

# 8638

Diag. Cht. No. 904-2.

<b>Form 504</b> U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY	
<b>DESCRIPTIVE REPORT</b>	
<i>Type of Survey</i> <u>Hydrographic</u>	
<i>Field No.</i> <u>EX-10-2-62</u> <i>Office No.</i> <u>H-8638</u>	
<b>LOCALITY</b>	
<i>State</i> <u>Puerto Rico</u>	
<i>General locality</i> <u>East Coast Of Puerto Rico</u>	
<i>Locality</i> <u>Punta Lima</u>	
<u>1962</u>	
<b>CHIEF OF PARTY</b>	
<u>Edmund L. Jones</u>	
<b>LIBRARY &amp; ARCHIVES</b>	
<b>DATE</b> <u>AUG 12 1965</u>	

USCOMM-DC 5087

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-8638

Field No. EX-10-2-62

State Puerto Rico

General locality East Coast of Puerto Rico

Locality Punta Lima

Scale 1:10,000 Date of survey March thru June 1962

Instructions dated 26 December

Vessel USC&GS Ship EXPLORER

Chief of party Edmund L. Jones

Surveyed by R. E. Williams, G. F. Wirth, J. S. Midgley, V. R. Smith,  
J. W. Bricker, D. J. Florwick

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

Fathograms scaled by P.C.J., I.G.P., R.E.H., K.M.K., L.D.H.

Fathograms checked by P.C.J., I.G.P., R.E.H., K.M.K., L.D.H.

Protracted by W.L. JONNS (NORFOLK OFFICE)

Soundings penciled by W.L. JONNS " "

Soundings in fathoms feet at MLW MLLW

REMARKS:

*JW*

65° 52' 30"

T-12136

T-12137

T-12138

T-12139

T-12140

T-12141

T-12148

T-12149

T-12150

T-12151

T-12152

T-12154

T-12155

T-12156

T-12157

T-12158

T-12159

T-12160

T-12161

T-12161

65° 33' 48"  
10° 26' 18"

EX-10-3-62

EX-5-1-62

18° 11' 15"

EX-0-2-62

EX-10-1-62

PUERTO RICO

PROJECT PH-6106  
& PROJECT OP R-423

Shoreline Mapping

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

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY

H-8638 (Field No. EX-10-2-62)

Scale 1:10,000  
1962

USC&GS Ship EXPLORER  
CAPT E. L. Jones, Comdg.

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 Punta Lima bounded by the coast and longitude  $65^{\circ}-36.5'W$  between latitudes  $18^{\circ}-08.5'N$  and  $18^{\circ}-13.0'N$ . Launch hydrography was begun on 28 March 1962 and was completed on 13 June 1962.

The survey makes the following junctions with prior surveys:

H-2527 -- 1:20,000 dated January to May 1901  
H-2533 -- 1:10,000 dated 1901  
H-2582 --- 1:20,000 dated 1902  
H-4741 -- 1:20,000 dated 1927  
H-2528 -- 1:20,000 dated 1901-1903

Junctions were made with contemporary surveys as follows:

H-8637 (EX-10-1-62) Ship EXPLORER-March thru June 1962-South  
H-8639 (EX-5-1-62) Ship EXPLORER-June 1962-North  
Incomplete (EX-10-3-62) Ship EXPLORER-June 1962-East  
U. S. Navy Hydrographic Office Survey of Ensenada Honda.

C. Sounding Vessel

All hydrography was accomplished in launches and skiffs from the Ship EXPLORER.

Launch 1 - LTjg V. R. Smith - O. in C. Purple Day Letters

Hydrography accomplished along beach to about a half mile offshore from signal "BAG" to "REV", a mile NW-SE wide strip running NE to SW from latitude  $18^{\circ}-11.6'N$ , longitude  $65^{\circ}-36.5'W$  to latitude  $18^{\circ}-09.5'N$ , longitude  $65^{\circ}-41.0'W$  (inshore positions of strip).

Launch 2 - LTjg J. W. Bricker - O. in C. Brown Day Letters

Hydrography accomplished from signal "REV" to latitude  $18^{\circ}-09.5'N$  Longitude  $65^{\circ}-40.6'W$ , to north and eastern sheet limits at latitude  $18^{\circ}-11.6'N$ .

Launch 3 - LTjg D. J. Florwick - O. in C. Red Day Letters

Hydrography accomplished from the western sheet limit to signal "CAT", to latitude  $18^{\circ}-10.3'N$ , longitude  $65^{\circ}-42.6'W$ , to latitude

18°-10.5'N, longitude 65°-41.0'W to the south limits of the sheet at longitude 65°-40.2'W.

Launch 4 - LT J. S. Midgley - O. in C. Green Day Letters

Bottom samples over the entire sheet.

Skiff No. 1 - LT G. F. Wirth - O. in C. Blue Day Letters

Development of inshore rocks and foul areas along entire beach with the exception of areas from signals "BAG" to "ICE" and "YET" to "SAX".

Skiff No. 2 - LT J. S. Midgley - O. in C. Green Day Letters

Development of inshore rocks and foul areas from signals "BAG" to "ICE" and "YET" to "SAX".

#### D. Sounding Equipment

808 Fathometers Numbers 136 SP and 158 SPX were used in launches 1 and 2 for part of the survey as shown in the Abstract of Echo Corrections attached. Raytheon DE-723 Fathometers Numbers 241 and 247 replaced the above 808's. Raytheon DE-723 No. 134 was used in Launch No. 3. The calibrated speed of the 808's is 820 fms/sec, and Raytheon DE-723's is 800 fms/sec. Additional information may be found in the EXPLORER "Fathometer and Velocity Correction Report 1962".

#### E. Smooth Sheet

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

Smooth sheet portion of descriptive report to be subject of separate report.

#### F. Control and G. Shoreline

These items have been discussed in full in a separate report submitted 10 October 1962.

#### H. Crosslines

Crosslines made up 6.5% of the Hydrography. No crossing discrepancies were noted. Final evaluation of crossings to be part of smooth plotter's report.

Items I thru K to be part of smooth plotter's report.

L. Adequacy of Survey

The survey is complete and adequate to supersede prior surveys for charting.

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 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 to navigation were checked with the Coast Guard List of Lights and found in complete agreement.

Bridge clearances were investigated by a photogrammetric party under instructions from that Division.

N. Statistics

Launch	No. of Positions	N.M. Hydro	No. of Bottom Samples
1	1725	207.2	
2	1451	199.0	
3	1933	237.8	
4	129		100
<u>Skiffs</u>		<u>Detached Sdgs.</u>	
1		378	
2		50	

This Survey covers an area of 20.6 square nautical miles.


Items O thru P to be part of smooth plotter's report.

Q. References to Reports


<u>Report</u>	<u>Submitted to W. O.</u>
3 Form 258 - Tide Leveling Record	10 July 1962
2 Form 681 - Report - Tide Station	10 July 1962
Seasons Report	20 August 1962
12 Activities Photographs	21 August 1962
1 Geographic Names Report	24 August 1962
3 Form 567 and 7 Chart Sections	24 August 1962
Field Edit Data	16 September 1962
Control Report	10 October 1962

Coast Pilot Report 16 October 1962  
Fathometer and Velocity Correction Report To be Submitted

Respectfully Submitted

  
for George F. Wirth  
LT, C&GS

Approved

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

TIDE NOTE  
To Accompany Hydrographic Survey  
EX-10-2-62  
H-8638

Tide reducers for this survey were obtained from two portable gages. The sheet was divided along Longitude  $65^{\circ}-41'-30''$ W from Punta Lima south with the Ensenada Honda Gage controlling the eastern portion and the Playa De Humacao Gage controlling the Western Portion. No time or range corrections were used in obtaining tide reducers from either gage.

Ensenada Honda Portable Gage

Location: Lat.  $18^{\circ}-13'-48''$ N  
Long.  $65^{\circ}-37'-12''$ W  
Time Meridian: 45th  
MLW(As Furnished by Washington Office) 3.2 ft. above Staff Zero

Playa De Humacao Portable Gage

Location: Lat.  $18^{\circ}-09'-54''$ N  
Long.  $65^{\circ}-37'-12''$ W  
Time Meridian: 45th  
MLW(As Furnished by Washington Office)  
March 28-May 18, 1962 3.7 ft. above Staff Zero  
May 19-May 31, 1962, 1200, 3.4 ft. above Staff Zero  
1300 May 31-June 13, 1962, 1200, 1.9 ft. above Staff Zero  
June 13, 1962 (1300-1800), 2.6 ft. above Staff Zero



GEOGRAPHIC NAMES LIST

H-8638 (EX-10-2-62)

See Special Report submitted to W. O. 24 August 1962

1. Bahia Algodones
2. Bahia Lima
3. Boca Prieta
4. Cayo Santiago
5. Ensenada Honda.
6. Hucares
7. Playa Blanca
8. Playa de Humacao
9. Playa de Naguabo
10. Puerto de Humacao
11. Puerto Naguabo
12. Punta Algodones
13. Punta Cascajo
14. Punta Lima
15. Punta Santiago
16. Rio Blanco
17. Rio Daguao
18. Rio Santiago

SIGNAL NAMESSHEET EX 10-2-62

Signal	T-Sheet	Photo	Signal	T-Sheet	Photo
002 ABE	12159	59S3928	503 MAG	12153	61W1677
012 ACE	12153	61W1679	566 MOO	12153	61W1678
018 ACT	12159/3	61W1677			
075 ARM	12159	59S3928	508 NAT	12153	61W1679
			526 NEO	12153	61W1677
003 BAG	12159	59S3926	569 NOW	12159	59S3928
021 BED	12153	61W1677			
069 BOX	12159	59S3928	604 OAK	TRAVERSE FROM GOAT, 1901	
			611 ODD	12153	61W1677
107 CAR	12153	61W1677	635 OHM	12153	61W1679
108 CAT	12159	59S3926	634 OIL	12159	59S3928
166 COP	12159	59S3928	688 OUT	SOUTH, 1941	
			694 OWL	12159	61W1676
163 DOG	12153	61W1678			
165 DON	DON, 1941		626 PEP	12153	61W1678/9
169 DOT	12159	61W1676	685 PUN	TRAVERSE FROM PUNTA, 1941	
185 DUN	12159	59S3928			
			686 QUO	12159	61W1676
200 EBB	12153	61W1678			
236 EGO	12159	61W1676	703 RAG	12153	61W1679
280 ETA	12159	59S3928	728 REV	12159	61W1676
			736 RIO	12159	61W1676
233 FIG	12153	61W1678	705 SAN		
266 FOP	12159	59S3928	704 SAL	12153	61W1679
285 FUN	12159	61W1676	709 SAX	12159	61W1676
			782 SUE	12153	61W1678
300 GAB	HUMACAO CUSTOM HOUSE EAST GABLE, 1901		805 TAN	12159	61W1676
326 GEO	12159	61W1676	824 TEL	12153	61W1678
389 GUY	12153	61W1678	869 TOY	12159	61W1676
360 GOA	GOAT, 1901		879 TRY	12159	59S3927
337 HIS	12159	61W1676	872 USE	12159	61W1676
366 HODP	12153	61W1678			
383 HUG	12159	59S3928	804 VAL	12159	61W1676
385 HUM	HUMACAO PLAYA CHURCH (USGS), 1934		828 VET	12159	Sextant Located
			835 VIM	12159	59S3927
312 ICE	12159	61W1676	922 WEE	12159	59S3928
310 IDA	12153	61W1678	936 WHO	12159	61W1676
			933 WIG	12159	61W1676
406 JAP	12159	61W1676			
435 JIM	12153	61W1678	927 YES	12159	59S3927
			928 YET	12159	61W1676
421 KED	12159	61W1676			
429 KEY	12153	61W1678	902 ZAG	12159	61W1676
498 KIM	12159	61W1676	966 ZOO	12159	61W1676
424 LEO	12153	61W1679			
428 LET	12153	61W1678			

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

PROJECT OPR-423  
RX 10-2-62 H-8638

Launch No. 1  
a & b days

808 Fathometer No. 136 SP

1

Depth (ft.)	Corr. (ft.)
0.0-11.0	0.0
11.1-21.5	+0.2
21.6-30.0	+0.4
30.1-37.0	+0.6
37.1-43.5	+0.8
43.6-48.5	+1.0
48.6-52.5	+1.2
52.6-55.5	+1.4
55.6-58.0	+1.6
58.1-60.5	+1.8
60.6-62.5	+2.0
62.6-64.5	+2.2
64.6-66.0	+2.4
66.1-68.0	+2.6
68.1-69.5	+2.8
69.6-71.0	+3.0
71.1-73.0	+3.2
73.1-74.5	+3.4
74.6-76.0	+3.6
76.1-77.5	+3.8

c-d day

Raytheon Fathometer No. 241

2

Depth (ft.)	Corr. (ft.)
0.0-1.0	0.0
1.1-2.5	+0.2
2.6-4.5	+0.4
4.6-7.5	+0.6
7.6-10.0	+0.8
10.1-13.5	+1.0
13.6-18.0	+1.2
18.1-21.5	+1.4
21.6-24.5	+1.6
24.6-28.5	+1.8
28.6-31.5	+2.0
31.6-34.0	+2.2
34.1-37.0	+2.4
37.1-39.0	+2.6
39.1-41.0	+2.8
41.1-43.0	+3.0
43.1-44.0	+3.2
44.1-46.0	+3.4
46.1-47.5	+3.6
47.6-48.5	+3.8
48.6-50.0	+4.0
50.1-51.0	+4.2
51.1-52.5	+4.4

c-n day  
(cont.)

<u>Depth (Ft.)</u>	<u>Corr. (Ft.)</u>
52.6-53.5	+1.4
53.6-55.0	+1.6
55.1-56.0	+1.8
56.1-57.5	+2.0
57.6-59.0	+2.2
59.1-60.0	+2.4
60.1-61.5	+2.6
61.6-62.5	+2.8
62.6-64.0	+3.0
64.1-65.0	+3.2
65.1-68.0	+3.4
68.1-71.5	+3.6
71.6-74.5	+3.8
74.6-76.0	+4.0
76.1-81.0	+4.2
81.1-84.0	+4.4
84.1-87.5	+4.6
87.6-91.0	+4.8

Launch No. 2  
all days  
except  
a day

<u>Depth (Ft.)</u>	<u>Corr. (Ft.)</u>	3
0.0-3.0	-1.0	
3.1-9.5	-0.8	
9.6-14.5	-0.6	
14.6-18.5	-0.4	
18.6-22.5	-0.2	
22.6-26.5	0.0	
26.6-30.0	+0.2	
30.1-34.0	+0.4	
34.1-38.0	+0.6	
38.1-42.0	+0.8	
42.1-45.5	+1.0	
45.6-49.5	+1.2	
49.6-53.5	+1.4	
53.6-57.0	+1.6	
57.1-61.0	+1.8	
61.1-65.0	+2.0	
65.1-68.0	+2.2	
68.1-77.5	+2.5	
77.6-87.5	+3.0	

a day

<u>Depth (Ft.)</u>	<u>Corr. (Ft.)</u>	4
0.0-6.0	-1.2	
6.1-12.0	-1.0	
12.1-17.0	-0.8	
17.1-21.0	-0.6	
21.1-25.0	-0.4	
25.1-28.0	-0.2	
28.1-31.0	0.0	
31.1-34.0	+0.2	
34.1-37.0	+0.4	
37.1-40.0	+0.6	

a day  
(cont.)

Depth (ft.)	Corr. (ft.)
42.1-45.0	+1.0
45.1-47.0	+1.2
47.1-50.0	+1.4
50.1-53.0	+1.6
53.1-56.0	+1.8
56.1-58.0	+2.0
58.1-61.0	+2.2
61.1-64.0	+2.4
64.1-66.0	+2.6
66.1-74.0	+3.0
74.1-80.0	+3.5
80.1-87.0	+4.0
87.1-94.0	+4.5
94.1-100.0	+5.0
100.1-107.0	+5.5
107.1-114.0	+6.0
114.1-121.0	+6.5
121.1-127.0	+7.0
127.1-134.0	+7.5
134.1-141.0	+8.0
141.1-147.0	+8.5
147.1-154.0	+9.0

Launch No. 3  
All days

Raytheon Fathometer No. 134

Depth (ft.)	Corr. (ft.)
0.0-2.5	0.0
2.6-7.0	+0.2
7.1-11.5	+0.4
11.6-16.0	+0.6
16.1-20.5	+0.8
20.6-25.0	+1.0
25.1-30.0	+1.2
30.1-34.5	+1.4
34.6-39.0	+1.6
39.1-43.5	+1.8
43.6-48.0	+2.0
48.1-52.5	+2.2
52.6-57.5	+2.4
57.6-62.0	+2.6
62.1-66.5	+2.8
66.6-74.5	+3.0
74.6-86.0	+3.5
86.1-97.5	+4.0

Phase Comparisons

Corrections (ft.)

Fathometer  
 808 No. 136 SP  
 808 No. 158 SPI  
 DE-723 No. 241  
 DE-723 No. 247  
 DE-723 No. 134

Scale

A-B  
 +0.3  
 -1.6  
 -0.4  
 +0.6  
 0.0

APPROVAL SHEET  
Hydrographic Survey  
H-8638  
EX-10-2-62

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 the 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  
 LIST OF SIGNALS  
 H-8638

TRIANGULATION STATIONS

GOAT GOAT, 1901-41  
 OUT SOUTH, 1941  
 PUNTA, 1941  
 DON DON, 1901-41  
 SAN SAN, 1901-40  
~~MM~~  
 HUM HUMACAO PLAYA CHURCH (USC&GS), 1934  
 GAB HUMACAO CUSTOM HOUSE, EAST GABLE, 1901

PHOTO-HYDRO STATIONS

SOURCE T-12159

ABE	BAG	BOX	CAT	COP	DOT	DUN	EGO	ETA	FUN	GEO
HIS	HUG	ICE	JAP	KED	KIM	OIL	OWL	QUO	REV	RIO
SAX	TAN	TOY	TRY	USE	VAL	VIM	WHO	WIG	YES	YET

SOURCE T-12153

ACE	ACT	BED	CAR	DOG	EBB	FIG	GUY	HOP	IDA	JIM
KEY	LEO	LET	MAG	MOO	MAT	NEO	ODD	OHM	PEP	RAG
SAL	SUE	TEL								

SOURCE VOLUME 1, PAGE 3

PUN OAK

APR  
 FRI  
 NOV  
 WET  
 WII  
 ZAG  
 YET

FLOATING AIDS TO NAVIGATION

H-8638

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH</u>	<u>POS. NO</u>	<u>DATE</u>
CAYO SANTIAGO Buoy 2	18-09.35'	65-42.78'	30'	61f (red)	5/23/62



NORFOLK HYDROGRAPHIC PROCESSING BRANCH  
ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8638 (Ex 10-2-62)

GENERAL

Except for some weak fixes, particularly in the Southwest part of the survey where control stations are distant, this appears to be an excellent basic survey. Soundings are in good agreement at crossings and depth curves form normal patterns in this irregular bottom.

DISCREPANCIES

Fixes on e day, Lch. 1, in the vicinity of Lat. 18-10.50' and Long. 65-37.50', are rather weak. Careful adjustment of times and courses has resulted in good agreement with depths on surrounding hydrography.

Lat. 18-10.5' and Long. 65-41' to 42' -- Positions on the South-erly ends of sounding lines on k day, Lch. 1, were largely weak or swingers. They were adjusted by time, course and sum angle.

OVERLAYS

Positions and soundings on line 171 to 179k, Lch. 1, are being submitted on a smooth overlay. Soundings are in fair agreement with surrounding hydrography, but some of the fixes are weak and there are no established courses.

Positions and soundings on lines 35 through 103 l, Lch. 3, are being submitted on a smooth overlay. All fixes are weak and there is undoubtedly some displacement in these development lines.

WRECKS

The shoal indication on the fathogram between 184 and 185a, Lch. 3, has many of the characteristics usually associated with wrecks. It is considered likely that this 22' sounding may be on the PD wreck charted about 600 meters to the Southeast.

CHART COMPARISON

The smooth plotter has prepared a transparent overlay showing a comparison between the smooth sheet and the largest scale charts covering the area of the survey.

Norfolk, Va.  
5 August 1965

Respectfully submitted,  
*Hugh L. Proffitt*  
Hugh L. Proffitt  
Supvr. Carto.

43' 30"

65° 43'

43' 30"

09' 30"

29<sup>311</sup>  
 28 29<sup>293A</sup> 28<sup>314</sup>  
 28 29 28 27  
 28 28 27<sup>29A</sup> 26 27 28<sup>29A</sup>  
 27 27 27<sup>29A</sup> 25<sup>29A</sup> 25<sup>29A</sup>  
 28 27 26<sup>29A</sup> 27<sup>29A</sup> 26<sup>29A</sup> 27<sup>29A</sup> 28 29<sup>29A</sup>  
 29 28 27 27 26 27 27 28<sup>29A</sup>  
 28<sup>29A</sup>

Note: Soundings in pencil are depths during the turn of the launch, therefore placement is approximate.

18° 09'

18° 09'

18° 09'

18° 09'

Note: Because all positions on this overlay are weak or swingers, only the shoalest were transferred to the smooth sheet, and so noted W.L.V.

32 32 33 33 32 32 31 31 30 29 30 30 30 26 24 27 28 27 28 28<sup>35A</sup>  
 29 29 30 30 30 31 32 32 32 33 32 33 33 33 33 33 34 34<sup>35A</sup>  
 37 38 39 38 38<sup>35A</sup> 40 44 33 46 43<sup>35A</sup>  
 41 40 39 39 38 41 37 40<sup>35A</sup>  
 44 40 42 42 43 44 44 44 45 45 46 44 40<sup>35A</sup>  
 44 45 45 44 47 47 47 47 47<sup>35A</sup>  
 46 44 47 47 47<sup>35A</sup>  
 49 47 47 47<sup>35A</sup>

TO ACCOMPANY  
 H-8638  
 EX-10-2-62  
 Pos. 35-81.4  
 Pos. 83-103.2  
 Lch. 3

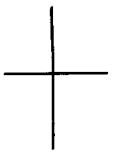
18° 09'

65° 43'

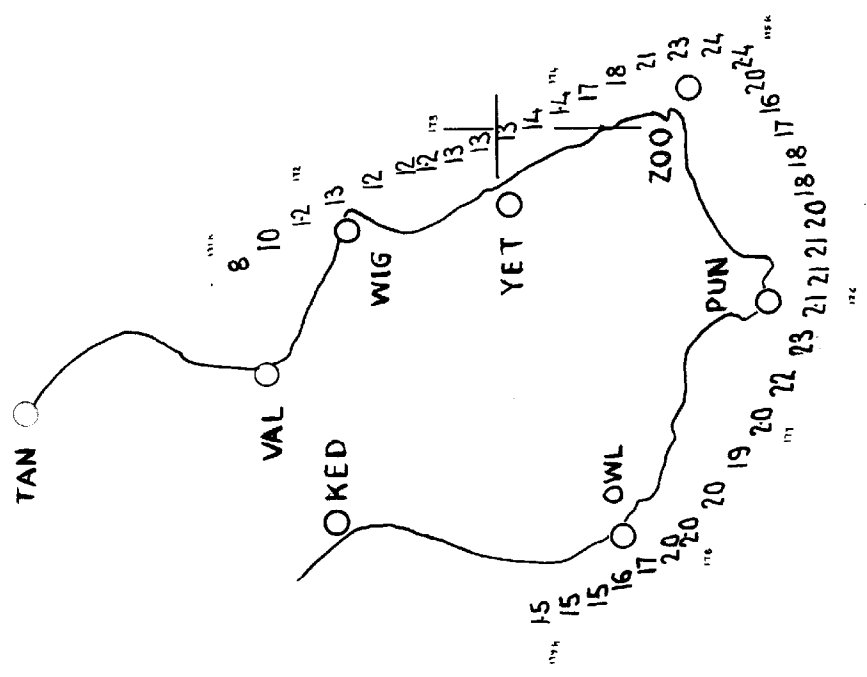
18° 09'

08' 30"

65°42'



18°11'



TO ACCOMPANY  
 H-8638  
 EX-10-2-62  
 Pos. 171-179K  
 Lch No 1

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 1, 1966

Nautical Chart Division: R. H. Carstens

Plane of reference approved in  
24 volumes of sounding records for

HYDROGRAPHIC SHEET 8638

Locality: Punta Lima  
East coast of Puerto Rico

Chief of Party: E. L. Jones (1962)

Plane of reference is mean low water

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

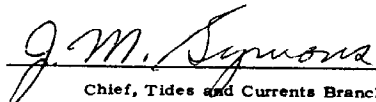
Ensenada Honda, Puerto Rico  
Playa de Humacao, Puerto Rico

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

0.7 feet

Remarks Tide reducers for the following positions have  
been revised in red and verified.

<u>Vol.</u>	<u>Position</u>
IV	e1 - 183 f6 - 69
VII	132 - 44

  
Chief, Tides and Currents Branch



FORM C&GS-946  
(REV. 3-1-64)  
(PRESC. BY  
HYDROGRAPHIC  
MANUAL 20-2,  
6-94, 7-13)

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
NAUTICAL CHART DIVISION

**HYDROGRAPHIC SURVEY STATISTICS**  
**HYDROGRAPHIC SURVEY NO. 8638**

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS	3
DESCRIPTIVE REPORT	1	OVERLAYS	6

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	17 folders					
CAHIERS						
VOLUMES	24					
BOXES						

T-SHEET PRINTS (List)  
2-Cronaflex Prints of T-12159

SPECIAL REPORTS (List)

**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				

PROCESSING ACTIVITY	TIME (MANHOURS)			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
TOPOGRAPHIC DETAILS				
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK				
<b>TOTALS</b>				

PRE-VERIFICATION BY	BEGINNING DATE	ENDING DATE
VERIFICATION BY	BEGINNING DATE	ENDING DATE
REVIEW BY	BEGINNING DATE	ENDING DATE

**VERIFIER'S REPORT**  
**HYDROGRAPHIC SURVEY, H -8638**

**INSTRUCTIONS** - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

**CL - Check List Items:** should be checked as having been completed during the verification processes.

**R - Report Item:** This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT	CL	R	Part III - JUNCTIONS (Continued)	CL	R
<p><b>Note:</b> The verifier should first read the Descriptive Report for general information and problems.</p> <p>1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None</p>			<p>10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of <b>Butt</b> junctions and areas which are <b>SUPERSEDED</b>.</p>		
<p>2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None</p>			<p><b>Part IV - VOLUMES</b></p> <p>11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes.  Remarks Required: -- None</p>		
<p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year.  Remarks Required: -- None</p>			<p>12. Condition of sounding records was satisfactory except as follows:  Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following:</p> <p>(a) rocks (b) line turns (c) position values of beginning and ending of lines (d) bar check or velocity correctors (e) time recording (f) notes or markings on fathograms (g) was reduction of soundings accurately done? (h) was scanning accurate? (i) were peaks at uneven intervals missed? (j) were stamps completed? (k) references to adjacent features</p>		
<p><b>Part II - SHORELINE AND SIGNALS</b></p> <p>4. Source of shoreline signals Remarks Required: -- List all surveys</p> <p>a. Give earliest and latest dates of photographs b. Field inspection date c. Field Edit date d. Reviewed-Unreviewed</p>					
<p>5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>					
<p>6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None</p>					
<p>7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet.  Remarks Required: -- List those signals still unidentified.</p>			<p><b>Part V - PROTRACTING</b></p> <p>13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp.  Remarks Required: -- None</p>		
<p><b>Part III - JUNCTIONS</b></p> <p><b>Note:</b> Make a cursory comparison preliminary to inking soundings in area of overlap.</p> <p>8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None</p>			<p>14. The protracting and plotting of all unsatisfactory crossings were verified.  Remarks Required: -- None</p>		
<p>9. The notation in slanted lettering "JOINS H--- (19 )" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil.  Remarks Required: -- None</p>			<p>15. All detached positions locating <b>critical</b> soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible.  Remarks Required: -- None</p>		

# NAUTICAL CHARTS BRANCH

SURVEY NO. 8638

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
8/16/65	917	RKD.	Before <del>After</del> Verification and Review <i>Part. applied.</i>
3/9/66	923	FJP	Before <del>After</del> Verification and Review <i>Critical corrections only</i>
4/26/66	940	WAW	Before <del>After</del> Verification and Review <i>Partly applied</i>
6/7/66	922	WAW	Before <del>After</del> Verification and Review <i>Partly applied</i>
10/14/66	920	D. Svendsen	Partially applied thru Ch 917 Drg 9 item 18 Before <del>After</del> Verification and Review
3-18-67	904	A. Johnson	Before <del>After</del> Verification and Review <i>Partly Appld</i> <i>thru ch 917, drg #9</i>
4/7/73	923	J. Sturmon	<del>Before After</del> Verification and Review
11/3/77	923 25668	D.W. Galvin	ADEQUATE BEFORE Before <del>After</del> Verification and Review
9/24/79	922 25666	E. N. Bodourian	Adequate Before <del>After</del> Verification and Review <i>Cat 1</i>
8/12/80	25664	B. Fenwick	Adequate BEFORE Before <del>After</del> Verification and Review
8/27/80	25663	B. F.	Adequate before verification before
2-14-83	25650	E. N. Bodourian	Adequate before verification and Review - <i>Cat 1</i>
8/8/83	25640	B. Fenwick	Adequately and before verification and Review <i>Drg. No 34</i>

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.



**a de Luquillo**  
Pico del Este  
3458

65° 40'

# R I C O

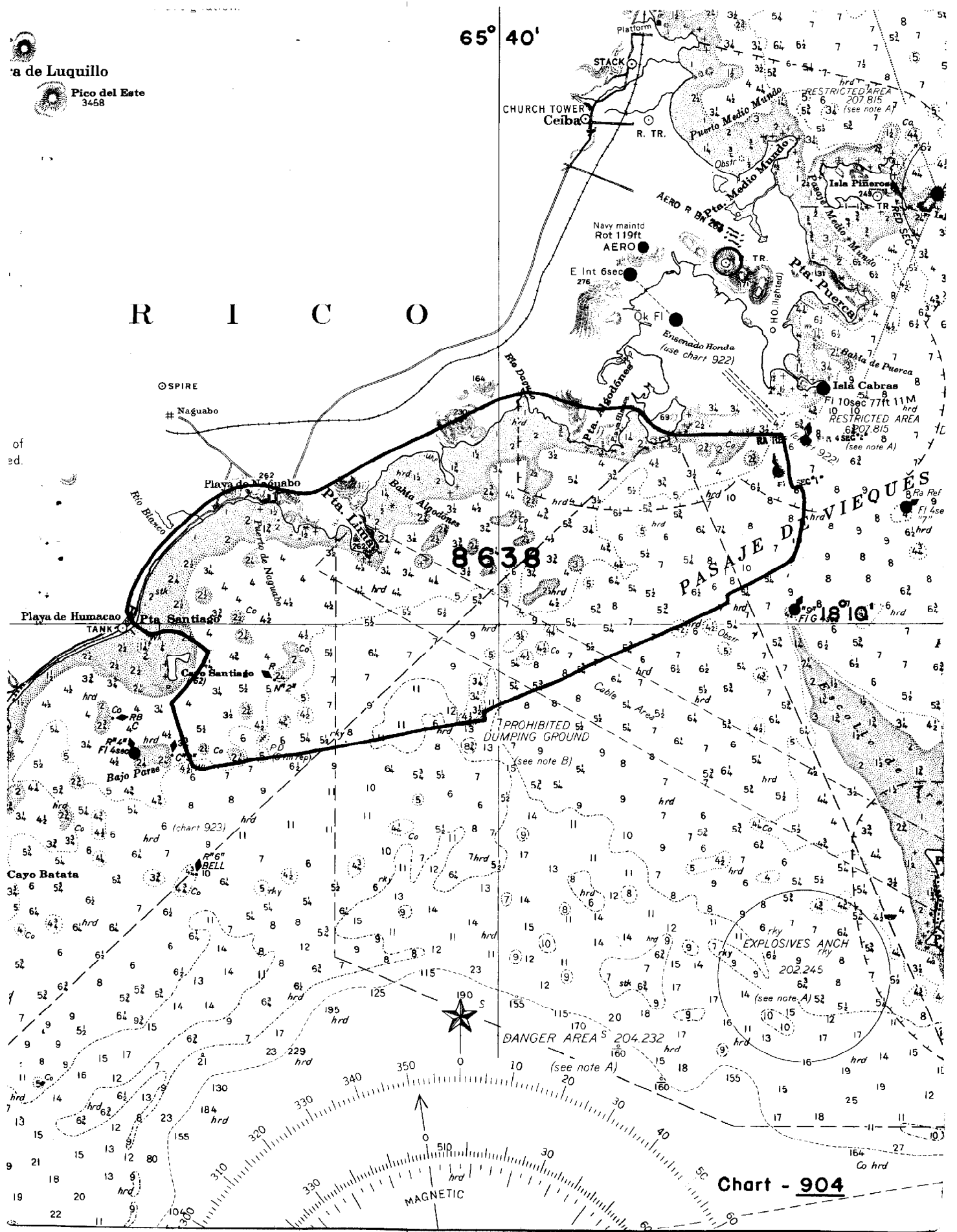


Chart - 904