

13139

13139

FORM C&GS-504

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

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)Field No. _____ Office No. T-13139

LOCALITY

State Puerto RicoGeneral locality Southwest CoastLocality Cayo Parguera1966-70

CHIEF OF PARTY

Alfred C. Holmes, Director, AMC

LIBRARY & ARCHIVES

DATE _____

DESCRIPTIVE REPORT - DATA RECORD

T-13139

PROJECT NO. (II): PH-6708			
FIELD OFFICE (III): None		CHIEF OF PARTY	
PHOTOGRAMMETRIC OFFICE (III): Atlantic Marine Center, Norfolk, VA		OFFICER-IN-CHARGE Alfred C. Holmes, Director	
INSTRUCTIONS DATED (II) (III): OFFICE - Nov. 14, 1967 OFFICE - SUPPLEMENT 1 - Nov. 4, 1968 OFFICE AMENDMENT 1 Dec. 9, 1968			
METHOD OF COMPILATION (III): Wild B-8 Plotter			
MANUSCRIPT SCALE (III): 1:5,000		STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:2500 Pantographed To 1:5000	
DATE RECEIVED IN WASHINGTON OFFICE (IV):		DATE REPORTED TO NAUTICAL CHART BRANCH (IV):	
APPLIED TO CHART NO.		DATE: JUN 1975	DATE REGISTERED (IV):
GEOGRAPHIC DATUM (III): Puerto Rico		VERTICAL DATUM (III): MEAN LOW ^{HIGH WATER} EXCEPT AS FOLLOWS: Elevations shown as (25) refer to mean high water Elevations shown as (5) refer to sounding datum i.e., mean low water or mean lower low water	
REFERENCE STATION (III): Cave 2, 1966			
LAT.: 17°58'54.14686" 1664.6M		LONG.: 66°41'55.62179" 1636.4M <input checked="" type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED	
PLANE COORDINATES (IV): y = 53,942.23 Ft. x = 407,756.34 Ft.		STATE Puerto Rico	ZONE 1
ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE, OR (IV) WASHINGTON OFFICE. WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.			

DESCRIPTIVE REPORT - DATA RECORD
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FIELD INSPECTION BY (III): None		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): Air Photo Compilation - Date of Photography - Nov. 15, 16, 1966		
PROJECTION AND GRIDS RULED BY (IV): A. Bethea		DATE Oct. 14, 1968
PROJECTION AND GRIDS CHECKED BY (IV): L. F. Van Scoy		DATE Oct. 18, 1968
CONTROL PLOTTED BY (III): Aerotriangulation Points: - J. Steinberg Triangulation Stations: - None		DATE Nov. 7, 1968
CONTROL CHECKED BY (III): Aerotriangulation Points: - B. Nicholson Triangulation Stations: - None		DATE Nov. 7, 1968
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): I. I. Saperstein		DATE Oct. 31, 1967
STEREOSCOPIC INSTRUMENT COMPILATION (III): Wild B-8	PLANIMETRY By: R. White Reviewed By: A.L. Shands	DATE Feb. 1969 Feb. 1969
	CONTOURS Inapplicable	DATE
MANUSCRIPT DELINEATED BY (III): A. L. Shands		DATE Feb. 1969
SCRIBING BY (III): C. Woodson		DATE 7/12/72
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): Compilation: C.H. Bishop Field Edit: R.E. Smith Scribing and Stick Up: F. Margiotta		DATE Feb. 18/69 May 1, 1969 7/ 72 8/72
REMARKS: Field Edit By: - R.E. Kesselring Refer to "SUMMARY", page 6, for field work done in 1970.		DATE: March 1969

DESCRIPTIVE REPORT - DATA RECORD

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CAMERA (KIND OR SOURCE) (III):

U.S.C. & G.S. Types "L" & "M" Wild RC-8 & RC-9

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
66-L-8476 thru 66-L-8479	Nov. 16, 1966	08:58	1:15,000	0.57 above MLW

PREDICTED (III)

DIURNAL

	RATIO OF RANGES	MEAN RANGE	MEAN RANGE
REFERENCE STATION: Galveston, Texas			1.4
SUBORDINATE STATION: Playa De Ponce, P.R.	0.57		0.4
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV): Bernard Kurs, AMC

DATE:
Jan 18, 1973

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

2

RECOVERED:

1

IDENTIFIED:

None

NUMBER OF BM(S) SEARCHED FOR (II):

None

RECOVERED:

None

IDENTIFIED

None

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

2

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

REMARKS:

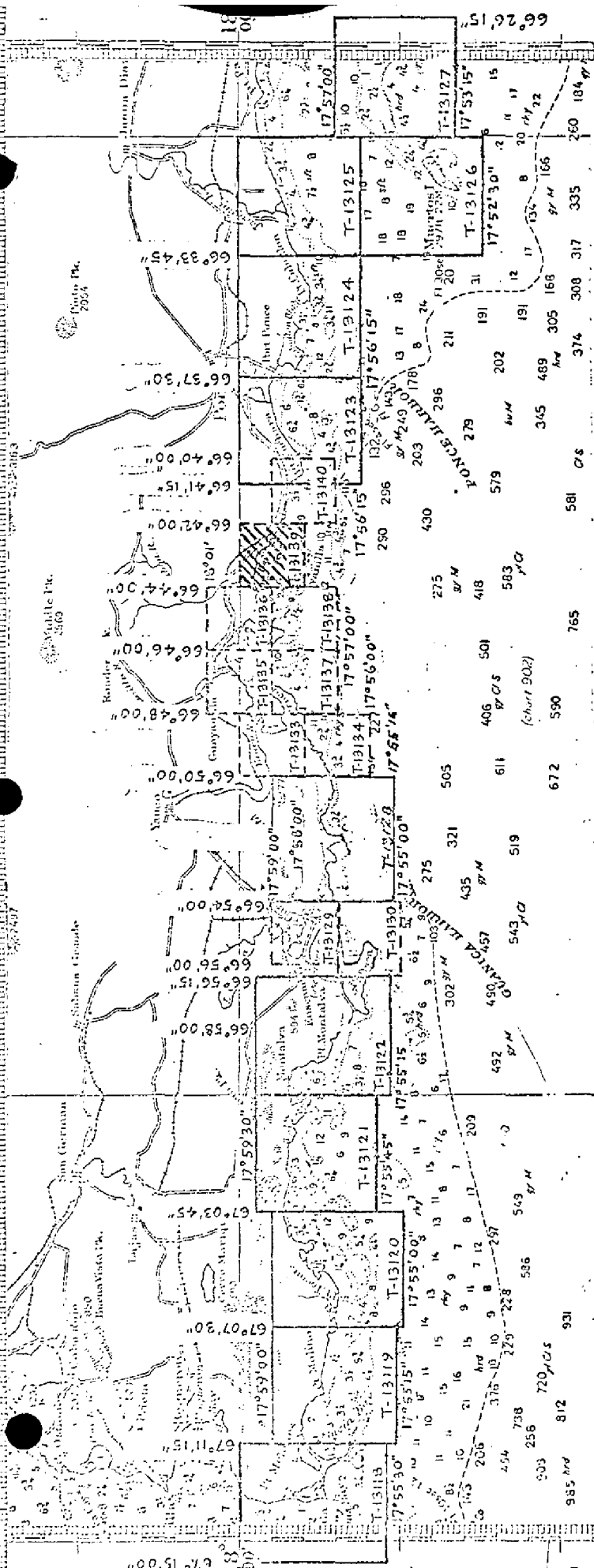
T-13139

COMPILATION RECORD	COMPLETION DATE	REMARKS
Compilation complete pending field edit	Feb., 1969	Superseded
Field edit applied Compilation complete	April, 1969	Superseded
* See below Final review	Jan., 1973	

* Two Lts.(Ranges) added to map after location
by field method in 1970 (refer to Desc. Report
"Summary" and Form 76-40) - Also two Topo Stations.
AB

67°00'

66°30'



OFFICIAL MILEAGE FOR COST ACCOUNTS

JOB PH - 6708

Sheet No.

Sq. Mi.

Sheet No.

Sq. Mi.

T-13118
T-13119
T-13120
T-13121
T-13122
T-13123
T-13124
T-13125
T-13126
T-13127
T-13128.

9
9
9
9
9
9
9
9
9
9
9

T-13129
T-13130
T-13133
T-13134
T-13135
T-13136
T-13137
T-13138
T-13139
T-13140
Total

6
3
3
3
3
3
3
3
3
3
114

SOUTHWEST COAST
PUERTO RICO
SHORELINE MAPPING
SCALE 1:5,000 & 1:10,000

67°00'

66°30'

SUMMARY TO ACCOMPANY

DESCRIPTIVE REPORT

T-13139

Shoreline survey T-13139 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 eastern part of Cayo Caribe and continues eastward to the easterly end of the Bahia De Tallaboa.

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

Compilation was by B-8 plotter using November, 1966 photography. 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. Two ranges and two topographic stations were added to the manuscript. These were established in 1970 after the 1969 field edit. The positions are unadjusted field computations, and were established by sextant fixes. Final review was at AMC in 1973. A negative and a cronaflex of the final reviewed survey are forwarded for record and registry.

FIELD INSPECTION REPORT

T-13139

Project PH-6708

There was no field inspection prior to compilation of this map.

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, GUANICA 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.

25. Photography

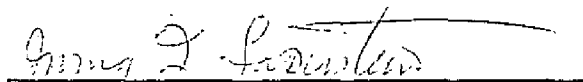
The definition and quality of the RC-9 "M" and RC-8 "L" color photography was fair and good respectively. Smoke covers parts of some photographs on Strips 3 and 5A, but should not hinder compilation of the shoreline.

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.

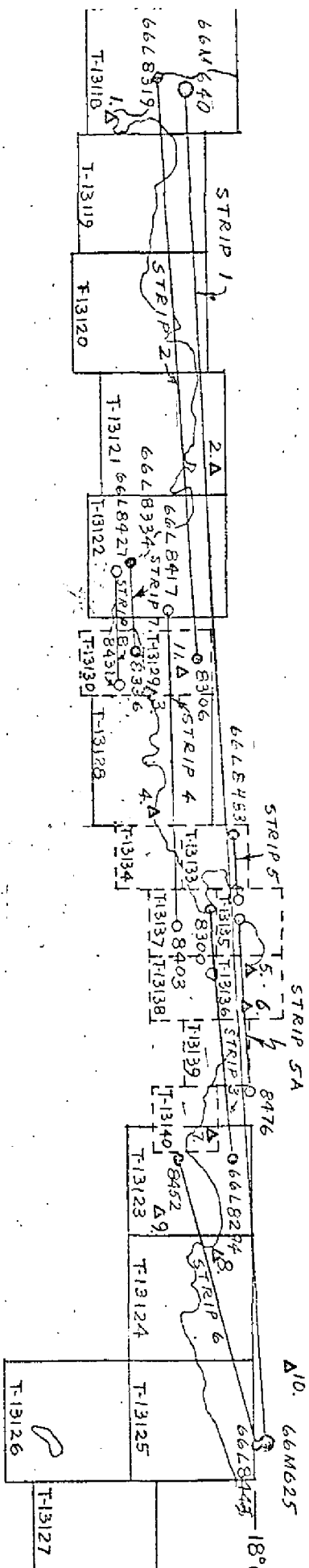
Respectfully submitted


I. I. Saperstein

Approved and Forwarded


Henry P. Eichert, Chief
Aerotriangulation Section

66.30'



1. CABO ROJO (USAF) 1966
2. CERRO VERTERO 2 (USAS) 1934
3. ENSENADA, SOUTH P.R. SUGAR CO.
CENT. GUANICA WEST & EAST STACKS, 1966
GUANICA MUNIC. W.T. 1966
4. VARRERO, 1900
5. TURN 2, 1966
6. GUAYANILLA, UNION CARBIDE CO. W.T. 1966
7. REY, 1966
8. PONCE, RADIO STATION WELO MAST, 1966
PONCE BAY FRONT & REAR RANGE LTS. 1966
9. CAÑEBOÑA ISLAND L.H. 1900
10. PONCE, DON Q RUM CO. STACK, 1966
11. BAHIA DE GUANICA RANGE FRONT
& REAR LTS. 1966

AEROTRIANGULATION

PUERTO RICO
Southwest Coast

PH-6708

Oct. 1967

LEGEND

- △ Control used in Adjustment
- 1:60,000 Photos (color)
- 1:30,000 Photos (")
- 1:15,000 Photos (")

COMPILATION REPORT

PH-6708

T-13139

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 in-shore 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, islands, coral limits, as well as the piers and buildings, were delineated from office interpretation of the photographs.

36. OFFSHORE DETAILS

All coral limits, and Islands were delineated from office interpretation.

37. LANDMARKS AND AIDS

Appropriate copies of Form 567 have been forwarded to the Washington Office.

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

Junctions are in agreement with T-13136 and T-13138 to the West and T-13190 to the East there are no contemporary surveys to the North or South.

40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

46. COMPARISON WITH EXISTING MAPS

Comparison has been made with USGS Quadrangle PUNTA CUCHARA, PR; scale 1:20,000, dated 1958.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison has been made with Chart 902, South Coast of Puerto Rico, scale 1:100,000, 8th Edition, dated March 15, 1965.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted:



A. L. Shands
Cartographic Technician

Approved:



Alfred C. Holmes
RADM, NOAA
Director, AMC

December 11, 1972

GEOGRAPHIC NAMES
FINAL NAME SHEETS
Ph-6708 (Puerto Rico)

TP-13139

Bahia de Tallaboa

Cayo Caribe

Cayo Parquera

Mar Caribe

Tallaboa

Approved:

A. J. Wright
A. Joseph Wright
Chief Geographer

Prepared by:

Charles E. Harrington
Charles E. Harrington
Cartographer

T- 13139

49. NOTES FOR THE HYDROGRAPHER:

None

FORM C&GS-1002
(9-66)U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

PHOTOGRAMMETRIC OFFICE REVIEW

T. 13139

1. PROJECTION AND GRIDS CHB		2. TITLE CHB		3. MANUSCRIPT NUMBERS CHB		4. MANUSCRIPT SIZE CHB	
CONTROL STATIONS							
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY None				6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) XX		7. PHOTO HYDRO STATIONS XX	
8. BENCH MARKS X		9. PLOTTING OF SEXTANT FIXES X		10. PHOTOGRAMMETRIC PLOT REPORT Bridge-W.O.		11. DETAIL POINTS CHB	
ALONGSHORE AREAS (Nautical Chart Data)							
12. SHORELINE CHB		13. LOW-WATER LINE X		14. ROCKS, SHOALS, ETC. CHB		15. BRIDGES X	
16. AIDS TO NAVIGATION None		17. LANDMARKS None		18. OTHER ALONGSHORE PHYSICAL FEATURES CHB		19. OTHER ALONGSHORE CULTURAL FEATURES CHB	
PHYSICAL FEATURES							
20. WATER FEATURES CHB				21. NATURAL GROUND COVER X		22. PLANETABLE CONTOURS XX	
23. STEREOSCOPIC INSTRUMENT CONTOURS XX		24. CONTOURS IN GENERAL XX		25. SPOT ELEVATIONS XX		26. OTHER PHYSICAL FEATURES X	
CULTURAL FEATURES							
27. ROADS CHB		28. BUILDINGS CHB		29. RAILROADS X		30. OTHER CULTURAL FEATURES CHB	
BOUNDARIES							
31. BOUNDARY LINES XX				32. PUBLIC LAND LINES XX			
MISCELLANEOUS							
33. GEOGRAPHIC NAMES CHB				34. JUNCTIONS CHB		35. LEGIBILITY OF THE MANUSCRIPT CHB	
36. DISCREPANCY OVERLAY CHB		37. DESCRIPTIVE REPORT CHB		38. FIELD INSPECTION PHOTOGRAPHS None		39. FORMS CHB	
40. REVIEWER Charles H. Bishop 2/18/69				SUPERVISOR, REVIEW SECTION OR UNIT <i>Albert C. Rauck, Jr.</i> Albert C. Rauck, Jr.			
41. REMARKS (See attached sheet)							
FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT							
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.							
COMPILER C.H. Bishop 4/16/69				SUPERVISOR <i>Albert C. Rauck, Jr.</i> Albert C. Rauck, Jr.			
Reviewed By: R.E. Smith 5/1/69							
43. REMARKS Field Edit Applied From: Field Edit Ozalid, 66-L-(c)-8398 and 8399 (Contacts Prints) 66-L-(c)-8477, 8478, & 8479. (Contacts Prints) 66-L-(c)-8477 (Matte Ratio Print)							

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FIELD EDIT REPORT
SOUTHWEST COAST OF PUERTO RICO
JOB PH-6708
MAP T-13139

52. ADEQUACY OF COMPILATION

Compilation was adequate. There were several minor shoreline changes. One road was deleted and two others added. The classification was changed on one road. The northerly shoreline of Cayo Caribe needs extensive revision. The changes are obvious on the color prints of the area and only general notes were made on the field edit ozalid. A spoil bank, south of the salt evaporators has undergone extensive changes since photography and was delineated by ground survey methods for office compilation. Some small piers were overlooked as were a few small docks. One bluff was added.

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 Bahía de Guayanilla.

56. GEOGRAPHIC NAMES

The names on this map are correct and complete. The name TALLABOA is perhaps, misplaced. Local authorities on geographic names state that the name, which applies to a village, should be located about a mile to the north-west of its present location. The main part of the village of TALLABOA lies just a little west of the junction of Hwy 2 and Hwy 127 and does not fall on T-13139 at all.

Authorities consulted on geographic names are listed below.

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

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

- II. Sr. Gilberto Castro Pérez
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 contractor 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.

The harbor pilots mentioned above are licensed by the Puerto Rican Pilot Service.

57. LANDMARKS AND NONFLOATING AIDS TO NAVIGATION

There are no landmarks or fixed aids to navigation within the limits of this map. None of the buildings are suitable for landmarks on chart 902.

58. ROCKS, REEFS, SHOALS AND FOUL AREAS

Rock compilation was good. All the rocks compiled were visited and depths given except in areas where many more sunken rocks were extant than those mapped. Some of the rocks awash actually form part of the reefs where they are located. Most of the sunken rocks fall in the areas labeled "foul" by the field editor.

Reef delineation was good. The "submerged coral reef" to the southeast of Cayo Parguera is part of the "coral reef awash" and falls into the "foul" classification used on other reefs of this nature. Depths and times of

3
observation were given at typical places on the reefs. Two submerged coral reefs to the southeast of Cayo Caribe were inspected and verified as submerged. They are symbolized on the map manuscript, but it is doubtful if they uncover at the sounding datum. Attention is called to the "shallow" area near the easterly limit of the sheet. This area is, properly, coral awash and appropriate notes were listed on the field edit ozalid.


There are only one or two minor shoals on this map. They were correctly identified and delineated.

59. PHOTOGRAPHY

Photography consisted of 1:5000 black and white copies of color photographs and 1:15,000 and 1:30,000 color contact prints. The photography was good. The color prints were the most useful, but the ratio prints were good where more room was needed for inking shoreline changes and etc.

60. DISPOSITION OF DATA

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


Richard E. Kesselring
Surveying Technician

REVIEW REPORT

SHORELINE

T-13139

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. Both surveys are in general agreement. Survey T-13139 supersedes the previously registered survey and is to be used for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A visual comparison was made with USGS Punta Cuchara, PR quadrangle, 1:20,000 scale dated 1958. Both are in general agreement.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with H-9110, M15-1-70, 1:5,000. Both surveys are in good general agreement.

65. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with Chart 928, 1:10,000 scale, dated March 4, 1972. There is only one significant area of difference in the NW corner of the survey. The chart shows a long large pier and a spit which do not appear on the photos. Also the pond near the spit open to the Bay. These differences are noted on the discrepancy print in red. *discrepancy comparison*

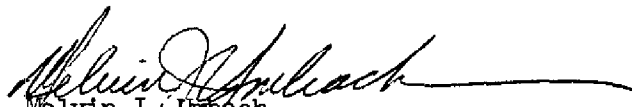
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

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

Reviewed by:

Bernard Kurs
Bernard Kurs
Cartographer

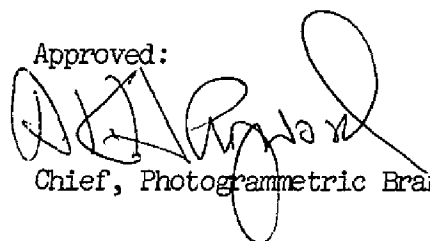
Approved for forwarding:


Melvin J. Umpach,
CDR, NOAA
Chief, Coastal Mapping Division, AMC

Approved: .


Alfred C. Holmes,
RADM, NOAA
Director, Atlantic Marine Center

Approved:


Chief, Photogrammetric Branch, *as*


Chief, Coastal Mapping Division

