

12145

Original

12145

12145

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	SHORELINE
Field No.	Office No. T-12145
LOCALITY	
State	PUERTO RICO
General locality	EAST COAST
Locality	PLAYA DE FAJARDO
1958-1964	
CHIEF OF PARTY	
M. L. Olivier, Chief of Field Party 708	
V. R. Sobleralski, Tampa District Officer	
LIBRARY & ARCHIVES	
DATE	1 JUL 1969

USCOMM-DC 5087

DESCRIPTIVE REPORT - DATA RECORD

T - 12145

PROJECT NO. (II):

PH-6106

FIELD OFFICE (III):

Puerto Rico

CHIEF OF PARTY

M. L. Olivier

PHOTOGRAMMETRIC OFFICE (III):

Tampa, Florida

OFFICER-IN-CHARGE

V. Ralph Sobieralski

INSTRUCTIONS DATED (II) (III):

Field and office - August 30, 1961
Amendment " " " January 15, 1962 ** Interior planimetry restricted to those features useful to
photo hydro support. JVB

METHOD OF COMPILATION (III):

Kelsh Plotter

MANUSCRIPT SCALE (III):

1:10,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

1:6,000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

APRIL 13, 1968 JUL 7 1962

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

GEOGRAPHIC DATUM (III):

Puerto Rico

VERTICAL DATUM (III): MHW

////////// 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):

Central Fajardo North Stack (USGS) 1941

LAT.: ✓ ✓ ✓

18°19'38.85" (1194.4m)

LONG.: ✓ ✓ ✓

65°38'52.98" (1555.7 m)

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

= 180,005.2 FT. ✓

x = 772,346.1 FT. ✓

STATE

Puerto Rico ✓

ZONE

Puerto Rico ✓

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

FIELD INSPECTION BY (III): M. L. Olivier		DATE: No field inspection report available, nor were dates shown on back of field photos. Field work probably done in Dec. 1961
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): Air photo compilation Date of Photography: April 1959, October 1961.		
PROJECTION AND GRIDS RULED BY (IV): A. R. (W.O.)		DATE Apr. 1962
PROJECTION AND GRIDS CHECKED BY (IV): A. R. (W.O.)		DATE Apr. 1962
CONTROL PLOTTED BY (III): V. P. Cackowski		DATE Apr. 1962
CONTROL CHECKED BY (III): V. P. Cackowski		DATE Apr. 1962
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): R. E. Fuechsel (W.O.)		DATE Mar. 1962
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY I. I. Saperstein	DATE June 1962
	CONTOURS	DATE
MANUSCRIPT DELINEATED BY (III): I. I. Saperstein		DATE June 1962
SCRIBING BY (III): <i>A. Santillan</i>		DATE <i>July 1966</i>
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): W. H. Shearouse (Comp) <i>R.V. FATE (Smooth)</i>		DATE June 1962 <i>July 1966</i>
REMARKS:		

FORM C&GS-181c (12-61)		U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY		
DESCRIPTIVE REPORT - DATA RECORD				
CAMERA (KIND OR SOURCE) (III): <div style="text-align: center;">Wild "S" and "W" camera</div>				
PHOTOGRAPHS (III)				
NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
59S3895	4/18/59	10:48	1:30,000 Diapositives	0.0 <i>Above M.L.W.</i>
59S3896	"	"	"	"
59S3946	"	11:58	"	0.1 "
59S3948	"	12:00	"	"
59S3949	"	"	"	"
61W1722 thru 1725	10/26/61	15:45	1:15,000 "	0.7 "
61W1734 thru 1736	"	15:57	"	"
(see data record on T-12139, T-12142 and T-12146 for color photos)				
Predicted TIDE (III)				
			RATIO OF RANGES	MEAN RANGE
REFERENCE STATION: <i>San Juan</i>			1.0	1.1
SUBORDINATE STATION: <i>Bahia de Fajardo</i>			1.0	1.1
SUBORDINATE STATION:				
WASHINGTON OFFICE REVIEW BY: <i>Atlantic Marine Center M. M. Shoeny</i>			DATE: <i>May 1967</i>	
PROOF EDIT BY (IV):			DATE:	
NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): <i>6</i>		RECOVERED: <i>2</i>	IDENTIFIED: <i>2</i>	
NUMBER OF BM(S) SEARCHED FOR (II): <i>1</i>		RECOVERED: <i>1</i>	IDENTIFIED <i>1</i>	
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): <i>0</i>				
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): <i>5</i>				
REMARKS:				

T-12145

COMPILATION RECORD	COMPLETION DATE	REMARKS
Alongshore area for hydro	June 1962	Superseded
Limited field edit applied	May 1966	Superseded
Manuscript complete	June 1966	Superseded
Some changes during final review	May 1967	

6.

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-12145

Shoreline manuscript T-12145 is one of sixteen 1:10,000 scale maps in Ph-6106, east coast of Puerto Rico, which also contains eight 1:5,000 scale maps. The sketch on page 5 of this report shows the position of this map in the project, and shows the areas of this 1:10,000 scale map which were compiled as 1:5,000 scale maps T-12139, T-12142, and T-12146; and then reduced to 1:10,000 scale for incorporation into T-12145. It is noted that 1:5,000 scale maps T-12143 and T-12144, and 1:10,000 scale maps T-12150, T-12151, and T-12161 of this project are in a "postponed" status until ~~some future date~~ *cancelled.*

m.m.s.

This is a stereo instrument project in advance of hydrographic surveys of the area. Field inspection was done on 1:10,000 ratio prints of the 1:30,000 panchromatic photographs made with the "S" camera on April 18, 1959. Diapositives from the 1:15,000 scale panchromatic photographs made with the "W" camera on October 26, 1961 were used for compiling the 1:5,000 maps T-12139, T-12142, and T-12146 which were then reduced. Diapositives from the 1:30,000 April 18, 1959 "S" photography were used to compile T-12145 west of longitude 65° 39'. Color prints at 1:10,000 flown in 1958 (no date) were furnished for reference during compilation. The stereo-bridge was run and adjusted to field identified control in the Washington Office. Compilation was done with the Kelsh Plotter. Ratio prints at 1:10,000 scale were processed and furnished for hydro-support.

Field work preceding compilation consisted of control identification and field inspection. The map carries a "Date of Field Edit: 1964". The field edit notes were on the cronaflex "T" sheets, which are part of the hydrographic data. It was a "Limited field edit done concurrent with hydrography"; and there was no hydrography done west of longitude 65 38.65'.

The compilation manuscript was a vinylite sheet 4 minutes and 45 seconds in latitude and 3 minutes and 45 seconds in longitude. The smooth manuscript was on cronaflex for registry and record after final review.

FIELD INSPECTION REPORT - 4 -

2. AREAL FIELD INSPECTION

T-12139, T-12142, T-12145, T-12146, and T-12152 through T-12157,

These shoreline sheets_A are located on the eastern coast of Puerto Rico. The area is undeveloped except for the village of Fajardo and the Roosevelt Roads Naval Reservation.

Field inspection was performed on photographs 59-S-3940 through 59-S-3949 and 59-S-3915 through 59-S-3923. Some difficulty of interpretation of the apparent MHWL was encountered around mangrove areas.

Three housing areas within the naval station were not field inspected. It is believed that the 1961 photographs will cover these spots. Also a small marina in Ensenada Honda was left for the 1961 photographs. A new marina, under construction, on the south side of Cayo Obispo (a small island just east of Playa de Fajardo) was left for field edit.

3. HORIZONTAL CONTROL

All Coast and Geodetic Survey control stations except four within the project limits were searched for. HOUSE, 1901; KID, 1941; MONTE, 1941; and NORTH, 1941 were not searched for because no descriptions were furnished. Only those stations as specified on the project diagram were photo-identified. One U. S. Geological Survey control station (CENTRAL FAJARDO, NORTH STACK, 1941) was recovered and photo-identified.

There were many triangulation stations that could not be recovered especially around the naval base. It is believed that much of this control was destroyed during construction of the base.

4. VERTICAL CONTROL

All tidal bench marks in the area were searched for. The one at Playa de Fajardo was recovered but the two in Ensenada Honda could not be found.

5. CONTOURS AND DRAINAGE

Contours were not a part of the work requirements for this project.

The drainage patterns can be distinguished on the photographs.

6. WOODLAND COVER

Woodland cover has been classified in accordance with the requirements for topographic maps. Wooded areas are adequately covered by the field inspection photographs.

Swamp areas were designated as mangrove. There is considerable mangrove throughout the area.

7. SHORELINE AND ALONGSHORE FEATURES

The mean high water line was inspected from a small boat and by walking along the shoreline.

The shoreline in places was visited at low water. The mean low water line is shown on the photographs in green ink.

The foreshore is steep in some places and somewhat flat in other places.

Docks, piers, wharves, etc. are adequately covered on the field inspection photographs.

One submerged cable was identified on the photographs.

8. OFFSHORE FEATURES

Some offshore rocks were visited and their heights above MHW were noted. Coral is distinguishable on the photographs.

9. LANDMARKS AND AIDS

Landmarks and aids to navigation located by photogrammetric methods are shown on the contact prints. One landmark, a tower on Pineros Island, was identified on the field inspection photographs.

All landmarks and aids to be charted or deleted are adequately covered on Form 567.

10. BOUNDARIES, MONUMENTS, AND LINES

Boundaries were excluded by the project instructions.

11. OTHER CONTROL

Existing objects suitable for photo hydro control were identified on the field inspection photographs. These are shown on the photographs by three digit numbers. Many of the landmarks and aids can be used for photo hydro control.

12. OTHER INTERIOR FEATURES

All buildings and roads have been classified in accordance with project instructions dated 30 August 1961.

13. GEOGRAPHIC NAMES

An investigation of geographic names was not required by the project instructions. It was noticed that the geographic names on the existing charts and quads of this area agree with one another and with the general opinion of the local people.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Contact photographs were forwarded to the Washington office by Letter of Transmittal No. PH-6106-3 dated 20 November 1961.

Submitted
5 December 1961

Michael L. Olivier
Michael L. Olivier

Photo Center 208

PHOTOGRAMMETRIC PLOT REPORT
PUERTO RICO, EAST COAST
PROJECT PH-6106
March, 1962

21. Area Covered:

T-12136 through T-12139; T-12141 through ^{T-12146;} T-12148; T-12152
through T-12161.

22. Method:

Five stereoplanigraph bridges were run in order to provide pass points for Kelsh compilation of the project.

Strip #4 was adjusted on a linear basis. All other strips were adjusted on a least-squares basis on the IBM 650 computer. Satisfactory adjustments were obtained for all strips in the project.

23. Adequacy of Control:

The horizontal control provided complied with project instructions, and was adequate. The following control failed to hold in bridging:

Δ PINERITA 2, 1941-SUB.PT. 2. This station had been designated as a poor image pt. at the time of bridging, and may safely be disregarded due to the proximity of other control that held in bridging.

24. Supplemental Data:

None

25. Photography:

The photography was adequate for the needs of aerotriangulation.

Submitted by:

R. E. Fuechsel
R. E. Fuechsel

Approved:

E. H. Ramey
E. H. Ramey, Chief
Aerotriangulation Section

COMPILATION REPORT

T-12145

PHOTOGRAMMETRIC PLOT REPORT

The stereo bridge was run in the Washington Office. ~~The Photogrammetric Plot Report is bound in the report for T-12157. See also the report for T-12146. See page 9.~~

31. DELINEATION

The manuscript was compiled using the 1:5,000 scale manuscripts (T-12139, T-12142 and T-12146) reduced to 1:10,000 and transferred to this sheet. Areas not covered by the above mentioned sheets were compiled from the April 1959, 1:30,000 diapositives on the Kelsh Plotter. These areas are: from Longitude 65°39'11" westward and the shoreline around Cabezas de San Juan.

The field inspection was adequate and no difficulty was encountered in the interpretation of the photographs.
(see reports for T-12139, T-12142 and T-12146)

32. CONTROL

The density and placement of bridge points were adequate.

33. SUPPLEMENTAL DATA

None.

34. CONTOURS AND DRAINAGE

Inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS

The mean high-water and low-water lines were delineated according to the field inspection, which was adequate. Shallow and shoal areas were delineated from office interpretation of the photographs. The color photographs were used as an aid in delineating coral and shallow areas.

36. OFFSHORE DETAILS

Numerous coral reefs have been shown and are delineated accordingly. Other offshore areas have been outlined with a dashed line but are questionable. These areas should be investigated by the hydrographic party.

37. LANDMARKS AND AIDS

Three (3) landmarks have been located and form 567 has previously been submitted on May 8 and May 10, 1962. One aid has been shown east of sheet limits (on T-12141) and form 567 is submitted with this report.

Radio tower (WMDD) is not of landmark value according to the field inspector and was shown merely as a topographic feature.

38. CONTROL FOR FUTURE SURVEYS

Five (5) photo-hydro stations were located and are listed under Item 49.

Shoreline pass points have been located by the Kelsh Plotter for photo-hydro support.

39. JUNCTIONS

Junctions have been made with T-12152 to the south; T-12141 and T-12148 to the east; T-12138 to the west, not compiled. No sheet to the north.

40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

46. COMPARISON WITH EXISTING MAPS

Comparison has been made with USGS quadrangle FAJARDO and CAYO ICACOS, scale 1:20,000 edition of 1958. (see reports for T-12139, T-12142 and T-12146.)

47. COMPARISON WITH NAUTICAL CHARTS

Comparison has been made with Chart 917, 1:40,000 edition of May 6, 1930 revised October 12, 1959 and Chart 921, 1:10,000 edition of December 1930, corrected to September 6, 1958.

Major changes between the manuscript and chart 921 are at Playa de Fajardo, Punta Fajardo, Rio Fajardo and the cove at Latitude 18°22' Longitude 65°37'30" (see reports for T-12139, T-12142 and T-12146.)

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

I. I. Saperstein
I. I. Saperstein
Cartographer (photo)

Approved and Forwarded:

V. Ralph Sobieralski
V. Ralph Sobieralski
Tampa District Officer

GEOGRAPHIC NAMES
FINAL REVIEW LIST
PH-6106
T-12145 (Shoreline)

- ✓ ATLANTIC OCEAN
- ✓ BAHIA DE FAJARDO
- ✓ BAHIA LAS CABEZAS
- ✓ CABEZA CHIQUITA
- ✓ LAGUNA AGUAS PRIETAS
- ✓ LAGUNA GRANDE
- ✓ PASAJE DE SAN JUAN
- ✓ PLAYA DE FAJARDO
- ✓ PLAYA SARDINERA
- ✓ PUNTA BATERIA
- ✓ PUNTA FAJARDO
- ✓ PUNTA GORDA
- ✓ RIO FAJARDO
- ✓ RIO JUAN MARTIN

Names from FINAL NAME SHEET (#6 of 7) on FAJARDO, P.R. quad. from
Rt. No. 3614.

Note: Chart 921 (1:10,000, June 1966) shows a "BAJO DEL RIO" at latitude
18° 19.9', longitude 65° 37.5', but it is not on the Geographic Name
Quad. The name was not ordered by the Drafting Section and is not on
T-12145.

M.M. Slavney
Final Review

*Names approved
May 29, 1968*

*A. J. Wright
Frank W. Fickett*

49. NOTES FOR THE HYDROGRAPHER

Five (5) photo-hydro stations were located:

- 105 (N.E. corner Green roof pav.)
- 106 (Center of green roof house)
- 107 (N. gable)
- 108 (S.E. gable P.O.)
- 109 (Peak of white roofed house.) Use with caution, point could not be identified on the 1961 photographs being furnished for hydro support; see Item 31 of report for T-12142.

The coral areas were identified but not delineated by the field inspector. Limits shown are from study of Kelsh models and color photography, when available. The coral limits do not necessarily define the low-water line; this has been left for investigation by the hydrographer.

The Loran Antenna at Cabo San Juan for which a form 567 was submitted by the field party was not identified on the photographs in the field.

Several tall poles or structures were seen on the photographs but it could not be determined which is the antenna. It is requested that this landmark be located or identified on the photographs.

It will be noted that a form 567 for DELETION, was submitted by the field party for LORAN TOWER at Cabo San Juan shown on charts 917 and 921. This is probably a different tower than the antenna mentioned above.

FORM 182 (8-51) 50.		PHOTOGRAMMETRIC OFFICE REVIEW OF T-12145 .		U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY	
1. PROJECTION AND GRIDS WHS		2. TITLE WHS 4a Classification label <u>unclassified</u>		3. MANUSCRIPT NUMBERS WHS	4. MANUSCRIPT SIZE WHS
CONTROL STATIONS	5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY WHS		6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (TOPOGRAPHIC STATIONS) XX		
	7. PHOTO HYDRO STATIONS WHS	8. BENCH MARKS WHS	9. PLOTTING OF SEXTANT FIXES XX	10. PHOTOGRAMMETRIC PLOT REPORT Washington Office	
	11. DETAIL POINTS WHS				
ALONGSHORE AREAS (Nautical Chart Data)	12. SHORELINE WHS	13. LOW-WATER LINE WHS	14. ROCKS, SHOALS, ETC. WHS	15. BRIDGES XX	
	16. AIDS TO NAVIGATION WHS	17. LANDMARKS WHS	18. OTHER ALONGSHORE PHYSICAL FEATURES WHS		
	19. OTHER ALONGSHORE CULTURAL FEATURES WHS				
PHYSICAL FEATURES	20. WATER FEATURES WHS		21. NATURAL GROUND COVER XX		
	22. PLANETABLE CONTOURS XX		23. STEREOSCOPIC INSTRUMENT CONTOURS XX		
	24. CONTOURS IN GENERAL XX		25. SPOT ELEVATIONS XX		
	26. OTHER PHYSICAL FEATURES WHS				
CULTURAL FEATURES	27. ROADS XX	28. BUILDINGS WHS	29. RAILROADS XX		
	30. OTHER CULTURAL FEATURES WHS				
BOUNDARIES	31. BOUNDARY LINES XX		32. PUBLIC LAND LINES XX		
MISCEL- LANEOUS	33. GEOGRAPHIC NAMES WHS		34. JUNCTIONS WHS		
	35. LEGIBILITY OF THE MANUSCRIPT WHS	36. DISCREPANCY OVERLAY XX		37. DESCRIPTIVE REPORT WHS	
	38. FIELD INSPECTION PHOTOGRAPHS WHS		39. FORMS WHS		
	SIGNATURE OF REVIEWER <i>William H. Shearouse</i> William H. Shearouse		SIGNATURE OF SUPERVISOR, REVIEW SECTION OR UNIT <i>William A. Rasure</i> William A. Rasure		
40. FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT - Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted in remarks on reverse side.					
SIGNATURE OF COMPILER <i>R. J. PAE</i> R. J. PAE			SIGNATURE OF SUPERVISOR <i>A. C. Rauck</i> A. C. Rauck		

USE REVERSE SIDE FOR REMARKS

USCOMM-DC 25353-P61

TIDE COMPUTATION

PROJECT NO. Ph-6106 T. 12145

Time and date of exposure 1048 April 18, 1959

Reference station San Juan

Mean range 1.1

Date of field inspection

Subordinate station Bahia de Fajardo

Ratio of ranges 1.00

	Time	
	h.	m.
High tide	04	32
Low tide	10	59
Duration of rise or fall	6	27

	Height		Height x Ratio of ranges
	feet		
High tide	1.1	1	
Low tide	0.0	1	
Range of tide			1.1

	Time	
	h.	m.
High tide at Ref. Sta.	04	41
Time difference	-	09
Corrected time at Subordinate station	04	32

	Time	
	h.	m.
Low tide at Ref. Sta.	11	10
Time difference	-	11
Corrected time at Subordinate station	10	59

	h.	m.		feet		feet	Photo. No.
Time H. T. or L. T.	10	59	Ht. H. T. or L. T.	0.0	Feature bares		5953895
Required time	10	48	Tabular correction	0.0	Stage of tide above MLW		
Interval		11	Stage of tide above MLW	0.0	Feature above MLW		
Time H. T. or L. T.			Ht. H. T. or L. T.		Feature bares		
Required time			Tabular correction		Stage of tide above MLW		
Interval			Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.			Ht. H. T. or L. T.		Feature bares		
Required time			Tabular correction		Stage of tide above MLW		
Interval			Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.			Ht. H. T. or L. T.		Feature bares		
Required time			Tabular correction		Stage of tide above MLW		
Interval			Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.			Ht. H. T. or L. T.		Feature bares		
Required time			Tabular correction		Stage of tide above MLW		
Interval			Stage of tide above MLW		Feature above MLW		

Computed by W. H. Sheppard

Checked by W. H. Sheppard

15

16.

FIELD EDIT REPORT
T-12145

No field edit report was received as such. The Item "SHORELINE INSPECTION" on page 2 of the Descriptive Report for "CONTROL and SHORELINE of OPR 423, 1964", which is a part of the hydrographic records states: "A limited field edit was carried on concurrently with hydrography for each boat sheet. What field edit notes were made ~~were~~ placed on the Cronaflex T sheets and marked on appropriate photos in green ink. T sheets and accompanying photographs were sent to the Washington Office on September 15, 1964."

"All offshore detail shown on the T sheet was verified or deleted by the hydrographic party."

This completed the item.

It is noted that the hydrographic survey did not cover the area of the north portion of the map west from $65^{\circ} 38.65'$ to $65^{\circ} 41.25'$.

M. M. Slavney
M. M. Slavney
Final Review

REVIEW REPORT T-12145
SHORELINE
May, 1967

61. GENERAL STATEMENT:

See Summary accompanying this Descriptive Report. (page 6)

An ozalid Comparison Print showing the differences noted in Items 62 through 65 is enclosed with the original of this report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Registered Survey 2478; 1:10,000; 1900
Registered Survey 2538; 1:20,000; 1901
Registered Survey 4205; 1:20,000; 1921

Details from these surveys are on the Comparison Print in blue.

The largest shoreline discrepancy, about 100 meters, is at Punta Fajardo. There are discrepancies of up to 50 meters along the north coast.

This survey supersedes the previous registered surveys for nautical chart construction.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

U.S.G.S. quad. FAJARDO, P.R.; 1:20,000; 1958

The quadrangle details are on the Comparison Print in purple. The largest difference is in the shoreline at Punta Fajardo, of about 50 meters. The quadrangle pier arrangement at Playa de Fajardo is superseded.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

EX 5-1-64 (H-8813); 1:5,000; 1964
EX 10-1-64 (H-8814); 1:10,000; 1964

Notes pertaining to the boat sheets are on the Comparison Print in green.

(a) Two wrecks, one sunken (lat. $18^{\circ} 20.32'$, long. $65^{\circ} 37.85'$) and one that bares (lat. $18^{\circ} 20.18'$, long. $65^{\circ} 30.77'$) are on EX 5-1-64 but not on T-12145. They were not noted by the field man, and are not visible on the photographs. It is noted that T-12145 shows a wreck, alongside a pier, about 50 meters SSW of the "wreck that bares"; this wreck is from field inspection, and is visible on photographs 59-S-3946, 61-W-1723 and 1724 and color photographs 62-S-487 and 488.

(b) A "concrete post" at lat. $18^{\circ} 20.01'$, long. $65^{\circ} 30.11'$; and an unlabelled 2.5 mm circle, shown on the Chart 921 as a sign, at lat. $18^{\circ} 20.1'$, long. $65^{\circ} 30.14'$, are not on this map. They are not visible on the photographs, and were not noted by the field inspector or the field editor.

(c) Color photographs 62-S-486 and 487 show something going on (dredging, sheet piling, or ?) at the mouth of Rio Fajardo. However, no mention is made by the field inspection or edit and/or the boat sheet; the boat sheet carries the note "Mud flat too shoal to sound" directly over the area". Office interpretation is too inconclusive to justify noting the area, particularly in view of the boat sheet note.

(d) The area west from lat. $18^{\circ} 23.2$, long. $65^{\circ} 37.5'$ that is labelled "Mud flats" on boat sheet EX 10-1-64, is characterized by breakers on the photographs, and was labelled "Co" by the field inspector on photograph 59-S-3948.

(e) A "wire mesh sea breaker" is shown enclosing a small off-shore area at lat. $18^{\circ} 21.55'$, long. $65^{\circ} 37.55'$ on the boat sheet. It is not visible on the photographs and was not noted by the field inspector or editor.

65. COMPARISON WITH NAUTICAL CHARTS:

Chart 921; 1:10,000; 8th Edition; June 27, 1966
 Chart 917; 1:40,000; 6th Edition; May 16, 1966
 Chart 904; 1:100,000; 12th Edition; June 19, 1967

Chart details conflicting with T-12145 are on the Comparison Print in red.

(a) Chart 921 shows the two wrecks noted in paragraph (a) of Item 64.

(b) The chart shows a wreck that bares ^{partially} ~~partially~~ at lat. $18^{\circ} 20.33'$, long. $65^{\circ} 37.95'$ that is not on this map. It is not visible on the photographs, was not noted by the field inspector and/or editor, and is not on the boat sheet.

(c) The "Posts" noted in paragraph (b) of Item 64 are on the chart.

(d) The chart shows ten "rocks awash" scattered off Punta Fajardo, near lat. $18^{\circ} 20'$, long. $65^{\circ} 37.55'$ that are not on T-12145. They are not visible on the photographs, not noted by the field parties; and about half of these may be the "specks" on boat sheet EX 5-1-64, but the other half are not on the boat sheet.

(e) The breakwater (?) at lat. $18^{\circ} 21.55'$, long. $65^{\circ} 37.55'$, is called a "wire mesh sea breaker" on boat sheet EX 5-1-64, and is discussed in paragraph (e) of Item 64. It is noted that the pier and jetty on T-12145 are from field notes made by the field editor on 1:10,000 ratio hydro support photograph 61-W-1725.

(f) The "pile" at lat. $18^{\circ} 22.05'$, long. $65^{\circ} 37.5'$ is on the boat sheet as "conc. anchor buoy post bares 2' mlu". It is not visible on the photographs and was not noted by the field inspector or editor.

(g) The area shown as mud flats on the boat sheet, see paragraph (d) Item 64, is on the chart as an area of sunken rocks.

(h) The chart shows an area just offshore at lat. $18^{\circ} 20.4'$ "Being filled" which is not noted on T-12145. No note was made by the field man, and there is none on the boat sheet.

(i) The chart shows some islets at lat. $18^{\circ} 23.3'$, long. $65^{\circ} 37.55'$ that are not on this map. This area was compiled at 1:5,000 scale on T-12139 and it is believed to be properly delineated on T-12139 and T-12145. There was no field edit in the area and little field inspection but the various black and white, and color photographs were carefully examined.

(j) The Comparison Print shows shoreline discrepancies of up to 40 meters.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

No accuracy tests were run in the field. The map complies with the project instructions, meets the Bureau requirements, and the National Standards for Map Accuracy.

Reviewed by:

M. M. Slavney
M. M. Slavney

Approved by:

For P. A. Stark
J. Bull, RADM, USESSA
Director, Atlantic Marine Center

Approved by:

Charles L. Hannon
Chief, Photogrammetric Branch

John A. Boyer
Chief, Nautical Chart Division

Ralph Sobieralski 1968
Chief, Photogrammetry Division

NOTES TO VERIFIER
T-12145 Project Ph-6106
BOAT SHEETS EX5-1-64(H-8813) and EX10-1-64(H-8814)

Please note Items 44 and 65 of the Final Review and The Comparison
Print enclosed with the original of the Descriptive Report.

