

13124

13124

FORM C&amp;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-13124

## LOCALITY

State Puerto RicoGeneral locality Southwest CoastLocality Rio Bucana1966-71

## CHIEF OF PARTY

Alfred C. Holmes, Director, AMC

## LIBRARY &amp; ARCHIVES

DATE \_\_\_\_\_

## DESCRIPTIVE REPORT - DATA RECORD

T-13124

PROJECT NO. (II):

PH-6708

FIELD OFFICE (II):

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

METHOD OF COMPILATION (III):

Wild B-8 Plotter

MANUSCRIPT SCALE (III):

1:10,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

1:5,000 Pantographed To 1:10,000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

JUN 1975

GEOGRAPHIC DATUM (III):

Puerto Rico

VERTICAL DATUM (III):

MEAN ~~LOW~~ <sup>HIGH WATER</sup> 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):

Wirshing, 1966

LAT.:

17°57'51.59478"(1586.2M)

LONG.:

66°34'45.19736"(1329.2M)

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

y = 47,586.41 Ft.

x = 449,299.04 Ft.

STATE

Puerto Rico

ZONE

1

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

T-13124

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): Coradomat		DATE
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
CONTROL PLOTTED BY (III): Aerotriangulation Points: - R. White Triangulation Stations: - R. White		DATE Feb. 11, 1970 Feb. 11, 1970
CONTROL CHECKED BY (III): Aerotriangulation Points: - A. C. Rauck, Jr. Triangulation Stations: - A. C. Rauck, Jr.		DATE Feb. 11, 1970 Feb. 11, 1970
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): I. I. Saperstein		DATE Oct. 31, 1967
STEREOSCOPIC INSTRUMENT COMPILATION (III): Wild B-8	PLANIMETRY By: L.O. Neterer Reviewed By: A.L. Shands	DATE Feb. 20, 1970 Feb. 1970
	CONTOURS Inapplicable	DATE
MANUSCRIPT DELINEATED BY (III): R. White		DATE Nov. 16, 1970
SCRIBING BY (III): C. Woodson		DATE June 1972
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): Compilation: Beugnet Field Edit: R.J. Pate Scribing and Stick Up: F. Margiotta		DATE 11/30/70 8/26/71 7/11/72, 8/22/72
REMARKS:  Field Edit By: - Richard D. Olson		DATE: March 1971

FORM C&GS-181c (3-66)		U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY		
DESCRIPTIVE REPORT - DATA RECORD				
T-13124				
CAMERA (KIND OR SOURCE) (iii): Wild RC-8 "L"				
PHOTOGRAPHS (iii)				
NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
66-L-(c)-8350 thru 8352	Nov. 15, 1966	10:03	1:30,000	.8 above MLW
66-L-(c)-8449 thru 8450	Nov. 16, 1966	08:32	1:30,000	.6 above MLW
66-L-(1)-8546R thru 8548R	Nov. 16, 1966	09:40	1:30,000	.6 above MLW
PREDICTED TIDE (iii)				DIURNAL
				RATIO OF RANGES
				MEAN RANGE
				<del>5-10-69</del> RANGE
REFERENCE STATION: Galveston, Texas				1.4
SUBORDINATE STATION: Playa De Ponce, P.R.				0.57
SUBORDINATE STATION:				
WASHINGTON OFFICE REVIEW BY (iv): Bernard Kurs, AMC			DATE: Feb. 1973	
PROOF EDIT BY (iv):			DATE:	
NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (ii): 8		RECOVERED: 8	IDENTIFIED: 1	
NUMBER OF BM(S) SEARCHED FOR (ii): None		RECOVERED: None	IDENTIFIED None	
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (iii):			None	
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (iii):			None	
REMARKS:				



ESSA FORM 76-36c  
(2-70)U.S. DEPARTMENT OF COMMERCE  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
COAST AND GEODETIC SURVEY

## HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION T-13124

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	Joseph K. Wilson	
2. HORIZONTAL CONTROL	RECOVERED BY Richard D. Olson	Feb., 1971
	ESTABLISHED BY NA	
	PRE-MARKED OR IDENTIFIED BY NA	
3. VERTICAL CONTROL	RECOVERED BY NA	
	ESTABLISHED BY NA	
	PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY Richard D. Olson	Feb., 1971
	LOCATED (Field Methods) BY Richard D. Olson	April, 1971
	IDENTIFIED BY none	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input checked="" type="checkbox"/> SPECIFIC NAMES ONLY <input type="checkbox"/> NO INVESTIGATION BY	Richard D. Olson March, 1971
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	Richard D. Olson March, 1971
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	NA

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

NA

2. VERTICAL CONTROL IDENTIFIED

NA

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

Field Photos 66L8351, 8448, 8450

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

none

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

Plans of new dock north of Ponce Yacht and Fishing Club  
Planametric map of Ponce Yacht and Fishing Club

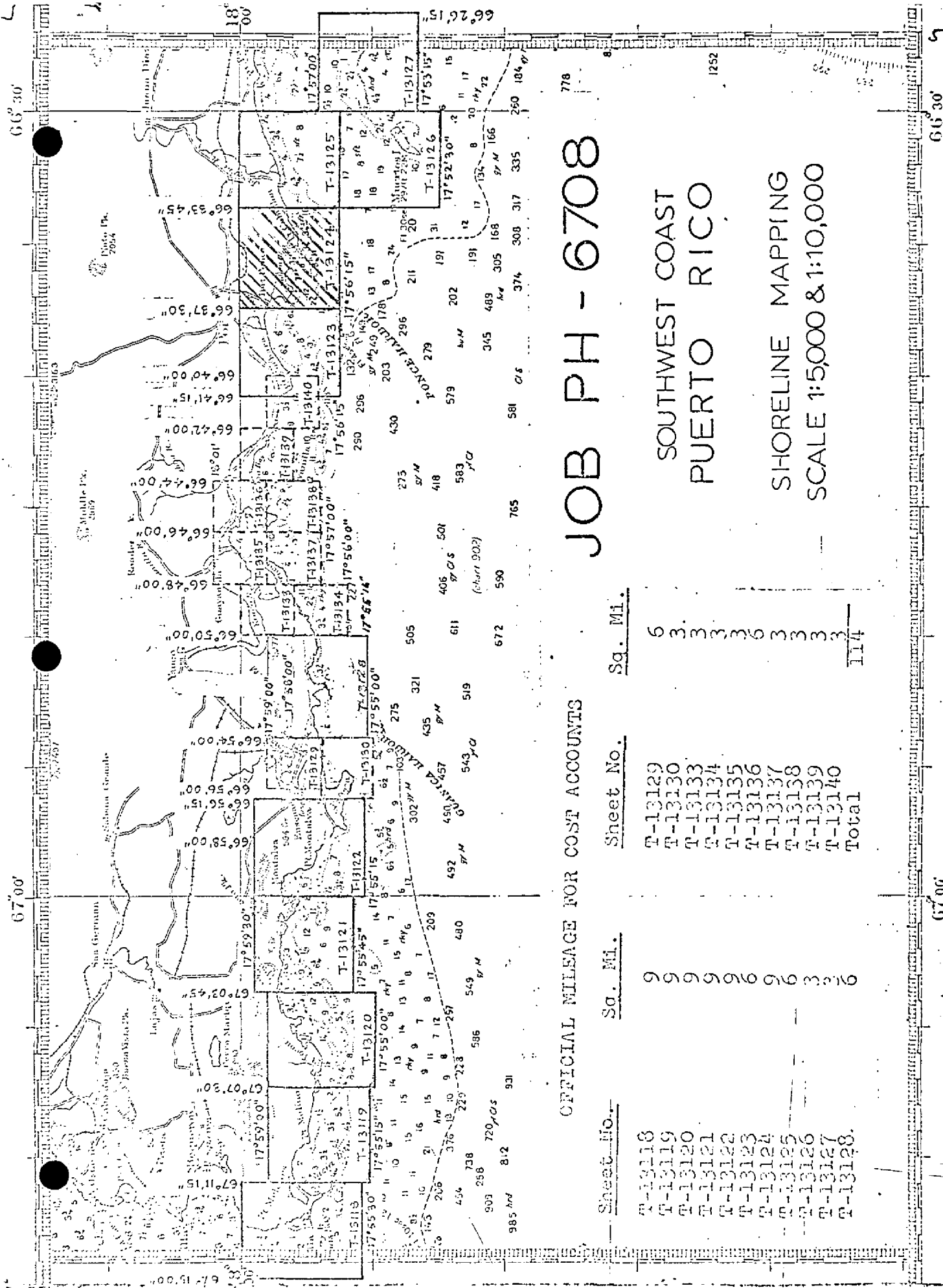
8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

Oblique photo of Rio Bucana Levee

4

T-13124

COMPILATION RECORD	COMPLETION DATE	REMARKS
Alongshore Area For Hydro.	Nov. 1970	Superseded
Field Edit Applied	August 1971	Superseded
Final Review	Feb. 1973	



# JOB PH - 6708

SOUTHWEST COAST  
PUERTO RICO

SHORELINE MAPPING  
SCALE 1:5,000 & 1:10,000

## OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No.	Sq. Mi.	Sg. Mi.
T-13118	9	6
T-13119	9	3
T-13120	9	3
T-13121	9	3
T-13122	9	3
T-13123	9	3
T-13124	9	3
T-13125	9	3
T-13126	9	3
T-13127	9	3
T-13128	9	3
Total	114	114

## SUMMARY TO ACCOMPANY

## DESCRIPTIVE REPORT

T-13124

Shoreline survey T-13124 is one of twenty-one similar surveys in project PH-6708. The project is located on the south coast of Puerto Rico and extends from Dabo Rojo to Cayo Berberia. This survey starts at Playa de Ponce and continues eastward to Cayo Desgraciado.

There was no field work preceding the "incomplete" manuscript.

Compilation was by B-8 plotter using November, 1966 photography. A copy of the incomplete manuscript along with ozalids and 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 stabilene sheet, three minutes, forty-five seconds in latitude and three minutes, forty-five seconds in longitude at 1:10,000 scale. After field edit was applied and checked, the manuscript was scribed, reproduced and stuck-up. The final review was at AMC in Feb. 1973. One cronaflex and negative of the final reviewed survey are being forwarded for record and registry.

FIELD INSPECTION REPORT  
PH-6708  
T-13124

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, 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

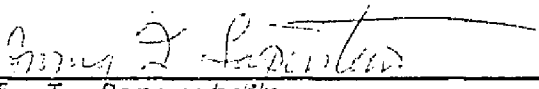
The definition and quality of the RC-9 "M" and RC-8 "L" color photography was fair and good respectively. Smoke covers parts of some photographs on Strips 3 and 5A, but should not hinder compilation of the shoreline.

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

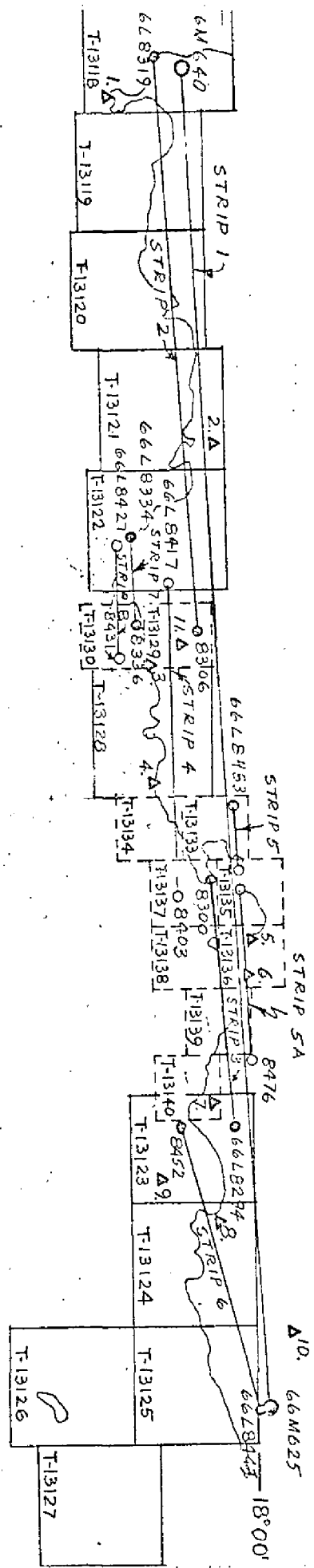
  
I. I. Saperstein

Approved and Forwarded

  
Henry P. Eichert, Chief  
Aerotriangulation Section

67°00'

66°30'



1. CABO ROJO (USAF) 1966
2. CERRO VERTERO 2 (USGS) 1934
3. FONSECA, SOUTH PR. SUGAR CO. CENT. GUANICA WEST & EAST STACKS, 1966
4. GUANICA MUNIC. W.T. 1966
5. VAQUERO, 1900
6. TURN 2, 1966
7. GUAYANILLA, UNION CARBIDE CO. W.T. 1966
8. REY, 1966
9. PONCE, RADIO STATION WELO MARST, 1966
10. PONCE BAY FRONT & REAR RANGE L.T.S. 1966
11. CARBONIA ISLAND L.H. 1900
12. PONCE, DON Q RUM CO. STACK, 1966
13. BAHIA DE GUANICA RANGE FRONT & REAR L.T.S. 1966

# AEROTRIANGULATION

PUERTO RICO  
Southwest Coast

PH-6708  
Oct. 1967

## LEGEND

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



# DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 13124

PROJECT NO. PH-6708

SCALE OF MAP 1:10,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter) FORWARD (BACK)	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter) FORWARD (BACK)
Ponce Anchorage Light, 1966	Geodesy Pad 27334	Puerto Rico	17° 58' 32.53315"	1000.2	(844.4)
Ponce Mills Inc. Water Tank, 1966	" 27328	"	66° 36' 58.63113"	1725.0	(40.3)
Ponce Bay Front Range Light, 1966	" 27332	"	17° 59' 57.42631"	1765.5	(79.1)
Ponce Bay Rear Range Light, 1966	" 27333	"	66° 36' 54.70416"	1609.3	(155.8)
Ponce Radio Station WEVC, Mast, 1966	" 27329	"	17° 58' 53.35210"	1640.2	(204.4)
Ponce, Radio Station WPRP, Mast, 1966	" 27327	"	66° 37' 14.48074"	426.0	(1339.3)
Ponce, Radio Station WLEO, Mast, 1966	" 27331	"	17° 59' 56.35471"	66.0	(1778.6)
Wirshing, 1966	" 27093	"	66° 37' 05.76228"	353.6	(1411.7)
Rio Bucano Jetty Light, 1971	F.E. Form 567	"	17° 59' 46.08297"	1732.5	(112.1)
			66° 37' 29.49070"	169.5	(1595.6)
			17° 58' 52.81773"	1416.7	(427.9)
			66° 36' 49.24502"	867.6	(897.6)
			17° 57' 51.59478"	1623.8	(220.8)
			66° 34' 45.19736"	1448.8	(316.5)
			17° 58' 13.832"	1586.2	(258.4)
			66° 36' 03.1675"	1329.9	(435.5)
				425.2	(1419.4)
				93.2	(1672.2)

COMPUTED BY A.C. Rauck, Jr.

DATE Nov. 19, 1968

CHECKED BY C. Blood

DATE Nov. 20, 1968

COMPILATION REPORT

T-13124

31. DELINEATION

Delineation was by Wild B-8 methods using the color photography of November 16, 1966, supplemented by offshore color photography of November 15, 1966 and infrared photography of November 16, 1966.

The photography was of good quality. There was no field inspection prior to compilation.

32. CONTROL

See Photogrammetric Plot Report dated Oct. 31, 1967.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

Contours are inapplicable. Drainage was compiled from office interpretation of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS

The mean high water line and all alongshore details were delineated from office interpretation of the photos.

36. OFFSHORE DETAILS

None

37. LANDMARKS AND AIDS

Copies of form 567 for three Landmarks and three Aids to Navigation have been forwarded to the Rockville Office

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

A junction was made with T-13123 to the West and T-13125 to the East. There is no contemporary survey to either the North or South.

40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

41. FIELD EDIT

Field edit was very well applied. It was effectively arranged so there was very little chance of misunderstanding.

The compiler was unable to get three point fix No. 49 to hold. There was omission of all landmark heights.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with USGS Quadrangle PLAYA DE PONCE, PR, scale 1:20,000 dated 1962.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with Chart 927 BAHIA DE PONCE and APPROACHES, scale 1:20,000, 7th Ed. dated July 13, 1964.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted:

*Richard R. White*

Richard R. White  
Cartographic Technician  
November 16, 1970

APPROVED:

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

December 8, 1972

GEOGRAPHIC NAMES  
FINAL NAMES SHEETS  
Ph-6708 (Puerto Rico)  
TP-13124

Caleta de Cabullones

Cayo Desgraciado

Isla de Gata

Isla de Jueyes

Mar Caribe

Muelle de Ponce

Playa de Ponce

Punta Carenero

Punta Cabullones

Punta Penoncillo

Quinta Esperanza

Rio Bucana

Rio Portugues

Roca Ahogado

Approved:

*A. J. Wraight*

A. Joseph Wraight  
Chief Geographer

Prepared by:

*Charles E. Harrington*

Charles E. Harrington  
Cartographer

T-13124

49- NOTES TO THE HYDROGRAPHER

None

## PHOTOGRAMMETRIC OFFICE REVIEW

T. 13124

1. PROJECTION AND GRIDS  LFB	2. TITLE  LFB	3. MANUSCRIPT NUMBERS  LFB	4. MANUSCRIPT SIZE  LFB
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY  LFB	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations)  XX		7. PHOTO HYDRO STATIONS  XX
8. BENCH MARKS  XX	9. PLOTTING OF SEXTANT FIXES  RJP	10. PHOTOGRAMMETRIC PLOT REPORT  LFB	11. DETAIL POINTS  LFB
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE  LFB	13. LOW-WATER LINE  LFB	14. ROCKS, SHOALS, ETC.  LFB	15. BRIDGES  LFB
16. AIDS TO NAVIGATION  LFB	17. LANDMARKS  LFB	18. OTHER ALONGSHORE PHYSICAL FEATURES  LFB	19. OTHER ALONGSHORE CULTURAL FEATURES  LFB
PHYSICAL FEATURES			
20. WATER FEATURES  LFB	21. NATURAL GROUND COVER  LFB		22. PLANETABLE CONTOURS  XX
23. STEREOSCOPIC INSTRUMENT CONTOURS  XX	24. CONTOURS IN GENERAL  XX	25. SPOT ELEVATIONS  XX	26. OTHER PHYSICAL FEATURES  LFB
CULTURAL FEATURES			
27. ROADS  LFB	28. BUILDINGS  LFB	29. RAILROADS  LFB	30. OTHER CULTURAL FEATURES  LFB
BOUNDARIES			
31. BOUNDARY LINES  XX		32. PUBLIC LAND LINES  XX	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES  LFB	34. JUNCTIONS  RJP		35. LEGIBILITY OF THE MANUSCRIPT  LFB
36. DISCREPANCY OVERLAY  LFB	37. DESCRIPTIVE REPORT  LFB	38. FIELD INSPECTION PHOTOGRAPHS  RJP	39. FORMS  LFB
40. REVIEWER  Leo F. Beugnet		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 L.L. Graves Aug. 25, 1971 Reviewed By: R.J. Pate Aug. 26, 1971		SUPERVISOR <i>Albert C. Rauck, Jr.</i> Albert C. Rauck, Jr.	
43. REMARKS  Field Edit Applied From: Field Edit Ozalid T-13124, Photographs 66-L-(c)-8448, 66-L-(c)-8450 and 66-L-(c)-8351. Plan of Pier at 17° 58' 07" Lat. 66° 37' 05" Planametric Map of Ponce Yacht and Country Club, Curve Data For Development of Rio Bucana. Also See List of Signals and Their Positions and Fixes in back of Field Edit Report.			

FIELD EDIT REPORT  
T-13124  
Job PH-6708  
Southwest Coast of Puerto Rico

52. ADEQUACY OF COMPILATION.

Compilation was adequate. The HWL was compiled correctly where changes haven't been made since photography.

Four major manmade changes have occurred in the HWL since photography. The first three of these changes were delineated with 3 point fixes, while original plans were consulted for the fourth change listed. These are as follows: 1) A new public square has been constructed beyond the old HWL at Playa de Ponce; 2) An area just south of Playa de Ponce and north of the municipal piers has been filled for a future enlargement of the municipal piers. A date could not be obtained when the construction would continue or when the piers would be completed, but indications were that it would be years from now; 3) Isla de Gata and the dyke leading to the island have been enlarged to the south and west; 4) Rio Bucana has been dredged and rerouted, a rock levee constructed along its west bank, and a rock jetty built at the mouth and on the west bank of the channel. The completed construction, as shown on the field edit sheet, is only the west half of the proposed channel which when completed will be twice its present width with a rock levee along its eastern bank. It is unknown when the east half of the channel will be constructed. The curve data for this channel was obtained off the original plans and plotted on the field edit ozalid. Check fixes were obtained along the levee crest which verified the curve data plotted. This curve data is shown on a separate sheet attached to this report.

An oblique photograph of the completed channel was obtained from the contractors and is included with other data for this sheet.

A new dock is to be constructed during this year at  $17^{\circ}58'08''$ - $66^{\circ}37'04''$ . A xerox copy of the pier layout is included in this report.

A series of ponds have been created just east of Rio Bucana where soil removal operations are in progress. These same operations are in progress at the extreme east edge of the map manuscript. Neither of these operations have affected the HWL. Several roads were added for compilation and several roads were miscompiled as ditches as shown on the field edit sheet.

#### 54. RECOMMENDATIONS.

None

#### 56. GEOGRAPHIC NAMES.

Many of the names on this T-sheet are in dispute with the names in common, local usage for the area. All disputed names on the map manuscript are listed below with explanations.

Disputed Name  
and Reference

Pta. Penoncillo T-13124	This name was unknown to the people interviewed. It is possible that this name referred to the area as shown long ago, but should be considered not in local usage at this time.
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Cayo Gata T-13124	This island was once a sand covered reef with mangrove and was referred to locally as a key or "Cayo". The area has since been extended with fill material and acquired a permanency and is locally referred to as an island and thus the name <u>Isla de Gata</u> .
P <sup>ta</sup> Carenero T-13124	This name was unknown to the people interviewed. This area is now referred to locally as <u>La Guancha</u> .
Caleta De Cabullon T-13124	This has been misspelled and should read <u>Caleta De Cabullones</u> .
Punta Cabullon T-13124	This has been misspelled and should read <u>Punta Cabullones</u> .
Isla de Jueyes New Name	This new name is used by local mariners to refer to the island farthest west in the area known as Punta Cabullones.
Cayo Desgraciado New Name	This refers to a reef located about $\frac{1}{2}$ mile west of Isla de Frio and at the extreme eastern edge of T-13124.

Local Authorities Consulted Were:

- I. Luis A. Armstrong is a local businessman who has resided in Ponce, Puerto Rico for 46 years. He is a very well known sports fisherman and was considered to be the best authority for nautical names in this area by all the people interviewed.

- II. Enrique Petrovich is the Commadore of the Ponce Yacht and Fishing Club and has been a resident of Ponce for 36 years.
- III. Dr. Andy Lang is the Vice Commadore of the Ponce Yacht and Fishing Club and a resident of the area for 20 years.
- IV. Rafail D. Mercado M.D., is the Rear Commadore of the Ponce Yacht and Fishing Club and a local resident for 42 years.
- V. Dr. Raul Pov is the Director of the Ponce Yacht and Fishing Club and a local resident for 45 years.
- VI. Capt. Juan P. Barcia is a local buisnessman and a boat owner, and has been a local resident for 47 years.
- VII. Frank Bonnin is a local businessman and the official USC&GS Chart Agent for Ponce, Puerto Rico.
- VIII. Ronald J. Wirshing is a large coastal land owner in the area and a boat owner. He has been a local resident for 27 years.
- IX. Capt. William Suárez Williams is the Capt. of Port, Puerto Rico Ports Authority, Ponce, Puerto Rico.

All of the above people can be contacted through the Ponce Yacht and Fishing Club, Ponce, Puerto Rico.

57. LANDMARKS AND NONFLOATING AIDS TO NAVIGATION.

There are three landmarks and three fixed aids to navigation recommended for charts 902 and 927. The landmarks are WPRP radio mast, Ponce Mills water tank and WLEO radio mast. The fixed aids are Bahia De Ponce front and rear ranges and Rio Bucana Jetty Light.

58. ROCKS, REEFS, SHOALS, AND FOUL AREAS.

The reef called Roca Ahogado and the reef at the mouth of Rio Bucana have limits different from those compiled. The hydrographer's fixes are indexed on the field edit ozalid and a copy of the fixes are attached to this report.

Two reefs located at  $17^{\circ}58'15''$  -  $66^{\circ}36'25''$  and  $17^{\circ}58'20''$  -  $66^{\circ}35'30''$  were found to be a solid rock conglomerate of sand and small shells and are not coral.

The reef along Punta Cabullones has been revised and its limits have been redelineated on photo 66L8351. A fix was obtained at the most westerly point of reef and is shown on the field edit ozalid.

Shallow limits have been removed as the hydrographer is in the process of sounding these areas.

59. MISCELANEOUS.

All times noted on the field edit ozalid refer to G.M.T., and not local time.

All fixes shown on the field ozalid use the hydrographers

signals and all numbered signals are the same numbers as on the hydrographic sheet. A list of signals and their positions is included for the area covered by this map manuscript.



Richard D. Olson

LTJG NOAA

LIST OF SIGNALS  
for  
T-13124

<u>Signal No.</u>	<u>N-Latitude</u> <u>Deg-Min-Meters</u>	<u>W-Longitude</u> <u>Deg-Min-Meters</u>	<u>Located By</u> <u>(Method)</u>
313	17-57 0964.5'	66-38 0220.4'	△
340	17-59 0832.2'	66-37 1409.3'	△
350	17-58 1786.7'	66-37 1392.7'	△
360	17-59 1416.7'	66-37 0867.6'	△
370	17-59 1765.4'	66-36 1609.3'	△
380	17-59 0066.0'	66-37 0353.6'	△
390	17-58 1640.2'	66-37 0426.0'	△
480	17-58 0266.7'	66-37 0513.2'	Photo
482	17-58 0260.9'	66-37 0475.4'	Photo
484	17-58 0287.7'	66-37 0224.3'	Photo
486	17-58 0004.6'	66-37 0155.1'	Photo
488	17-57 1720.0'	66-36 1483.6'	Photo
490	17-57 1771.2'	66-36 1126.6'	Traverse
491	17-58 0425.2'	66-36 0093.2'	3-point fix (T2)
493	17-58 0679.0'	66-36 0040.0'	Sextant
497	17-58 1014.5'	66-36 0004.6'	Sextant
500	17-58 1623.8'	66-36 1448.8'	△
510	17-58 0354.5'	66-35 1682.7'	Photo
520	17-58 0488.2'	66-35 0685.0'	Photo
525	17-57 1745.0'	66-35 0201.8'	Sextant
527	17-57 1326.6'	66-35 0698.2'	Sextant
530	17-58 1552.2'	66-34 1315.3'	Traverse
540	17-58 1792.7'	66-34 0864.5'	Traverse
550	17-58 0200.0'	66-34 0440.6'	Traverse
560	17-58 0287.8'	66-33 1658.1'	Traverse

RIO BUCANA CURVE DATA

T-13124

Curve V1

$\Delta = 167^{\circ} 10' 01''$

$R = 2,530.00 \text{ m}$

$T = 284.53 \text{ m}$

$L = 566.67 \text{ m}$

Center of circle

$*Y = N 15,838.83 \text{ m}$

$*X = E 132,318.03 \text{ m}$

Curve V2

$\Delta = 172^{\circ} 36' 02''$

$*R = 4000.00 \text{ m}$

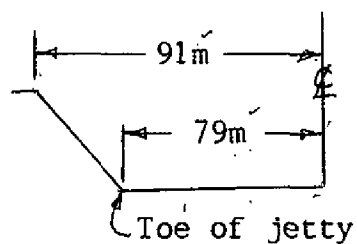
$T = 258.65 \text{ m}$

$L = 516.62 \text{ m}$

Center of circle

$*Y = N 15,754.70 \text{ m}$

$*X = E 138,823.32 \text{ m}$

Rio Bucana  
Jetty Light

Sta. 21+00.00 -  
N 17095.95m -  
E 134,985.06m -

PT 13+27.40 -  
N 16,331.43m -  
E 134,873.53m -

N 16,075.50m -  
E 134,836.20m -

PC 8+10.82 -  
N 15,816.89m -  
E 134,832.13m -

N 15,516.57m -  
E 134,827.42m -

PC 2+28.33 -  
N 15,240.17m -  
E 134,759.87m -

Station 0+00

Sketches are not to scale.

\* Note: These values were computed by the field editor,  
all other values are from the original plans.  
All values are in meters

Reef Delineations for Reefs  
in Caleta De Cabullones

T-13124

Hydrographers fixes and comments on his detached positions  
for boatsheet MI-10-1-71.\*

<u>Fix</u>	<u>Signals</u>	<u>Angles</u>	<u>Comments of Hydrographer</u>
0021	490 510 520	102-56 ----- 36-11	rock awash, inshore edge of reef
0022	same	99-41 ----- 39-12	inshore edge of reef
0023	same	94-40 ----- 43-06	inshore edge 15m seaward, rock awash
0024	same	88-55 ----- 47-26	eastern edge of reef
0025	same	87-01 ----- 48-55	coral head, eastern edge
0064	same	101-03 ----- 35-08	rock awash, off reef
0065	same	92-05 ----- 39-03	10m south of reef
0066	same	89-13 ----- 43-18	5m south of reef
0067	same	87-26 ----- 47-10	5m south of reef

\*NOTE: These fixes represent a general reef delineation  
and are not necessarily all the hydrographers fixes  
for the reefs.

The hydrographer has stated that all "rocks" referred  
to in the hydrographers comments are of coral  
composition.

Hydrographers fixes continued.

<u>Fix</u>	<u>Signals</u>	<u>Angles</u>	<u>Comments of Hydrographer</u>
0068	493	39-35	rock awash, west end of reef
	510	-----	
	520	43-21	
0069	500	33-24	7m south of reef, rock awash
	510	-----	
	520	88-48	
0070	490	53-36	10m south of reef
	500	-----	
	510	10-34	
0071	490	13-12	7m south of end of reef,
	510	-----	rock awash
	500	38-16	





Rio Buena Levee



## REVIEW REPORT

## SHORELINE

T-13124

61. GENERAL STATEMENT

See summary which is page 6 of the Descriptive Report.

62. COMPARISON WITH REGISTERED SURVEYS

A general comparison was made with registered surveys No. 2415 at 1:10,000 scale, dated 1899 and a small portion of No. 2416 at 1:20,000 scale dated 1899. So many man made and natural changes have taken place since these surveys that there was too great a difference to make any discrepancy notes that would have been of any significance.

Registered surveys No. 2415 and 2416 are superseded by T-13124 for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with USGS Quadrangle Playa De Ponce, PR, 1962 at 1:20,000 scale. Many man made and natural changes account for most of the differences. The rest can be accounted for by the change in datum and improved methods of contemporary surveying. Differences are noted on the ~~discrepancy~~ print in brown.

Comparison

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with boat sheet H-9186 at 1:10,000 scale of 1971. There were some small differences but none of significant value.

65. COMPARISON WITH NAUTICAL CHARTS

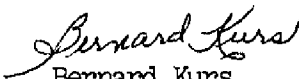
A comparison was made with Chart 927, 1:20,000 scale, dated July 3, 1971. There have been many natural and man made changes over a period of years. Some of the changes already appear on the nautical chart. --Others do not. The existing differences are noted in red on the ~~discrepancy~~ print.

Comparison

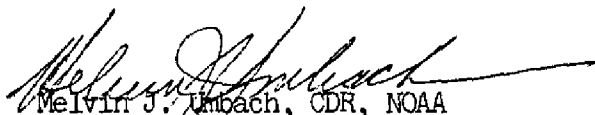
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

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


Reviewed by:

  
Bernard Kurs  
Cartographer

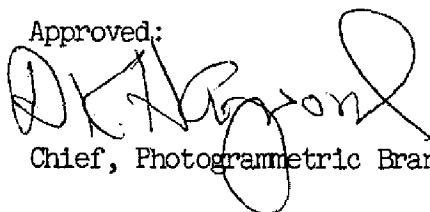

Approved for forwarding:

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

Approved:

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

Approved:

 Chief, Photogrammetric Branch,  Chief, Coastal Mapping Division



y=55,000 FT.

28

59'



BAHIA DE PONCE RANGE REAR LIGHT  
(PONCE BAY REAR RANGE LIGHT 1966)

14

Subm. sewer line  
Dol

BAHIA DE PONCE  
RANGE FRONT LIGHT  
(PONCE BAY FRONT  
RANGE LIGHT 1966)

U.S. Coast Guard Sta. Pier

Capitania

U.S. Customs

Ridrap

Piers



RADIO TOWER  
WEL0 1170 KHZ  
PONCE RADIO-STATION  
WEL0 MAST 1966

37'30"

36'30"

58'30"

QUAD

10

y=50,000 FT.

Punta Penoncillo

Tanks

Piling

Muelle de Ponce

Pier ruins

Seawall

Ponce Yacht &  
Country Club

Ramp

Marine Ry

Ramp

Isla de Gata

Punta Carenero

17° 58'

CHART  
927

66-L(C)-8350

T-13124



66 L(C)-8450

58' 30"

Rio Bucana

Private

Private

Private

Private

Pond

Pond

Pond

Rock reef awash

CHART  
927

QUAD

RIO BUCANA JETTY LIGHT 1971

Coral reef

Caleta de Cabullones

17° 58'

Roca Ahogado

Isla de Jueyes

Foul with subm coral

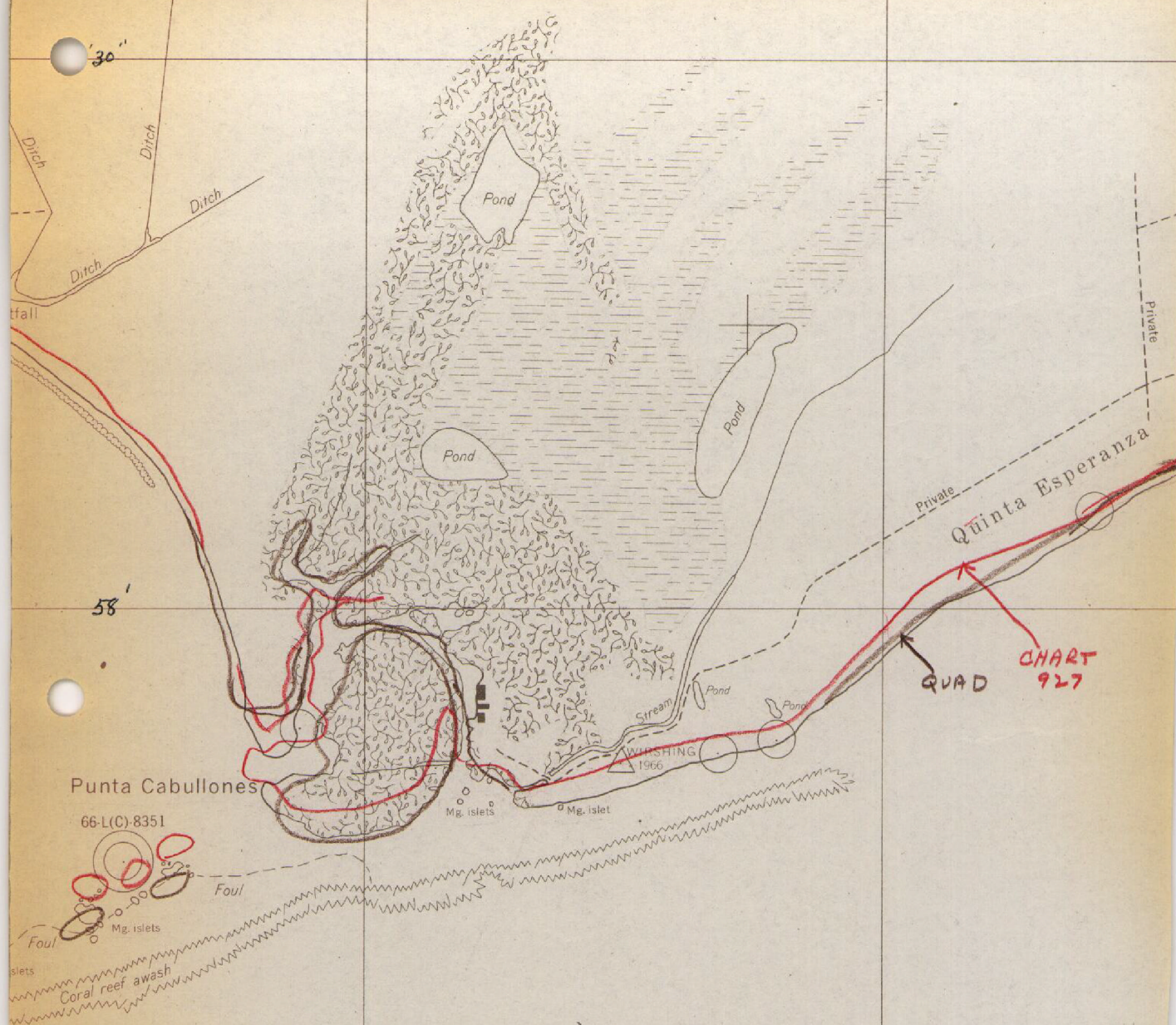
66° 36' 00"

35' 30"

57' 30"

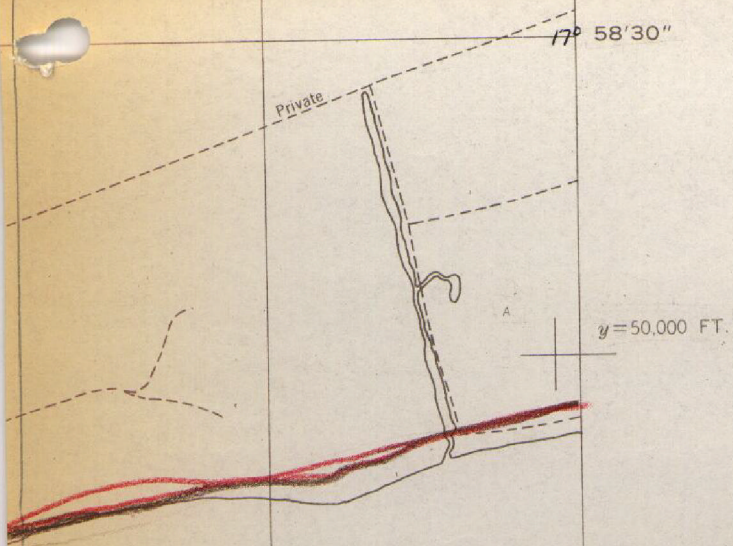
T-13124





T-13124



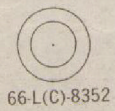


Cayo Desgraciado

CHART  
927

QUAD

58'



66-L(C)-8352

57'30"

$y=45,000$  FT.

66° 34'00"

93° 45"

TO BE REVISID

STRIKE OUT TWO

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by Carl W. Fisher, Lt., NOAA

Ponce, Puerto Rico March, 1971

E.K. McCaffrey Capt., NO.  
*Chief of Party.*

[illegible]

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 landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be 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









[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
1. Objects inspected from seaward	<input type="checkbox"/> FIELD INSPECTOR <input type="checkbox"/> FIELD EDITOR
2. Positions determined and/or verified	<input type="checkbox"/> FIELD INSPECTOR <input type="checkbox"/> FIELD EDITOR <input type="checkbox"/> COMPILER
3. Forms originated by Quality Control and Review Group and final review activities	<input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

### INSTRUCTIONS FOR 'METHOD AND DATE OF LOCATION' SECTION

NOTE: 'Photogrammetric Positions' are dependent entirely, or in part, upon control established by photogrammetric methods. 'Field Positions' are determined by field observations based entirely upon ground control.

### COLUMN TITLE

### TYPE OF ENTRIES

Applicable to office identified and located objects only. Enter the number and date of the photograph used to identify the object.

### FIELD INSPECTION

1. New Position Determined—Enter the applicable data by symbols as indicated below:

### FIELD EDIT

#### F — Field

#### P — Photogrammetric

#### EXAMPLES:

- |                  |                     |
|------------------|---------------------|
| 1. Triangulation | 1. Field identified |
| 2. Traverse      | 2. Theodolite       |
| 3. Intersection  | 3. Planetable       |
| 4. Resection     | 4. Sextant          |
| a. Theodolite    |                     |
| b. Planetable    |                     |
| c. Sextant       |                     |

P.2

Immediately beneath the data described above, enter the following:

- For 'Field Positions' enter the date of location.
- For 'Photogrammetric Positions' enter the date of field work; and, if a photograph was used in locating the object or the object was identified on a photograph, enter the number of the photograph used.

2. Triangulation Station Recovered — Enter 'Triang. Rec. mo/day/yr.'

3. Position Verified — Enter 'Verif. mo/day/yr.'

\* U.S. GOVERNMENT PRINTING OFFICE: 1971-769374/445 REG. #6