

T-12144 ORIGINAL

T-12144

NOAA FORM 76-35

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT

Type of Survey *Shoreline*  
Job No. *PH-6904* Map No. *T-12144*  
Classification No. Edition No. *1*  
Field Edited Map

### LOCALITY

State *Puerto Rico*  
General Locality *South Coast*  
Locality *Punta Icacos*

1970 TO 1976

### REGISTRY IN ARCHIVES

DATE

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
<b>DESCRIPTIVE REPORT - DATA RECORD</b>		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division Norfolk, Va.		SURVEY T# <u>12144</u> MAP EDITION NO. <u>(1)</u> MAP CLASS <u>Final</u> JOB PH. <u>6904</u>	
OFFICER-IN-CHARGE  Jeffrey G. Carlen, CDR		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__	
<b>I. INSTRUCTIONS DATED</b>			
1. OFFICE		2. FIELD	
Compilation 10/16/70		3/7/69 1/23/70 1/31/72 11/16/72	
<b>II. DATUMS</b>			
1. HORIZONTAL: <input type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify) Puerto Rico	
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER <input type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL		OTHER (Specify)	
3. MAP PROJECTION  Polyconic		4. GRID(S) STATE Puerto Rico ZONE 1	
5. SCALE  1:5,000		STATE ZONE	
<b>III. HISTORY OF OFFICE OPERATIONS</b>			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION BY METHOD: <u>Analytic</u> LANDMARKS AND AIDS BY		R. Kelly	Sep 1970
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: <u>Coradomat</u> CHECKED BY		R. Kelly P. Dempsey P. Dempsey	Sep 1970 Oct 1970 Oct 1970
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY INSTRUMENT: <u>Wild B-8</u> CONTOURS BY SCALE: <u>1:7,500</u> CHECKED BY		B. Barge A. L. Shands NA NA	Jun 1971 Jun 1971  
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY METHOD: <u>Smooth drafted</u> CONTOURS BY CHECKED BY SCALE: <u>1:5,000</u> HYDRO SUPPORT DATA BY CHECKED BY		J. Byrd F. Margiotta NA NA J. Byrd F. Margiotta	Jun 1974 Jul 1974   Jun 1974 Jul 1974
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		F. Margiotta	Jul 1974
6. APPLICATION OF FIELD EDIT DATA BY		D. Butler	Aug 1976
7. COMPILATION SECTION REVIEW BY		A. L. Shands	Sep 1976
8. FINAL REVIEW BY		A. L. Shands	Oct 1977
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		A. L. Shands	Dec 1977
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		J. B. Phillips	Jan. 1978
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		R. T. Cotton	Mar. 1978

NOAA FORM 76-36B  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEYT-12144  
COMPILATION SOURCES

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC 8 "E"		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				ZONE Atlantic MERIDIAN 60th	<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
70E(C) 5784 & 5985	2/27/70	12:32	1:15,000	0.2 ft. above MLW	

REMARKS

## 2. SOURCE OF MEAN HIGH-WATER LINE:

The MHWL was compiled from the above listed photographs.

## 3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

None compiled.

## 4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

## 5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
No survey	No survey	T-12161(1:10,000)	T-12143(1:5,000) T-12161 (1:10,000)

REMARKS

Map T-12144 overlaps into 1:10,000 scale map T-12161 between lat.  
18°01'30" and 18°04'30"; long. 65°47'45" and 65°48'45"

NOAA FORM 76-36C  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

T-12144

## HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION ☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. Wilson	Feb 1970
2. HORIZONTAL CONTROL	RECOVERED BY J. Wilson	Feb 1970
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY P.B.W.	Feb 1970
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 None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE BY <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY NA	

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
		None	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
70E(C) 5984	GUAYANES 2, 1923		
3. PHOTO NUMBERS (Clarification of details)			
None			
4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED			
None			
PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
5. GEOGRAPHIC NAMES: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE		6. BOUNDARY AND LIMITS: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE	
7. SUPPLEMENTAL MAPS AND PLANS			
None			
8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)			
1 Form 152			

NOAA FORM 76-36C  
(3-72)

NOAA FORM 76-36C  
(3-72)

T-12144

U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	W. V. Hull	Jun 1976
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	NA NA NA
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None W. V. Hull None
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	W. V. Hull
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	NA

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

70E(C) 5984 &amp; 5983

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

None

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

Field edit Ozalid  
Field Edit Report  
1-Form 76-40



T-12144  
RECORD OF SURVEY USE

## I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete, pending field edit	May 1974	Class III manuscript		1/2/75 12/2/75
Field edit applied. Compilation complete.	Aug, 1976	Class I manuscript	9/22/76	
Final Review	Oct 1977	Final	12/30/77	

## II. LANDMARKS AND AIDS TO NAVIGATION

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1		9-29-76	Aid for charts

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: \_\_\_\_\_  
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: \_\_\_\_\_

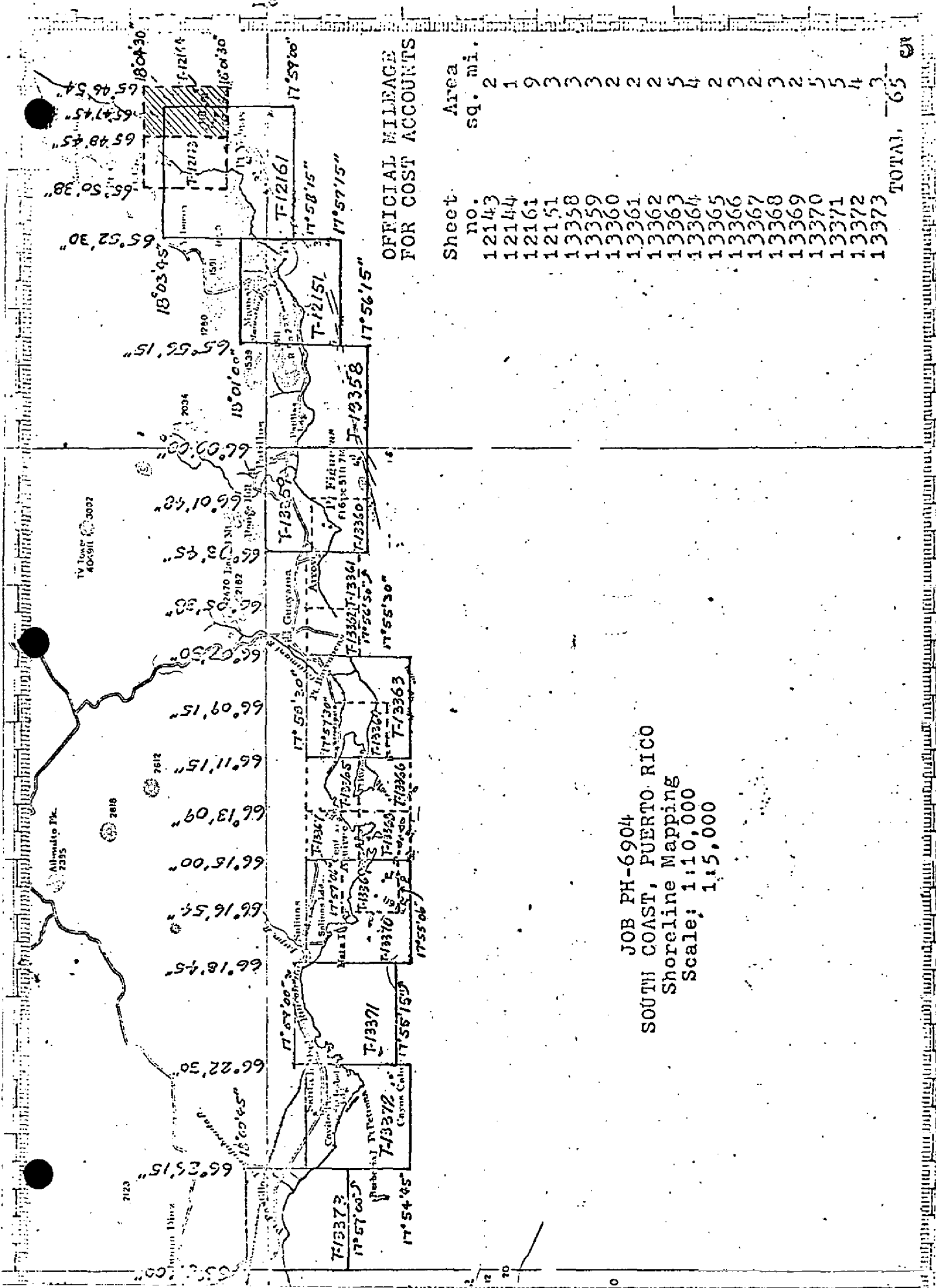
## III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☐ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.  
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS <sup>76-40</sup> ~~562~~ SUBMITTED BY FIELD PARTIES.  
3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.  
ACCOUNT FOR EXCEPTIONS:

4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: \_\_\_\_\_

## IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	



OFFICIAL MILEAGE  
FOR COST ACCOUNTS

Sheet no.	Area sq. mi.
12143	2
12144	1
12161	9
12151	3
13358	3
13359	3
13360	2
13361	2
13362	2
13363	2
13364	2
13365	2
13366	2
13367	2
13368	2
13369	2
13370	2
13371	2
13372	2
13373	2
TOTAL	65

JOB PH-6904  
SOUTH COAST, PUERTO RICO  
Shoreline Mapping  
Scale: 1:10,000



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORTS

T-12143, T-12144, T-12151, T-12161 and  
T-13358 thru T-13362

The maps included in this summary cover the eastern portion of project PH-6904. They are all standard shoreline maps which were prepared to provide shoreline in support of hydrographic operations and nautical chart construction. These maps cover the south coast of Puerto Rico from Punta Icacos westward to Punta Barrancas.

Photographs of the area were flown in March, 1970. Glare covers most of the water area. The black and white ratio photographs made from color contact prints are dark and the resolution is not good. Delineation of offshore and alongshore area details was made difficult by these factors.

No clarification of details was made prior to compilation. Precompilation field work was limited to the recovery and identification of horizontal control necessary for bridging.

Compilation was done at the Atlantic Marine Center by instrument and graphic methods. The Wild B-8 stereoplotter was used.

These maps were field edited in March and April, 1976. The edit items were applied to the maps at the Atlantic Marine Center in August and September, 1976.

Final review was performed at the Atlantic Marine Center in October and November, 1977. The original base manuscripts were forwarded to the Washington Science Center for reproduction and final registration.



## FIELD INSPECTION

T-12144

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification of the horizontal control necessary for the aerotriangulation of the project.

Aerotriangulation Report  
PH-6904  
South Coast of Puerto Rico  
September 1970

21. Area Covered

This report covers the Southern Coast of Puerto Rico, consisting of (9) 1:10,000 scale T-sheets, 12151, 12161, 13358, 13359, 13363, 13370 thru 13373 and (11) 1:5,000 scale T-sheets, 12143, 12144, 13360 thru 13362 and 13364 thru 13369.

22. Method

Two strips 1:40,000 and one strip of 1:5,000 scale color photography were bridged by analytical methods to provide horizontal control points for compilation and shoreline points for ordering 1:10,000 and 1:5,000 scale ratio prints. The attached sketch of the strips bridged shows the placement of horizontal control points used in the strip adjustments. A list of closures to control is part of this report. Positions of all compilation points and control stations have been plotted on the manuscripts by the Coradi.

23. Adequacy of Control

The horizontal control used is on the new adjustment of the Puerto Rico datum. All control was adequate and held well within the accuracy required by National Standards of Map Accuracy at 1:10,000 and 1:5,000 scales. Tie points were used to augment datum tie between strips 1, 2 and 3.

24. Supplemental Data

U. S. Geological Survey quadrangles were used to provide elevations for vertical adjustment of bridges.

25. Photography

RC-8 E color photography was adequate as to coverage overlap and definition.

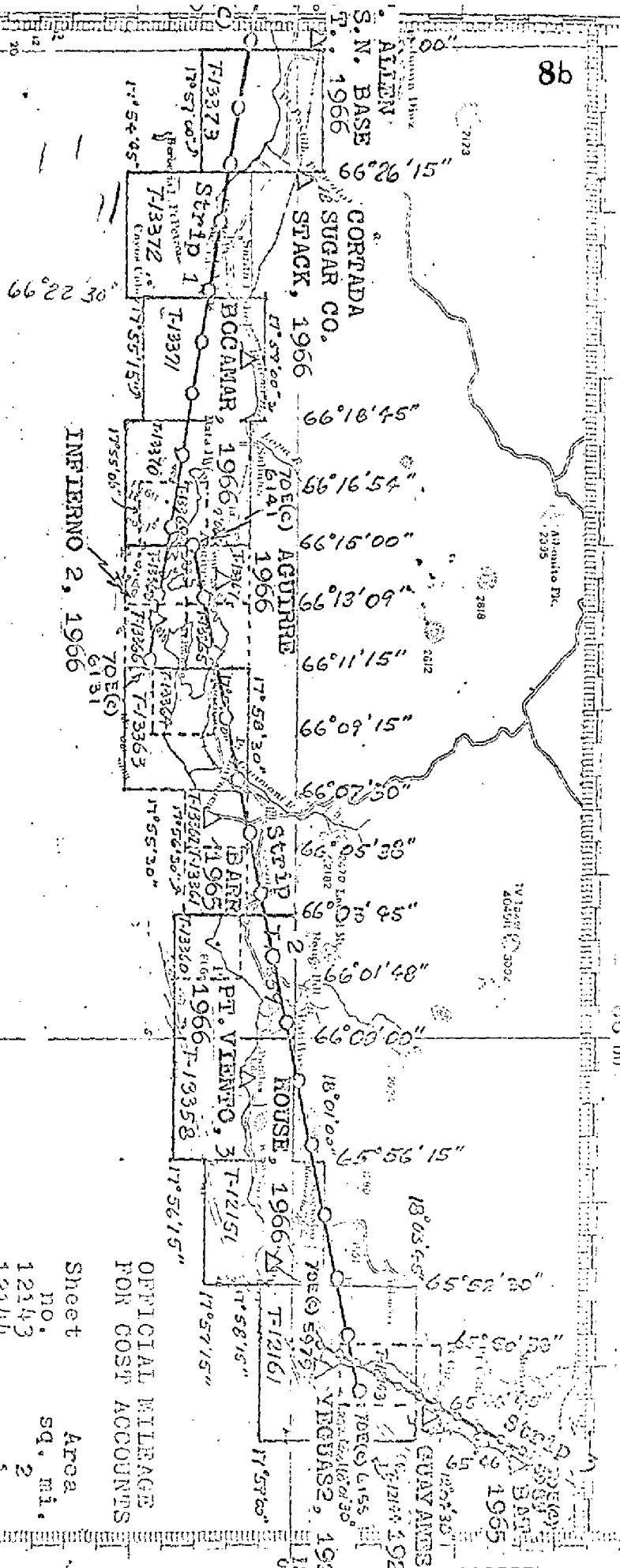
Submitted by,

*Robert B. Kelly*  
Robert B. Kelly

Approved and forwarded,

*Henry P. Eichert*  
Henry P. Eichert  
Chief, Aerotriangulation  
Section

8b



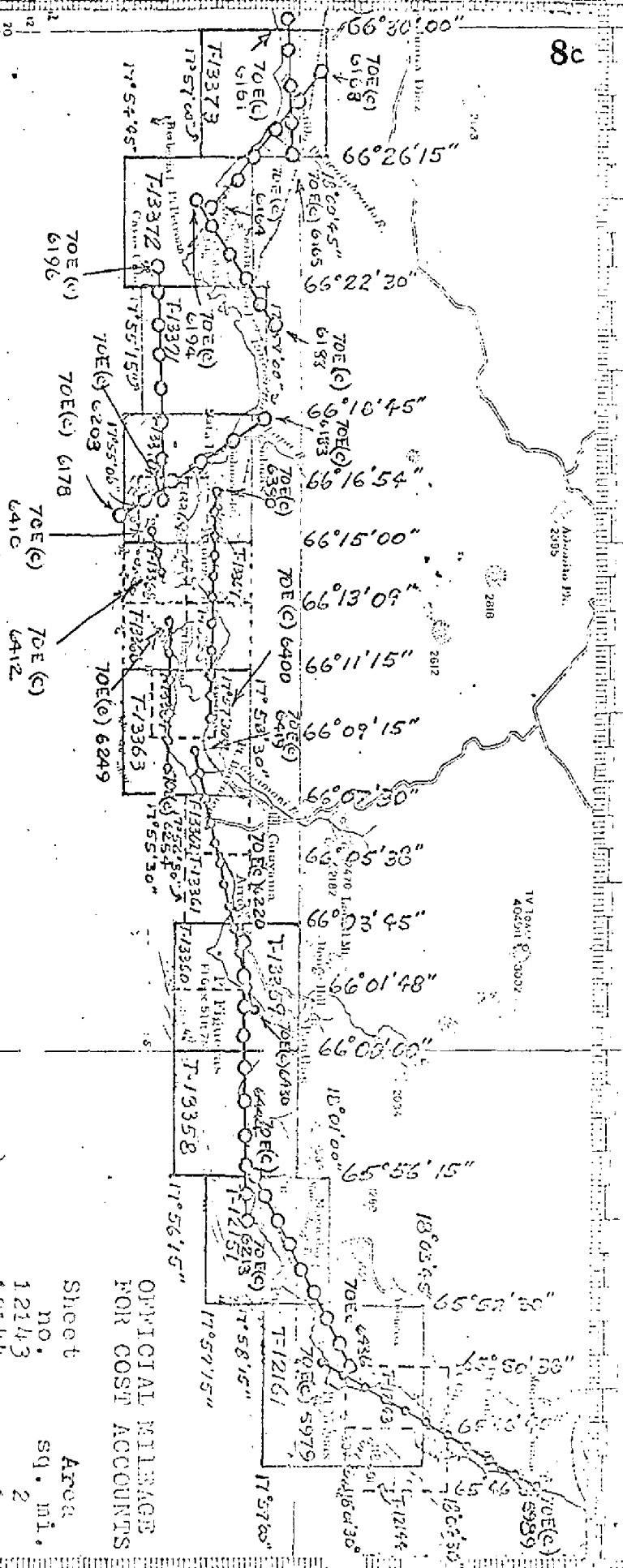
JOB PH-6904  
SOUTH COAST, PUERTO RICO  
Shoreline Mapping  
Scale: 1:10,000  
1:5,000

BRIDGEB PHOTOS

OFFICIAL MILEAGE  
FOR COST ACCOUNTS

Sheet no.	Area sq. mi.
12143	1
12144	2
12161	1
12151	1
13358	1
13359	1
13360	1
13361	1
13362	1
13363	1
13364	1
13365	1
13366	1
13367	1
13368	1
13369	1
13370	1
13371	1
13372	1
13373	1
TOTAL	35

8c



COMPUTATION NOTES

JOB 11-6901  
 SOUTH COAST, PUERTO RICO  
 Shoreline Mapping  
 Scale: 1:10,000  
 1:5,000

OFFICIAL MILEAGE  
 FOR COST ACCOUNTS

Sheet no.	Area sq. mi.
1	12143
2	12144
3	12161
4	12151
5	13358
6	13359
7	13360
8	13361
9	13362
10	13363
11	13364
12	13365
13	13366
14	13367
15	13368
16	13369
17	13370
18	13371
19	13372
20	13373
TOTAL	265

## LEGEND

- $\Delta$  CONTROL USED IN ADJUSTMENT  
 ( ) CLOSURES OF BRIDGE TO CONTROL SHOWN  
 IN PARENTHESIS  
 $\Delta$  CONTROL USED AS CHECK.

## STRIP 1

- $\Delta$  FT. ALLEN U.S.N. BASE W.T. (0.0, 0.0)  
 $\Delta$  " " " SUB STA. A (-0.4, 0.0)  
 $\Delta$  CORTADA SUGAR CO. STACK 1966 (+0.8, +0.1)  
 $\Delta$  " " " SUB STA. A (+1.2, +1.2)  
 $\Delta$  BOCANAR, 1966 SUB. STA. A (0.0, 0.0)  
 $\Delta$  INFIerno 2, 1966 (0.0, 0.0)

## STRIP 2

- $\Delta$  INFIerno 2, 1966 (-0.6, +0.3)  
 $\Delta$  AGUIRRE, 1966 (-1.3, +0.6)  
 $\Delta$  BARR, 1965 (-0.6, -1.0)  
 $\Delta$  Pt VIENTO 3, 1966 (-1.2, -0.8)  
 $\Delta$  HOUSE, 1966 SUB STA. A (+1.1, +0.4)  
 $\Delta$  YEGUAS 2, 1965 (+1.1, -0.6)  
 $\Delta$  YEGUAS 2, 1965 SUB STA. A (+0.3, -0.2)

## STRIP 3

△	YEGUAS 2, 1965	(0.0, 0.0)
△	YEGUAS 2, 1965 SUB. STA. A	(0.0, 0.0)
△	GUAYANES 2, 1923	(0.0, 0.0)
△	BAT, 1965	(0.0, 0.0)



## DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	SOURCE OF INFORMATION (Index)	PH-6904	GEODETIC DATUM		ORIGINATING ACTIVITY	
				COORDINATES IN FEET STATE ZONE	COASTAL MAPPING DIVISION Norfolk, Va.		
T-12144				Puerto Rico			
				STATE ZONE	φ LATITUDE λ LONGITUDE	REMARKS FORWARD BACK	
GUAYANES 2, 1923	Geodesy Pad 27157			X=	φ 18 03 48.17474	1481.0 ( 363.5)	
				Y=	λ 65 48 22.53892	662.8 (1101.6)	
				X=	φ		
				Y=	λ		
				X=	φ		
				Y=	λ		
				X=	φ		
				Y=	λ		
				X=	φ		
				Y=	λ		
				X=	φ		
				Y=	λ		
				X=	φ		
				Y=	λ		
				X=	φ		
				Y=	λ		
				X=	φ		
				Y=	λ		
				X=	φ		
				Y=	λ		
COMPUTED BY	J. L. Byrd			COMPUTATION CHECKED BY	R. R. White	DATE 6/6/74	
LISTED BY				LISTING CHECKED BY		DATE	
HAND PLOTTING BY				HAND PLOTTING CHECKED BY		DATE	

## COMPILATION REPORT

T-12144

31. DELINEATION:

Delineation was by the Wild B-8 stereoplotter, using 1:15,000 scale color photography. Photograph coverage was not adequate in that a large foul area between Punta Guayanes and Punta Icacos was not covered. Also glare in the southern portion of each photo may have prevented the accurate interpretation of some offshore features.

32. CONTROL:

See the attached Aerotriangulation Report, dated September, 1970.

33. SUPPLEMENTAL DATA:

None.

34. CONTOURS AND DRAINAGE:

Contours are not applicable to the project. Drainage was delineated by office interpretation of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS:

Alongshore details and the shoreline were delineated by office interpretation of the photographs.

36. OFFSHORE DETAILS:

Glare and the lack of photo coverage prevented the complete delineation of offshore features. See item 31.

37. LANDMARKS AND AIDS:

Preliminary forms 76-40 for Landmarks and/or Aids were prepared by the Compilation Office and forwarded to the Field Editor and/or the Hydrographer for verification, location, or deletion.

38. CONTROL FOR FUTURE SURVEYS:

None.

39. JUNCTIONS:

See Form 76-36B, Item #5 of the Descriptive Report concerning junctions.

40. HORIZONTAL AND VERTICAL ACCURACY:

No statement.

46. COMPARISON WITH EXISTING MAPS:

A comparison has been made with the USGS Quadrangle Punta Guayanes, Puerto Rico, scale 1:20,000, dated 1960.

47. COMPARISON WITH NAUTICAL CHARTS:

A comparison has been made with Chart 918, scale 1:10,000, 5th edition, dated December 31, 1969.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

*A. C. Rauck, Jr.* For  
Frank Margiotta  
Cartographic Technician  
7/10/74

Approved:

*Albert C. Rauck, Jr.*  
Albert C. RAuck, Jr.  
Chief, Coastal Mapping Section

October 11, 1977

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6904 (South Coast, Puerto Rico)

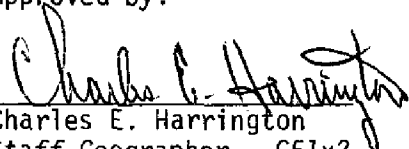
T-12144

Mar Caribe

Punta Guayanés

Punta Icacos

Approved by:

  
Charles E. Harrington  
Staff Geographer - C51x2

NOAA FORM 75-74  
(7-75)U.S. DEPARTMENT OF COMMERCE  
NOAA  
NATIONAL OCEAN SURVEY

## PHOTOGRAMMETRIC OFFICE REVIEW

TR - 12144

1. PROJECTION AND GRIDS FPM	2. TITLE FPM	3. MANUSCRIPT NUMBERS FPM	4. MANUSCRIPT SIZE FPM
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY FPM	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) FPM		7. PHOTO HYDRO STATIONS NA
8. BENCH MARKS FPM	9. PLOTTING OF SEXTANT FIXES XX	10. PHOTOGRAMMETRIC PLOT REPORT FPM	11. DETAIL POINTS FPM
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORE LINE FPM	13. LOW-WATER LINE NA	14. ROCKS, SHOALS, ETC. FPM	15. BRIDGES NA
16. AIDS TO NAVIGATION FPM	17. LANDMARKS NA	18. OTHER ALONGSHORE PHYSICAL FEATURES FPM	19. OTHER ALONGSHORE CULTURAL FEATURES FPM
PHYSICAL FEATURES			
20. WATER FEATURES FPM		21. NATURAL GROUND COVER NA	22. PLANETABLE CONTOURS NA
23. STEREOSCOPIC INSTRUMENT CONTOURS NA	24. CONTOURS IN GENERAL NA	25. SPOT ELEVATIONS NA	26. OTHER PHYSICAL FEATURES FPM
CULTURAL FEATURES			
27. ROADS FPM	28. BUILDINGS FPM	29. RAILROADS NA	30. OTHER CULTURAL FEATURES FPM
BOUNDARIES			
31. BOUNDARY LINES NA		32. PUBLIC LAND LINES NA	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES FPM		34. JUNCTIONS FPM	35. LEGIBILITY OF THE MANUSCRIPT FPM
36. DISCREPANCY OVERLAY FPM	37. DESCRIPTIVE REPORT FPM	38. FIELD INSPECTION PHOTOGRAPHS NA	39. FORMS FPM
40. REVIEWER A. C. Rauck, Jr. For Frank Margiotta 7/10/74		SUPERVISOR, REVIEW SECTION OR UNIT 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 A. C. Rauck, Jr. For David P. Butler 8/6/76		SUPERVISOR A. C. Rauck, Jr.	
Reviewer: A. L. Shands 9/10/76		A. C. Rauck, Jr.	
43. REMARKS A. L. Shands			

FIELD EDIT REPORT  
PROJECT PH-6904  
SOUTH COAST, PUERTO RICO  
T-13362, T-13361, T-13360  
T-13359, T-13358, T-12151  
T-12161, T-12143, T-12144

This report is submitted for five 1:5,000 scale maps and four 1:10,000 scale maps. The Field Edit was accomplished during the spring season of 1976 by the NOAA SHIP MT MITCHELL MSS-22 personnel.

52 ADEQUACY OF COMPILATION

The compilation is generally good. After the application of field edit data and data from engineering drawings of Arroyo and Yabucoa, the compilation will be adequate for charting.

53 MAP ACCURACY

Map compilation as to horizontal position is good. A modified field test was conducted on several points. Horizontal control was field identified, transferred to the manuscript, position scaled and compared to the computed coordinates and generally the agreement was less than one meter.

54 RECOMMENDATIONS

None

55 GEOGRAPHIC NAMES

No discrepancies were noted except those that were questioned on the field sheet. Names of persons interviewed about names in question are shown on T-13362, Photo 70E6421, 70E6218, T-13358, and T-12151.

56 SHORELINE AND ALONGSHORE FEATURES

The entire shoreline was checked by either walking, truck or small boat. All rock heights were estimated by going alongside or near in a small boat. On some near shore rocks, heights were estimated by walking the shoreline. Field Edit was conducted on days when sea conditions were moderate to calm. During launch hydro, the officer in charge, referenced many alongshore features, but in general the sea conditions were rough and the hydro launch did not get as near to the objects as the small boat used by the field editors.

All field edit data is indicated on the Field Edit Ozalid and photographs and are cross referenced.



There is a small marina under construction in Arroyo. Engineering drawings are furnished with this report. At Punta Figuras shoreline that is subject to frequent change was located by sextant angle and tape measurements; the field data and shoreline change is shown on manuscript T-13360.

On the eastern limit of T-12151, a small section of shoreline is in error and should be corrected as indicated on Photo 70E6440.

On T-12143, Yabucoa harbor area, construction is still underway. The main harbor is completed with construction underway on the southeast side. Engineering drawing of the harbor and new construction are enclosed with this report. Nautical Chart 25661 7th Edition May 24/75 already reflects the main harbor. Tie-points were located throughout the harbor to assist in tying in with the engineering drawings. The shoreline immediately north of the riprap breakwater, as indicated on T-12143, is subject to daily change due to sand borrowing operations both landward and seaward of the mean high water line. The mouth of the stream is plugged on occasion with sand and debris, but continues to break through near the mouth as compiled. I recommend that the shoreline be charted as shown on photos and as compiled with note of frequent change.

#### 57 LANDMARKS AND AIDS


Form 76-40 was submitted for all nautical landmarks and fixed aids to navigation in the descriptive reports for the hydrographic surveys. Copies of those forms are attached to this report.

#### 58 GENERAL STATEMENT

All field edit notes have been made in violet ink on the field edit ozalids and ratio photographs.

It is recommended that photography of opportunity be obtained of the Yabucoa Harbor area and of the Palmas Del Mar harbor area, just north of Yabucoa. A special report was submitted on Palmas Del Mar to Director, Atlantic Marine Center with copy to CAM5.

Submitted 18 June 1976

  
Wesley A. Hull  
Captain, NOAA  
Commanding Officer  
NOAA Ship Mt Mitchell MSS-22

[illegible]

## REVIEW REPORT

T-12144

## SHORELINE

October 3, 1977

61. GENERAL STATEMENT:

See Summary, page 6 of this Descriptive Report.

Map T-12144 is overlapped by 1:10,000 scale map T-12161 between lat. 18°01'30" and 18°04'30"; long. 65°47'45" and 65°48'45". Details in the overlap area are delineated on T-12144 only.

More than 50 percent of each photograph used to delineate this map is obscured by glare. This caused the offshore and alongshore area details to be delineated monoscopically. Features twenty or more feet below the surface are visible in areas not obscured by glare. The relative elevation of features cannot be determined monoscopically, therefore, foul lines in some instances may have been placed around features twenty or more feet below the surface.

The compilation office dropped the position of a radio tower in the instrument model at lat. 18°03.8', long. 65°48.4'. It was recommended as a landmark to be charted on Form 76-40 submitted to Charts on September 27, 1976. This object was not previously charted and has not been recommended for charting by any field activity. Because there is no assurance of its landmark value, the object was changed to a map feature during final review.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Not applicable.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Not applicable.

#### 64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with unverified smooth sheet H-9609, (MI-5-1-76). Inshore soundings do not exist east of long. 65°48'60".

A deep area encircled by a large foul area located northeast of Punta Guayanes was not developed by the hydrographer.

#### 65. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Chart 25661, 1:10,000 scale, dated May 24, 1975, from Punta Icacos south. The area north of Punta Icacos, from lat. 18°04'15" to lat. 18°04'30" is covered by Chart 25650 at 1:100,000 scale.

The general shape of the shoreline compares well with that shown on Chart 25661. However, there is noticeable difference in the placement. Also, several coral reefs awash charted between Punta Guayanes and Punta Icacos are not visible on the photographs.

#### 66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This map complies with the project instructions and meets the requirements for Bureau Standards and the National Standards of Map Accuracy.

Submitted by:

*A. L. Shands*

A. L. Shands  
Final Reviewer

Approved for forwarding:

*Joseph W. Vonasek*

Joseph W. Vonasek  
Chief, Photogrammetric Branch, AMC

Approved:

*[Signature]*  
Chief, Photogrammetric Branch

*[Signature]*  
Chief, Coastal Mapping Div.