Oct. 1953 - Jan. 1954 Scale 1:10,000

Soundings: Control:

808 Fathometer Sextant fixes on shore signals

Chief of Party - C. J. Beyma
Surveyed by - G. E. Haraden, H. J. Weese and H. L. Runge
Protracted by - L. W. Eason II
Soundings plotted by - L. W. Eason II
Prelim. Verification by - A. R. Stirni
Verified and inked by - J.C. Chambers
Reviewed by - A. R. Stirni 7/12/55
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with the manuscript of reviewed air-photographic survey T-11426 (1949-54).

Shoreline on the subplan is enlarged from T-11426 with revisions applied in red from dimensions taken in the field.

The source of the control is given in the Descriptive Report.

2. Sounding Line Crossings

Jagged profiles on the fathograms caused by heavy seas necessitated considerable rescanning by the smooth plotter and verifier. Crossings are now in adequate agreement.

3. Depth Curves and Bottom Configuration

All depth curves within the limits of the survey have been adequately delineated. The low water line was not defined by soundings because of the presence of breakers and rocks but was sketched from sextant fixes taken along the beaches during low tide. The bottom is generally smooth and gently undulating.

4. Junctions with Contemporary Surveys

Adequate butt junctions were effected with surveys H-5278 (1933), H-5412 (1933) and H-5414 (1933) on the north. Soundings from these prior surveys were transferred in color at the junction but curves were not inked pending complete verification of the present survey.

The present survey is adequate to supersede these surveys in the overlapping area. A comparison with the prior surveys is given below in item 5b.

5. Comparison with Prior Surveys

a. H-296 (1850), 1:10,000
H-558 (1856), 1:10,000
H-559 (1856), 1:40,000

A comparison with these prior surveys has been made in the reviews of the surveys listed below under (b). Further consideration in the present review is not deemed necessary.

b. H-5278 (1932-33), 1:40,000
H-5412 (1933), 1:10,000
H-5414 (1933), 1:10,000
H-5415 (1933), 1:5,000
H-5907 WD (1934), 1:10,000

Only minor differences in depth are noted between the present and prior surveys. However, the present survey shows additional shore facilities that have been constructed since the time of these prior surveys, particularly in the protected inner harbor. At lat. 36°36.1', long. 121°53.4', land has been reclaimed by fill and an old pier has been removed and a new one built. Shoreline erosion since 1933 is not perceptible. Effective wire-drag depths on the prior survey H-5907 are in harmony with the present survey depths.

Rock detail and soundings from H-5412 and H-5415 have been carried forward to the present survey in the unsurveyed areas on the east and west side of Monterey Bay. With these additions the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 5403 (Revised 2/28/55)

A. Hydrography

Charted hydrography in Monterey Harbor outside the municipal harbor originates with the prior surveys of 1933, supplemented

by the Corps of Engineers survey of June 1949 (BP-45386) and partial application of the present survey prior to verification and review. In the municipal harbor, charted hydrography originates principally with the Corps of Engineers survey of August 1954 (BP-52077) made subsequent to the present survey, supplemented by inshore soundings from H-5415 and the present survey prior to verification and review.

The charted 5-fm. sounding at lat. 36°36.30', long. 121° 52.77' is from the Corps of Engineers survey of June 1949 (BP-45386). The present survey reveals depths of 34-36 ft. in this locality. No investigation was made to either verify or disprove the 5-fm sounding and in view of the fact that little change has occurred in the area, the 5-fm. sounding should be retained on the chart.

The present survey is adequate to supersede the charted information except for the 5-fm sounding from BP-45386 mentioned above and for soundings in the municipal harbor charted from the Corps of Engineers survey made in 1954 subsequent to the present survey.

B. Aids to Navigation

The aids to navigation located on the present survey are in substantial agreement with the charted aids and adequately mark the features intended, except that the mooring buoy charted at lat. 36°36.84', long. 121°52.9' from H.O.N. to M. 22 (1945) was not located on the present survey.

7. Condition of Survey

(a) The sounding records and Descriptive Report are complete and comprehensive.

(b) The preliminary verification and inspection indicates that the smooth plotting was generally accurate. As noted under paragraph 2, and in the processing office notes, considerable rescanning was done to improve sounding line crossings and to record accurate depths. Jagged profiles from wave action with heights as much as 6 ft. were meaned in the rescanning.

(c) The preliminary verification of the survey was generally confined to sounding-line crossings and unnatural bottom configuration. A representative pattern of sounding lines was verified and inked, and soundings and rocks from prior surveys were added to complete the inshore area of the present survey. Completion of the verification and inking is deferred until some future date at which time the shoreline and depth curves will be further checked.

8. Compliance with Project Instructions

The survey adequately complies with Project Instructions.

9. Additional Field Work

With the addition of inshore soundings and rocks carried forward from prior surveys this is a good basic survey and no additional field work is recommended. As a matter of record the charted 5-fm. sounding at lat. 36°36.30', long. 121°52.77' from the Corps of Engineers survey of June 1949 is not disproved by the present survey.

Surrounded by
36,33 a 3/4
B End

Examined and Approved:

H. R. Edmonston
Chief, Nautical Chart Branch

E. R. McCarthy
Actg.Chief, Division of Charts

J. C. Bull
Chief, Hydrography Branch

Earl O. Heaton
Chief, Division of Coastal Surveys

Addendum to Review

H-8068 (1953)

Inked by - J. C. Chambers
Review Addendum by - A. R. Stirni 3/29/56
Inspected by - R. H. Carstens

The verification of this survey is now complete.

Junctions with Contemporary Surveys

Adequate butt junctions have been completed with surveys H-5278 (1933), H-5412 (1933) and H-5414 (1933) on the north.

Comparison with Chart 5403 (revised 2/28/55)

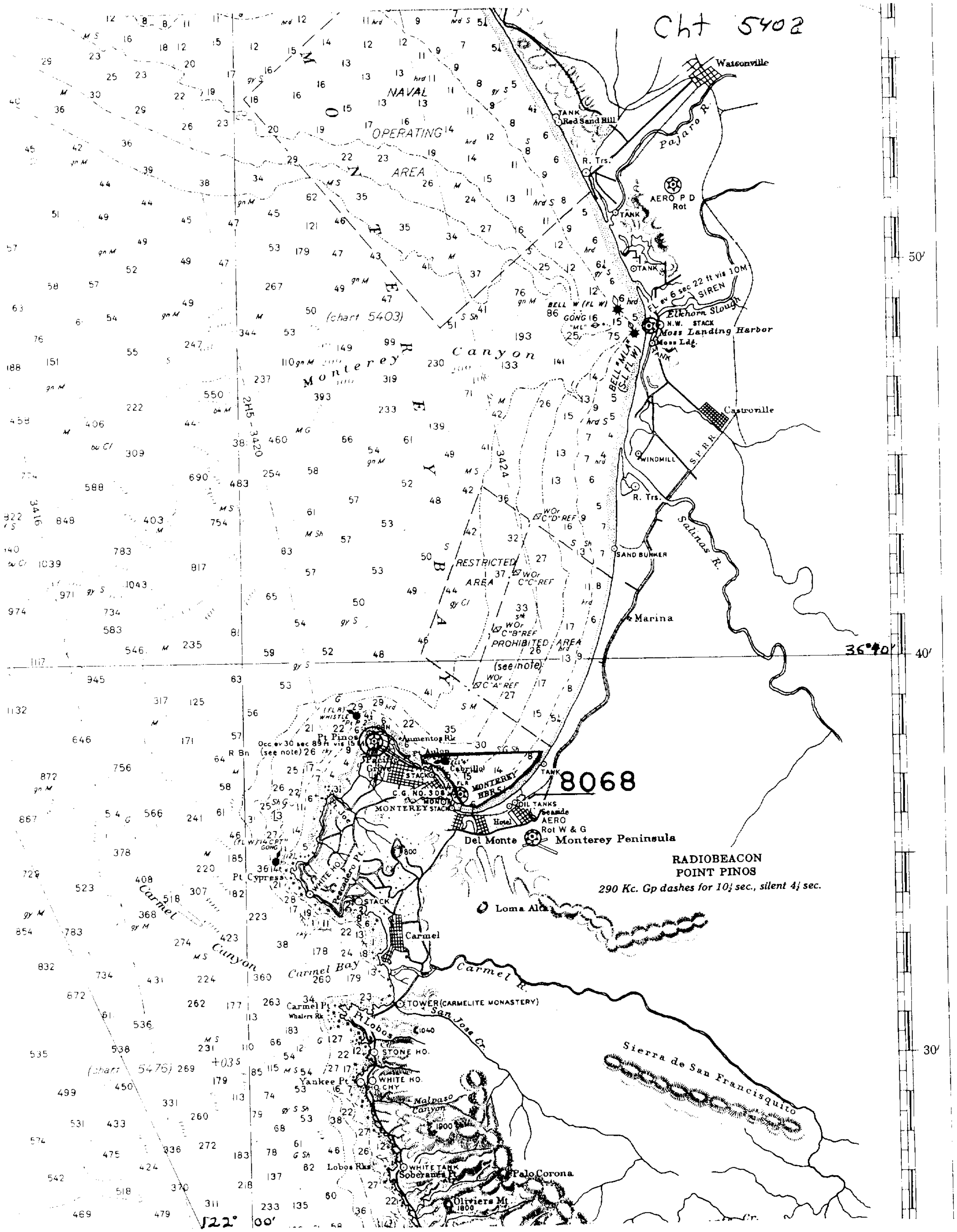
No changes have been made in the charted hydrography since the date (7/12/55) of the original review.

Condition of Survey

Completion of the verification reveals that the smooth plotting was well done.

Approved:

E. R. McCarthy
Chief, Chart Division


Cht 5402
Watsonville
Pajaro R.
Red Sand Hill
NAVAL
OPERATING
AREA
MONTEREY BAY
AERO P D Rot
(chart 5403)
Monterey Canyon
Elkhorn Slough
Moss Landing Harbor
Moss Ldg.
FL ev 6 sec 22 ft vis 10M
SIREN
BELL W (FL W)
GONG
Castroville
WINDMILL
R. Trs.
S.P.R.R.
Salinas R.
SAND BUNKER
RESTRICTED AREA
PROHIBITED AREA
(see note)
Marina
36°40'
40'
50'
30'
Pt Pinos
Aumentos Rk
Pt Aulon
Pt Cabrillo
Pacific Grove
C.G. NO. 308
MONTEREY STACK
MONTEREY HBR
8068
OIL TANKS
Seaside
AERO Rot W & G
Hotel
Del Monte
Monterey Peninsula
RADIOBEACON
POINT PINOS
290 Kc. Gp dashes for 10½ sec., silent 4½ sec.
Occ ev 30 sec 89 ft vis 15
(see note)
Pt Cypress
Loma Alta
Carmel Canyon
Carmel Bay
Carmel
Carmel R.
TOWER (CARMELITE MONASTERY)
Carmel Pt
Whalers Rk
Pt Lobos
San Jose Cr.
STONE HO.
Yankee Pt
WHITE HO.
Malpaso Canyon
(chart 5476)
Sierra de San Francisquito
Lobos Rks
WHITE TANK
Soberanes Pt
Palo Corona
Oliviers Mt
122° 00'

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8068

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
12/2/54	5403	E.S. Yearley	Examined - No further corrections since H.S. examination Before ~~After~~ Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

NAUTICAL CHARTS BRANCH

SURVEY NO. 8068

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1/13/56	5403	[signature]	Before ~~After~~ inking Verification and Review Examined — No critical corrn to 5403 H.B.R. Superseded in part by 5207
10/26/56	5402	D.H. Benson	~~Before~~ After Verification and Review Examined No correction required at this scale.
11/19/56	5403	S.G. McGann	~~Before~~ After Verification and Review Completely applied.
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

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