

8639

Diag. Cht. No. 904-2.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. EX-5-1-62 Office No. H-8639

LOCALITY

State Puerto Rico

General locality East Coast of Puerto Rico

Locality Ensenada Honda

19.62

CHIEF OF PARTY

E. L. Jones

LIBRARY & ARCHIVES

DATE May 7, 1965

USCOMM-DC 37022-P66

8639

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-8639

Field No. EX-5-1-62

State Puerto Rico

General locality East Coast of Puerto Rico

Locality Ensenada Honda

Scale 1:5,000 Date of survey ⁶⁻²~~2-4~~-62 to 6-22-62

Instructions dated 26 December 1962

Vessel USC&GS Ship EXPLORER

Chief of party E. L. Jones

Surveyed by Ships Officers

Soundings taken by fathometer, graphic recorder, hand lead, wire and pole

Fathograms scaled by Ships Personnel

Fathograms checked by Ships Personnel

Protracted by Dan R. Munford (Norfolk Office)

Soundings penciled by Dan R. Munford " "

Soundings in fathoms feet at MLW MLLW

REMARKS:

65° 52' 30"

T-12136

T-12137

T-12138

T-12139

T-12140

T-12141

T-12148

T-12149

T-12150

T-12152

T-12153 T-12154 T-12155 T-12156 T-12157

T-12158

T-12159

T-12160

T-12143 T-12144

65° 33' 00"

10° 20' 00"

EX-10-3-62

EX-5-1-62

10° 11' 15"

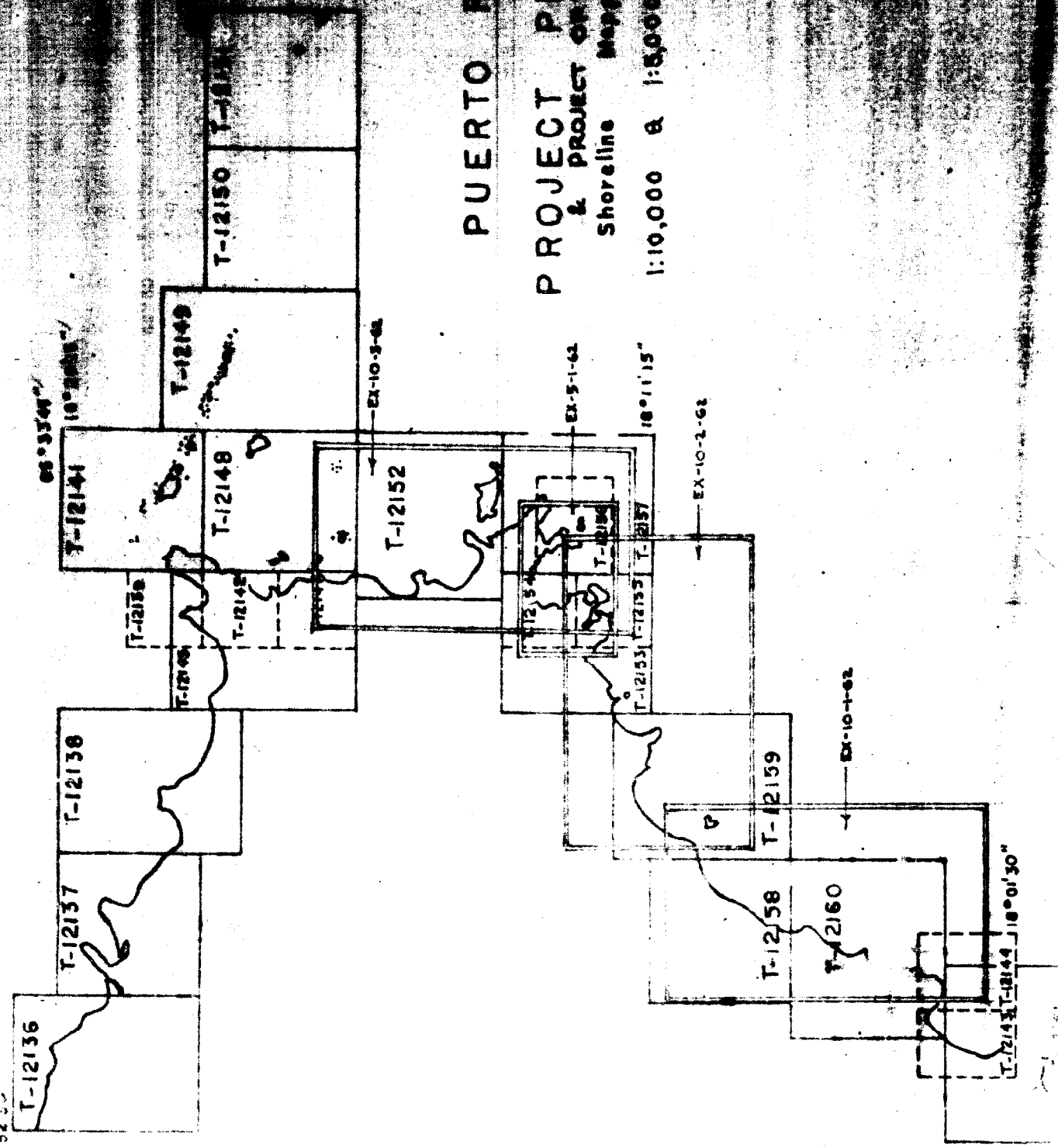
EX-10-2-62

EX-10-1-62

PUERTO RICO

PROJECT PH-6100
& PROJECT OR-10-62
Shoreline Mapping

1:10,000 & 1:5,000 Scales



DESCRIPTIVE REPORT
To Accompany Hydrographic Survey
H-8638, EX-5-1-62
1962-Scale 1:5,000
USC&GS Ship EXPLORER
E. L. Jones, Comdg.

Surveyed By: R. E. Williams, G. F. Wirth, J. S. Midgley, V. R. Smith, J. W. Bricker, D. J. Florwick, F. P. Kapinos, R. J. Lewis, F. H. Gramling, and R. P. Bertocchi

A. Project

Hydrography was accomplished in accordance with "Instructions-Project OPR-423-Puerto Rico" dated 26 December 1961.

B. Area Surveyed

This survey covers an area on the east coast of Puerto Rico in the vicinity of Ensenada Honda which is the U. S. Naval Base, Roosevelt Roads, Puerto Rico. The area surveyed is bounded by the western shore of Ensenada Honda to the west and the eastern shore of Bahia de Puerca to the east and extends southeast seaward to latitude 18°-12.2'N and longitude 65°-36.0'W. Launch hydrography was begun on 2 June 1962 and completed on 22 June 1962.

The survey makes the following junctions with prior surveys:

H-2527	1:20,000	dated 1901
H-2533	1:10,000	dated 1901

Junctions were made with contemporary surveys as follows:

H-8638	EX-10-2-62	1962
Incomplete survey	EX-10-3-62	1962 - H-8811 (1964-65)
U. S. Navy Hydrographic Office Survey of Ensenada Honda		

C. Sounding Vessel

All hydrography was accomplished in launches and skiffs from the Ship EXPLORER, using the ship as a base of operation.

Launch #1 - LTjg V. R. Smith - O. in C., Purple day letters

Hydrography accomplished on southwestern half of Ensenada Honda.

Launch #2 - LTjg J. W. Bricker - O. in C., Brown day letters

Hydrography accomplished on northeastern half of Ensenada Honda.

Launch #3 - LTjg D. J. Florwick - O. in C., Red day letters

Hydrography accomplished in Bahia de Puerca.

Launch #4 - LT J. S. Midgley - O. in C., ^{Orange} ~~Purple~~ day letters

Bottom samples obtained over entire sheet.

Skiff #1 - LT G. F. Wirth - O. in C., ^{Green} ~~Blue~~ day letters ✓

Beachline and foul areas along beach developed over entire sheet.

Skiff #2 - LT J. S. Midgley and ENS F. H. Gramling - O. in C.,
^{Green} ~~Blue~~ day letters

Skiff hydrography accomplished along beach and most shoal areas of the sheet. ✓

D. Sounding Equipment

Raytheon DE-723 Fathometers, serial numbers 241, 248, and 134, calibrated at 800 fms/sec were used on launches #1, 2, and 3 respectively to obtain most of the soundings on the sheet. ✓

Lead line soundings were taken in shoal areas to verify the shoalest sounding found in the area. All skiff soundings were obtained by using a sounding pole. ✓

Bar checks, leadline comparisons, and phase comparisons were made frequently during the survey. Bar checks were made on a daily basis. Further information concerning the fathometers and the methods of correction are contained in the EXPLORER "Fathometer and Velocity Correction Report 1962". ✓

E. Smooth Sheet

The smooth sheet was machine ruled in the Washington Office. ✓

F. Control. G. Shoreline

These items have been discussed in full in a separate report titled "Control and Shoreline Report, OPR-423, 1962, Puerto Rico," submitted 19 October 1962. ✓

H. Crosslines

Crosslines made up 11% of the hydrography on the sheet. There was generally good agreement on the crossings. Final comparison will be made by smooth plotter. ✓

Items I through K to be written by smooth plotter. ✓

L. Adequacy of Survey

The survey is considered complete and adequate for charting purposes and no further field work is recommended. ✓

M. Aids to Navigation

All fixed aids to navigation have been reported on form 567 and submitted to the Washington office on 24 August 1962.

All data pertaining to aids to be used as "Objects for use by the U. S. Coast Guard in locating Aids to Navigation" has been submitted to the Commander, U. S. C. G., San Juan, P. R. on 28 June 1962.

All aids were checked and found in complete agreement with the Coast Guard "List of Lights."


N. Statistics

The survey covered 4.2 square nautical miles with a total of 4875 positions for 284.2 nautical miles of sounding lines. 96 bottom samples were taken over the entire survey area. Below are the statistics for each vessel.

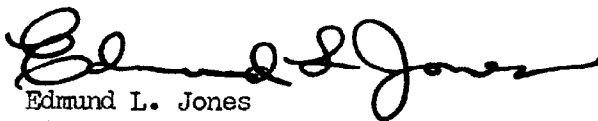
Launch	Positions	Nautical miles	Bottom Samples
1	1302	106.9	
2	1351	87.4	
3	1039	67.9	
4	96		96
Skiff			
1	384		
2	703	22.0	
TOTALS	4875	284.2	96

Items O thru P to be submitted by Smooth Plotter.

Submitted

for 
Donald J. Florwick
LTjg, C&GS

Approved & forwarded:



Edmund L. Jones
CAPT, C&GS
Comdg., Ship EXPLORER

TIDE NOTE ✓
To
Accompany
EX-5-1-62
H-8639

Tide reducers were obtained from the Portable Tide Gage maintained at Ensenada Honda. Mean Low Water, as furnished by The Washington Office, was 3.2 feet above Staff Zero. No time or range corrections were used in obtaining the Tide Reducers.

Location of Gage
Latitude $18^{\circ}-13'-48''\text{N}$
Longitude $65^{\circ}-37'-12''\text{W}$

Time Meridian: 45th

REFERENCES TO REPORTS ✓

<u>REPORT</u>	<u>SUBMITTED</u>
Form 258-Tide Leveling Record (3)	10 July 1962
Form 681-Report-Tide Station (2)	10 July 1962
Seasons Report	20 August 1962
Activities Photographs (12)	21 August 1962
Geographic Names Report	24 August 1962
Form 567 (3) and 7 Chart Sections	24 August 1962
Field Edit Data	16 September 1962
Coast Pilot Report	16 September 1962
Control & Shoreline Report	19 October 1962
Fathometer & Velocity Correction Report	To be Submitted

SIGNAL NAMES

SHEET EX 5-1-62 ✓

Signal	T-Sheet	Photo	Signal	T-Sheet	Photo
ABE	12156	61W1583	OAK	TRAVERSE FROM GOAT, 1901	
ADA	12154	61W1577	OIL	12154	61W1566
			OLD	12156	61W1584
BAK	12156	61W1583	POT	12154	61W1577
BAT	12155	61W1577	RIG	12154	61W1577
BOA	12156	61W1584			
CAB	CABRAS ISLAND LIGHT, 1941		SAL	12155	61W1559
CRY	12156	61W1584	SOX	12154	61W1577
CUT	12155	61W1559	SEN	12154	61W1576
DIM	12156	61W1584	TAX	12155	61W1559
DUD	12155	61W1559	USE	12155	61W1559
EGO	12156	61W1584	WHY	12155	61W1559
EVA	12156	61W1584	YES	12155	61W1559
FAT	12156	61W1584			
FEZ	12156	61W1583			
GAG	12156	61W1583			
GEO	12156	Sextant Located			
HER	12156	61W1584			
HUT	12156 12157	61W1583			
IVY	12156	61W1584			
JOY	12156	61W1584			
KEN	12156	61W1584			
LOG	12156	61W1584			
MAD	12154	61W1566			
MAG	12156	61W1584			
NEW	12156	61W1584			
NIX	12154	61W1566			

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS
TO ACCOMPANY
FATHOMETER AND VELOCITY REPORT ✓

PROJECT OPR-423
EX 5-1-62 H-8639

Launch No. 1 <u>all days</u>	Raytheon Fathometer DE-723 No. 241 <u>Depth (ft.)</u>	<u>Corr. (ft.)</u>
	0.0-9.5	+1.6
	9.6-15.0	+0.8
	15.1-19.0	+1.0
	19.1-23.0	+1.2
	23.1-26.0	+1.4
	26.1-29.0	+1.6
	29.1-32.0	+1.8
	32.1-34.5	+2.0
	34.6-37.0	+2.2
	37.1-39.5	+2.4
	39.6-42.0	+2.6
	42.1-44.0	+2.8
	44.1-47.0	+3.0
	47.1-49.5	+3.2
	49.6-51.5	+3.4
	51.6-54.0	+3.6
	54.1-56.5	+3.8
	56.6-59.0	+4.0
	59.1-61.5	+4.2

Launch No. 2 <u>all days</u>	Raytheon Fathometer DE-723 No. 248 <u>Depth (ft.)</u>	<u>Corr. (ft.)</u>
	0.0-6.0	-1.0
	6.1-12.0	-0.8
	12.1-18.0	-0.6
	18.1-24.0	-0.4
	24.1-30.0	-0.2
	30.1-36.0	0.0
	36.1-42.5	+0.2
	42.6-48.5	+0.4
	48.6-55.0	+0.6
	55.1-61.0	+0.8
	61.1-67.0	+1.0
	67.1-73.0	+1.2

*Correction recomputed
See Addendum
&
attached copies.*

Launch No. 3 <u>all days</u>	Raytheon Fathometer DE-723 No. 134 <u>Depth (ft.)</u>	<u>Corr. (ft.)</u>
	0.0-4.0	+0.4
	4.1-12.0	+0.6
	12.1-18.5	+0.8
	18.6-24.5	+1.0
	24.6-29.5	+1.2
	29.6-33.0	+1.4
	33.1-37.5	+1.6

Launch No. 3	Depth (ft.)	Corr. (ft.)
<u>all days</u>	37.0-41.0	+1.8
<u>(cont.)</u>	41.1-44.0	+2.0
	44.1-46.5	+2.2
	46.6-49.0	+2.4
	49.1-51.0	+2.6
	51.1-52.5	+2.8
	52.6-54.5	+3.0
	54.6-56.5	+3.2
	56.6-58.5	+3.4
	58.6-60.0	+3.6
	60.1-62.0	+3.8

EX 5-1-62 had no corrections to phase comparisons.

VELOCITY CORR FOR LAUNCH #2 ✓

CORR. IN FEET →

10 -1 0 +1 +2 +3 +4

D
E
P
T
H

I
N
F
E
E
T

↓

20

30

40

50

60

40.0	-	41.5	=	+0.4
41.6	-	43.5	=	+0.6
43.6	-	45.0	=	+0.8
45.1	-	47.0	=	+1.0
47.1	-	48.5	=	+1.2
48.6	-	50.2	=	+1.4
50.3	-	52.0	=	+1.6
52.1	-	53.8	=	+1.8
53.9	-	56.5	=	+2.0
56.6	-	57.2	=	+2.2
57.3	-	59.0	=	+2.4
59.1	-	61.0	=	+2.6
61.1	-	62.8	=	+2.8

THE CURVE IS DRAWN TO MATCH THE
GENERAL CHARACTERISTICS OF
LAUNCH #1 & #3.

Copy into DIMM
Rec 4/2/3

DEPT. OF THE NAVY
NAVY DEPARTMENT

BAR CHECKS FOR LAUNCH #2

LEADLINE COMPARISONS ✓

DATE	DAY	6'	12'	18'	24'	30'	36'	
JUN 1	a		13.0	18.6	24.5	30.5		
			12.7	18.4	24.5			
		6.8	13.0	18.5	24.3	30.0	36.2	
		6.8	12.5	18.3	24.2	30.1	36.5	
JUN 2	b	6.8	12.8	18.4	24.3	30.0		
		6.8	12.4	18.2	24.2			
		7.0	12.0	18.6	24.3	30.3	35.7	
		7.0	12.6	18.5	24.2	30.0		
JUN 3	c		12.8	18.7	24.3	30.2	35.7	
		6.7	12.9	18.2	24.3	29.7		
			12.5	18.7	24.9	30.1	35.3	
JUN 4	d	7.0	13.0	18.4	24.0	30.2		
		6.8	12.8	18.5	24.1		36.0	
		6.8	12.5	18.5	23.9	30.0		
JUN 5	e	7.0	13.0	18.7	24.5	30.5		
		7.0	12.8	18.3	24.5	30.5		

31.6 = +0.2

41.6 = +0.4

32.0 = +0.5

40.8 = +0.8

12√82.5 16√202 16√296 16√389 13√392 6√215

AVG. 6.9 12.6 18.5 24.3 30.2 36.0

CORR. -0.9 -0.6 -0.5 -0.3 -0.2 0.0

APPROVAL SHEET
Hydrographic Survey
H-8639
EX-5-1-62

The field work on this sheet was done under my personal supervision with the boat sheet examined daily and with the records under nearly daily examination by the Field Records Officer, LCDR Dale E. Westbrook. ✓

The survey is complete and adequate with no additional field work recommended.

Upon completion of smooth plotting, the items indicated in Descriptive Report are to be submitted by smooth plotter in a separate portion of this report.



Edmund L. Jones
CAPT, C&GS
Comdg., Ship EXPLORER

NORFOLK HYDROGRAPHIC PROCESSING BRANCH
 FLOATING AIDS TO NAVIGATION
 H-8639

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
Punta Cascajo Lt'd. Buoy 1A	18-12.50'	65-36.82'	24'	70h(bl)	6-14-62 ✓
Cabra De Tierra Buoy 2	12.58	36.70	31'	164h(br)	6-14-62 ✓
Cabra De Tierra Buoy 2A	12.76	36.88	22'	163h(br)	6-14-62 ✓
Punta Cascajo Buoy 3	12.94	37. ²⁸ 18	26'	69h(bl)	6-14-62 ✓
Cabra De Tierra Buoy 4	13.04	37.07	23'	123c(br)	6-3-62 ✓
Buoy 5	13.62	37.63	-	60a(gr)	6-2-62 ✓

NORFOLK HYDROGRAPHIC PROCESSING BRANCH ✓
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8639 (Ex 5-1-62)

GENERAL

This appears to be an excellent basic survey. Soundings are in good agreement at crossings and depth curves follow normal patterns in a fairly irregular bottom.

Some difficulty was experienced distinguishing between strays and shoal soundings, and it is recommended that controlling depths be verified before any preliminary charting is done. Apparent strays are particularly noticeable between positions 144 and 146d, launch 2. Also, note what is considered to be a true sounding between positions 133 and 134e, launch 2. *Shoal sdg plotted. Questionable traces between pos 144-146d, launch #2 were determined to be strays.*

VELOCITY CORRECTIONS

Velocity corrections for launch 2 were recomputed for depths greater than 40 feet. Curve extensions below the 36 foot bar check depths were based on simultaneous comparisons for all launches, and since launch 2 work was in disagreement, the curve characteristics were adjusted to agree with the other launches. Handlead sounding agreement, in most instances, was erratic due to wave action.

OVERLAYS

The positions listed below are being submitted on smooth overlays to avoid undue congestion on the smooth sheet.

OVERLAY No. 1

OVERLAY NO. 2

OVERLAY NO. 3

53 to 80h, Lch. 3 1 to 35j, Lch. 2 1-20j & 29-45k, Shiff 1
Shoal sdg's & positions controlling their locations were transferred to the smooth sheet.

CHART COMPARISON

See accompanying chart 922 for comparison of critical depths with smooth sheet.

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer

Norfolk, Va.
4 May 1965



18° 13' 30"

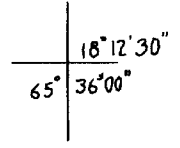
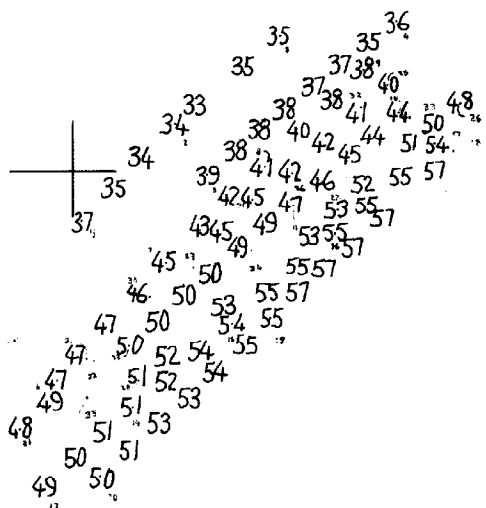
43
 " 43 43"
 " 43 43
 44 43 43 44
 " 44 43 43 44
 " 43 43 43 43
 " 42 43 42 42
 " 43 43 43 42
 " 42 43 42 42
 " 43 43 42 41
 " 42 43 41 41
 " 38 41
 " 8 "

least depth
over wreck

65° 36' 15"

18° 13' 15"
65° 36' 00"

OVERLAY No. 1
 OVERLAY FOR H-8639 ✓
 EX 5-1-62
 LAUNCH #3, Pos 53h-80h



OVERLAY No. ~~1~~ 2
 OVERLAY FOR H-8639 ✓
 EX 5-1-62
 LAUNCH #2, Pos. 1j-35j
 INSTANTION 29/5/62
 (10/11/62)



14 12 6
15 14
15 15 15 14
17 18 3

$\frac{1}{2}$

$18^{\circ}14'00''$
 $65^{\circ}37'30''$

10
19 12
18 6
15 12 34
24
21 16 12
9
30
28 30
30
12 46

OVERLAY No. 3 ✓

FOR H-8639

EX 5-1-62

SKIFF #1, Pos 1j-20j, 29k-45k

GEOGRAPHIC NAMES

Survey No. H-8639 ✓

Name on Survey											
	B	C	D	E	F	G	H	K			
Bahia de Puerca ✓											1
Cabra de Tierra ✓											2
Ensenada Honda ✓											3
Isla Cabras ✓											4
Playa Blanca ✓											5
Puerto Rico ✓											6
Punta Algodones ✓											7
Punta Cascajo ✓											8
Punta Puerca ✓											9
Pasaje de Vieques											10
Cayo Cabritas ✓											11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names approved

8-3-65

A. J. Wraight

HYDROGRAPHIC SURVEY STATISTICS
 HYDROGRAPHIC SURVEY NO. 8639

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1	BOAT SHEETS (3 parts)		1	
DESCRIPTIVE REPORT		1	OVERLAYS		7	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1					
VOLUMES	21					
BOXES						

T-SHEET PRINTS (List)

SPECIAL REPORTS (List)

1-Chart No. 922

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED				
POSITIONS REVISED				
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK				
TOTALS		398.5	← 296	
PRE-VERIFICATION BY		BEGINNING DATE	ENDING DATE	
VERIFICATION BY	<i>H. Cosgrove</i>	BEGINNING DATE	ENDING DATE	
REVIEW BY	<i>George A. Kozemczak & F.P. SAUBSBURY</i>	BEGINNING DATE	ENDING DATE	
		2-17-71	4-15-71	

Superc. - J.P. Saubsbury

TIDE NOTE FOR HYDROGRAPHIC SHEET ✓

January 30, 1969

~~XXXXXXXXXXXXXXXXXXXX~~ R. H. Carstens

Plane of reference approved in
21 volumes of sounding records for

HYDROGRAPHIC SHEET 8639

Locality: East Coast, Puerto Rico - 1962

Chief of Party: E. L. Jones

Plane of reference is mean low water

Tide Station Used (Form C&GS-681):

Ensenada Honda

Height of Mean High Water above Plane of Reference is as follows:

0.7 feet

Remarks


Chief, Tides and Currents Branch

OFFICE OF MARINE SURVEYS AND MAPS

MARINE SURVEYS DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8639

FIELD NO. EX-5-1-62

Puerto Rico, East Coast of Puerto Rico, Ensenada Honda

SURVEYED: June 2-22, 1962

SCALE: 1:5,000

PROJECT NO.: OPR-423

SOUNDINGS: Raytheon DE-723 Depth Recorder
Lead Line, Sounding Pole

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party	E. L. Jones
Surveyed by	R. E. Williams, F. P. Kapinos
.....	R. J. Lewis, R. P. Bertocchi
.....	V. R. Smith, J. W. Bricker
.....	D. J. Florwick, D. E. Westbrook
.....	J. S. Midgley, G. F. Wirth
.....	F. H. Gramling
Protracted by	D. R. Munford
Soundings Plotted by	D. R. Munford
Verified and Inked by	J. H. Cosgrove
Reviewed by	G. A. Kozemczak, F. P. Saulsbury
	Date: April 15, 1971
Inspected by	F. P. Saulsbury

1. Description of the Area

This is a survey of the harbor of Ensenada Honda, on the east coast of Puerto Rico. It is the site of the Roosevelt Roads United States Naval Station. Punta Cascajo, the western point at the entrance to Ensenada Honda, has rocky cliffs on the south side and a base reef 250 yards off the southeastern shore.

A dredged channel, marked by lighted and unlighted buoys and a 315° lighted range, leads to a large turning basin in Ensenada Honda. Subsequent to the present survey, dredging in 1964 by the Corps of Engineers (Bp 67482-5) has deepened this area to 40 feet.

The survey also covers Bahia de Puerca, a mile northeastward of Ensenada Honda. Depths have been dredged to 38 feet or more leading to a 1,000-foot pier at the head of the bay.

Ledges, rocks, reefs, and mangrove fringe much of the shoreline. Bottom characteristics in this survey area often contain fine gray sand, brown sand, sticky gray mud, broken shells, grass, and coral.

2. Control and Shoreline

The source of control is adequately described in the Descriptive Report.

The shoreline originates with advanced manuscripts T-12154, T-12155, and T-12156 of 1961-62, based upon photography flown in 1961 and field edited in 1962.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves were adequately delineated except that much of the low-water curve was not delineated due to the small range of tide limiting launch access to shallow areas. Supplemental brown curves were added to further define shoal features.

C. The development of bottom configuration and investigation of the least depths are considered adequate except that questionable shoal traces at 144-146d, launch #2, were not investigated. These shoal traces, reducing to 7 feet in general depths of 14-15 feet, were office interpreted to be strays.

4. Condition of Survey

The field plotting, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual except as follows:

A. Inaccuracies in shoreline transfer and omission of foreshore topographic detail and boat sheet information have been noted and revised or added to the smooth sheet in review.

B. Numerous rock elevations were erroneously reduced with entries made in the wrong color and enclosed in brackets instead of parentheses as illustrated in the Hydrographic Manual. These corrections were made in review.

C. Positions 41-44c and 50-51c, skiff #1, were erroneously plotted on the inset. Positions and soundings were replotted in review.

D. The use of washed-out ink made dry letters and position numbers difficult to identify. The smooth plotter generally failed to add the day letter to position numbers ending in five. Light List names of fixed aids to navigation, used as signals, are inked in black instead of red. Least depths on shoal investigation overlays in the Descriptive Report were transferred to the smooth sheet with their controlling positions in review.

E. Where soundings appeared as "spikes" on the fathograms, they were described as rocks on the smooth sheet in review.

5. Junctions

The junction with H-8811 (1962-64) on the east and H-8638 (1962) on the south will be considered in the review of those surveys. A butt junction was effected with H-8862 (1965) in the vicinity of longitude 65°36.15'. West of this longitude the present survey is superseded by H-8862.

6. Comparison with Prior Surveys

H-2527	(1901)	1:20,000
H-2533	(1901)	1:10,000

These prior surveys together provide complete coverage of the area of the present survey. A comparison between the prior and present depths reveals only minor differences in depths. There is much similarity in the general bottom configuration between the old and new surveys except where dredging and filling occurred. Dredging to general depths of 40 feet has removed the 17-foot shoal on H-2533 in latitude 18°13.00', longitude 65°37.25'. More extensive dredging seems to have occurred in Bahia de Puerca. The large 2-3-foot shoal at the head of the bay has been dredged to general depths of 40 feet.

With the addition of several rocks carried forward to the present survey from the prior surveys, the present survey is adequate to supersede the prior surveys within the common area.

Soundings were brought forward from wire-drag surveys H-8784 W.D. (1964-65) and H-4292 W.D. (1922-26) in areas where least depths were not obtained to supplement the present survey.

H-8784 W.D. (1964-65) was not available at the time of inspection.

7. Comparison with Chart 922 (10th Edition, February 8, 1975)

A. Hydrography

The charted hydrography within the area of the present survey is from the previously mentioned prior surveys, supplemented with soundings from the

boat sheet and verified smooth sheet of the present survey from chart letters, U.S. Corps of Engineers blueprints, and soundings from the subsequent survey H-8862 (1965) which supersedes the present survey within the common area.

Attention is directed to the following items:

(1) Items indicated on Bp-96763 (1976) by the reviewer as having been charted subsequent to the date of the present survey supersede the survey information and should be retained as charted.

(2) The 29-foot sounding, Presurvey Review Item #19, formerly charted in latitude $18^{\circ}13.8'$, longitude $65^{\circ}37.68'$ from a hang depth of 29 feet on H-4292 W.D. (1922-26) is discredited by present hydrography. This general area subsequently has been dredged and the 29 should be disregarded.

(3) The wreck of the dredge LAKE ELLENDALE, Presurvey Review Item #21, formerly charted in latitude $18^{\circ}13.40'$, longitude $65^{\circ}36.03'$ from a U.S. Navy survey of 1946 (Bp-42667) is correctly charted from its position on the present survey in latitude $18^{\circ}13.4'$, longitude $65^{\circ}36.08'$ covered with a least depth of 8 feet.

(4) The 18-foot sounding, Presurvey Review Item #22, charted in latitude $18^{\circ}13.05'$, longitude $65^{\circ}35.67'$ from a U.S. Navy survey of 1944 (Bp-45548) was determined to be nonexistent. This area was investigated on the present survey and a least depth of 38 feet was found in the area.

(5) The rock awash, Presurvey Review Item #24, charted in latitude $18^{\circ}12.72'$, longitude $65^{\circ}36.72'$ from H-2533 (1901) was originally erroneously plotted. Its correct position in latitude $18^{\circ}12.75'$, longitude $65^{\circ}36.71'$ is shown on the present survey.

(6) The 10-foot sounding, Presurvey Review Item #25, charted in latitude $18^{\circ}13.03'$, longitude $65^{\circ}36.07'$ from H-2527 (1901) is erroneous. The corrected sounding is 20 feet and agrees with present survey depths.

(7) The sunken rock, charted from an advance print of T-12156 (1961-62), in latitude $18^{\circ}13.66'$, longitude $65^{\circ}35.79'$ is superseded by a rock bare 2 feet at MHW on the present survey.

(8) The 5-foot sounding charted in latitude $18^{\circ}12.75'$, longitude $65^{\circ}36.0'$ from H-2527 falls in present depths of 15 feet. It is considered to be displaced from its true position in the inshore area and should be disregarded.

(9) The following Presurvey Review dashed circle items have been disproved by the present survey or have been removed by dredging subsequent to their original chart application:

a. The 11-foot sounding charted in latitude $18^{\circ}13.29'$, longitude $65^{\circ}36.03'$ from a U.S. Navy survey of 1944 (Bp-45548).

b. The 12-foot sounding charted in latitude $18^{\circ}13.27'$, longitude $65^{\circ}35.97'$ from a U.S. Navy survey of 1944 (Bp-45548).

c. The 14-foot sounding charted from H-4292 W.D. (1922-26) in latitude $18^{\circ}13.22'$, longitude $65^{\circ}35.84'$.

d. The 29-foot sounding charted from H-2527 (1901) in latitude $18^{\circ}12.5'$, longitude $65^{\circ}36.14'$.

The present survey is adequate to supersede the charted information in the common area except that charted from H-8862 (1965).

B. Controlling Depths

The charted controlling depth notes in the Ensenada Honda entrance channel, turning basin, and mooring areas are based on data furnished by the U.S. Corps of Engineers (Bp-68498 of 1965) supplemented by Chart Letter No. 650 (1968) and Chart Letter 252 (1975). This data is subsequent to the present survey and supersedes the present survey information.

C. Aids to Navigation

The charted positions of fixed and floating aids to navigation within the area of the present survey originate with sources subsequent to the present survey. They adequately mark the features intended.


8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.


9. Additional Field Work

This is an excellent basic survey and no additional field work is required.

Examined and Approved:



Chief
Marine Surveys Division



Associate Director
Office of Marine Surveys
and Maps

H-8639

Items for Future Presurvey Reviews

None

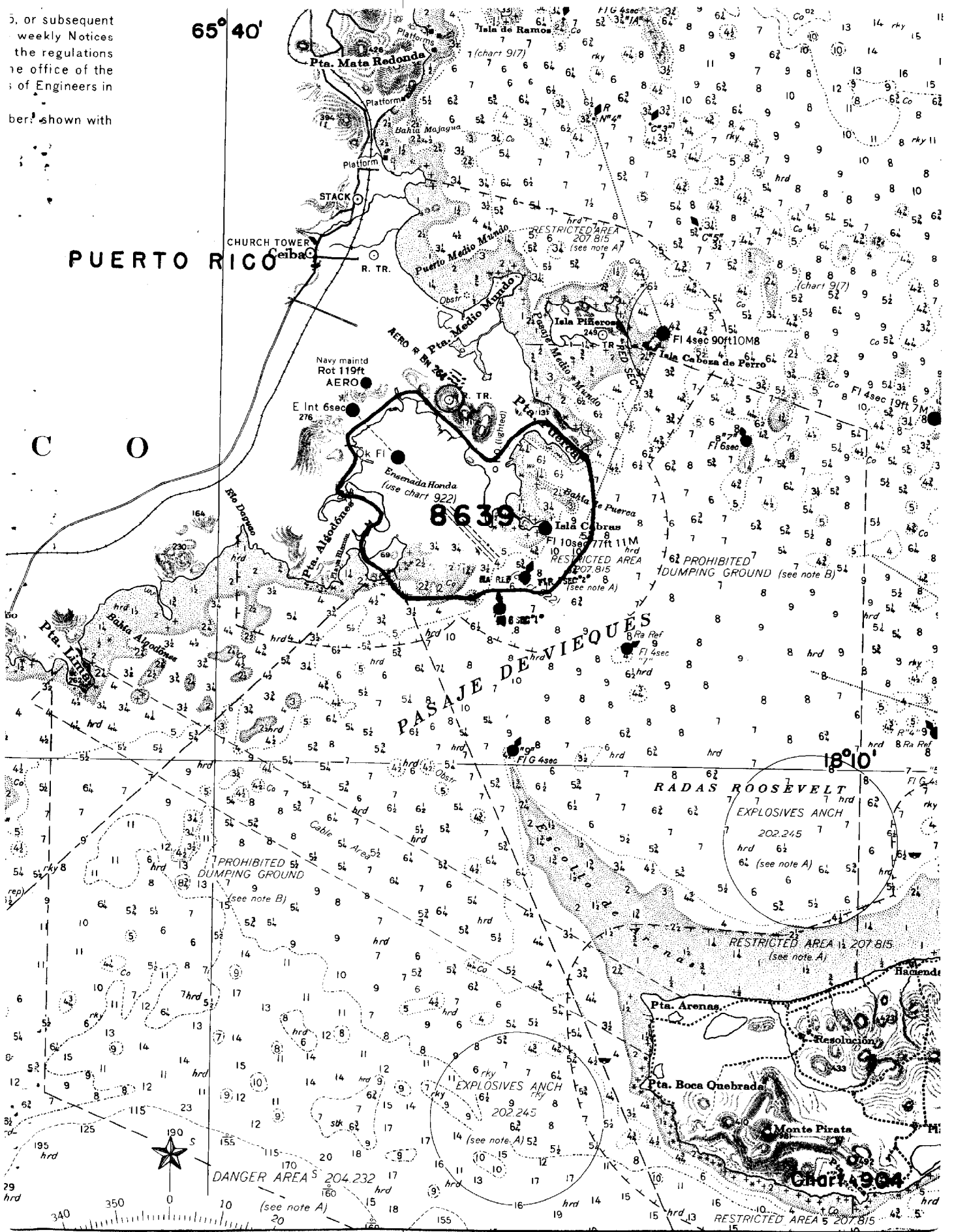
<u>Position Index</u>		<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
181	0654	3	2	50 years

5. or subsequent
weekly Notices
the regulations
of the office of the
of Engineers in
ber: shown with

65° 40'

PUERTO RICO

C O



8639

PASAJE DE VIEQUES

RADAS ROOSEVELT

EXPLOSIVES ANCH
202.245
hrd 62
62 (see note A)
62

RESTRICTED AREA 207.815
(see note A)

EXPLOSIVES ANCH
202.245
hrd 62
62 (see note A)
52

DANGER AREA 204.232
170
160
155
(see note A)

Chart 964

RESTRICTED AREA 207.815

