

9120

Diag. Cht. No. 901-2.

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. MI-5-2-70 ..... Office No. H-9120

LOCALITY

State ..... PUERTO RICO

General locality ..... South Coast of P.R.

Locality ..... GUANICA HARBOR

1970

CHIEF OF PARTY

CDR. Kenneth A. MacDonald

LIBRARY & ARCHIVES

DATE ..... 12-20-74

9120-0216

**HYDROGRAPHIC TITLE SHEET**

H-9120

**INSTRUCTIONS** - 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.

MI-5-2-70

State Puerto Rico

General locality South Coast of Puerto Rico

Locality Guanica Harbor

Scale 1:5000 Date of survey May-June 1970

Instructions dated 18 December 1969 Project No. OPR-423

essel USC&GSS MT MITCHELL

Chief of party CDR. K.A. MacDonald

Surveyed by LT. T.E. Gerish and ship personnel

Soundings taken by echo sounder, hand lead, pole Echo sounder and pole

Graphic record scaled by ship personnel

Graphic record checked by ship personnel

Protracted by Com Plotter ship personnel Automated plot by AMC

Soundings penciled by Com Plotter

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXX~~

REMARKS:

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HYDROLOGIC DATA

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BEARD RIVER

HYDROLOGIC OPERATIONS

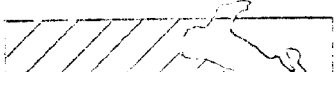
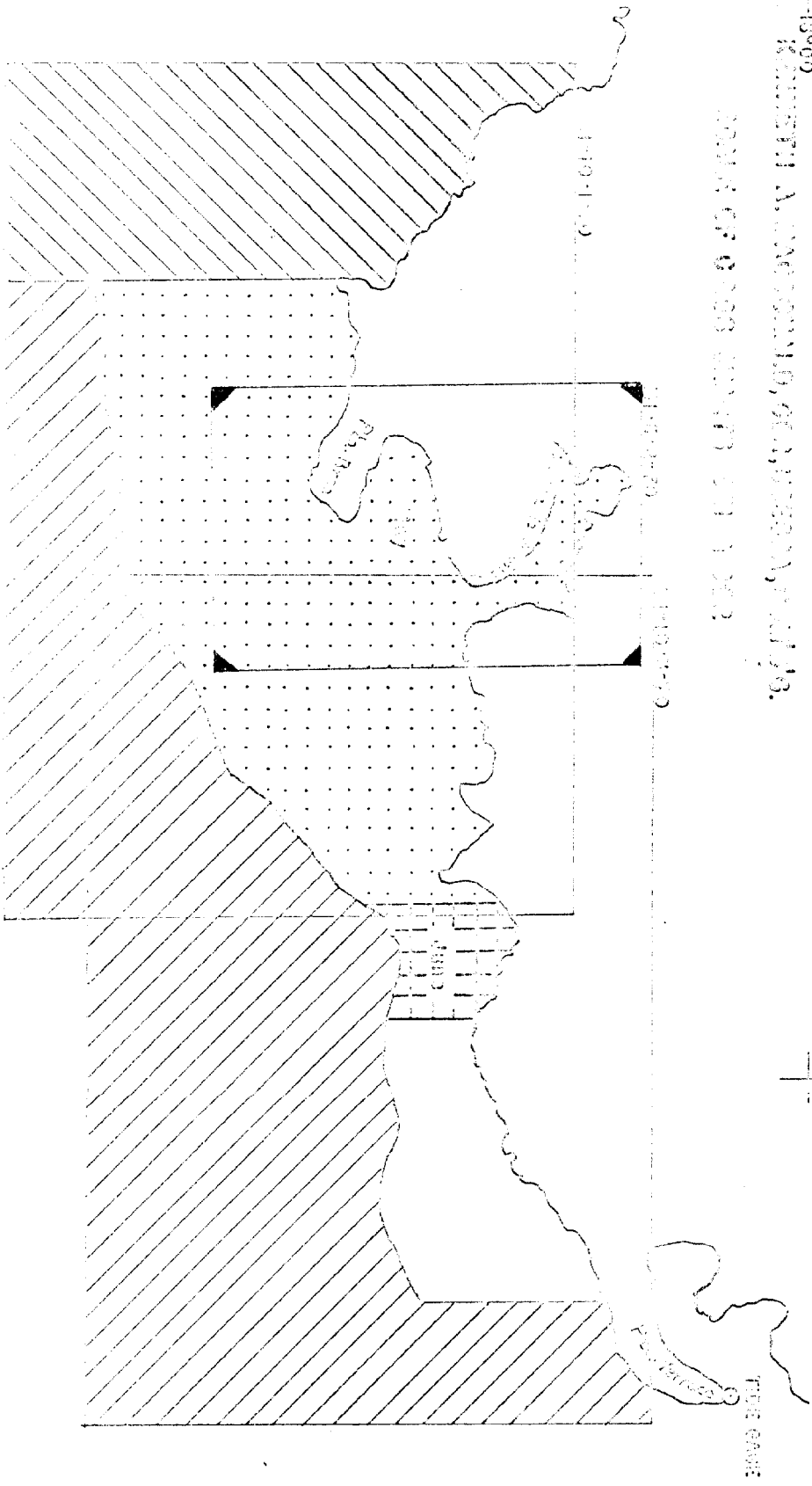
MARCH-JUNE 1970

000000 SMP AT BRANSON, MISSOURI

ROBERT A. MCGRAW, GEORGETOWN, MISSOURI

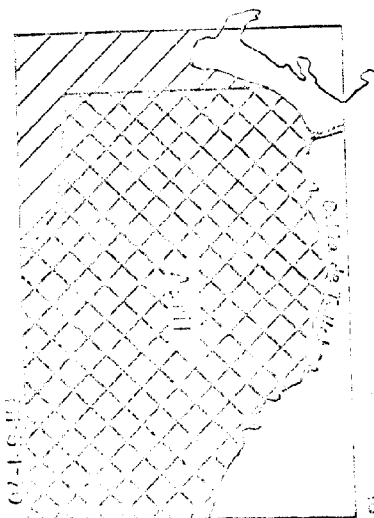
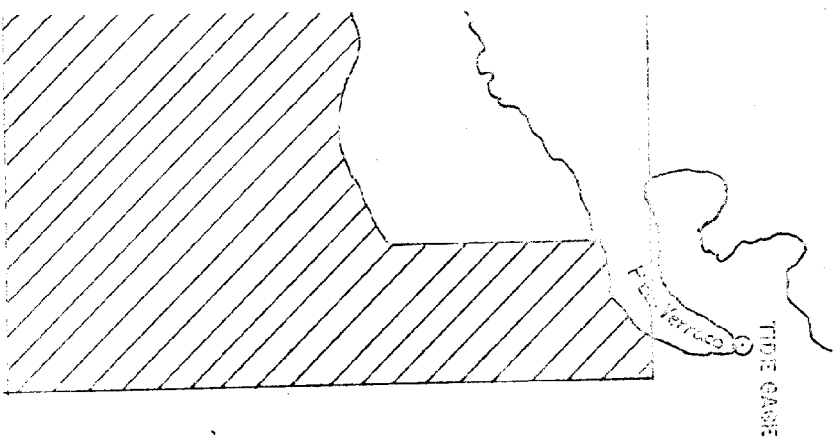
WATER OF 000000 ON 1970






Month	April	May	June	Total
2.9	3.0	4.4	5.7	16.0
4.0	3.1	2.5	7.0	16.6
3.1	2.7	2.3	1.3	9.4
1.17	0.1	0.2	0	1.47
3	0	3	1.7	7.7
3	0	0	0	3
3.4	3.7	2.6	4.0	13.7



Month	April	May	June
29	350	494	57
40	381	206	70
31	257	232	120
147	93	92	0
8	0	3	17
3	0	0	0
34	37	26	30

Miles, Squares by Line  
 Miles, Distance to & from  
 Miles, Miscellaneous  
 Bottom Samples  
 Triangulation Stations Recovered  
 Travers Stations Established  
 Hydrographic Signals Erected



-  WHITING 1868 Survey
-  WHITING 1869 Survey
-  WATSON 1870
-  WATSON 1871
-  WATSON 1872

DESCRIPTIVE REPORT  
TO ACCOMPANY  
HYDROGRAPHIC SURVEY SHEET  
MI-5-2-70 (H-9120)  
1970 FIELD SEASON

-----oOo-----

USC&GSS MT MITCHELL

-----oOo-----

SCALE 1:5,000

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A. PROJECT

This survey was accomplished under project OPR 423, Hydrographic Survey, South Puerto Rico. Instructions dated 18 December 1970, and one amendment dated 23 March 1970, supersede all previous instructions.

B. AREA SURVEYED

The limits of the survey were defined by the shoreline of Bahia de Guanica. Inclusive latitudes and longitudes for this area are as follows: north,  $17^{\circ} 58' 31''$  N; south,  $17^{\circ} 57' 00''$  N; east,  $66^{\circ} 53' 55''$  W; west,  $66^{\circ} 55' 53''$  W. This survey junctioned with contemporary survey MI-10-1-70, at the mouth of the bay (the  $17^{\circ} 57' 00''$  N line).  
4-20-00000

The inclusive dates of the survey were between May 1, 1970, and June 4, 1970. Work was not carried on continuously during this time since several periods were spent working on other boat sheets. A total of 19 full and partial days were spent on this sheet.

### C. SOUNDING VESSEL

The great majority of the sounding lines were run in launch MI-5. The position numbers for launch MI-5 are denoted in violet. The majority of the developments were run in launch MI-3. Her positions are denoted in red-violet ink.

### D. SOUNDING APPARATUS

A Raytheon fathometer, type DE 723, was used for all echo soundings in this survey. Fathometers, serial numbers 1281 and 1272, were used in launches MI-5 and MI-3 respectively.

Echo sounders were used in depths greater than 4 feet (the launches grounded in shallower water). There were no depths greater than 32.5 feet in this survey. All soundings less than 4 feet, or in foul areas, were taken with a sounding pole. A leadline was used to verify least depths.

Because of the numerous strays and schools of fish encountered in some areas of the bay, it was occasionally necessary to adjust the gain to other than standard settings used during bar checks. Errors from this procedure are considered insignificant since no poor crossings were noted.

Velocity corrections were obtained by taking three bar checks and leadline comparisons per full day of work. These corrections were then abstracted, graphed, and reduced to a particular correction (in .2-foot increments) for a particular range of depths.

Bar checks were taken at both ends of the bay because the water at the western end of the bay was considerably less saline than at the east end. Brackish water from Rio Loco pours into the western end of the bay and little flushing by salt water occurs since there is a very small tide range in this area. There was, however, no difference in the results of the checks for the two sections. Apparently, the change in the sound pulse velocity was insignificant at these depths.

Speed counts, alignment checks, and "A"- "F" scale initial checks were made three times a day, and every time paper was changed in the fathometer. All comparisons remain with the fathogram.

The initial was set at 2 feet to correct boat sheet soundings for the launch draft. Actual values for the initial never varied more than 0.1 foot from this setting, and no correction for initial was necessary on the corrector tapes.

D. SOUNDING APPARATUS (Continued)

No instrument correction for the fathometer exists. *Is not a true fathometer*

Squat and settlement corrections were found by running the launch on a range and giving a mark as it passed a point. Differences in depth between dead-in-the-water and various speeds, at this point, were noted, graphed, and abstracted with the following results:

<u>Both Engines</u> <u>RPM</u>	<u>Corrections</u>	<u>One Engine</u> <u>RPM</u>	<u>Corrections</u>
0000-0500	0	0000-0700	0
0500-0999	-0.2	0700-1500	0.2
1000-1999	0.4	1500-2500	0.4
2000-3000	0.6	2500-3000	0.6

Difficulties arose from poor width control of fathometer paper by the manufacturer. Some of the rolls differed in width as much as  $\frac{1}{4}$  inch. This caused serious alignment and tension problems, so the paper would not advance correctly and/or the arc alignment would be incorrect. After each paper change, arc and "A"- "F" scale initial checks were taken and adjustments were usually necessary.

E. SMOOTH SHEET

Field records were encoded on punched tape, by ship personnel, for computer use. Six tapes were compiled in the field, using ASCII code: position tape, sounding tape, velocity correction tape, TRA correction table indicator (TC/TI) tape, and tides tape. A hydrographic logger and depth module Mk 3-0 was used to record these parameters. The tapes will be processed by the computer to obtain output for the X-Y plotter.

Signal 501, used for only eight positions, will not fall within the parameters of the smooth sheet. It is not considered worthwhile to call for an oversize sheet to include this signal.

Soundings taken in a winding river will have to be hand plotted since the sounding line curves. Notes and records for Rio Loco are in Volume 5, pages 4-6.



DEPTH	CORR.	TABLE	
feet	sign	feet	
000020	0	1013	0004 000 000000 000000 Launch MI-3
000030	0	1012	
000050	0	1010	
000070	0	1008	
000100	0	1006	
000130	0	1004	
000170	0	1002	
000210	0	0000	
000255	0	0002	
000295	0	0004	
000330	0	0006	
000370	0	0008	
000020	0	1015	0005 000 000000 000000 Launch MI-5
000040	0	1013	
000050	0	1012	
000075	0	1010	
000100	0	1008	
000125	0	1006	
000155	0	1004	
000190	0	1002	
000225	0	0000	
000260	0	0002	
000300	0	0004	
000340	0	0006	
000330	0	0008	

TRA CORRECTION/TABLE INDICATOR (TC/TI)

BOATSHEET MI-5-2-70

PUERTO RICO

TIME	S/S	CORR.	VEL	DAY	Tenth ft. table	
093800	0	0004	0005	122	000000	000000
091115	0	0004	0005	125	000000	000000
083945	0	0004	0005	126	000000	000000
102100	0	0004	0005	127	000000	000000
084430	0	0004	0005	137	000000	000000
135400	0	0006				
144030	0	0002				
152430	0	0006				
154215	0	0004				
092200	0	0004	0005	138	000000	000000
084400	0	0004	0005	139	000000	000000
093930	0	0002				
104330	0	0004				
134115	0	0002				
135730	0	0004				
085600	0	0000	0000	140	000000	000000
084400	0	0000	0000	141	000000	000000
115700	0	0004	0005	146	000000	000000
142400	0	0000	0000	146	000000	000000
092600	0	0000	0000	147	000000	000000

TRA CORRECTION/TABLE INDICATOR (TC/TI)  
BOATSHEET MI-5-2-70

TIME	S/S	COR.	VEL.	DAY		
131630	0	0004	0005	147	000000	000000
145200	0	0000	0000	147	000000	000000
082100	0	0000	0000	148	000000	000000
092830	0	0002	0004	148	000000	000000
090330	0	0004	0004	150	000000	000000
152845	0	0006				
155430	0	0002				
160100	0	0006				
130230	0	0000	0000	153	000000	000000
152745	0	0004	0004	153	000000	000000
160100	0	0000	0000	153	000000	000000
092845	0	0004	0004	154	000000	000000
093500	0	0000	0000	154	000000	000000
102345	0	0004	0004	154	000000	000000
110000	0	0000	0000	154	000000	000000
083500	0	0000	0000	155	000000	000000

## F. CONTROL

This survey was entirely dependent on visual control. All signals (excepting signals 200 and 285) were located by theodolite cuts from two or more of the following four stations: triangulation stations ENSENADA 1966 and CAPRON 1966; topographic stations FAVALE 1970 and LOCO 1970. The two topographic stations were located with third-order triangulation methods by ship personnel.

The hydrographic signals were plotted graphically on incomplete manuscript sheet T-13129, and pricked onto the boat sheet. However, the G.P.'s of all signals were calculated for use on the smooth sheet. Signal 200 was located with one T-2 cut from CAPRON 1966 and sextant angles (see Sounding Volume 1, page 13). Later in the survey, a second T-2 cut was taken from the front range light, signal 404; and a G.P. for this signal was also calculated.

Signal 285 was pricked from sheet T-13129. It is the end of a small wooden pier.

No particular signals were found weak. All gave good checks with each other.

Difficulties were encountered with control when the boat sheet expanded greatly laterally and very little longitudinally. A second boat sheet, on an aluminum mounted sheet (tin sheet), was constructed and used. The control then held very well, and little paper distortion was noted.

The following stations were located with triangulation methods by ship personnel:

<u>Signal Number</u>	<u>Description</u>
200	Temp. banner
201	Temp. banner
202	Temp. banner
203	Temp. signal on roof of house
204	Temp. tripod on awash shoal
207	Cupola
208	Temp. banner on end of pier
209	Wrapped telephone pole
210	Temp. banner erected in the water
211	Temp. tripod erected in the water
212	Temp. tripod erected in the water
213	Bow of stranded ship DANIEL PIERCE
214	Steam whistle pipe on stranded ship
215	Metal stack at OCHOA annex plant
216	Uppermost point of fixed crane
217	Temp. banner on shore

F. CONTROL (Continued)

The following are previously located triangulation stations used as signals in this survey:

<u>Signal Number</u>	<u>Description</u>
403	Rear range
404	Front range
405	Guanica Municipal Water Tank (on dog ear on boat sheet)
406	Ensenada, South P.R. Sugar Co., West Stack
407	Ensenada, South P.R. Sugar Co., East Stack

The following three signals were located photogrammetrically, primarily for use on sheet MI-10-1-70. They were used briefly on this sheet. Signal 501 will not fall within the parameters set for the smooth sheet. It was used for only eight positions.

<u>Signal Number</u>	<u>Description</u>
045	Temp. banner
048	White washed rock
501	Temp. tripod on awash shoal

Punched tape printout for the location of the signals is on the following page.

GUANICA HARBOR PUERTO RICO  
 PRELIMINARY LIST OF SIGNALS  
 BOATSHEET MI-5-2-70

SIGNAL	LATITUDE meters	LONGITUDE meters	LATITUDE	LONGITUDE
110	17 57 0356	66 54 0463	17 57 03.56"	66 54 04.63"
200	17 57 0476	66 54 1047	17 57 04.76"	66 54 10.47"
201	17 57 0741	66 54 1807	17 57 07.41"	66 54 18.07"
202	17 57 0993	66 54 1488	17 57 09.93"	66 54 14.88"
203	17 57 1253	66 55 0038	17 57 12.53"	66 55 00.38"
204	17 57 1590	66 55 1080	17 57 15.90"	66 55 10.80"
207	17 58 0100	66 55 1032	17 58 01.00"	66 55 10.32"
208	17 58 0016	66 55 0823	17 58 00.16"	66 55 08.23"
209	17 58 0674	66 55 1267	17 58 06.74"	66 55 12.67"
210	17 58 0608	66 55 0526	17 58 06.08"	66 55 05.26"
211	17 58 0180	66 55 0419	17 58 01.80"	66 55 04.19"
212	17 57 1699	66 54 1128	17 57 16.99"	66 54 11.28"
213	17 57 1615	66 54 0924	17 57 16.15"	66 54 09.24"
214	17 57 1533	66 54 0893	17 57 15.33"	66 54 08.93"
215	17 58 0017	66 54 0043	17 58 00.17"	66 54 00.43"
216	17 57 1219	66 54 0764	17 57 12.19"	66 54 07.64"
217	17 57 0802	66 54 0710	17 57 08.02"	66 54 07.10"
225	17 57 1747	66 55 1393	17 57 17.47"	66 55 13.93"
048	17 56 0025	66 55 1131	17 56 00.25"	66 55 11.31"
045	17 55 1835	66 55 0361	17 55 18.35"	66 55 03.61"
501	17 56 0761	66 53 0357	17 56 07.61"	66 53 03.57"

### G. SHORELINE

Shoreline was traced from shoreline manuscript T-13129. The low water line was not defined by soundings since it very closely approximates the high water line due to the fairly steep shoreline and very small range of tides ( $\frac{1}{2}$  foot).

In the field edit, only two changes were noted. The first is a small island that has formed on the shoal at signal 204 (latitude  $17^{\circ} 57' 51.3''$ , longitude  $66^{\circ} 55' 37.1''$ ). The second is at the southeast point of the mouth of Rio Loco (latitude  $17^{\circ} 58' 21.8''$ , longitude  $66^{\circ} 55' 18.3''$ ). Instead of two small mangrove islands, the shoreline is now continuous. See the boat sheet for these changes.

This shoreline was also edited by photo party 62.

### H. CROSSLINES

Five percent crosslines were run. Good comparison was noted throughout. Good comparisons were noted between development soundings and standard sounding lines.

### I. JUNCTIONS

There was very good comparison at the junction with contemporary survey MI-10-1-70, registry number H-9119, April to June 1970, accomplished by launch MI-4. Red soundings on the boat sheet show this junction at the mouth of Bahia de Guanica (latitude  $17^{\circ} 57' 00''$ ).

### J. COMPARISON WITH PRIOR SURVEYS

A comparison was made with prior survey of 1901, USC&GS, registry number 2514, scale 1:10,000. Soundings check reasonably well in the eastern section of the harbor, but considerable shoaling is evident in the center and western sections of the bay. The northwest leg, Bahia Noreste, has completely changed character. Numerous changes in the shoreline are also evident between the contemporary and prior survey. Each change will not be discussed because the shoreline on the present charts has obviously been revised since the 1901 survey. No other complete prior surveys were supplied for comparison.

J. COMPARISON WITH PRIOR SURVEYS (Continued)

Comparison with presurvey review soundings are as follows: All circled general soundings at the entrance to the bay, at the east end of the bay, and along the south edge of the channel leading to the sugar mill at the west end of the bay were verified by this survey.

Circled and squared soundings south of the channel in the west end of the bay agree within one foot, except for a charted 25 and 26, which prove to be only 22 feet in each case. These soundings are near the edge of the dredged channel, and 25- to 26-foot depths are only a few yards away.

The circled 21-foot sounding at the northeast corner of the sugar mill pier is now only 18 feet.

The squared 24-foot sounding midway down the sugar mill pier is in 17 feet of water.

The squared 5-foot sounding close in to Pta. Pera was verified.

The squared 17-foot sounding just offshore of Pta. Pera is in an area which now has general depths of 15 feet.

The circled 17-foot sounding at buoy "14" was verified.

The squared 17-foot sounding 80 yards northeast of buoy "14" compares with 15 feet on this survey.

The following are specific items from the presurvey review:

Item 4: There is no evidence of a spoil dump in the area around the southeast point at the mouth of the bay (vicinity of  $17^{\circ} 57' 11''$  N and  $66^{\circ} 54' 19''$  W). Apparently, the spoil was washed away.

There is little or no evidence of a spoil dump on the south shore in the central section of the bay ( $17^{\circ} 57' 34''$  and  $66^{\circ} 54' 51''$ ). This spoil must have washed into the bay.

There is evidence of a dumping area along the south shore at the western end of the bay (vicinity of  $17^{\circ} 57' 50''$  and  $66^{\circ} 55' 37''$ ). Mud shoals are located in this area. They are well outlined on the shoreline sheet T-13129. The spoil has apparently spread along the shore, outside the spoil area shown on the chart.



J. COMPARISON WITH PRIOR SURVEYS (Continued)

There is slight evidence of a spoil dump along the north shore between latitude  $17^{\circ} 55' 16''$  and  $17^{\circ} 54' 45''$ . Most of this spoil has apparently washed into the bay.

It was reported by the chief pilot that spoil was dumped into the Bahia Noreste and may be responsible for the great changes of depths in this area.

Item 5: The main channel to the sugar mill (WSW arm) was found to be displaced from its charted position by as much as 30 meters. The 30-meter displacement occurs at longitude  $66^{\circ} 54' 53''$ . The controlling depth in the south of the charted channel is 28 feet; in the north half it is 21 feet. This was reported to the Coast Guard on 21 May 1970. The dredged channel appears to be as wide as shown on the chart, but displaced. If the charted position is changed southward, the controlling depth for the entire channel would be 28 feet.

Item 6: The 18-foot sounding charted at latitude  $17^{\circ} 57' 43.8''$ , longitude  $66^{\circ} 54' 40''$ , originating with BP-58476 of 1959, was definitely disproved by development number 2, overlay 2. A 22-foot depth was found at this location. It is recommended that the 18-foot depth be removed from the chart.

Item 7: The dredged area in the vicinity of latitude  $17^{\circ} 57' 41''$ , longitude  $66^{\circ} 54' 27''$  has a controlling depth of 24 feet, instead of the charted 28.

Item 8: The visible wreck charted at latitude  $17^{\circ} 57' 48.4''$ , longitude  $66^{\circ} 54' 24.5''$  is located at  $17^{\circ} 57' 49.5''$  N and  $66^{\circ} 54' 24.5''$  W. The wreck is outlined on the page following this section.

The barge loading structure and moored barges are outlined on overlay number 4. Four dolphins north of the north end of the fertilizer pier ( $17^{\circ} 57' 41''$  N and  $66^{\circ} 54' 26''$  W) have been removed. The chief pilot reports that they were weakened by the 1959 dredging operation and removed soon after. Only the dolphins shown on overlay 4 are in place. This was the last item in the presurvey review.

J. COMPARISON WITH PRIOR SURVEYS (Continued)

The following nine developments appear on letter-size tracing paper overlays:

Development number 1 was run to disprove a prior survey 18-foot sounding (previously discussed).

Development number 2 was run to investigate a prior survey sounding of 13 feet (previously discussed in this section).

Development number 3 was run to investigate pinnacles found in that area (discussed in the miscellaneous section).

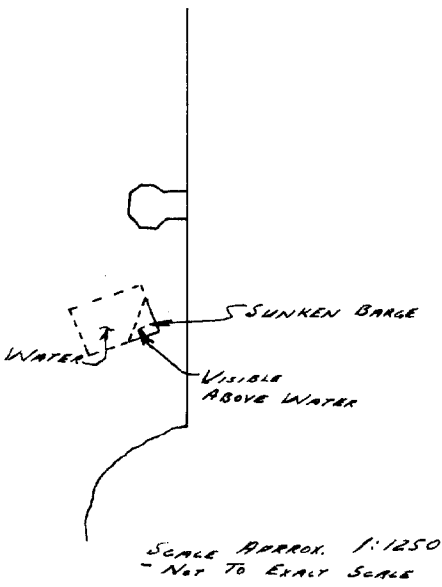
Developments numbers 4 and 5 were run to investigate least depths in the area.

Developments numbers 6 and 7 were run to investigate spikes in their areas (discussed in the miscellaneous section).

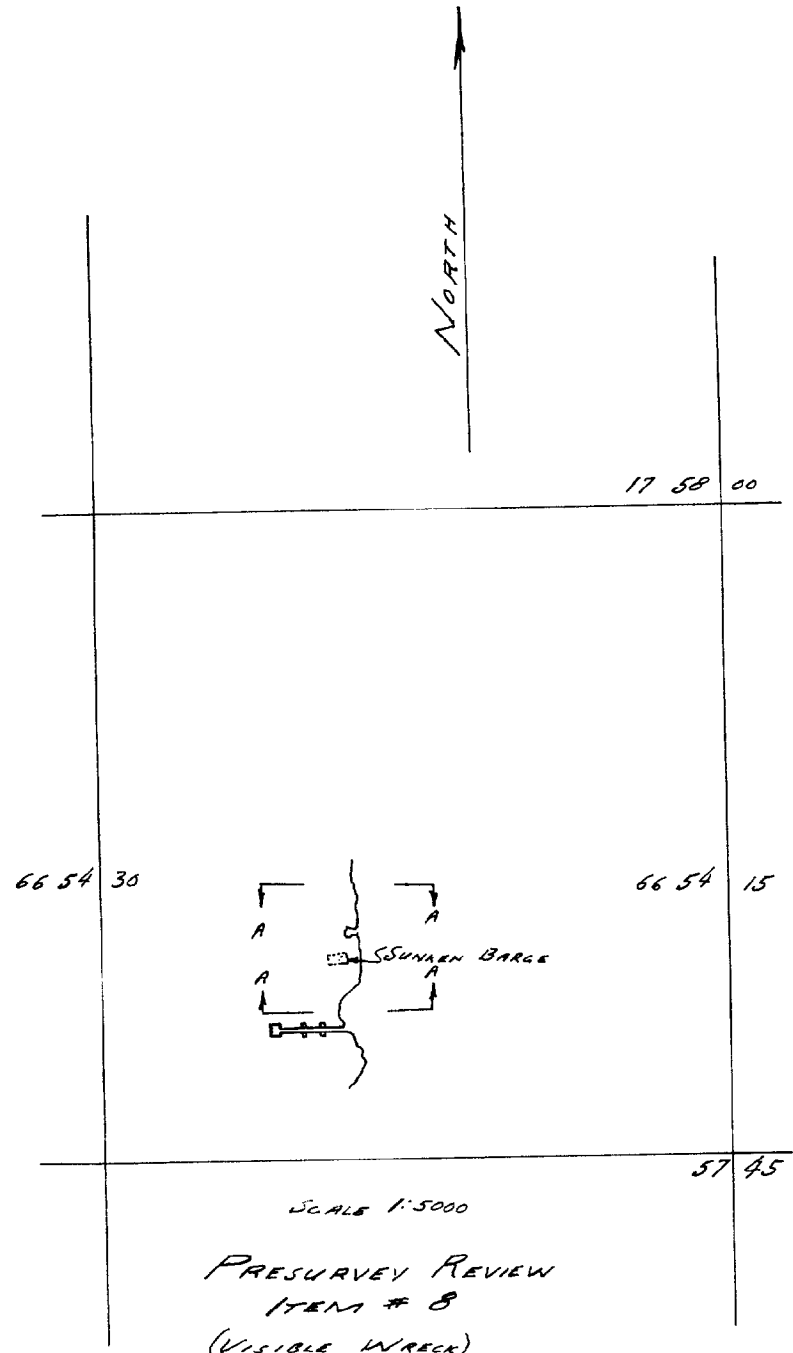
Development number 8 proved a 23-foot, prior survey sounding and delineated the edge of the dredged area at the end of the wharf.

Development number 9 disproved a spike found earlier in the survey.

Also on letter-size tracing paper is the outline of the docks, with leadline soundings, at the sugar mill, fertilizer plant, and sulphur pier.



SECTION "A" "A"



PRESURVEY REVIEW  
ITEM # 8  
(VISIBLE WRECK)

## K. COMPARISON WITH THE CHART

Comparison was made with C&GS Chart 929, 4th edition, dated September 16, 1968, scale 1:10,000. Depths near the mouth of the bay are in good agreement. Depths were generally about 2 feet shallower than charted in the interior of the bay. There are two possible reasons for this change. One is the nature of the bottom. A very soft, silty mud was the rule in the western end of the bay, while a more stable bottom was noted in the eastern portion of the bay. The second, and more likely reason, is that spoil from dredging operations has apparently washed back into the bay.

Particularly large changes in depths were noted in Bahia Noreste. A large uncharted alluvial fan, or spoil dump, has grown around the mouth of Rio Loco. It has been reported that spoil was dumped into this bay.

Depths on the north side of the sugar mill pier are presently only 17 feet, against charted depths of 24 feet. The south side of the outer half of the pier presently has depths of 25 to 27 feet, against 32 feet charted.

Lights shown on the end of the sugar mill pier (Pta. Pera) are no longer displayed ( $17^{\circ} 57' 00.5''$  N and  $66^{\circ} 55' 21.5''$  W).

The Cana Gorda Navigation Light ( $17^{\circ} 57' 12.0''$  N and  $66^{\circ} 54' 16.7''$  W) is out of position on the chart by approximately 30 meters to the west. This was reported to the Coast Guard on 21 May 1970. Theodolite cuts taken during this survey check the 1966 triangulation position. However, the photo party mentioned that the 1966 position could not be held on the photo plot.

Shoreline and shoal outline changes are required on the chart in the southwest finger of the bay as shown on the 1966 photos.

The following items are considered newly found dangers to navigation:

A sunken barge is located against the sugar mill pier, on the north side, near the shore. No part of this barge is submerged. It is outlined on overlay number 5, with fixes 1301 through 1304.

The 380-foot tanker DANIEL PIERCE has been aground in the harbor for many years (several different periods were reported). The ship appears on the 1966 photographs. The location of the stack is  $17^{\circ} 57' 51.0''$  N and  $66^{\circ} 54' 30.5''$  W. The ship was reported to the Coast Guard on 4 May 1970. Its position is delineated by fixes 15

K. COMPARISON WITH THE CHART (Continued)

through 18. The ship is expected to be removed this summer. Contact the chief pilot, Captain Oscar Padilla, Box 243, Guanica, Puerto Rico, telephone 821-2875; or Betances Galuardo, Chief, Marine Division, Puerto Rico Port Authority, San Juan, Puerto Rico, telephone 724-3262, for information concerning the actual removal of the ship.

The least depth in the channel was found to be 30 feet as far in as buoy "12", and 28 feet from there west. The channel meanders out of its charted position in the WNW arm. Because of this, the controlling depth in the north half of the charted channel is 21 feet. This was reported to the Coast Guard on 21 May 1970. It is also very difficult to stay in the channel with the existing buoys. Either more buoys or a range would be very helpful.

The section of the channel north of the fertilizer pier (dredged May-June 1959) was found to have a least depth of 24 feet.

L. ADEQUACY OF THE SURVEY

This survey is complete and adequate to supersede previous surveys of the area.

M. AIDS TO NAVIGATION

The positions of eight buoys and the Cana Gorda Navigation Light were checked, with the following results:

BUOY	CHARTED POSITION		ACTUAL POSITION	
	Latitude	Longitude	Latitude	Longitude
	o ' "	o ' "	o ' "	o ' "
R 8	17 57 31.4	66 54 30.5	17 57 31.2	66 54 30.1
C 9	17 57 35.0	66 54 33.0	17 57 34.3	66 54 33.7
C 11	17 57 40.4	66 54 39.6	17 57 40.3	66 54 39.8
N 12	17 57 44.2	66 54 41.3	17 57 45.0	66 54 41.6
C 13	17 57 56.4	66 55 21.0	17 57 56.0	66 55 21.6
N 14	17 57 59.0	66 55 20.0	17 57 58.9	66 55 20.8

Cana Gorda  
Navigation  
Light

17 57 12.0	66 54 16.6	17 57 11.6	66 54 15.7
------------	------------	------------	------------

## M. AIDS TO NAVIGATION (Continued)

The error in the charted position of the Cana Gorda Navigation Light was reported to the Coast Guard on 21 May 1970.

The clearance of the overhead power line across the mouth of the bay was found to be 155 feet at its lowest point. The lowest point occurred approximately 90 meters west of the main channel range. The clearance was checked by taking a series of four three-point fixes and simultaneous elevations of the power line while running a range of signal 200 and buoy C "9" toward the south. Three elevations were calculated, including the height of eye and sextant corrections. All elevations checked within 0.5 foot.

## M. STATISTICS

1192 positions for computer plotting  
1 duplicated position (number 20)  
19 position numbers not used  
5 positions not for computer plotting

64.3 nautical miles of sounding lines  
25 bottom samples  
2.01 square miles surveyed

## O. MISCELLANEOUS

All hydrography was performed on 30-degree meridian time. This enabled the offshore hydro crews to take full advantage of the early morning calm weather and avoid the afternoon trades.

Tides for this survey were supplied by a portable bubbler tide gauge located at Punta Verraco, latitude 17° 59' 15" N, longitude 66° 47' 04" W. The gauge was operated on local time, 60-degree meridian.

Numerous strays and spikes were found on the fathograms. Due to the nature of the bottom, it was doubted that these spikes were part of the bottom profile. Three developments were run in areas with high concentrations of spikes and strays (developments 1, 6, and 7 on overlay 1). None of the previously noted spikes were relocated. Also, no spikes were found in any of the other areas that were developed. All spikes in these areas are considered

O. MISCELLANEOUS (Continued)

disproved. It was concluded that all similar spikes noted in other areas were also non-existent. The most probable explanation is that schools of fish were concentrated in these areas. The bay was full of fish and rays, which were often sighted visually. Late in the survey, it was found that by reducing the gain on the fathometer, these strays would separate from the bottom. This is further proof that the spikes are not bottom features.

The pinnacles located at the entrance to Bahia Noreste were lead-lined, and it was noted that they were harder than the surrounding silt. From the apparent shape and location, I would guess that they are discarded pipes from the dredging operation.

P. RECOMMENDATIONS

1. Keep in touch with Puerto Rican authorities for information concerning the salvage removal of the tanker DANIEL PIERCE. *See attached*
2. Recommend that a day range be established to guide deep-draft vessels in the channel to the sugar mill wharf.

Q. REFERENCE TO REPORTS

Message to Coast Guard Command on 4 May 1970 concerning:

1. Size and condition of stranded ship DANIEL PIERCE.
2. Location of the DANIEL PIERCE.

Message to Coast Guard Command on 21 May 1970 concerning:

1. Controlling depth of entrance channel.
2. Controlling depth of inner-harbor channel.
3. Reposition of buoys R "2", C "3", and C "5".
4. Error in charted position of Cana Gorda Navigation Light.

Approved and forwarded:

Respectfully submitted,

*Thomas E. Gerish*  
Thomas E. Gerish  
LT. USESSA

*Kenneth A. MacDonald*  
Kenneth A. MacDonald  
CDR, USESSA  
Chief of Party

#### TIDAL NOTE

The tide station used for boat sheet MI-5-2-70 was located at Punta Verraco, Puerto Rico ( $17^{\circ} 59' 15''$  N,  $66^{\circ} 47' 04''$  W). The tide gauge was a portable bubbler type, operating on 60-degree west time meridian. The height on the tide staff at datum MLW is 2.0 feet. Hourly heights were tabulated by MT MITCHELL personnel, and no corrections for tidal lag or range differences at the working grounds were used. Maximum tide range was 0.8 foot.



TIDE NOTE FOR HYDROGRAPHIC SHEET

August 5, 1970

~~Now in Charge of the Station~~ Commanding Officer  
USCGC MT MITCHELL

Plane of reference approved ~~for~~  
~~hydrographic operations for~~

HYDROGRAPHIC SHEETS 9110, 9120, 9119

Locality: South coast of Puerto Rico

~~Year:~~ Year: 1970

Plane of reference is mean low water

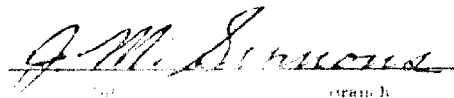
Tide Station Used (Form C&GS-681):

Punta Verraco, P.R.

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

0.5 ft.

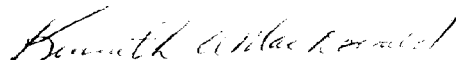
Remarks

  
J. M. Simmons  
oran. h

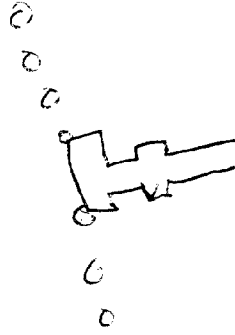
APPROVAL SHEET

FIELD NUMBER MI-5-2-70

The field work and processing of data from this hydrographic survey was under my immediate, daily supervision. The boat sheet and all records have been reviewed and are approved by me. It is believed that this survey is complete and adequate to supersede all prior surveys of the area.

  
Kenneth A. MacDonald  
CDR, USESSA  
Chief of Party

H-9120



Control + Shoreline

The control is adequately discussed in part 4 of the Descriptive Report.

~~The origin of the control~~  
The shoreline originates will final reviewed Photogrammetric Manuscripts T-13129 of 1966-1972

This photogrammetric manuscript T-13129 (1966-72) does not show two dolphins that apparently ~~had~~ were installed after the April of 1970 Field Edit and were subsequently located by the hydrographer

The mean high water line is shown for guidance only. Its true position is shown on the topographic manuscript previously mentioned.

H-9120

## 2) Hydrography

- a) The depths at crossings are in excellent agreement.
- b) The usual depth curves are "now" adequately delineated, except that in some areas only short ~~of~~ portions of the inshore curves could be drawn because of coral reefs and <sup>the close</sup> proximity to ~~ford~~ areas.
- c) The development of the bottom configuration and determination of least depths is considered adequate.

## 3) Condition of Survey

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

### 3. Condition of Survey (cont)

A. The benchsheet was not included ~~with~~ the field records at the time of review.

B. The majority of detached visual fixes locating least depths did not have check angles observed.

C. The 9 development overlays ~~said~~ <sup>noted</sup> to have been accomplished were not included in the field records.

D. The 9 landmarks were not located or identified on the smooth sheet.

E. The geographic names were not added to the smooth sheet.

F. In referencing locations or geographical positions of the smooth sheet it would be much more expedient to use a Lat + Long reference rather than a

place name or building name  
ie: Fertilizer Plant.

11. The majority of the detached  
visual fixes locating least depths  
did not have check angles observed.

## Junctions

An adequate junction was effected with H-9819 (1970) on the ~~the~~ south end of the survey which ~~is~~ includes the channel ~~and~~ entrance area.

## Comparison with Prior Survey

A. H-2514 (1:10,000) 1960-1961

~~This prior survey covers all~~  
The above listed prior survey provides the only prior hydrographic survey coverage of the present survey area. There were  $\pm 1-6$  ft differences revealed in the comparison between the prior & present survey. These differences are attributable to the ~~large~~ extensive dredging & subsequent dumping activities because of the channel that is now being maintained ~~in~~ within this survey area.

## Comparison with Prior Survey (Cont)

The present survey is adequate to supersede this prior survey within the common area.

### 7) Comparison with Chart 929 (25079) 6<sup>th</sup> Ed May 17/75 A) Hydrography see pt

1. The four southerly dolphins of a line of five dolphins located charted at  $17^{\circ}57'41''N$  and  $66^{\circ}54'26''W$  have been removed, and need no further consideration.

2. The "fifth" dolphin in the aforementioned line of five should now be charted as submerged since the only dolphins observed by the hydrographer are the ones plotted on the smooth sheet.

3. The dolphin locally charted at Lat  $17^{\circ}57'46''$  Long  $66^{\circ}54'22''$  <sup>originating with</sup> was not <sup>CL</sup> located by the hydrographer. It is <sup>53/58</sup>



therefore recommended that it be charted as submerged.

48 The 4 dolphins located at Lat  $17^{\circ} 57' 49''$  to Lat  $17^{\circ} 57' 51''$  Long  $66^{\circ} 54' 22''$  were not located by the hydrographer and it is, therefore, recommended that these dolphins be charted as "submerged."

50. The 18 ft sounding (PSR Stern #6) originating with BP 58476 of 1959 (2) (Charted at Lat  $17^{\circ} 57' 44''$  N Long  $66^{\circ} 54' 41''$ ) (2) is no longer considered valid. The hydrographer did a thorough investigation of this area and the shallowest sounding located was 22 ft. Due to dredging & dumping activities throughout this area the 22' sounding is considered ~~valid~~, a valid representation of the bottom configuration in this area.

~~C~~ The 13 ft sounding (P&R Stem #3) charted at Lat 17° 57' 56.1" N, Long 66° 55' 33.7" W originating with BP 58470 of 1959 is superseded by the 12' sounding located on the smooth sheet.

see page

A) Hydrography

Most of the charted hydrography originates with the best sheet of present survey.

Attention is directed to the following:

page

1)

B) Aids to Navigation

The aids to navigation on this sheet are ~~adequately~~ addressed under Section N of the Descriptive Report. The position of the aids adequately mark the intended features.

7. Compliance with Project Instructions

This survey adequately complies with the project instructions ~~and~~ ~~no further field work is recommended.~~

8. Additional Field Work

This is a good basic survey and no additional field work is recommended.

SHEET NO. 000-1223  
 YEAR 1970  
 PROJECT NAME Pointe a la Poudre Riv. - South Coast  
 CHECKED BY LTJG R.S. Hoody  
 DATE COLLECTED May 27, 1970  
 SHEET 1

SAL. NO.	DATE (1970)	SAMPLE POSITION		DEPTH	WEIGHT OF SAM. PLUR.	AP. PERCENTAGE	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS	CASE NO.
		LATITUDE	LONGITUDE								
1	May 27	57.52'	54.50'	31	10	NA	NA	gy M	Guanica Harbor	Pos. No. 1 @ Buoy #8	TH
2	1	57.57'	54.56'	32				gy M		Pos. No. 2 @ Buoy #9	TH
3	1	57.67'	54.67'	33				gy M		Pos. No. 3 @ Buoy #11	TH
4	1	57.75'	54.69'	23				gy M		Pos. No. 4 @ Buoy #12	TH
5	1	57.98'	55.35'	19				dk gy		Pos. No. 5 @ Buoy #14	TH
6	1	57.93'	55.38'	23				dk gy		Pos. No. 6 @ Buoy #13	TH
7	1	57.91'	55.61'	11				dk gy		Pos. No. 7 @ Mooring Buoy #7	TH
8	1	57.89'	55.44'	15				dk gy		Pos. No. 8	TH
9	1	57.81'	55.10'	21				gy M		Pos. No. 11	TH
10	1	57.88'	54.92'	18				gy M		Pos. No. 12	TH
11	1	57.84'	54.77'	18				gy M		Pos. No. 13	TH
12	1	57.88'	54.56'	7				gy S	brk Sh	Pos. No. 14	TH
13	1	57.90'	54.46'	10				bk M	brk Sh frags	Pos. No. 19	TH
14	1	57.76'	54.49'	22				gy M		Pos. No. 20	TH
15	Launch	57.88'	55.76'	8				gy	dk gy O3	Pos. No. 257	TH
16	27	58.34'	55.43'	12				gy	gy O3	Pos. No. 258	TH
17	27	58.21'	55.51'	13				gy	gy O3	Pos. No. 259	TH

Use data only time per sample if necessary.

TRIAL NO.	DATE (1970)	SAMPLE POSITION		DEPTH (Feet)	WEIGHT OF SAMPLER (Lbs.)	AP. PROX. TERRI- TION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS ( unusual conditions, exclusiveness, depth, number, strat. no., type of bottom, ref. loc., slope, plain, disposition, etc.)	JOB NO.
		LATITUDE	LONGITUDE								
18	May 27	58.20'	55.34'	4	10	NA	NA	gy	dk gy O3	Pos. No. 860	7
19	27	57.97'	55.10'	16				gy	gy M	Pos. No. 861	7
20	27	57.70'	54.92'	17				gy	gy M	Pos. No. 862	7
21	27	57.54'	54.71'	14				gy	gy-gy M brk Sh	Pos. No. 863	7
22	27	57.42'	54.48'	26				gy	gy gy M	Pos. No. 864	7
23	27	57.15'	54.50'	34				gy	fine gy S brk Sh	Pos. No. 865	7
24	27	57.02'	54.37'	29				gy	fine gy S brk Sh	Pos. No. 866	7
25	27	57.25'	54.41'	20				gy	fine gy S brk Sh	Pos. No. 867	7

USCOM-40C 3/6/70  
 Enter data and use per sample if necessary.

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. OPR 423 4. Requested By \_\_\_\_\_  
2. Reg. No. H-9120 5. Ship or Office Verification Branch  
3. Field No. MI-5-2-70 6. Date Required \_\_\_\_\_

1. Polyconic  Modified Transverse Mercator

2. Central Meridian of Projection 66° 55' 00"

3. Survey Scale: 1: 5,000

4. Size of Sheet (check one):

36 x 54  36 x 60  Other  Specify 36" x 36"

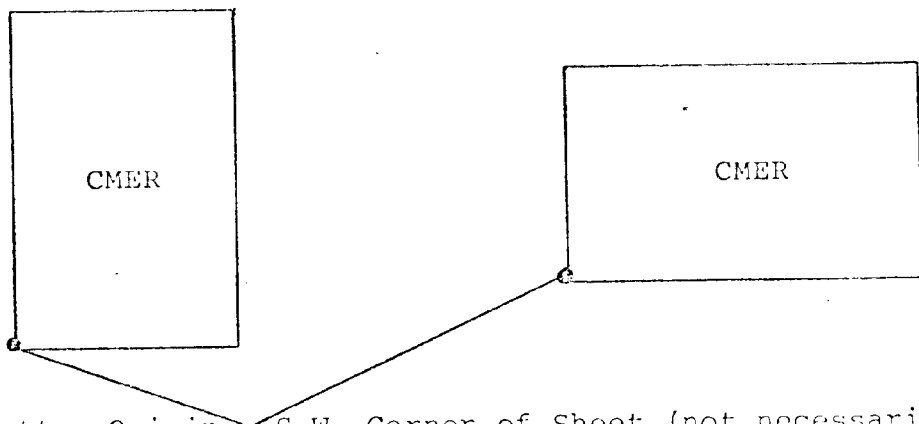
5. Sheet Orientation (check one):

NYX = 1

NYX = 0

N

N



2. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 17° 56' 27"

Longitude 66° 56' 12"

3. G.P.'s of triangulation and/or signals attached

4. Material Desired: Tracing Paper  Mylar

Smooth Sheet  Other  Specify \_\_\_\_\_

5. Remarks: \_\_\_\_\_

GEOGRAPHIC NAMES

H-9120

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
	ON CHART NO.	ON PREVIOUS SURVEY NO.	ON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	RAND McNALLY ATLAS	U.S. LIGHT LIST			
BAHIA DE GUANICA	/										1
BAIA NOROCCHE	/										2
BAIA DE LA JULA	/										3
EN SENADA	/										4
MAR TACIDE											5
BAIA DE GLANCHA	/										6
PUNTA MUSELA	/										7
PUNTA PENA	/										8
PUNTA PESCADOR	/										9
RIO LOCO	/										10
											11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25

Approved  
Staff Committee  
6 MARCH 1975

ATLANTIC MARINE CENTER  
APPROVAL SHEET  
FOR  
AUTOMATED SURVEY H- 9120

- A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~has not~~ been made. A new final sounding printout has/~~has not~~ been made.

Date: February 13, 1974

Signed: William L. Jonns  
William L. Jonns  
Title: Chief, Verification Branch

- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: February 13, 1974

Signed: C. Dale North Jr.  
C. Dale North Jr. LCDR  
Title: Chief, Processing Division



VERIFICATION NOTES  
SURVEY H-9120

GENERAL

This appears to be an excellent basic survey. Soundings are in good agreement at crossings and the depth curves adequately delineate the features.

No unusual problems were experienced during the verification process but reference should be made to the enclosed "plotter notes" for explanations of the changes made by this office.

SOUNDINGS

The soundings for positions 734 thru 743 were plotted by hand as they are in a narrow creek and are not suitable for automation.

Norfolk, Va.  
February 13, 1974

William L. Jonns  
Chief, Verification Branch, AMC

NO. 0305-948  
 V. 13-69  
 ESC. BY  
 D. 0106-10-2  
 N. 0106-10-2  
 6. 7-13

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

HYDROGRAPHIC SURVEY STATISTICS  
 HYDROGRAPHIC SURVEY NO. H-9120 (MI 5-2-70)

RECORDS ACCOMPANYING SURVEY: To be completed when survey is completed

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
BOOTH SHEET <b>4-Overlays</b>	1	BOAT SHEETS	1
DESCRIPTIVE REPORT	1	OVERLAYS	<b>4 x</b>

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS / SOURCE DOCUMENTS
<del>POSITION ENVELOPES</del>						1
ARTERS	1		x			
COLUMNS	x7					
GRCS			1			
-SHEET PRINTS (LIST)						
SPECIAL REPORTS (LIST)						

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			TOTALS
	PRE-VERIFICATION	VERIFICATION	REVIEW	
POSITIONS ON SHEET				1102
POSITIONS CHECKED		120		
POSITIONS REVISED		25		
DEPTH SOUNDINGS REVISED		100		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		80		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		1		
		TIME (MANHOURS)		
TOPOGRAPHIC DETAILS		16		
ADJUSTMENTS		3		
VERIFICATION OF SOUNDINGS FROM * GRAPHIC RECORDS	48			
SPECIAL ADJUSTMENTS **	8			
ALL OTHER WORK		144		
TOTALS		219		

\*Inserting additional soundlines ev. 7 sec.  
 \*\* Key punch

PRE-VERIFICATION BY <b>GET. PROFFERTEN, R. P. DAVIS, R. STEPHENSON</b>	BEGINNING DATE 1-4-73	ENDING DATE 6-16-73
VERIFICATION BY <b>R. J. STEPHENSON</b>	BEGINNING DATE 1-20-71	ENDING DATE 2-5-71
REVIEW BY	BEGINNING DATE	ENDING DATE

INDEX

PART I - SUMMARY OF THE PROJECT	Prepared by	DATE
A. INTRODUCTION		
B. OBJECTIVES		
C. PROBLEMS AND METHODS		
D. POLYMERIZATION OF VINYL MONOMERS		
E. POLYMERIZATION OF VINYL MONOMERS		
1. POLYMERIZATION		
2. MONOMER CONCENTRATION		
3. PARTICULATE CONCENTRATION		
4. TEMPERATURE		
5. OTHER		
F. SUMMARY OF RESULTS		
G. POLYMERIZATION OF VINYL MONOMERS		
H. POLYMERIZATION OF VINYL MONOMERS		
I. DESCRIPTIVE REPORT		
APPENDICES		
PART II - SUMMARY OF THE PROJECT	B. J. STEPHENSON	2-5-74
A. Description of the Project	DATE	
B. PROBLEMS AND METHODS	DP-AMC	1-29-74
YEAR HELD BY	B. J. STEPHENSON	"
C. POLYMERIZATION OF VINYL MONOMERS	"	"
D. POLYMERIZATION OF VINYL MONOMERS	N.A.	
E. OVERLAY COMPARISONS BY	B. J. STEPHENSON	8-16-73
1. POSITION NUMBER		
2. EXCESS SCATTER		
3. PRELIMINARY SUMMARY		
4. OTHER UTILIZED		
A.		
B.		
F. DESCRIPTIVE REPORT	M. L. JONNS	2-13-74
G. OVERLAY COMPARISONS	M. L. JONNS	3-22-72
H. POSITION NUMBER		
I. OVERLAY COMPARISONS	B. J. STEPHENSON	1-29-74
J. OVERLAY COMPARISONS	"	1-30-74
K. OVERLAY COMPARISONS	"	2-1-74

Fig. 20.

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY E35A		VERIFIER'S REPORT HYDROGRAPHIC SURVEY, # <u>9120 (MT 5-2-70)</u>		U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY E35A	
<p><b>INSTRUCTIONS</b> - This form serves as 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 and be accompanied by the following items: (a) Drawing for Report and the Survey, as ordered.</p> <p>3. Check List Items - should be checked as having been completed during the verification processes.</p> <p>4. Report Item - This column refers to those items reported to the reviewer and is used to indicate the items discussed.</p>					
<b>Part I - DESCRIPTIVE REPORT</b>	CL	R	<b>Part III - JUNCTIONS (Continued)</b>	CL	R
1. The verifier checks the title and the classification number, the general information, and problems.	*		10. Junctions were contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; care adjustments made. Make special notes of Best Junctions and areas which are <b>5-IPERSEDED</b> .	*	
2. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in non-black pencil (penicillin or ink taken).	*		<b>Part IV - VOLUMES</b> 11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and checked marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: - None	*	
3. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in non-black pencil. The date, latitude and longitude, together with position identification, remarks, equipment, etc.	*			12. Consistency of sounding records was satisfactory, except as follows: Remarks Required: -- Mention detail notes in completeness of notes or actions for the following: (a) to (k)	*
4. All reference to survey sheets mentioned in the Descriptive Report should include registry number and volume.	*		(a) to (k)	*	
5. Remarks Required: - None			(b) line to us		
<b>Part II - SHORELINE AND SIGNALS</b>			(c) position, values, beginning and ending of line		
6. Source of shoreline signals: <b>T-13129</b>	*		(d) method of selecting water marks		
Remarks Required: - List all surveys			(e) date of recording		
(a) five copies and latest copies of photographs <b>Nov. 1966</b>			(f) types of markings on the ground		
(b) field inspection report			(g) was reduction of soundings accurately done?		
(c) field notes <b>Apr. 1970</b>			(h) was sounding accurate?		
(d) field sketch <b>Dec. 1972</b>			(i) were marks as shown correctly placed?		
7. The original hydrographic topographic information was carefully examined and rechecked with the hydrog. info.	*		(j) are soundings correct?		
Remarks Required: - If none remaining, state none.			(k) differences in station numbers		
8. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and a final processing sheet was filed on the original sheets.	*		<b>Part V - PROTRACTING</b>		
Remarks Required: - None			13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: - None	*	
9. Objects on which signals are located and which fall outside of the high-water line have been described on the sheets.	*		14. The protracting and plotting of all unattached crossings were verified. Remarks Required: - None	*	
Remarks Required: - List those signals still unidentified.			15. All detached positions (floating buoys, breakers, obstructions, kelp, etc.) were verified and the position numbers are legible. Remarks Required: - None	*	
<b>Part III - JUNCTIONS</b>					
10. Make a cursory comparison preliminary to taking soundings in area of overlap.	*				
11. All indications of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: - None	*				
12. The mention in dashed lettering "JOINS HERE" (or "J") was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: - None	*				



PP NMG  
DE WTEG

-1-

P 041640Z MAY 70  
FM USCGC MT MITCHELL  
TO CG05EVEN  
INFO COMCOGARD GANISEC  
BT

UNCLAS

CHART INFORMATION CASS NO. 929

1. TANKER S.S. DANIEL PIERCE APPROX 300 FT IN LENGTH LIES  
STRANDED, POW ON, IN GUANICA HARBOR, PUERTO RICO.

2. SHIPS STACK LATITUDE 17-57.8 NORTH LONGITUDE 66-54.5  
WEST.

BT

UNCLAS

TOP 030000Z

TOP 04/1757Z NMG 12/16 NMZ RATT GRU HW KKK

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II

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II

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III

II

SECRET//77<<MAY1963-11<<1>4-1-8<253

CGC SAGEBRUSH - NODR

COPY  
OUT GOING

20 MAY 70

201913Z MAY 70  
USCGC SAGEBRUSH  
COMCOARDGANTSEC  
INFO COODSEVEN  
USCGSS MT MITCHELL/WTEG ←

UNCLAS  
BAHIA DE GUANICA  
201905Z ARRIVED BAHIA DE GUANICA  
CONFERRED WITH USCGSS MT MITCHELL  
UNWAY WITH C AND GS OFFICER WORKING WITH MT MITCHELL SURVEY BOATS  
RESET LGS ON STATION ON FOLLOWING SEXTANT ANGLES AGREEING WITH C AND  
GS ANGLES: RIGHT ANGLE TAN PUNTA PESCADORES CENTER TAN PUNTA BREA  
63 DEGS 30 MIN LEFT OBJECT TAN FRONT ON DELA BREA ANGLE 27 DEGS 23 MIN  
C AND GS SURVEY INDICATES BAHIA DE GUANICA LIGHT (LLNR 1417) MISPLOT-  
TED ON CHART 929. CORRECT POSIT IS 17-57-11.6N 06-54-15.2W. APPROX  
25 YDS FROM CHARTED POSIT. THIS LIGHT PREVIOUSLY USED AS OBJECT

IN SETTING LB 5  
BUOY G THROUGH 14 ON CP PER C AND GS SURVEY.  
UNABLE TO COMPLY WITH YOUR 191840Z MAY 70 AFTER CONFIRMING THAT A  
RIDGE EXISTS FROM POSIT 17-55-43N 06-55-00W TO 17-55-12N 06-55-20W  
CROSSING CHANNEL ENTRANCE AREA BUOYS 2 AND 3 WITH CONTROLLING DEPTH  
OF LESS THAN 35 FT  
RESET BUOYS 2 AND 3 ON CP USING POSIT ANGLES COMPATIBLE WITH THOSE  
USED BY C AND GS AND IN PROCESS ESTABLISHED THAT PUNTA CRICILLO ALSO  
MISPLOTTED ON C AND GS CHART 929 AND WAS PREVIOUSLY USED IN SETTING  
BUOYS 2 AND 3.  
SHORT OF WIRE DRAG, C AND GS SURVEY AND SOUNDINGS TAKEN BY THIS UNIT  
INDICATES A MINIMUM CHANNEL DEPTH OF 29 FT WITH ALL AIDS IN CHARTED  
POSITION.

DD: 20/ Z/NMR/2 /LA (ZXX WTEG MSCR)  
20/ Z/WTEG/MSCR/LA

201913Z MAY 70

PPPPP  
PPPPP

VII-2  
UNCLAS

COPY

4 213

P NMG  
DE UTEG

-T-

211105Z MAY 70  
FM USCGC MT MITCHELL  
TO COMCOGARD GANTSEC  
INFO CCGDSEVEN  
C AND GS AMC NORVA  
ZEN/USCGC SAGEBRUSH  
COM GRNC  
BT

UNCLAS  
NOTICE TO MARINERS INFORMATION, CHART 929 BAHIA DE GUANICA,  
PUERTO RICO FROM NEW BASIC SURVEY USC&GS

1. CONTROLLING DEPTH, ENTRANCE CHANNEL 32 FEET.
  2. CONTROLLING DEPTH, INNER HARBOR CHANNEL TO ENSEMANADA SUGAR MILL WHARF, SOUTH 1/2 OF CHANNEL 27 FEET, NORTH 1/2 OF CHANNEL 21 FEET.
  3. HARBOR ENTRANCE BUOYS R"2", C"3" AND "5" HAVE BEEN RESET BY COAST GUARD IN CHARTED POSITION.
  4. CHARTED POSITION OF GUANICA LIGHT IS WRONG. 1966 TRIANGULATION POSITION IS LAT. 17-57-11.532 LONG. 66-54-15.909.
- BT

NNNN

TOD 21/1116Z NMG 8/16 MHZ RATT ORU HW KKKK  
I  
WTEG DE NMG RRRRRRRRRRRRRRRRRRRR QSL QSL QSL QRU ERE TO SO CUL AR



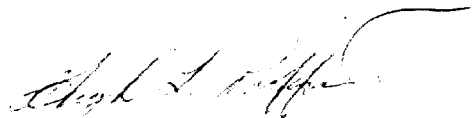
VERIFIERS: W.L. Jonns  
H.R. Smith

Norfolk, Va.  
Oct. 28, 1971

VERIFICATION BRANCH  
PLOTTER NOTE TO EDP (AMC)  
SURVEY H\*9120 (Mi 5-2-70)  
Bahia de Guanica, Puerto Rico

Before plotting, the fathograms for this survey were check scanned by personnel of this Branch.

The field scanning, at 15 second intervals, was too wide to meet Manual requirements at the scale of the survey. Personnel of the Branch scanned about 2200 in-between soundings at  $7\frac{1}{2}$  second intervals. These and any corrected soundings are recorded in the sounding volume in blue. A sounding corrector tape will have to be logged directly from the volume as no listing was made.



Hugh L. Preffitt  
Chief, Verification Br., AMC

Verifier:....W.L.JONES

Norfolk, Va.  
Nov. 22, 1972

VERIFICATION NOTE NO. DP. (AMC)  
SUWEY H-9120 (MI-5-2-70)

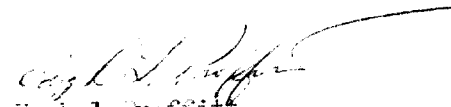
This branch has completed the verification of the control overlay for this sheet.

All of the plotted control is considered correct, how-ever the following triangulation stations were not plotted and are to be added to your control listing.

Number	Lat.	Long.
403	17° 51' 17.330"	66° 54' 36.142"
404	17° 58' 00.719"	66° 54' 34.602"
405	17° 58' 34.962"	66° 54' 00.426"
406	17° 53' 12.959"	66° 55' 51.491"
407	17° 53' 12.889"	66° 55' 50.911"
408	17° 53' 24.280"	66° 56' 17.454"

After the above corrections have been made please furnish this office with a position overlay.

W.L.J.

  
Hugh, L. Proffitt  
Chief, Ver. Br. AMC

Verifier:..Guy F.Trefethen

Norfolk, Va.  
Jan.4, 1973

VERIFICATION NOTE TO EDP (AMC)  
SURVEY H-9120 (MI-5-2-70)

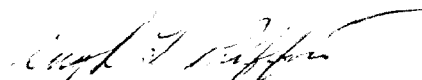
This office has completed the verification of the preliminary position overlay for this survey. All needed changes are shown by red pencil on the position printout, and were key-punched on cards by personnel of this branch, and accompany this note.

The following positions were destroyed because of bad fixes:  
13,578,787,830,831,867,1080,1081,1293,1348.

Soundings for positions 733 thru 743 are to be plotted by hand as they are running up small creeks.

Please furnish this branch with a sounding overlay after your records are corrected.

HLP/wlj

  
Hugh L. Proffitt  
Chief, Verification Br. AMC

Verifier: B.J. Stephenson

Norfolk, Va.  
April 12, 1973

Verification Note to EDP (AMC)  
Survey H-9120 (MI 5-1-70)

The verifier for this survey was unable to complete the preliminary sounding overlay, because the excess sounding overlay was not legible in the areas that were developed. There were several days spent on this overlay and corrections have been made in brown pencil in the printout.

It would save the next verifier the same time mentioned above if the corrections that have been found were applied to the new overlay.

When the above corrections have been made, please furnish the verification branch with a new sounding overlay plus 3 excess overlays.

*is needed to clarify soundings*

*Hugh L. Proffitt*  
Hugh L. Proffitt  
Chief, Verification branch

HLP/bjs

List of corrections

- Plot & excess 150 sdg's
- Recompute 27 positions
- Change and insert 8 sdg's
- Change and insert time 2



VERIFIER: R. HILL

JULY 26, 1973

VERIFICATION NOTE TO EDP (SMC)  
SURVEY H-9120 OPR-423 MI-5-2-70

Verification of this survey's preliminary sounding overlay has been discontinued.

Due to an error in the TC/TI program , the correct velocity, velocity table, and TRA was not applied to all soundings. Five days were found to be without velocity or TRA. (#139, 147, 150, 153, and #154)

We are returning the sounding printout , along with IBM cards for nine (9) positions to be inserted.

After corrections have been made, please furnish this branch with a new preliminary sounding overlay and printout.

*William L. Jonns*

William L. Jonns

Chief of Verification  
(Acting)

Verifier: Billy J. Stephenson

Norfolk, Va.  
24 August 1973

Verifier Note to EPP-AMC  
Survey H-9120 (MI 5-2-70)

The personnel of this office have completed the verification of the sounding overlay for this survey. All changes have been listed in the printout in red and purple. Correction cards have been punched and will accompany the printout.

When the changes have been applied to tapes please furnish this office with a final position overlay and smooth sheet.

Corrections:

8 position  
3 sdg's deleted  
1 sdg's changes  
61 Sdg's plotted or excessed

*William L. Jonns*  
William L. Jonns  
Chief, Verification Branch  
Acting

LJ/bjs

CAM 02



ESTADO LIBRE ASOCIADO DE PUERTO RICO  
ADMINISTRACION DE TERRENOS

CENTRO GUBERNAMENTAL DE MINILLAS  
EDIFICIO NORTE - AVE. DE DIEGO, PDA. 22  
APARTADO 11158 FERNANDEZ JUNCOS STA.  
SANTURCE, PUERTO RICO 00910

July 20, 1973.

Department of Commerce  
National Oceanic & Atmospheric  
Administration  
National Ocean Survey  
439 W. York St.  
Norfolk, Va. 23510 *60A*

Subject: Bahía de Guánica  
Chart No. 929

Gentlemen:

We are conducting an appraisal as of September of 1970, of Central Guánica sugar factory; its docks and harbor facilities are being included in the appraisal as complementary units of the loading sugar facilities.

On the Marine Chart 929, 5th Edition May 1/71, we notice that the depth of the channel running northwest is 21 feet at its northern part and 27 feet at its southern part. The channel section running from North to South is shown as 26 feet deep. The soundings which showed these depths were carried on in May 1970 as indicated on that chart.

Soundings taken out in September 3, 1969 by a local authorized marine pilot showed that the depth of the channel was around 28 to 30 feet.

If the readings taken by this pilot were correct, we would come to the conclusion that in a very short time, from Sept. 1969 to May 1970, the depths of the channel at Guánica Bay varied appreciably. What do you think of this?

We wonder if you made any soundings between Sept. 1964 and May 1970 which show variations in depths from those taken in Sept. 1964, and if you published these changes in your Notice to Mariners.

We would appreciate your comments on this matter and your opinion as to the cause of such wide difference between the

-2-

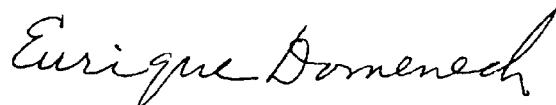
Department of Commerce:

July 20, 1973.

depths of the North and South portions of the channel as recorded by you on May 1970.

We await your reply with interest. Thank you.

Very truly yours,

A handwritten signature in cursive script that reads "Enrique Domenech". The signature is written in dark ink and is positioned above the typed name and title.

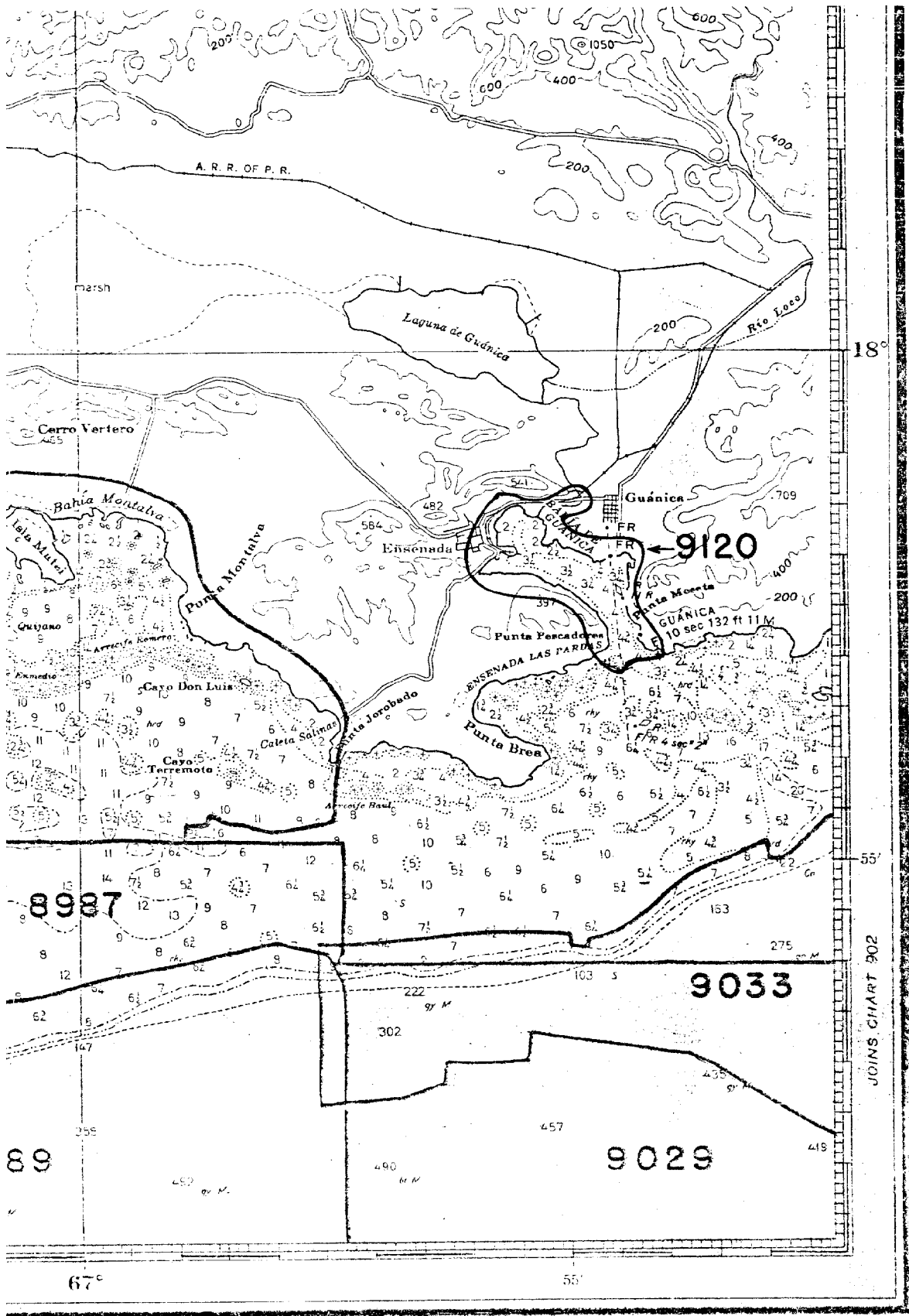
Enrique Domenech  
Appraiser

cc.: Mr. Atilano León  
Director Appraisal Division

ED/gid







(West Coast of Puerto Rico)

U.S.C. & G.S.

901

PRICE \$1.00