#### Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

# DESCRIPTIVE REPORT

Type of SurveyShoreline (Photogrammetric)

Field No. Office No. T-13138

### LOCALITY

State Puerto Rico

General locality Southwest Coast

Locality Cayo Maria Langa

**19**66<u>-</u>1970

CHIEF OF PARTY

Alfred C. Holmes, Director, AMC

**LIBRARY & ARCHIVES** 

DATE

USCOMM-DC 5087

### **DESCRIPTIVE REPORT - DATA RECORD**

	<b>T</b> -13138			
OJECT NO. (II):				
PH-6708				
FIELD OFFICE (II):		CHIEF OF PARTY		
None				
PHOTOGRAMMETRIC OFFICE (III):		OFFICER-IN-CHAR	GE	
Atlantic Marine Center, Norfolk,	<b>V</b> A	Alfred C. H	olmes, D	irector
INSTRUCTIONS DATED (II) (III):				
OFFICE - Nov. 14, 1967 OFFICE - SUPPLEMENT 1 OFFICE - AMENDMENT 1 -	- Nov. 4,	1968 1968		
				-
METHOD OF COMPILATION (III):				
Wild B-8 Plotter				
MANUSCRIPT SCALE (III):	STEREOSCO	OPIC PLOTTING INS	TRUMENT SCA	LE (III):
1:5,000	1:2500	Pantographed	To 1:5,	,000
DATE RECEIVED IN WASHINGTON OFFICE (IV):	DATE REPO	DRTED TO NAUTICA	L CHART BRA	NCH (IV):
APPLIED TO CHART NO.	DATE:		DATE REGIS	TERED (IV):
			JUX	V 1975
GEOGRAPHIC DATUM (III):	·····	VERTICAL DATUM	M(III): TER TXCEPT AS	FOLLOWS:
		Elevations shown a		
Puerto Rico		Elevations shown s	_	sounding datum
		i.e., mean low wate		<del></del>
REFERENCE STATION (III):		1		
Bahia De Tallaboa Loading Platfo	rm 1966			
LAT.: LONG.:		X ADJUSTED	<u> </u>	
17° 58 57".459 (1766.4M) 66°44*31".612	(930.1)M	UNADJUSTED		
PLANE COORDINATES (IV):		STATE		ZONE
Y = X =		Puerto R	ico	1
AN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENT	TERED BY (III) F	TELD PARTY, (III) P	'HO TO GRAMME	ETRIC OFFICE,
WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE	THE SURNAME	AND INITIALS, NOT	INITIALS ONL	_Y.

### **DESCRIPTIVE REPORT - DATA RECORD**

T-13138

FIELD INSPECTION BY (II):		DATE:
None	<u>,-</u>	
MEAN HIGH WATER LOCATION (III) (STATE DATE	AND METHOD OF LOCATION):	
Air Photo Compilation - Da	te of Photography - Nov. 15, 16,	1966
PROJECTION AND GRIDS RULED BY (IV):		DATE
A. Bethea		Oct. 14, 1968
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
L. F. Van Scoy		Oct. 18, 1968
CONTROL PLOTTED BY (III):		DATE
Aerotriangulation Points:		Nov. 8, 1968
Triangulation Stations: -	C. E. Blood	Dec. 11, 1968
CONTROL CHECKED BY (III):		DATE
Aerotriangulation Points:	- B. Nicholson	Nov. 8, 1968
Triangulation Stations: -		Dec. 11, 1968
RADIAL PLOT OR STEREOSCOPIC CONTROL EXT	FENSION BY (III):	DATE
I. I. Saperstein		Oct. 31, 1967
STEREOSCOPIC INSTRUMENT COMPILATION (III)	PLANIMETRY By: R. R. White	DATE 2/12/69
Wild B-8	Reviewed By: A. Shands	2/69
	CONTOURS Inapplicable	DATE
	Limppii	
MANUSCRIPT DELINEATED BY (III):	R. White and A? L. Shands	2/12/69
N. I	white did A. B. Shands	
SCRIBING BY (III):		DATE 00 3073
C. Woodson		Aug. 22, 1971
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):	Compilation: C.H. Bishop Field Edit: C.H. Bishop& R.J. Bate	DATE 2/13/69 4/17/69 - Mar. 1971
Scribing	g and Stick Up: R.J. Pate 1 B. L. Barge	Sept. 23, 1971
REMARKS:		ecolming
	Field Edit By: - Richard E. Kes	DATE: (969 (Feb)
		- /

# **DESCRIPTIVE REPORT - DATA RECORD**

T-13138

u.S.C.&G.S. Types		C O S DO O			,	
u.0,0,666.		OTOGRAPHS (III)				
NUMBER	DATE	TIME	SCALE	ST	AGE OF TI	DE
66-L-8400&8401 70-E-6068	Nov. 15, 1966 Mar. 5, 1970	10:37 09:38	1:15,000	0.9 Ft. 0.45 Ft	above	MLW 11
	PREDICT	ED TIDE (III)	, .		∺DTU	
	1 KEDICI			RATIO OF RANGES	MEAN RANGE	RANGE
REFERENCE STATION: Gal	veston, Texas					1.4
SUBORDINATE STATION: Pla	aya De Ponce, P.1	R		0.57		0.4
SUBORDINATE STATION:						
WASHINGTON OFFICE REVIEW	BY (IV):Bernard Ku	rs, AMC		DATE: Jan. 19	973	
PROOF EDIT BY (IV):		,		DATE:		
NUMBER OF TRIANGULATION	STATIONS SEARCHED FOR	t (II):	RECOVERED:	IDENTIFIE None		-

PROOF EDIT BY (IV):	•		DATE:	
NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):	1	RECOVERED:	None	
NUMBER OF BM(S) SEARCHED FOR (II);	None	RECOVERED: None	None	
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED	(111) :	None		

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

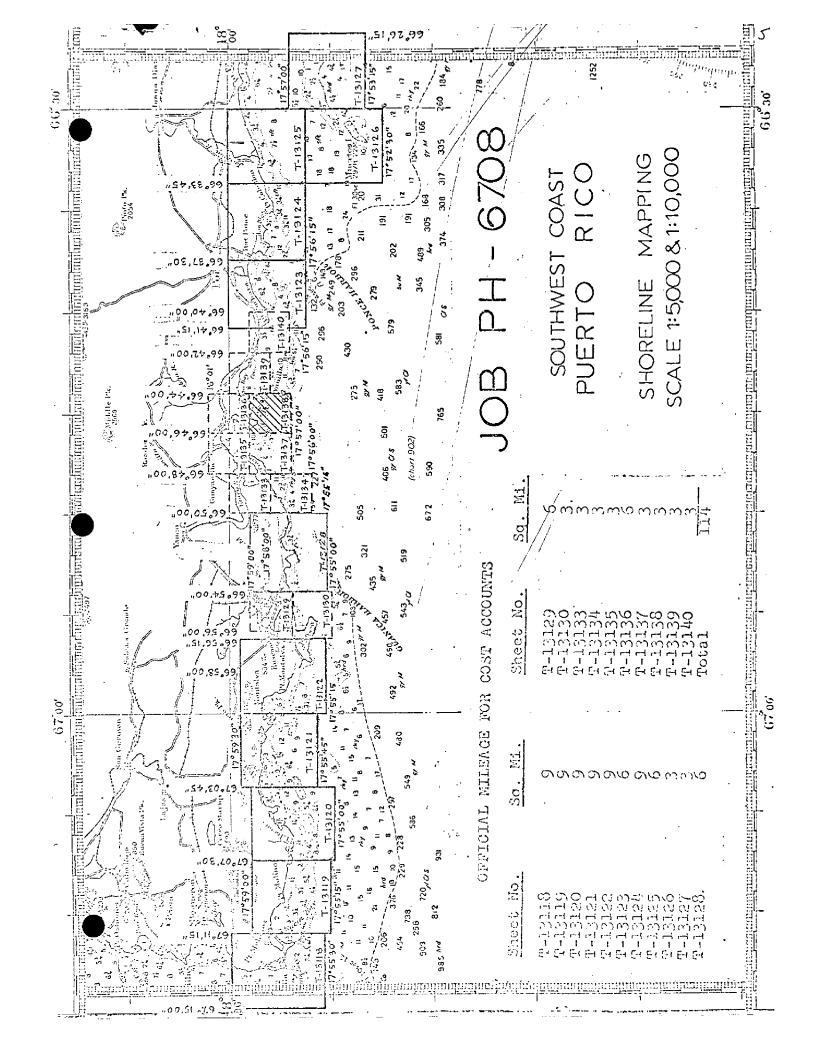
None

REMARKS:

o •

	COMPILATION RECORD	COMPLETION DATE	REMARKS	<del></del>
Alor	ngshore Area For Hydro.		Superseded	
Made	Ld Edit Applied. Changes From Photography of May and March 1970. Point	March 1971	Superseded	
<del> </del>	vanilla.			
- Fina	al Review	Jan. 1973		
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#### SUMMARY TO ACCOMPANY

#### DESCRIPTIVE REPORT

#### T-13138

Shoreline survey T-13138 is one of twenty-one similar surveys in project PH-6708. The project is on the south shore of Puerto Rico and extends from Cabo Rojo to Cayo Berberia. This survey covers the southern part of Punta Guayanilla and continues eastward to the western end of Cayo Caribe.

There was no field work prior to the compilation of this manuscript.

Compilation was by B-8 plotter using November, 1966 photography. Two photos March 1970 were used graphically to augment field inspectioned the compilation was at 1:5,000 scale. (see item 31 of the compilation report). A copy of the incomplete manuscript along with specially prepared photographs were furnished for the preparation of the boat sheet, location of photo-hydro signals and field edit use the manuscript was a vinylite sheet two minutes in longitude by two minutes in latitude. Final review was at AMC in January 1973. A negative and positive of the final reviewed survey are forwarded for record and registry.

FIELD INSPECTION REPORT PH-6708 T-13138

There was no field inspection prior to compilation.

#### PHOTOGRAMMETRIC PLOT REPORT Job PH-6708 Puerto Rico

October 31, 1967

#### 21. Area Covered

This report covers the southwest part of Puerto Rico, consisting of eight (8) 1:10,000 scale T-sheets, T-13118 thru T-13125, and thirteen (13) 1:5,000 scale T-sheets, T-13128 thru T-13140. Photography covering sheets T-13126 and T-13127 was not bridged at this time due to lack of control.

#### 22. Method

Analytic aerotriangulation methods were used to bridge Strip 1, 1:60,000 scale color diapositives, using premarked and office identified control. Numerous tie points were located to control the compilation photography. Strips 3, 5, 5A, 6, 7 and 8 were bridged by analytic methods. Strips 2 and 4 were bridged by stereoplanigraph in order to facilitate the work.

The attached sketch of the strips bridged shows the placement of triangulation used in the final strip adjustment. Closures to control are shown for each strip on the IBM readout, along with all bridge points on Puerto Rico plane coordinates.

# 23. Adequacy of Control

Horizontal control is adequate to control Strip 1. All other strips were bridged using tie points and horizontal control and is adequate.

The premarked paneling at station PAGEN was removed prior to photography and the subpoint could not be identified. It was decided, therefore, to end Strip 1 with photo 66-M-625 and Strip 6 with photo 66-L-8433. However, it is believed that sheet T-13125 can be adequately compiled.

Station GUANICA L.H. 1900 does not have a valid position. Geodesy did not tie to this station during the 1966 work, and no adjustment was made to the new Puerto Rico datum. (Station has been reported destroyed.) The positions shown on Form 725d computed by Geodesy is arbitrary. Therefore, GUALICA L.H. Subpoint 1 and subpoint 2 are unreliable and were not held in the bridge.

It is to be noted that all horizontal control used on this job and the final pass point positions are on the new Puerto Rico Datum. A Xerox copy of triangulation station positions issued by Geodesy is submitted to the Compilation office with this job. Previously published GP's and plane coordinates should not be used for plotting.

#### 24. Supplemental Data

Vertical control needed for the adjustment was taken from USGS quadrangles.

#### Photography 25.

The definition and quality of the RC-9 "M" and RC-8 "L" color photography was fair and good respectively. Smoke covers parts of some photographs on Strips 3 and 5A, but should not hinder compilation of the shoreline.

Although sheets T-13137 thru T-13140 are covered by 1:15,000 scale photographs, these photographs were not bridged, nor can they be used for compilation on the plotter because of water areas. Strip 3, therefore, should be used to compile the above sheets.

Ratio prints have been ordered for the 1:30,000 and 1:15,000 scale photographs to compilation scale, on black and white base.

Several points were transferred to ratio print 66-L-8394 in order that a reef on T-13140 may be compiled graphically.

Respectfully submitted

Tions of Ladinters

I. I. Saperstein

Approved and Forwarded

Henry P. Eichert, Chief

Aerotriangulation Section

67000

T. 13121 6618427 664 8334 T-13;23 下13124 T-13125 66M625 T-13127

1. CABO ROSO (USAF) 1966

2. CERRO VERTERO 2(USGS) 1934

3. ENSCHADA, SOUTH P.R. SUGAR CO. CENT. GUAHICA WEST GEAST STACKS, 1966 GUANICA MUNIC. W.T. 1966

4. VAQUERO, 1900

5. TURN 2, 1960

6. GUAYANILLA, UNION CARBIDE CO. W.T. 1966

7. REY, 1966

B.PONCE, RADIO STATION WELO MAST, 1966 PONCEBAY FRONT & REAR RAUGE LTS. 1966

9. CARDONA ISLAND L.H. 1900

10. PONCE, DON Q RUM CO. STACK, 1966

11. BAHIA DE GUANICA RANGE FRONT & REAR CTS. 1966

AEROTRIANGULATION

RUERTO RICO Southwest Coast

PH-6708

LEGEND

• Control Used in Adjustmen
• 1:60,000 Photos (color)
• 1:30,000 Photos ( " )
• 1:15,000 Photos ( " )



FORM C&GS-164 (4-68) USCOMM-DC 50318-P68

DESCRIPTIVE REPORT CONTROL RECORD

11 N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS (I  $R_1$  = 3048006 meter) (835.2)(78.2)DATE NOV. 21, 1968 None 1766.4 FORWARD SCALE FACTOR 930.1 LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE 1:5,000 581 57.45860" 31.61192" CHECKED BY C. BLOOD 441 SCALE OF MAP. 170 99 <u>Puerto</u> Rico DATUM DATE NOV. 15, 1968 SOURCE OF PH-6708 (NDEX) Geodesy Pad 27355 PROJECT NO. COMPUTED BY A.C. Rauck, Jr. Bahia De Tallaboa Loading Plateform, 1966 STATION MAP T- 13138

#### COMPILATION REPORT

PH-6708

T-13138

#### 31. DELINEATION

Refer to Photogrammetric Plot Report - Job PH-6708, Puerto Rico, dated Oct. 31, 1967. Specifically Item 25 - Photography, paragraph 2.

In order to use Strip 3 to compile T-13137 thru T-13140, it was necessary to plot controls and compile on worksheets at 1:6,000 scale and photographically enlarge to 1:5,000 scale (see Amendment I. to office instructions, dated Dec. 9, 1968).

The enlargement ratio required to compile at 1:5,000 scale from 1:30,000 scale bridge strip 3 with the B-8 plotter was not possible. It was, therefore considered more expedient to compile T-13135 thru T-13140 at 1:6,000 scale, drop shoreline pass points common to both the 1:15,000 photos and the 1:30,000 models, and then enlarge photographically to 1:5,000 scale, at a ratio of 1=1.2.

This enlargement was then transferred to the 1:5,000 manuscripts and the 1:5,000 scale ratio prints processed for hydro. support data.

The use of the 1:30,000 scale models from strip 3, enabled the compiler to adequately cover all inshore areas and much of the off-shore areas of shoal, coral reefs, small islands and etc., which would not have been possible with the 1:15,000 offshore photos which were not bridged.

The alongshore and shoreline features of the mainland were further refined with the models set utilizing the 1:15,000 scale inshore plates: -66L(c) 8475 thru 8484.

#### 32. CONTROL

See Photogrammetric Plot Report dated October 31, 1967.

#### 33. SUPPLEMENTAL DATA

None

### 34. CONTOURS AND DRAINAGE

Contours are inapplicable.

Drainage was delineated from office interpretation of the photographs.

#### 35. SHORELINE AND ALONGSHORE DETAILS

The mean high water line, and coral areas were delineated from office interpretation of the photographs. No mean low water line was shown.

## 36. OFFSHORE DETAILS

All shoal and submerged coral areas were delineated from office interpretation of the photographs.

#### 37. LANDMARKS AND AIDS

Appropriate cppies of Forms 567 for Aids, have been submitted to the Washington Office under date April 17, 1969. There are no Landmarks.

#### 38. CONTROL FOR FUTURE SURVEYS

None

#### 39. JUNCTIONS

Junctions are in agreement with T-13136 to the North T-13137 to the West and T-13139 to the East. There is no contemporary survey to the South.

### 40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

# 46. COMPARISON WITH EXISTING MAPS

Comparison has been made with USGS Quadrangles PUNTA VERRACO, PR and PUNTA CUCHARA, PA both scale 1:20,000 dated 1958.

### 47. COMPARISON WITH NAUTICAL CHARTS

Comparison has been made with Chart 928, Bahia de Guayanilla, scale 1:10,000, 5th Edition dated October 18, 1965.

### ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

#### ITEMS TO BE CARRIED FORWARD

None

Submitted:

A. L. Shands

Cartographic Technician

a. L. Schonde

Approved:

Alfred C. Holmes, RADM, NOAA

Director, Atlantic Marine Center

#### GEOGRAPHIC NAMES

#### FINAL NAME SHEETS

Ph-6708 (Puerto Rico)

TP-13138

Arrecife Fanduca

Bahia de Tallaboa

Cayo Caribe

Cayo Maria Langa

Cayo Palomas

Cayo Rio

Mar Caribe

Punta Gotay

Punta Guayanilla

Approved:

A. Joseph Wraight

Chief Geographer

Prepared by:

Charles E. Harrington

Cartographer

T-13138

49. NOTES FOR THE HYDROGRAPHER:

None

ſ	FORM C&GS-1002			U	S. DEPARTMENT OF COMMERCE
	(3-00)	₽HQ	TOGRAMMET	RIC OFFICE REVIEW	COAST AND GEODETIC SURVEY
			T- 3	13138	
1	1. PROJECTION AND GRIDS	2. TITLE		3. MANUSCRIPT NUMBERS	4. MANUSCRIPT SIZE
	СНВ	СНВ		СНВ	СНВ
ŀ	CONTROL STATIONS	<u> </u>	<del> </del>	<u> </u>	
l	5. HORIZONTAL CONTROL STA THIRD-ORDER OR HIGHER A	TIONS OF	6. RECOVERAB	LE HORIZONTAL STATIONS AN THIRD-ORDER ACCURACY	7. PHOTO HYDRO STATIONS
	CHB	o o i i i i	(Topographic	etations) XX	ΧХ
-	8. BENCH MARKS	9. PLOTTING C	FSEXTANT	10. PHOTOGRAMMETRIC	11. DETAIL POINTS
1	СНВ	Fixes CHB	1	Bridge-W.O.	Wild B-8
ŀ	ALONGSHORE AREAS (Nautice)	Chest Date)		<u> </u>	
I	12. SHORELINE	13. LOW-WATER	LINE	14. ROCKS, SHOALS, ETC. CHB	15. BRIDGES
	CHB	XX		CHB	**
	16. AIDS TO NAVIGATION	17. LANDMARK	S	18. OTHER ALONGSHORE PHYSICAL FEATURES	19. OTHER ALONGSHORE CULTURAL FEATURES
l	CHB	CHE	}	СНВ	CHB
Ì	PHYSICAL FEATURES	<u> </u>		<u></u>	
Î	20. WATER FEATURES		21. NATURAL	GROUND COVER	22. PLANETABLE CONTOURS
	СНВ			СНВ	хх
	23. STEREOSCOPIC INSTRUMENT CONTOURS	24. CONTOURS	IN GENERAL	25. SPOT ELEVATIONS	26. OTHER PHYSICAL FEATURES
]	XX	хх		хх	CHB
N	CULTURAL FEATURES				
	27. ROADS	28. BUILDINGS	i	29. RAILROADS	30. OTHER CULTURAL FEATURES
	XX	хх		XX	XX
ŀ	BOUNDARIES 31. BOUNDARY LINES			132. PUBLIC LAND LINES	
	XX			χχ	
	MISCELLANEOUS				
1	33. GEOGRAPHIC NAMES		34. JUNCTIONS	3	35. LEGIBILITY OF THE
1	CHB			СНВ	CHB
	36. DISCREPANCY OVERLAY	37. DESCRIPTI	VE REPORT	38. FIELD INSPECTION	39. FORMS
	CHB	СНЕ	3	None	СНВ
	40. REVIEWER			SUPERVISOR, REVIEW SECTIO	Pauck. J.
	Charles H. Bishop	2	2 <b>/1</b> 3/69	Albert C. Rauck,	Jr.
	41. REMARKS (See attached shee	<i>t</i> )			
	FIELD COMPLETION ADDITION				
	42. Additions and corrections script is now complete exc	ept as noted un-	der item 43.		_
ı	Reviewed By: C.H.		1/16/69 1/17/69	Albert C. Rauck,	Jr. C. Kancky
	43. REMARKS	· -,			· · · · · · · · · · · · · · · · · · ·
	Field Edit Applied		6-L-8398, latte Rati	Ozalid; Color Cont 8400,8401,8479; Mat o 1:10,000 Scale 66	
	Additional Correct From Ratio Photos	<u> </u>	Mans (Bec	htel Corp.)	

FIELD EDIT REPORT
SOUTHWEST COAST OF PUERTO RICO
JOB PH-6708
MAP T-13138

#### 52. ADEQUACY OF COMPILATION

Compilation was adequate. The shoreline on Cayo Palomas needs revision and some mangrove offshore from this island was not delineated. Changes, except where obvious, were indicated on the field edit ozalid and cross referenced to the appropriate photograph. Punta Gotay and Punta Guayanilla are under construction and considerable changes are being made in the interior. Shoreline changes are expected to be minor. Construction drawings of the proposed hydraulic fill were enclosed with the field edit sheets. Minor shoreline changes were made on the other islands on the map.

## 54. RECOMMENDATIONS

There are no recommendations.

### 55. EXAMINATION OF PROOF COPY

Sr. Oscar Padilla, Urb. Estella Box 28, Guayanilla, Puerto Rico, will be happy to examine a proof copy of the map. Sr. Padilla is the senior harbor pilot of Bahia de Guayanilla.

# 56. GEOGRAPHIC NAMES

Thennames on this map are correct and in general use. One new name is recommended: <u>LA PUNTILLA</u> at 17° 58.8; 66° 45.5. This means "small point" and is probably a generic term. However, all the authorities consulted agreed that this is the everyday name for this point.

Authorities consulted arealisted below.

I. Sr. Oscar Padilla Urb. Estella Box 28 Guayanilla, Puerto Rico

Sr. Padilla is the senior harbor pilot of Bahi'a de Guayanilla and has been a resident for 64 years.

II. Sr. Gilberto Castro Perez Bo Playa Guayanilla, Puerto Rico Sr. Castro is a boat operator and has been a local resident for nine years.

III. Sr. Daniel Santiago Bo Playa Guayanilla, Puerto Rico

Sr. Santiago is a harbor pilot and has been a local resident for three years. He is retired from the U.S. Merchant Service.

IV. Sr. Faustino Allongo R.F.D. 2 639 H Ponce, Puerto Rico

Sr. Allongo is a constructor and has been a local resident and fisherman for twenty years.

V. Sr. Ramon Torres Echevarria Ext. Mariani A-110 Ponce, Puerto Rico

Sr. Torres is a mechanical engineer and prominent local sports fisherman. He has been a resident for 36 years.

# 57. LANDMARKS AND NONFLOATING AIDS TO NAVIGATION

There are no landmarks within the limits if this map. Four fixed aids to navigation were recommended for charting. These are the four lights on an offshore loading platform. They were reported on form 567 and form 152 and forwarded with the field edit data.

# 58. ROCKS, REEFS, SHOALS AND FOUL AREAS

No rocks were delineated as such on this map. A few typical coral rocks, where readily discernible, were located by the field editor on the photographs. These rocks form part of the coral reefs on the sheet and, as such, are unimportant. Compilation of reefs was, for the most part, correct. The limits on the reef surrounding Cayo Mari'a Langa were revised somewhat and several areas of submerged coral were indicated. This reef is probably awash at mean low water. Times of observation and the state of the water over the reef were given on the field edit ozalid. The larger areas of bare coral were outlined on the color contacts and cross referenced on the field edit ozalid.

The area between Cayo Maria Langa and Cayo Palomas

is full of small coral formations. These may be sandy shoals on which coral has formed, but at any rate, they are primarily coral now. All were classified as to whether they were coral or shoals. Depths and time of observation were given for a good many of them. The reef southward of Cayo Palomas was revised and some more coral outlined on the photographs. The reef on Cayo Caribe was outlined, also, and areas of bare coral indicated. The shallow limit line was revised. All the major reefs on this map are probably awash at one stage or another of the tide and should probably be symbolized on the chart. This does not include the small coral formations between Cayo Maria Langa and Cayo Palomas where there is considerable variation in the amount of water covering them.

One compiled shoal at 17° 58.9; 66° 44.7 was investigated and found to be foul with sunken rocks, but the depth was to great for the field editor to measure.

The area in the "shallow" limit around the southern point of Punta Guayanilla and around Punta Gotay were also found to be foul with sunken rocks. Areas offshore from the reefs were classified foul where applicable.

### 59. PHOTOGRAPHY

Photography consisted of 1:5000 black and white copies of color photographs and 1:15,000 and 1:30,000 color contacts. The color contacts were found to be best for working on the reefs and in the water areas. The black and white ratio photos were used where more room was needed for delineating shoreline changes and etc.

# 60. DISPOSITION OF DATA

All data was forwarded to the Photo Branch, Atlantic Marine Center. Copies of the Field edit, form 567's and form 526's were transmitted to the ship Whiting.

Richard E. Kesselring Surveying Technician

#### REVIEW REPORT

#### SHORELINE

#### T-13138

### 61. GENERAL STATEMENT

See summary which is page 6 of the Descriptive Report.

## 62. COMPARISON WITH REGISTERED SURVEYS

A visual comparison was made with a copy of registered survey No. 2468, 1:20,000 scale dated 1900. It is in general agreement with manuscript T-13138.

Registered survey No. 2468 is superseded by survey T-13138 which is to be used for nautical chart construction purposes.

#### 63. COMPARISON WITH MAPS OF OTHER AGENCIES

A visual comparison was made with USGS Punta Verraco, PR and Punta Cuchara, PR. Both are 1:20,000 scale and are dated 1958. Both quadrangles are in general agreement with T-13138.

# 64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with H-9110 M1-5-1-70 at 1:5,000 scale. The shoreline and offshore features are taken from the incomplete manuscript. Any minor differences that occurred  $\frac{1}{2}$  taken care of by the field editor.

#### 65. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with Chart No. 928 dated March 4, 1972, at 1:10,000 scale. There were no significant differences.

### 66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This survey meets project instructions and also meets the National Standards of Map Accuracy.

Reviewed by:

Bernard Kurs Cartographer Approved for forwarding:

Melvin J. Ambach, CDR, NOAA Chief, Coastal Mapping Division Atlantic Marine Center

Approved:

RADM, NOAA

Director, Atlantic Marine Center

Chief, Photogrammetric Branch, Chief, Coastal Mapping Division

C&GS FORM 567

U.S. DEPARTMENT OF COMMERCE ADETIC SURVEY COAST AND

NONFLOATING AIDS ORXINAMIMARKS FOR CHARTS

Atlantic Marine Center

. 19-69.

April 15,

I recommend that the following objects which have MARKINIS been inspected from seaward to determine their value as landmarks be 1. C. Jan.

Powell, Director, A.M.

R.E.Smith, Jr. The positions given have been checked after listing by charted on KKKKKK XXWKK the charts indicated.

Chief of Party.

					POSITION			METHOD			TDAH
# C	PUERTO RICO		3	LATITUDE #	LONG	LONGITUDE*		LOCATION		98 CH	CHARTS
CHARING	DESCRIPTION	BIGNAL	•	" D.M.METERS	-	D. P. MEYERS	DATUM	BURVEY No.	Kaganga Verifi		
	BAHIA DE TALLABOA								·		
LIGHT	Loading Platform Lt. N.W.		17 58	57.90 1780	ηη 99	31.81	Puerto Rico T-	Photo 7-13138	5/52/69	×	928 902
LIGHT	Loading Platform Lt. N.E.		17 58	57.57	ग्ग 99		=	E	5/52/2	×	928 902
LIGHT	Loading Platform Lt. S.W.		17 58	57.48 1767	66 LL	31.95	=	=	5/52/69	×	928
LIGHT	Loading Platform Lt. S.E.		17 58	1759	TT 99	31.41	=	<u>.</u>	2/25/69	×	928 902
		:									
											-
	Note: These alds are privately maintained.										
								_			
											-
								-			

USCOMMOC 18234P61 This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted The data should be landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given. \* TABULATE SECONDS AND METERS