

13121

13121

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-13121

LOCALITY

State Puerto Rico

General locality Southwest Coast

Locality Bahia Fosforescente

1966-1968

CHIEF OF PARTY
~~Alfred C. Holmes, Jr.~~ NOAA
 Director, Atlantic Marine Center

LIBRARY & ARCHIVES

DATE

DESCRIPTIVE REPORT - DATA RECORD

T-13121

PROJECT NO. (II):

PH-6708

FIELD OFFICE (III):

None

CHIEF OF PARTY

PHOTOGRAMMETRIC OFFICE (III):

Atlantic Marine Center

OFFICER-IN-CHARGE

Alfred C. Holmes, RADM
Director

INSTRUCTIONS DATED (II) (III):

Field - September 27, 1966
December 14, 1967

Office - November 14, 1967

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): MHW

~~XXXXXXXXXX~~ 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 of ~~XXXXXXXXXX~~

REFERENCE STATION (III):

PAPAYO, 1966

LAT.:

17° 58' 29.69755"

LONG.:

67° 01' 35.50604"

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Y =

51, 743.24 ft. X = 293, 857.52 ft.

Puerto Rico

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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

FIELD INSPECTION BY (II):		DATE:
None		
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):		DATE
A. Bethea		10/20/67
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
L. Van Scoy		10/20/67
CONTROL PLOTTED BY (III):		DATE
L. O. Neterer		11/17/67
CONTROL CHECKED BY (III):		DATE
B. L. Barge		11/17/67
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):		DATE
I. Saperstein		10/31/67
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY F. P. Margiotta Reviewed by: R. J. Pate	DATE 1/17/68
	Wild B-8	CONTOURS Inapplicable
MANUSCRIPT DELINEATED BY (III):		DATE
F. P. Margiotta		1/28/68
SCRIBING BY (III):		DATE
F. P. Margiotta		5/29/68
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): COMPILATION: R. J. Pate FIELD EDIT: R. J. Pate SCRIBING & STICK UP: R. J. Pate		DATE 2/13/68 5/11/68 6/10/68
REMARKS:		
FIELD EDIT BY: R. E. Kesselring		3/26/68

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

"L" & "M"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
66M(c) 636	11/15/66	0854	1:60,000	0.3' above MLW
66M(c) 646 & 647	11/15/66	0904	1:60,000	0.3' above MLW
66L(c) 8310-8312	11/15/66	0944	1:30,000	0.4' above MLW
66L(c) 8330-8332	11/15/66	0955	1:30,000	0.4' above MLW
66L-8511R & 9512R	11/16/66	0926	1:30,000	0.3' above MLW

PREDICTED

TIDE (III)

Diurnal

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Galveston, Texas			1.4
SUBORDINATE STATION: Paraguera (Isla Maguey)	0.4		0.6
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV): Leo F. Beugnet, Atlantic Marine

DATE:
June, 1970

PROOF EDIT BY (IV):

Center

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 2	RECOVERED: 2	IDENTIFIED: 1
NUMBER OF BM(S) SEARCHED FOR (II): 0	RECOVERED: 0	IDENTIFIED: 0
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): 0		
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): 0		

REMARKS:

T-13121

COMPILATION RECORD	COMPLETION DATE	REMARKS
Alongshore Area for Hydro	January 1968	Superseded
Field Edit applied Manuscript Complete	April 1968	Superseded
Field Edit Final Review	June 1970	

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-13121

Shoreline survey T-13121 is one of twenty-one similar surveys in job PH-6708. The job is comprised of ten 1:5,000 and eleven 1:10,000 scale surveys located along the south coast of Puerto Rico. This survey covers the area from Arrecife Coral eastward to Punto Penones. See page 5 for the location of the survey within the job.

Field work preceding compilation consisted of pre-marking of the necessary horizontal control. There was no field or shore-line inspection prior to compilation. The survey was field edited in March 1968.

Compilation was at 1:10,000 using the 1:30,000 scale color and infrared photography of November 15 and 16, 1966. Copies of the manuscript, classified incomplete, along with ozalids, specially prepared photographs and a field edit ozalid were subsequently provided for preparation of the boat sheet, location of photo-hydrdo signals and for field edit use.

The manuscript was a vinylite sheet 3 minutes 45 seconds in latitude by 3 minutes 45 seconds in longitude. After application of field edit it was scribed, stick-up applied and reproduced on cronaflex. Final review was accomplished in the Atlantic Marine Center in June 1970. One cronaflex positive and a negative are forwarded for record and registry.

FIELD INSPECTION REPORT

PH-6708

T-13121

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.

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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

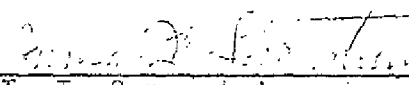
The definition and quality of the RC-9 "M" and RC-8 "L" color photography was fair and good respectively. Smoke covers parts of some photographs on Strips 3 and 5A, but should not hinder compilation of the shoreline.

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.

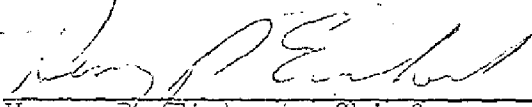
Ratio prints have been ordered for the 1:30,000 and 1:15,000 scale photographs to compilation scale, on black and white base.

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

Respectfully submitted

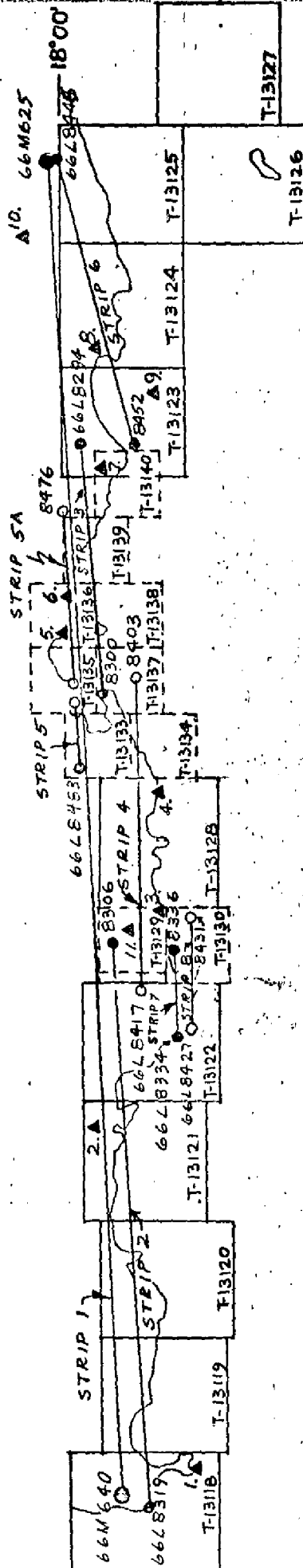

I. I. Saperstein

Approved and Forwarded


Henry P. Eichert, Chief
Aerotriangulation Section

66°30'

67°00'



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

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COMPILATION REPORT
T-13121

31. DELINEATION:

The shoreline and all other features were compiled using the Wild B-8 with color photography. The infrared photographs were used as a check on the shoreline compilation. There was no field inspection.

32. CONTROL:

See Photogrammetric Plot Report attached.

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 shoreline, shallow lines, foul areas, coral reefs, and submerged rocks were delineated from office interpretation of the photographs. No low water line shown.

36. OFFSHORE DETAILS:

Since there was no prior field inspection and due to penetration over water areas, underwater features and hazards to navigation could not be delineated with accuracy. See Notes to the Hydrographer.

37. LANDMARKS AND AIDS:

There are no Aids.

One Landmark has been shown and appropriate copies of Form 567 have been forwarded to the Washington Office under date April 1968.

38. CONTROL FOR FUTURE SURVEYS:

No statement.

39. JUNCTIONS:

There are no contemporary surveys to the north or south. Junctions are in agreement with T-13122 to the east and T-13120 to the west.

40. HORIZONTAL AND VERTICAL ACCURACY:

No statement.

46. COMPARISON WITH EXISTING MAPS:

A comparison has been made with USGS quadrangle PARGUERA, P. R., scale 1:20,000, dated 1957.

47. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with C&GS Chart 901, (West Coast of Puerto Rico), scale 1:100,000, 9th Edition, dated March 1965; and previous bureau survey South Coast of Puerto Rico, Point Brea to Margarita Reef, 1:20,000, dated Feb. 12, to May 20, 1903, Register No. 2638.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:


None.


ITEMS TO BE CARRIED FORWARD:

None.


Approved for forwarding:

Submitted:


Melvin J. Umbach, CDR, NOAA
Chief, Photogrammetry Division, AMC


L. L. Graves
Cartographic Technician

Approved:


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

September 9, 1970

GEOGRAPHIC NAMES

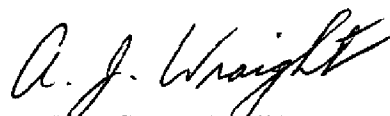
FINAL NAME SHEET

PH-6708 (Puerto Rico)

T-13121

Arrecife Enmedio	Isla La Mata de la Gata
Arrecife Laurel	Isla Magueyes
Arrecife Mario	Isla Matei
Arrecife Media Luna	La Paraguera
Bahia Fosforescente	Magimo
Bahia Montalva	Mar Caribe
Caleta Parguera	Pasa del Medio
Cayo Bayo	Punta Papayo
Cayo Caracoles	Punta Parguera
Cayo Enrique	Punta Penones
Cayo Mata Seca	Salinas el Papayo
	Turumote I

Approved by:


 A. Joseph Wraight
 Chief Geographer

Prepared by:


 Frank W. Pickett
 Cartographic Technician

49. NOTES FOR THE HYDROGRAPHER

There are no photo hydro stations or recoverable topographic stations within the limits of this sheet.

All reefs, shoals, shallow areas, foul areas, and submerged rocks are from office interpretation of the color photographs.

There was considerable penetration on the color photography; due to this and without the aid of any prior shoreline inspection, these offshore features have been shown only as aid to the hydrographer. They may be only bottom changes, coral, or marine vegetation. The delineation of all these features should be verified, and if any exist that are not shown they should be located. Also, any that are shown that do not exist should be deleted.

If landmarks or non-floating aids to navigation exist in the area, please locate and submit Form 567.

See notes on the FIELD EDIT OZALID.

FORM C&GS-1002 (9-66)		U.S. DEPARTMENT OF COMMERCE ESSA COAST AND GEODETIC SURVEY	
PHOTOGRAMMETRIC OFFICE REVIEW			
T-			
1. PROJECTION AND GRIDS LLG	2. TITLE LLG	3. MANUSCRIPT NUMBERS RES	4. MANUSCRIPT SIZE LLG
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY RES	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 XX	10. PHOTOGRAMMETRIC PLOT REPORT Bridge (W.O.)	11. DETAIL POINTS Wild B-8
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE RJP	13. LOW-WATER LINE XX	14. ROCKS, SHOALS, ETC. LLG	15. BRIDGES XX
16. AIDS TO NAVIGATION XX	17. LANDMARKS BW	18. OTHER ALONGSHORE PHYSICAL FEATURES LLG	19. OTHER ALONGSHORE CULTURAL FEATURES RJP
PHYSICAL FEATURES			
20. WATER FEATURES RJP	21. NATURAL GROUND COVER RJP		22. PLANETABLE CONTOURS XX
23. STEREOSCOPIC INSTRUMENT CONTOURS XX	24. CONTOURS IN GENERAL XX	25. SPOT ELEVATIONS XX	26. OTHER PHYSICAL FEATURES RJP
CULTURAL FEATURES			
27. ROADS RJP	28. BUILDINGS RJP	29. RAILROADS XX	30. OTHER CULTURAL FEATURES RJP
BOUNDARIES			
31. BOUNDARY LINES XX		32. PUBLIC LAND LINES XX	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES RJP	34. JUNCTIONS LLG BW		35. LEGIBILITY OF THE MANUSCRIPT RJP
36. DISCREPANCY OVERLAY LLG BW	37. DESCRIPTIVE REPORT RJP	38. FIELD INSPECTION PHOTOGRAPHS XX	39. FORMS RJP
40. REVIEWER <i>R. J. Pate</i> R. J. Pate 2/13/68		SUPERVISOR, REVIEW SECTION OR UNIT <i>Albert C. Rauck, Jr.</i> A. 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 <i>B. Wilson</i> B. Wilson 5/14/68 Reviewed by R. J. Pate 5/14/68		SUPERVISOR <i>Albert C. Rauck, Jr.</i> A. C. Rauck, Jr.	
43. REMARKS Field Edit applied from Field edit ozalid, matte ratio prints 66-L-8310 and 8312, color contact prints 66-L-8310, 8311, 8312, 8330, 8332.			

FIELD EDIT REPORT

T-13121

Job PH-6708

Southwest Coast of Puerto Rico

Field edit was performed in accordance with Instructions - PHOTO-HYDRO SUPPORT AND FIELD EDIT - Job PH-6708, dated December 14, 1967, and with Photogrammetry Instructions concerning field edit.

52. Adequacy of compilation.

Compilation was adequate. One reef, at the eastern edge of the sheet was compiled incorrectly and the western tip of another reef was left off. This reef is at the junction of T-13120 and T-13121 and the tip properly falls on T-13120. One mangrove limit was omitted. Three small and insignificant piers were overlooked.

54. Recommendations.

None.

55. Examination of proof copy.

Dr. Luis R. Almodovar of La Parguera, Lajas, Puerto Rico, will be happy to examine a proof copy of this map.

56. Landmarks and non-floating aids to navigation.

One landmark, TWIN SILOS, was recommended for proposed chart 948 only. It was reported on Form 567 and the original and two copies are enclosed with this report. Three landmark houses were recommended and were circled on the photographs and indicated on the field edit ozalid. The larger compiled houses should be retained on proposed chart 948.

No non-floating aids to navigation are contained in this sheet.

57. Reefs, shoals, rocks and foul areas.

The reefs on this map are coral. The majority of them are probably bare or awash at the sounding datum. Observations of the heights of the reefs were taken at various times and indicated on the field edit ozalid. A few soundings were taken along the inshore edge of them to indicate average depths. One reef, charted as Arrecife Emmedio, was incorrectly compiled. Bottom vegetation was shown as part of the reef and the reef itself labeled "foul" instead of "reef". Some small areas of fast land were omitted on two of the reefs and a small submerged reef was overlooked.

Two small shoals were added and one area classified as a shoal.

57(cont.)

Rock delineation was good. Two submerged rocks were deleted and a few, on the reefs, were re-classified.

Foul areas are as mapped, except for the reef mentioned above. The offshore edges of the reefs, in the limits labeled shallow, are more correctly foul. This will be further confirmed by the hydrographer.

58. Drainage and flooded areas.

See this heading in the report for T-13118.

59. Geographic names.

The majority of the names on this map are in undisputed local usage. There are three undisputed new names and three disputed names, one of which was discussed in the report for T-13120. Two names have fallen into disuse and are recommended for deletion.

The undisputed new names are:

ARRECIFE MARIO - Mario is a proper name, no one could say with authority, the reason for this name.

ISLA LA MATA DE LA GATA or MATA DE LA GATA - meaning grove of the cat. Mata is a bush or small grove, the cat refers to a coral formation that is reputed to look like a cat from seaward.

MAGIMO - refers to the largest of the mangrove islands in this chain.

Local authorities agree unanimously on these names. See the listing under this heading in the report for T-13120.

Disputed names are:

ARRECIFE LAUREL - which is charted as ARRECIFE CORAL. This name was discussed in the report for T-13120.

TURRUMOTE I - which is charted as CAYO CORRAL. Turrumote means pile or heap which pretty well describes this reef. There are two Turrumote's in the area (TURRUMOTE II is on T-13122) which accounts for the numeral.

ARRECIFE CORRAL - which is charted as ARRECIFE EMMEDIO. A corral is a pen or an enclosure and this is supposed to refer to the shape of the reef.

All of the authorities listed in the report for T-13120 agree on the latter two names. Five of the six agree on the first. Turrumote is probably a generic name. However, the field editor's Spanish was not sufficient to grasp all the nuances of the speech.

59(cont.)

It would probably be more beneficial to the local inhabitants to have these names on the charts, than to retain the charted names for navigators. Many of the people residing in this area gain a great deal of their food from the water and spend a good part of their lives on it. It is a mark of distinction, locally, to be named a good boatman. These people, of course, don't need charts. It would be advantageous, however, for them to be able to mention an area to a visitor and then be assured that the visitor would be able to proceed to that same area by consulting a chart.

Names recommended for deletion are:

EL ZOOLOGICO - refers to a place that no longer exists.

PUERTO QUIJANO - the origin of the name appears to be lost. No one consulted was familiar with it.

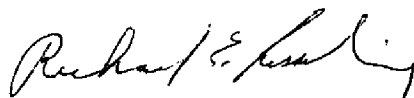
CAYO COLLADO - this term is confusing to local residents and apparently refers to another area.

All of the authorities listed in the report for T-13120 agree that these names are no longer in local use and should be deleted.

Ozalid copies of T-13120, T-13121, and T-13122 are enclosed with the field edit ozalids. These copies have data pertinent to those geographic names mentioned under this same side heading in the reports for each of them.

60. Photography.

Photography was excellent. The color photography caused a lot of comment among local residents, and particularly among the scientists at the Institute of Marine Science on Isla Magueyes. Everyone is looking forward, expectantly, to the issue of the new chart.


Richard E. Kesselring
Surveying Technician
March 26, 1968

REVIEW REPORT T-13121
SHORELINE
June 5, 1970

61. GENERAL STATEMENT

See Summary which is page 6 of the Descriptive Report.

62. COMPARISON WITH REGISTERED SURVEYS

Comparison was made with a copy of registered survey No. 2469, 1:20,000 scale, made in 1900. Considering the elapsed time between the two surveys the comparison of the shoreline was very good.

Not all of ^{the} offshore reefs are shown on the registered survey. Those that are shown are symbolized by dots. The comparison of the reefs has been indicated on the comparison print with a blue dashed line; the comparison with the shoreline with a solid blue line.

Registered survey No. 2469 is superseded by T-13121 for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with USGS PARGUERA, P. R., 1:20,000 scale, 7 1/2 minute quadrangle, edition of 1957.

The shoreline of the USGS quadrangle is not in good agreement with that of T-13121. Isla Magueyes appears to be displaced approximately 90 meters in a southeasterly direction. All differences between the two surveys, including the offshore reefs, have been noted on the comparison print in brown.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Comparison was made with copies of boat sheet H=8984, WH-10-1A-68 and WH-10-1B-68. The only shoreline on these two boat sheets is that along the south shore of the mainland and several of the larger islands in the area. None of the smaller mangrove islands and none of the reefs are shown.

Conflicts between sounding on the boat sheet and mangrove islands on this survey were noted at the following locations:

Lat. 17° 58' 05"	Long. 67° 02' 58"
" 17° 58' 22"	" 67° 02' 55"
" 17° 58' 23"	" 67° 02' 12"

It is believed that when these soundings are correctly plotted on the smooth sheet these conflicts will no longer exist.

65. COMPARISON WITH NAUTICAL CHARTS

A visual comparison was made with nautical chart 901, 10th edition, March 25, 1968. The two surveys are in good general agreement.


66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

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

The reefs shown on this survey with the reef symbol and labeled coral reef awash are from infrared photographs 66L-8510 through 66L-8512 obtained November 16, 1966.


Reviewed by:

Approved for forwarding:



Melvin J. Umbach, CDR, NOAA
Chief, Photogrammetry Division, AMC


Leo F. Beugnet
Cartographer

Approved:


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

Approved:


Chief, Photogrammetric Branch


Chief, Coastal Mapping Division

Subm coral reef

Arrecife Coral
Sand and shell
-66-ETC-8330

17° 56' 30"

Arrecife Coral
Subm coral reef
coral reef wash
Sand and shell
Mg. island

Sand and shell

Arrecife Medialuna

Sand and shell

Dashed areas are reefs
from USGS PARGUERA, P.R.
Quadrangle

67° 03' 30"

67° 02' 30"

17° 56' 00"

T-13121

21

A
P

17° 57' 00"

17° 56' 30"

22

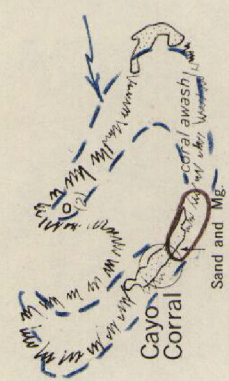
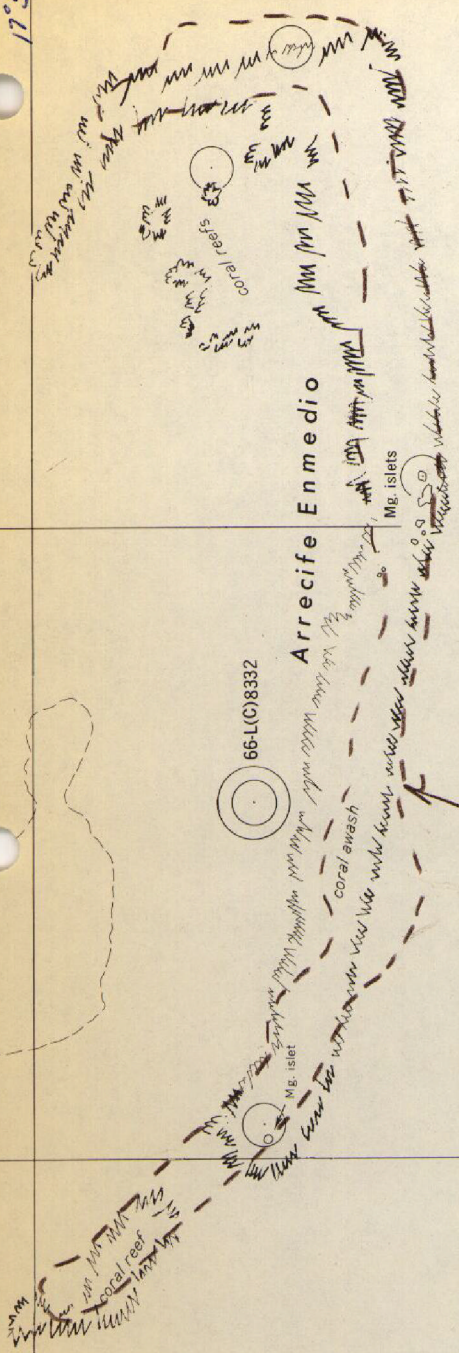
T-13121

67° 00' 30"

67° 01' 00"

Reef area from USGS PARQUERA, P.R. quadrangle

Reef area from Registered
Survey No. 2469



Parguera²³

17° 58'30"

Bldg

Cayo Bayo

Punta Parguera

y=50,000 FT

17° 58'00"

Blue - from Registered Survey No. 2469
Brown - from USGS PARGUERA, P.R. Quad.

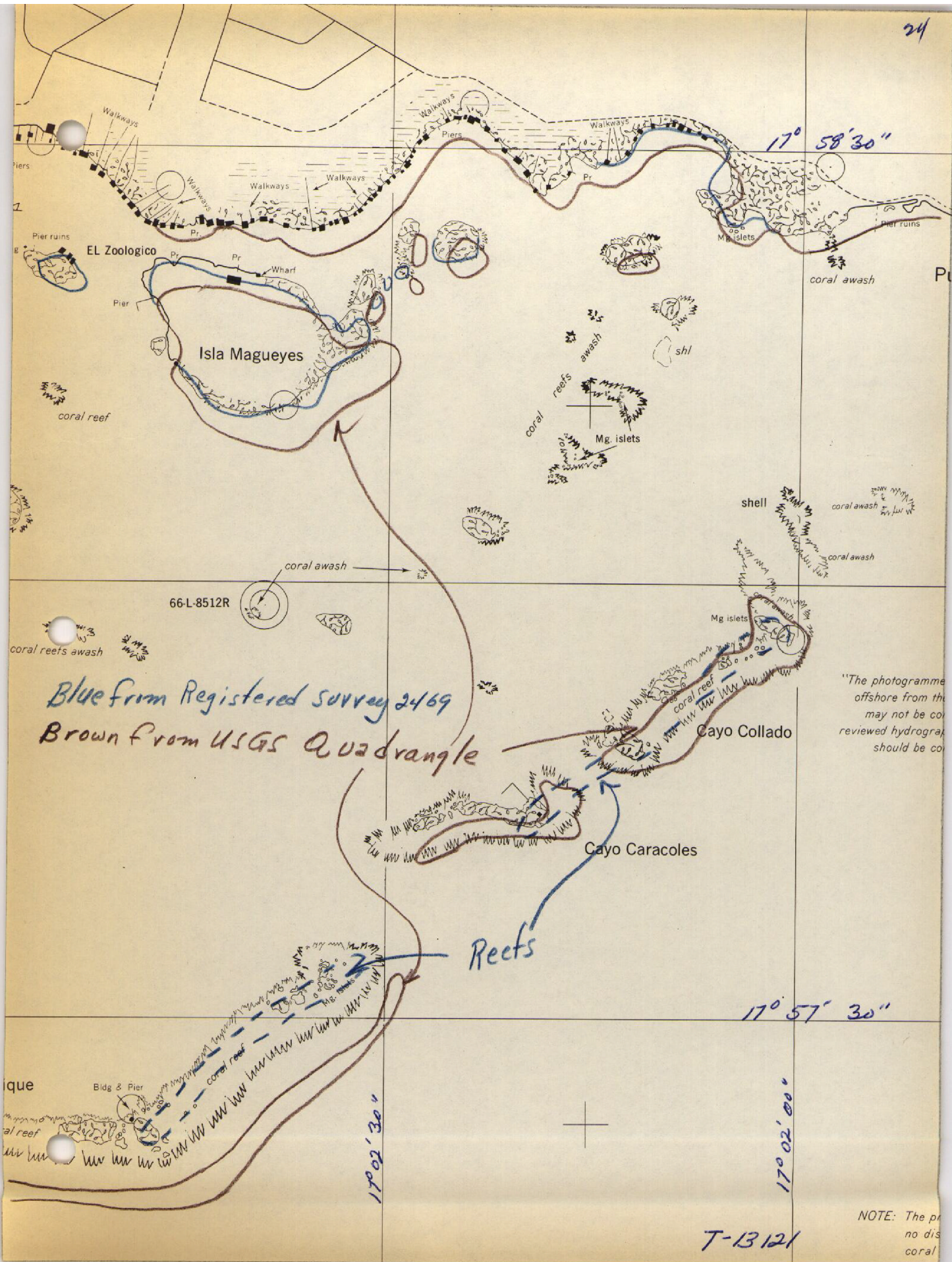
67° 03' 45"

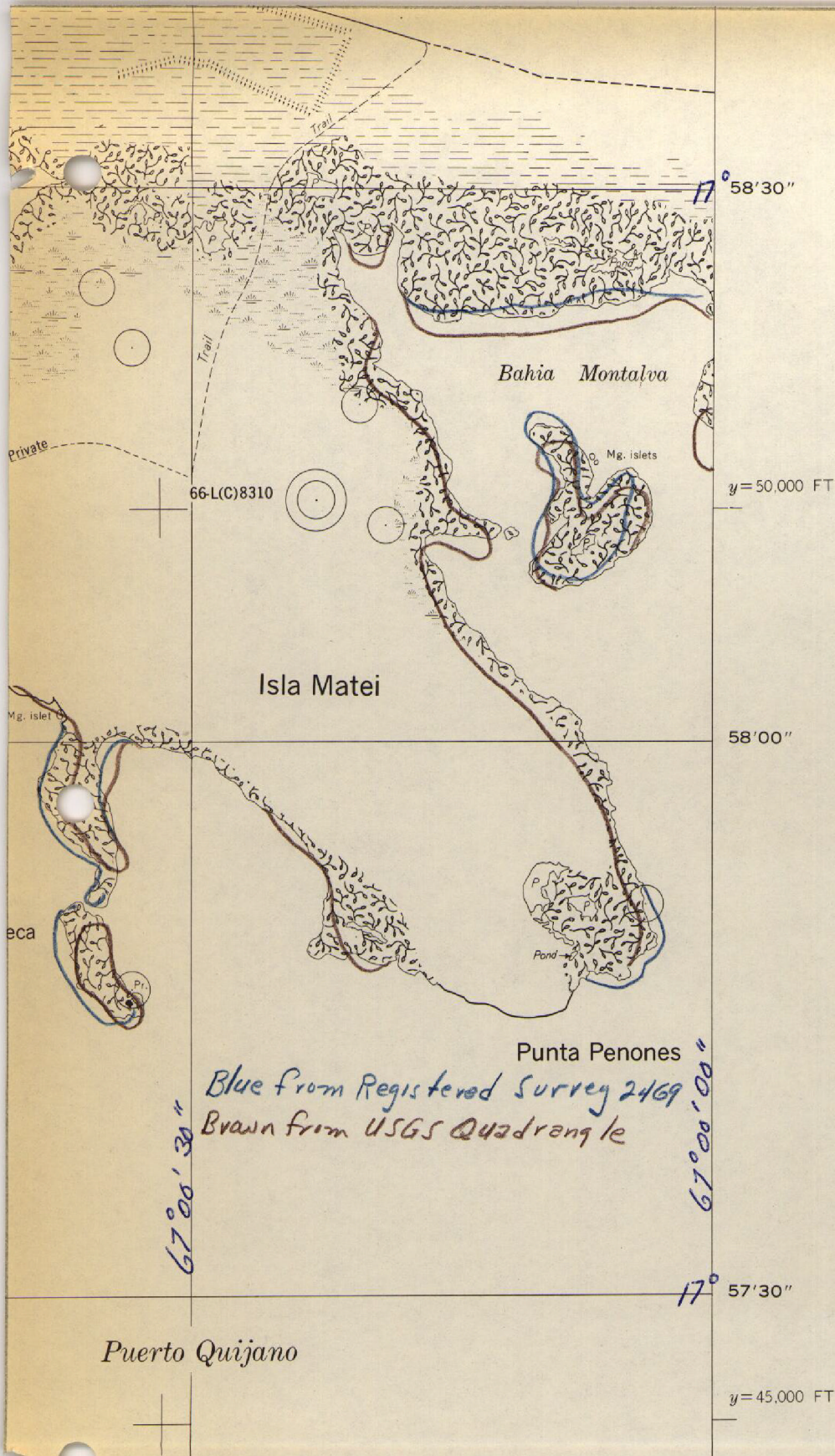
17° 57'30"

y=45,000 FT

Cayo Enr

T-13121





STRIKE OUT TWO

NON-FLUORESCENT LANDMARKS FOR CHARTS

Atlantic Marine Center April 18 1968

I recommend that the following objects which have ~~been~~ been inspected from seaward to determine their value as landmarks be charted on ~~the~~ the charts indicated.

The positions given have been checked after listing by

B. Wilson

For J. Bull, RADM, USESSA
Director AMC

Director	AMC	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