

# 11884

Diag. Cht. No. 903.

FORM C&GS-504

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

## DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-6403 Office No. T-11884

### LOCALITY

State Puerto Rico

General locality San Juan to Loiza Aldea

Locality Isla De Cabras

1964-65

CHIEF OF PARTY

J.C.Bull, Atlantic Marine Center

LIBRARY & ARCHIVES

DATE March 1968

USCOMM-DC 37022-P66

11884

DESCRIPTIVE REPORT - DATA RECORD

T-11884

PROJECT NO. (II):

21415 PH-6403

FIELD OFFICE (II):

CHIEF OF PARTY

PHOTOGRAMMETRIC OFFICE (III):

OFFICER-IN-CHARGE

Norfolk Regional

J. C. Bull, Director, Atlantic  
Marine Center

INSTRUCTIONS DATED (II) (III):

September 22, 1964  
November 17, 1964

METHOD OF COMPILATION (III):

Kelsh

MANUSCRIPT SCALE (III):

1:5,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

1:3,000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

GEOGRAPHIC DATUM (III):

Puerto Rico

VERTICAL DATUM (III):

~~MEAN SEA LEVEL~~ EXCEPT AS FOLLOWS: MHW  
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):

ACADEMY, 1964 ✓

LAT.:

18° 28' 36" 178 (1112.26m)

LONG.:

66° 08' 22" 635 (664.09m) ✓

ADJUSTED

UNADJUSTED

PLANE COORDINATES (IV):

Y = 233,700.87 Ft. ✓

X = 601,766.72 Ft. ✓

STATE

PUERTO RICO

ZONE

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 (II): <b>NONE</b>		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):  <b>Air photo compilation - Date of photographs Feb. 17, 1964</b>		
PROJECTION AND GRIDS RULED BY (IV):  <b>A. E. Roundtree</b>		DATE <b>Oct. 29, 1964</b>
PROJECTION AND GRIDS CHECKED BY (IV):  <b>P. Hawkins</b>		DATE <b>Oct. 29, 1964</b>
CONTROL PLOTTED BY (III):  <b>B. Barnes H. Cordell K. Boyle</b>		DATE <b>Nov. 24, 1964</b>
CONTROL CHECKED BY (III):  <b>R. Smith R. Wagner</b>		DATE <b>Nov. 25, 1964</b>
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):  <b>H. P. Eichert (W.S.C.)</b>		DATE <b>Nov. 12, 1964</b>
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY <b>R. E. Smith Reviewed by R. R. Wagner</b>	DATE <b>Dec. 1964</b>
	CONTOURS <b>Inapplicable</b>	DATE
MANUSCRIPT DELINEATED BY (III):  <b>R. E. Smith</b>		DATE <b>Dec. 1964</b>
SCRIBING BY (III):  <b>B. Barge</b>		DATE <b>Sept. 1965</b>
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):  <b>R. E. Smith</b>		DATE <b>Jan. 1966</b>
REMARKS: <b>FIELD ADIT: D. RICH, MAR 1965</b>		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

"W" Camera

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
64 W 3208 3209	Feb. 17, 1964 "	1515 "	1:15,000 "	0.1 Above MLW " " "
64 W 3204	"	1518	1:30,000	0.2 " "
64 W 3326 to 3329	" "	1637 "	1:10,000 COLOR	0.2 Below " " " "
3249 to 3251	" "	1631 "	" "	" " " " " "
64 W 3138 3139	" "	0934 "	1:15,000 COLOR	0.6 above "

TIDE (III) *Predicted*

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: SAN JUAN, PUERTO RICO " " " "		I.I	1.3
SUBORDINATE STATION:			
SUBORDINATE STATION:			

*FINAL*  
WASHINGTON OFFICE REVIEW BY (IV): *M. M. SLADNEY*  
Atlantic Marine Center

DATE: *Sept. 1966*

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (III): ?

RECOVERED:  
4

IDENTIFIED:  
4

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

RECOVERED:  
--

IDENTIFIED:  
--

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

NONE

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

NONE

REMARKS:

COMPILATION RECORD

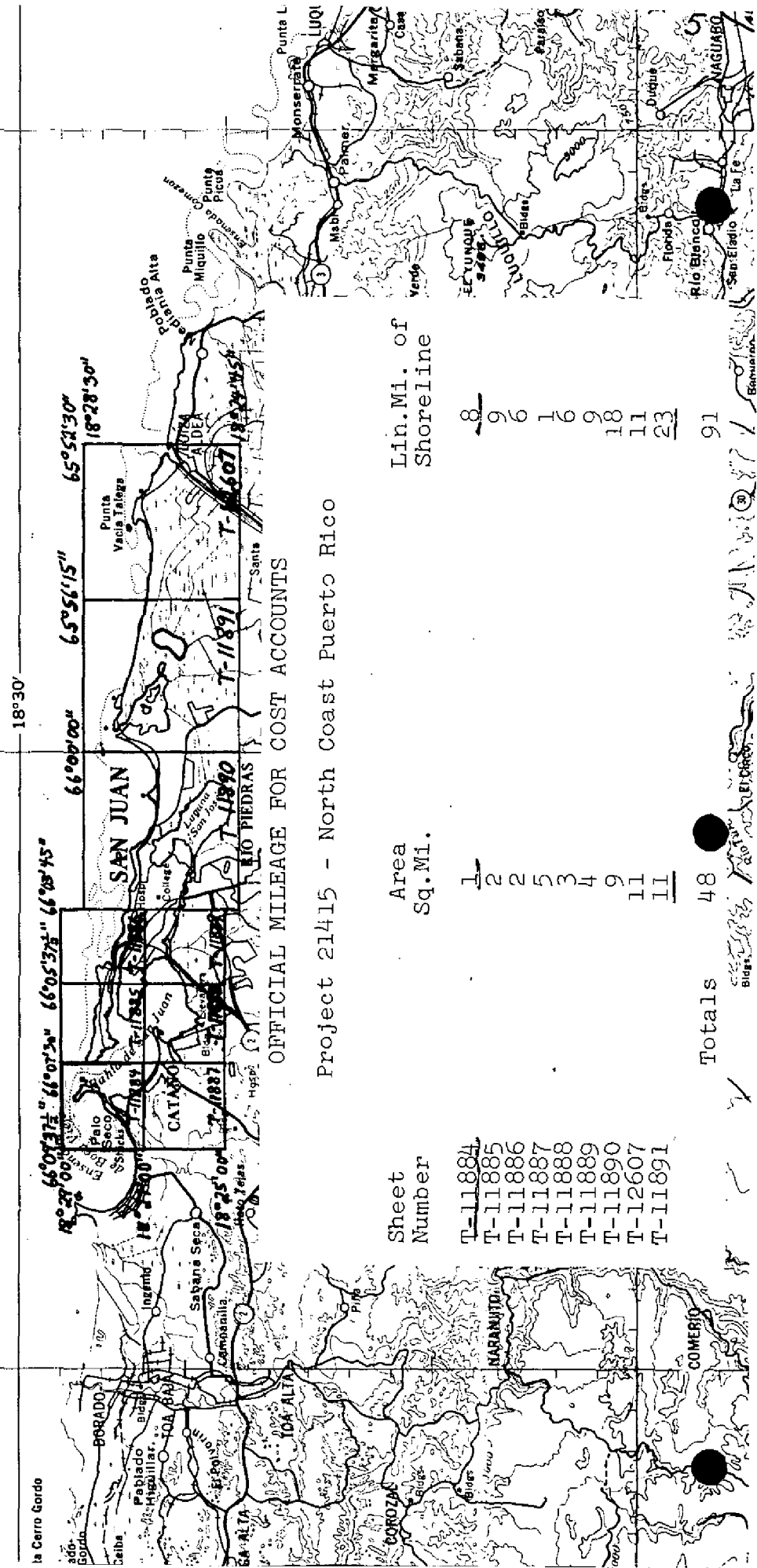
COMPLETION DATE

REMARKS

Alongshore area for hydro	Jan 1965	Superseded
Alongshore area revised from field edit	Sept. 1965	
<i>SEE ITEM 61 of REPORT.</i>		

T C O C E A

# PROJECT 21415 SHORELINE MAPPING PUERTO RICO SAN JUAN TO LOIZA ALDEA 1:5,000 & 1:10,000 SCALES



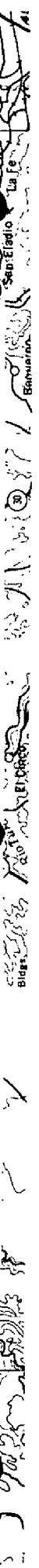
la Cerro Gordo

OFFICIAL MILEAGE FOR COST ACCOUNTS  
Project 21415 - North Coast Puerto Rico

Sheet Number	Area Sq. Mi.	Lin. Mi. of Shoreline
T-11884	1	8
T-11885	2	9
T-11886	2	6
T-11887	5	16
T-11888	3	9
T-11889	4	18
T-11890	9	11
T-12607	11	23
T-11891	11	23
<b>Totals</b>	<b>48</b>	<b>91</b>

Lin. Mi. of Shoreline

Area Sq. Mi.



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT T-11884

Shoreline manuscript T-11884 is one of six 1:5,000 scale manuscripts in Ph-6403 (San Juan to Loiza Aldea, Puerto Rico), which also contains three 1:10,000 scale manuscripts. The sketch on page 5 of this report shows the position of this manuscript in the project.

This is a stereo-instrument project in advance of hydrographic surveys of the area. 1:15,000 scale and 1:30,000 scale panchromatic photographs were taken with the W camera; which was also used for 1:10,000 scale and 1:15,000 scale color photographs. All the photographs were taken on February 17, 1964. 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 1:5,000 scale were processed, and provided for photo-hydro support.

Field work preceding compilation consisted of control identification only; no inspection was provided for compilation. The manuscript was field edited in conjunction with photo-hydro support.

The compilation manuscript was a vinylite sheet 2 minutes, 00 seconds in latitude, and 2 minutes 7½ seconds in longitude. The smooth manuscript was on cronaflex for review. One cronar positive and one cronar negative are furnished for registry and record after final review.

FIELD INSPECTION REPORT

There was no field inspection prior to Compilation.



MAP T-1188L

PROJECT NO. 21415

SCALE OF MAP 1:5,000

SCALE FACTOR

None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\mu$ -COORDINATE LONGITUDE OR $x$ -COORDINATE	DISTANCE FROM GRID/PROJECTION LINE IN METERS		DATUM CORRECTION	NAD-1927-DATUM DISTANCE FROM GRID/PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
				FORWARD	(BACK)		FORWARD	(BACK)	
CATANO FRONT RANGE LIGHT 1939	G.P. 71	Puerto Rico	18° 27' 24.208" 66° 07' 49.390"	744.3 (1100.4) 1449.2 (311.0)	✓				Pl. by ION checked by B. Wilson
CANUELO, 1899	G.P. 68	"	18° 28' 06.069" 66° 08' 12.276"	186.6 (1658.0) 360.2 (1400.2)	✓				"
POINT, 1899	"	"	18° 28' 24.438" 66° 07' 31.033"	751.3 (1093.3) 910.5 (849.9)	✓				"
MOUND, 1899	G.P. 70	"	18° 28' 26.318" 66° 08' 05.760"	808.9 (1035.8) 169.0 (1591.3)	✓				"
STEP, 1899	"	"	18° 28' 17.34" 66° 07' 30.580"	533.1 (1311.5) 897.2 (863.2)	✓				"
FORT CANUELO 1939	G.P. 73	"	18° 28' 06.014" 66° 08' 11.917"	184.9 (1659.7) 349.6 (1410.8)	✓				"
CARLOCA STACK, 1939	"	"	18° 27' 37.990" 66° 08' 46.383"	1168.0 (676.7) 1360.9 (399.5)	✓				"
ACADEMY, 1964		"	Y=233,700.87 Ft. X=601,776.72 Ft.		✓				"

1 FT. = 3048006 METER  
COMPUTED BY: ION

DATE: Nov. 25, 1964

CHECKED BY: BHB

DATE: 12-2-64

Photogrammetric Plot Report

Project 21415

Puerto Rico

December, 1964

21. Area Covered

This report covers an area of the northern coast of Puerto Rico in the vicinity of San Juan and Bahia de San Juan.

22. Method

Analytic aerotriangulation methods were used; to bridge three strips of photography at the scale of 1:15,000 and one strip at the scale of 1:30,000. The attached sketch of strips bridged shows both field and office identified control used in the adjustments. Closures to control have been tabulated.

23. Adequacy of Control

Horizontal control identified and required to adjust strips 1 and 3 could at best be called "sub-standard".

A complete examination and evaluation of I.B.M. output data forced the reduction of Strip No. 1 from 12 models to 5 models. The three sheets (1:10,000, east of 66° 03' 45") could not have been compiled to meet National Standards of Map Accuracy, hence that portion of this project has been delayed pending reidentification of control.

Strip #3 was originally to have been bridged and adjusted using four field identified stations. However, the field identification was not positive for two of the four required stations. The strip was bridged and adjusted using Carioca Stack, 1939 and Cement Mill Stack, 1939 as terminals; with one field identified point, two office identified points, and six tie points from strips 3 and 4 as a check to our adjustment. This adjustment proved unsuccessful, indicating an error which became increasingly greater as we approached Cement Mill Stack, 1939. Consequently, this point was discarded. The final adjustment was based upon Carioca Stack, 1939 and office identified station Catand Church Steeple, 1934.

~~2~~

Four landmarks were located and their positions furnished to the Chart Maintenance Section at their request.

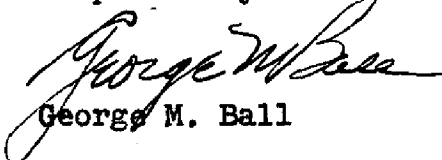
24. Supplemental Data

None


25. Photography

Photography was adequate with regard to coverage, overlap and definition.

Respectfully submitted:

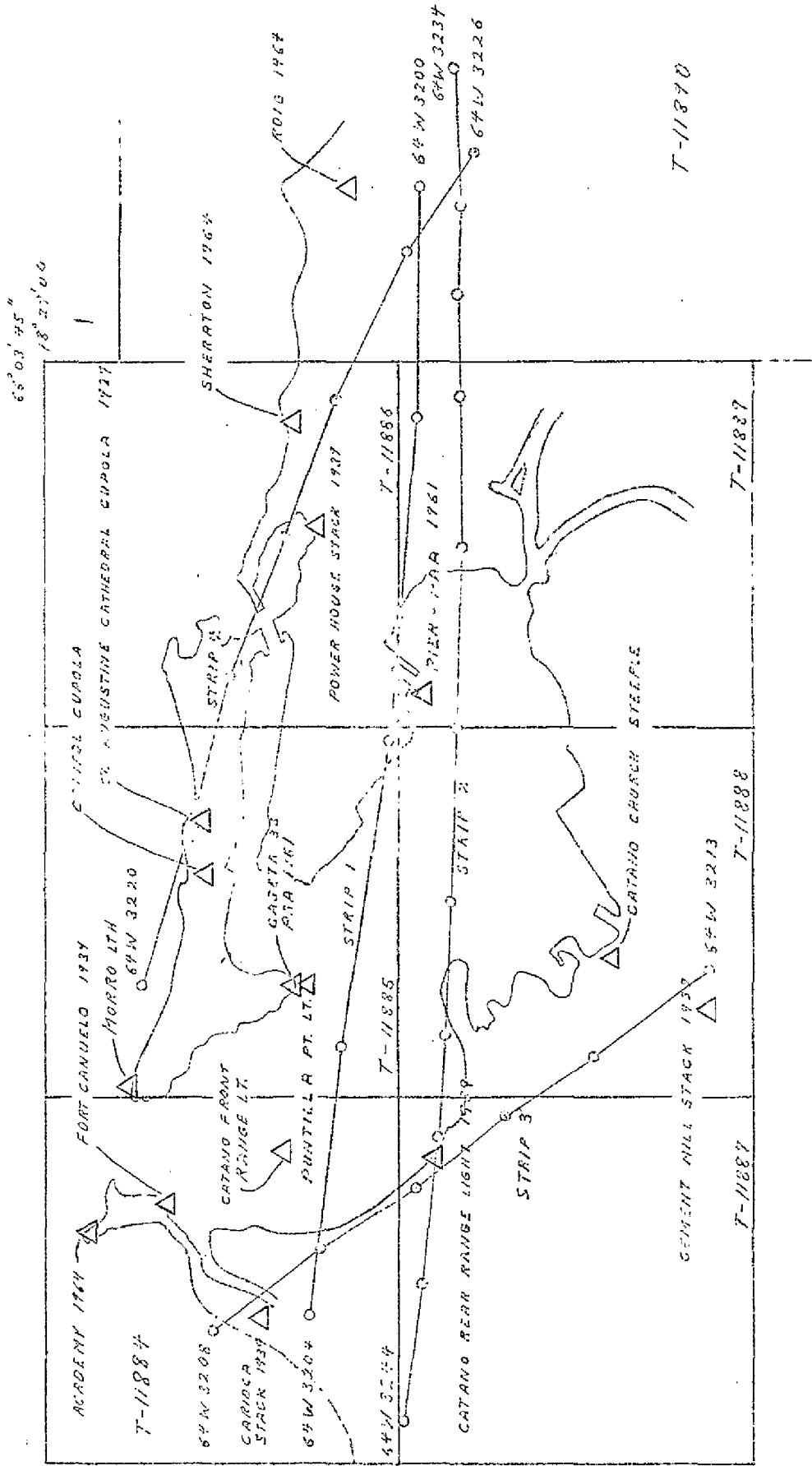
  
George M. Ball

Approved and forwarded:

  
Henry P. Eichert  
Acting, Chief, Aerotriangulation Section

- △ TRIANGULATION
- 1:15,000 scale
- 1:30,000 scale

PUERTO RICO  
AERO TRIANGULATION SKETCH



Strip #1ROIG, 1964

SS #1 (-0.9, +0.3)  
 SS #2 (-6.7, -0.6)

## Sheraton, 1964

SS #1 (-0.3, +4.0)  
 SS #2 (-3.3, -0.1)

## Power House Stack, 1939 (office identified)

(-4.4 -3.7)

## Pier - PAA, 1961

SS #1 (-3.5, -0.9)  
 SS #2 (-4.2, 0.0)

## Puntilla Point Light, 1939 (office identified)

(+2.0, +1.1)

## Catano Church Steeple, 1934 (office identified)

(+2.0, +1.1)

## St. Augustine Church Cupola, 1927

(-13, -5.2)

## Caseta 38 PAA 1961

(+7.3, 0.0)

## Morro Lighthouse, 1900

(+3.3 -17.8)

## Fort Canuelo, 1939

(+0.9, -1.2)

## Academy 1964

(-0.4 +0.4)

## Carioca Stack 1939

(+0.4, -3.7)

## Catano Rear Range, 1934

(+1.4, -0.1)

Catano Front Range Light, 1939

(+4.4, -3.8)

Strip #2

ROIG, 1964

SS #1 (+2.1, -0.2)  
SS #2 (-0.1, +0.4)

Sheraton, 1964

SS #1 (+6.4 +10.5)  
SS #2 (-1.2 +1.6)

Power House Stack, 1939 (office identified)

(-0.8, -0.5)

Pier PAA, 1961

SS #1 (+0.2, -1.7)  
SS #2 (-2.5, -0.6)

Puntilla Point Light, 1939 (office identified)

(+4.9 +7.5)

Carioca Stack, 1939

(-1.1, -1.0)

Catano Rear Range, 1939

(+0.8, +2.2)

Catano Front Range Light, 1939 (office identified)

(-0.2, +2.7)

Strip #3

11311 (0.0, 0.0)

Fort Canuelo, 1939 (-2.2, +3.1)

Carioca Stack, 1939

(0.0, 0.0)

Catano Rear Range Light, 1939

(0.0, 0.0)

~~-X-~~

Catano Front Range Light, 1939 (office identified)

(+3.3, +3.4)

Strip #4

Capital Cupola (office identified)

(+2.0, +0.2)

Caseta #38 PAA, 1961

(-0.4, -1.0)

St. Augustine Cathedral Cupola, 1927

(+3.4, +0.2)

Power House Stack, 1939 (office identified)

(-0.1, +1.7)

Pier PAA, 1961

SS #1 { -2.8, -1.6 }  
SS #2 { -5.9, -3.2 }

Sheraton, 1964

SS #1 { +0.5, -1.1 }  
SS #2 { 0.0, +2.7 }

ROIG, 1964

SS #1 { -0.1, -0.4 }  
SS #2 { +3.9, +6.3 }

Notes to Compilation Office

Puerto Rico

As has been our practice only those passpoints marked in red on the diapositives, the so called zero points (11310, 11320, 11330, etc.), should be plotted on the manuscripts for compilation purposes. These have been re-drilled to a size of 180 microns.

Strip No. 1 is usable for the present only from photographs 09 thru 13. Models 11-12 and 12-13 should be set in place of model 20-21 of Strip No. 4 for compilation in T-11885. Model 11-12 of Strip No. 1 is also needed to complete details on T-11888. 2?

As is evident from the readouts ties between strips were very satisfactory. These points need not be plotted as they are not needed for compilation purposes.

Henry P. Eichert  
November 12, 1964



COMPILATION REPORT  
T-11884

PHOTOGRAMMETRIC PLOT REPORT  
Submitted with this report.

31. DELINEATION

Compilation was done by the Kelsh plotter. Color photography was used as an aid in delineation of rocks and other offshore features.

In the vicinity of Isla de Cabras and Pta del Morro there was no 1:15,000 stereoscopic coverage. It was necessary, therefore, to compile these areas using the 1:30,000 scale photography, using direct plotting without the pantograph. Refer to Item 49 of this report.

There was no field inspection.

32. CONTROL

See Photogrammetric Plot Report

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

Inapplicable

35. SHORELINE AND ALONGSHORE DETAILS

There was no shoreline inspection.

Shallow areas, Breakers, and foul areas were delineated from office interpretation.

No low water line was shown.

36. OFFSHORE DETAILS

See Item 49

37. LANDMARKS AND AIDS

These are to be ascertained during the hydrographic survey.

38. CONTROL FOR FUTURE SURVEY

None

39. JUNCTIONS

Junctions are in agreement with T-11885 to the east and T-11887 to the south. The Atlantic Ocean is to the north. There is no contemporary survey to the west.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to Photogrammetric Plot Report. Vertical control is inapplicable to this project.

46. COMPARISON WITH EXISTING MAPS

Comparison has been made with U.S.G.S. Quadrangle BAYAMON, P.R. scale 1:20,000 dated 1957. Changes noted were to be expected due to the passage of time.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison has been made with chart No. 908 scale 1:10,000 revised 11-19-62.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None

ITEMS TO BE CARRIED FORWARD:

None

*R. E. Smith*  
R. E. Smith  
Cartographer

Approved & forwarded:

*J. Bull*  
J. Bull  
Director, Atlantic Marine Center

48. GEOGRAPHIC NAME LIST

ARRECIFE BAJIOS  
ATLANTIC OCEAN\*  
BAHIA DE SAN JUAN  
BAJO COLNAS  
BAJO STA ELENA  
EL CANUELO  
ENSENADA DE BOCA VIEJA  
ISLA DE CABRAS  
LAS CABRITAS  
PALO SECO (Town)  
PALO SECO (Area)  
PTA DEL MORRO  
PTA PALO SECO  
PTA TOCONES  
RIO DE BAYAMON\*

NOTE: \* Not on namelist of A. J. Wright<sup>a</sup>

GEOGRAPHIC NAMES  
Ph 21415 (Puerto Rico)  
T-11884 (shoreline)

- Arrecife Bajios
- Bahía de San Juan
- Bajo Colnas
- Bajo Sta Elena
- El Canuelo
- Ensenada de Boca Vieja
- Isla de Cabras
- Las Cabritas
- Palo Seco
- Pta del Morro
- Pta Palo Seco
- Pta **T**ocones

*A. J. Wraight*  

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A. J. Wraight  
Geographic Names

T-11884

49. NOTES FOR THE HYDROGRAPHER

Several offshore areas have been shown with a dashed line and labeled Breakers. The existence of rocks in these areas, as indicated by chart No. 908, could not be positively ascertained from the photographs and will have to be investigated by the hydrographer. Other offshore features such as rocks, piling, etc. have been shown according to office interpretation. These should be verified by the hydrographer.

Shoreline passpoints were located on the northern shore of Isla de Cabras and west shore of Pta del Morro, but are of doubtful position. There was no 1:15,000 stereoscopic photograph coverage of this area and the 1:30,000 diapositives had to be used. The 6 diameter enlargement of 1:30,000 to 1:5,000 (manuscript scale) on the Kelsh causes the images to become blurred, therefore a positive identification of passpoints could not be made. The shoreline and foreshore in this area should be checked.

Landmarks, Aids to Navigation and azimuths of lights, and Daybeacons have not been shown and will have to be furnished by the hydrographer. See Project Instruction dated September 22, 1964 Par 6.06.

One light in <sup>9</sup>Bihia de San Juan could be seen and was located by the Kelsh. This was done as an aid to the hydrographer. This should also be verified, as chart 908 indicates no aid in this location.

Features believed to be of landmark value have been shown, but their visual or navigational value should be verified.

A discrepancy ozalid with notes for verification to the hydrographer and/or Field editor is being forwarded with this data.

FORM 182 (3-61)		PHOTOGRAMMETRIC OFFICE REVIEW T. 11884		U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY	
1. PROJECTION AND GRIDS RES		2. TITLE RES		3. MANUSCRIPT NUMBERS RES	4. MANUSCRIPT SIZE RES
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) XXX		
	7. PHOTO HYDRO STATIONS XXX	8. BENCH MARKS XXX	9. PLOTTING OF SEXTANT FIXES XXX	10. PHOTOGRAMMETRIC PLOT REPORT Bridge (W.O.)	
	11. DETAIL POINTS Kelsh				
ALONGSHORE AREAS (Nautical Chart Data)	12. SHORELINE RES	13. LOW-WATER LINE XXX	14. ROCKS, SHOALS, ETC. RES	15. BRIDGES XXX	
	16. AIDS TO NAVIGATION RES XX		17. LANDMARKS RES XX	18. OTHER ALONGSHORE PHYSICAL FEATURES RES	
	19. OTHER ALONGSHORE CULTURAL FEATURES RES				
PHYSICAL FEATURES	20. WATER FEATURES RES		21. NATURAL GROUND COVER RES		
	22. PLANETABLE CONTOURS XXX		23. STEREOSCOPIC INSTRUMENT CONTOURS XXX		
	24. CONTOURS IN GENERAL XXX		25. SPOT ELEVATIONS XXX		
	26. OTHER PHYSICAL FEATURES RES				
CULTURAL FEATURES	27. ROADS RES	28. BUILDINGS RES	29. RAILROADS XXX		
	30. OTHER CULTURAL FEATURES RES				
BOUNDARIES	31. BOUNDARY LINES XXX		32. PUBLIC LAND LINES XXX		
	33. GEOGRAPHIC NAMES RES			34. JUNCTIONS RES	
MISCELLANEOUS	35. LEGIBILITY OF THE MANUSCRIPT RES		36. DISCREPANCY OVERLAY XXX	37. DESCRIPTIVE REPORT RES	
	38. FIELD INSPECTION PHOTOGRAPHS XXX		39. FORMS RES		
	SIGNATURE OF REVIEWER RES <i>P. E. Smith</i>		SIGNATURE OF SUPERVISOR, REVIEW SECTION OR UNIT <i>ACR Albert C. Rauch, Jr.</i>		
	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. S. Pate</i>			SIGNATURE OF SUPERVISOR <i>Albert C. Rauch, Jr.</i>		

USE REVERSE SIDE FOR REMARKS

FIELD EDIT REPORT

(For T-11884 thru T-11889) This report is submitted in lieu  
Project OPR - 423, 1965 of a Field Edit Report to the  
 Photogrammetric Branch.

Purpose:

The purpose of this report is to summarize the field edit work of San Juan Harbor, Puerto Rico, as required by Project OPR - 423, Instructions - Revised, dated November 6, 1964.

The areas encompassed in the field edit was all areas covered by T-sheets for the San Juan Harbor project.

51. Methods:

The field editing was carried out in the following manner. Using field photographs and the discrepancy prints, the entire shoreline was walked, except as noted on T-11888 and all additions, deletions, and corrections were made on the field photographs or the discrepancy prints. All appropriate information was transferred to ratio prints aboard ship. All additions, deletions, and corrections have been cross referenced between photos and discrepancy prints.

T-11884:

No additions or corrections were needed on this sheet. Deletions are as follows:

1. Groin - Lat.  $18^{\circ}27' 03''$  Long.  $66^{\circ} 08' 09''$
2. Pilings - Lat.  $18^{\circ} 27' 42''$  Long.  $66^{\circ} 07' 46''$

All questions pertaining to identification of objects have been answered directly on the discrepancy print. All field notes for this sheet are on the discrepancy print and/or photos 64W3209, 64W3219.

T-11885:Deletions:

Light - Lat.  $18^{\circ} 27' 45''$  Long.  $66^{\circ} 07' 10''$



T-11885 (Cont.):

Additions:

Wreck - Lat. 18° 27' 10" Long. 66° 06' 05"  
(See photo 64W3239)

Corrections:

Pier #2 - Lat. 18° 27' 52" Long. 66° 06' 49"  
(Pier in ruins - see discrepancy sheet)

All questions relating to identification of objects have been answered directly on the discrepancy print. All notes for this sheet are on the discrepancy print and/or photos 64W3219, 64W3220, 64W3239.

T-11886:

Deletions:

1. Pier - Lat. 18° 27' 22" N Long. 66° 04' 34" W
2. Dolphins - Lat. 18° 27' 37" N Long. 66° 05' 28" W  
66° 05' 36" W

Additions:

- \* 1. Monument - Lat. 18° 27' 32" N Long. 66° 04' 48" W CL-64/1968  
(fountain) (See photo 64W3223)
2. Pilings - Lat. 18° 27' 32" N Long. 66° 05' 20" W  
(See discrepancy print)

Corrections:

Shoreline: Near Lat. 18° 27' 42" Long. 66° 05' 07"  
(See photo 64W3222)

All questions pertaining to identification of objects have been answered directly on the discrepancy print. All field edit notes for this sheet are on the discrepancy print and/or photos 64W3222, 64W3223.

T-11887:

No deletions, additions, or corrections were needed on this sheet.

All questions pertaining to identification of objects have been answered directly on the discrepancy prints. All field notes have been made on the discrepancy print.

T-11887 (Cont.):

made on the discrepancy print.

T-11888:

Deletions:

1. Wreck - Lat.  $18^{\circ} 26' 45''$  Long.  $66^{\circ} 06' 40''$
2. Unknown object - Lat.  $18^{\circ} 26' 40''$  Long.  $66^{\circ} 06' 46''$
3. No visible pipeline - Lat.  $18^{\circ} 26' 20''$  Long.  $66^{\circ} 06' 40''$

Additions:

1. Wreck - Near Lat.  $18^{\circ} 26' 42''$  Long.  $66^{\circ} 06' 40''$

Corrections:

Shoreline near dam at Lat.  $18^{\circ} 26' 07''$  Long.  $66^{\circ} 05' 45''$

Shoreline could not be walked because of mud. Shoreline was sketched on photo from skiff.

All questions pertaining to identification of objects have been answered directly on the discrepancy sheet.

All field edit notes have been made on the discrepancy print and/or photos 64W3211, 64W3213, 64W3239, and 64W3241.

T-11889:

Deletions:

1. Obstruction - Lat.  $18^{\circ} 26' 55''$  Long.  $66^{\circ} 05' 35''$
2. " - Lat.  $18^{\circ} 26' 57''$  Long.  $66^{\circ} 05' 12''$
3. " - Lat.  $18^{\circ} 26' 22''$  Long.  $66^{\circ} 04' 27''$
4. " - Lat.  $18^{\circ} 26' 14''$  Long.  $66^{\circ} 04' 03''$
5. " - Lat.  $18^{\circ} 26' 49''$  Long.  $66^{\circ} 05' 04''$

No additions or corrections were needed on this sheet.

All questions pertaining to identification of objects have been answered directly on the discrepancy print.

All field edit notes for this sheet are on the discrepancy print and/or photos 64W3239, 64W3237.

Adequacy of Compilation:

Compilation of these sheets for the most part was adequate and complete.

Map Accuracy:

No problems were encountered in horizontal positioning. Control of T-sheets was very rigid.

Submitted By:

Donald R. Rich, ENS.  
USC&GS Ship EXPLORER

Approved By:

Marvin T. Paulson,  
Capt., C&GS, Comdg.  
USC&GS Ship EXPLORER

OPR-423

Puerto Rico

Landmarks

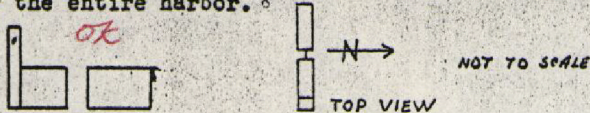
1965

The purpose of this report is to recommend that a number of objects in San Juan, Puerto Rico, be charted as landmarks on Chart # 908. All positions of the recommended landmarks were scaled from the "Incomplete" manuscripts for San Juan Harbor which were dated January 1965.

NOTES: for landmarks plotted on the enclosed chart sections.

- 1) The twin stacks are very prominent landmarks. They are easily visible from sea. *OK*
- 2) The building and the tower are recommended for charting. The building is good for ship masters approaching the piers in this area for loading and unloading grain. The tower itself is very prominent for the entire harbor.

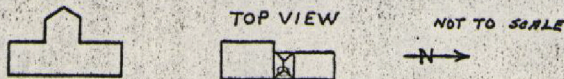
Sketch:



- 3) Grain elevator. This is a prominent landmark for ships approaching this area. *OK*
- 4) A group of three buildings along wharf. They are good aids to ships approaching the wharf. In the immediate area are three stacks and four more under construction. All are too close together to be individual landmarks. They may be valuable as a group upon completion of construction. *NO. BLDGS MAPPED, LANDMARKS NOT*

- 5) Tower is toward the front and center building. Building itself would be of no aid due to the shrubbery and trees. Tower is very prominent.

Sketch:



- 6) Airport control tower. It is a very good aid day and night.
- 7) A warehouse that would be a good landmark for ship masters approaching the wharf. It was the only building in the vicinity.

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XERO COPY

Respectfully submitted:

*Donald R. Rich*

Donald R. Rich  
Ens. USESSA

Approved:

*Marvin T. Paulson*

Marvin T. Paulson  
Capt. USESSA  
Commanding Officer

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED  
~~IS BE DELETED~~

STRIKE OUT ONE

September 4 1965

I recommend that the following objects which have ~~(been 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 Enz. Iru Mendosa

Capt. Martin T. Paulson  
Chief of Party.

STATE	STARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION			METHOD LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHAR. APPEC.
				LATITUDE	LONGITUDE	DATUM						
				D. M. METERS	D. P. METERS							
	STACKS	Twin stacks 175 ft high 186 ft above MSL	—	18-27	66-08	Puerto Rico	Photo Transecting	1965	V			903 908
	TOWER	On Grain Storage Elevator 245 ft. high - 255 ft. above MSL	IVY	18-26	66-06	Puerto Rico	T-1888	"	V			908
	BUILDING	Grain Storage & Elevator 10 meters wide (chart outline)	NE. Cor. <del>NEW COR.</del>	18-26	66-06	Puerto Rico	T-1888	"	V			908
	BUILDING	Grain Elevator (chart outline) 67.5 meters wide EAST GABLE OF THE COOP SEE FORM 567 IN REVISION REPORT.	S. E. Cor. S. W. Cor.	18-26	66-06	Puerto Rico	T-1888	"	V			908
	BUILDING	Warehouse along new wharf. (chart outline) 39 meters wide	(BIL) NE. Cor. NW. Cor.	18-25	66-06	Puerto Rico	T-1888	"	V			908
	BUILDING	Warehouse along new wharf. (chart outline) 39 meters wide	NE. Cor. SW. Cor.	18-25	66-06	Puerto Rico	T-1888	"	V			908
	BUILDING	Warehouse along new wharf. (chart outline) 68 meters wide	(BED) NE. Cor. (CAT) NW. Cor.	18-25	66-06	Puerto Rico	T-1888	"	V			908

NOT LANDMARKS, BUILDINGS ARE SHOWN

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. 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.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE  
TO BE DELETED } September 4, 1965

I recommend that the following objects which have ~~(here)~~ ~~(not)~~ been inspected from seaward to determine their value as landmarks be ~~(detected from)~~ the charts indicated.

Positions given have been checked after listing by Ens Tru Menassa

Capt. Marvin T. Paulson  
Chief of Ports

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION		DATUM	METHOD OF LOCATION SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE	LONGITUDE							
	<u>TOWER</u>	Square Tower on large building. Tower at front and center of bldg.	MDP	18-27	66-08	Puerto Rico	Photogrammetry	1964	✓			908
	<u>TOWER</u>	Airport Control Tower	OFF	18-27	66-06	Puerto Rico	F11885	"	✓			908
	<u>BUILDING</u>	Long Building in open area. (Chart outline)	LAY or M.W. Cor.	18-27	66-05	Puerto Rico	F11885	"	✓			908
		25 meters wide 119 meters in length	KEY or M.E. Cor.	18-27	66-05	"	F11885	"	✓			908

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by

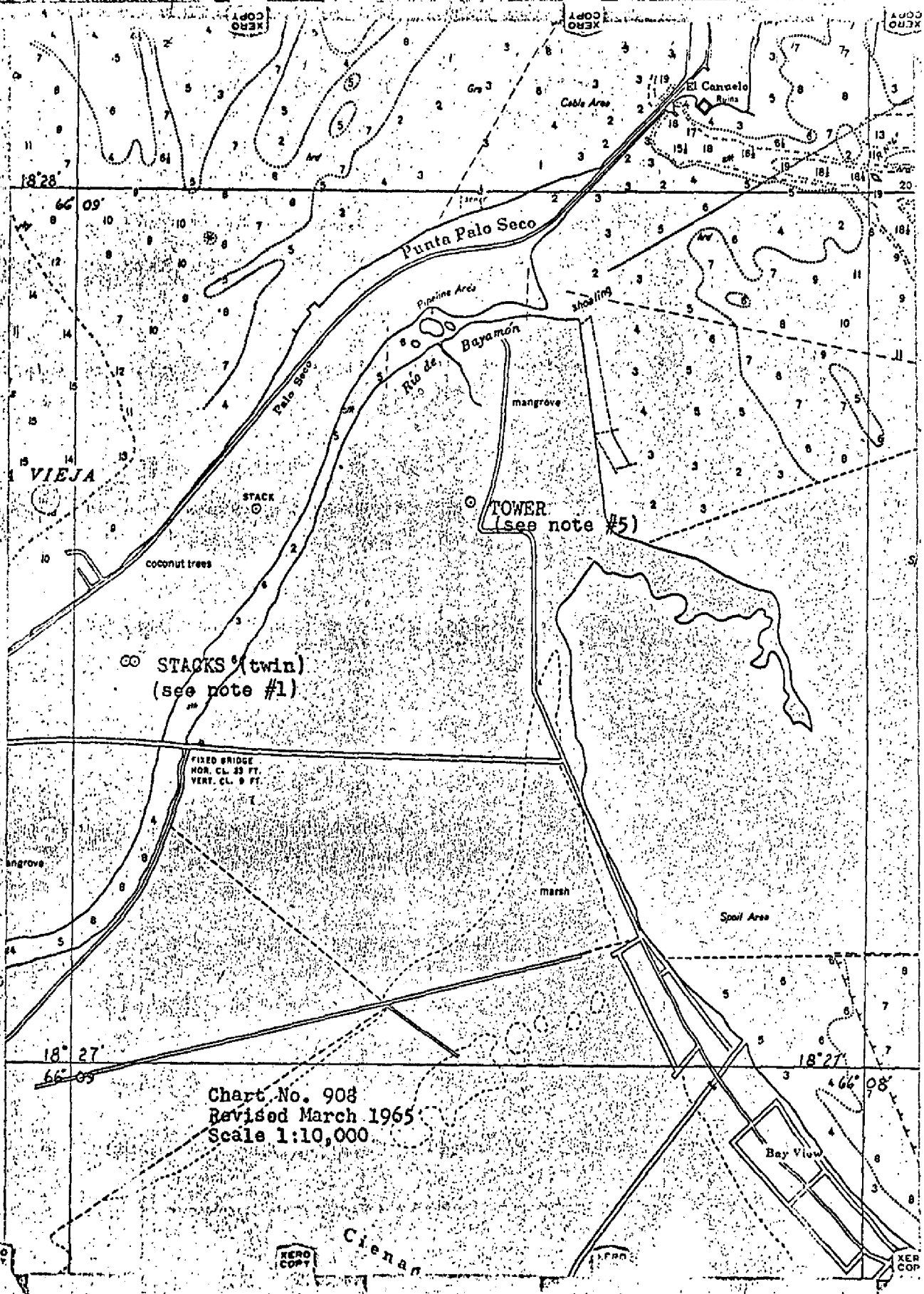
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Form 567  
April 1945

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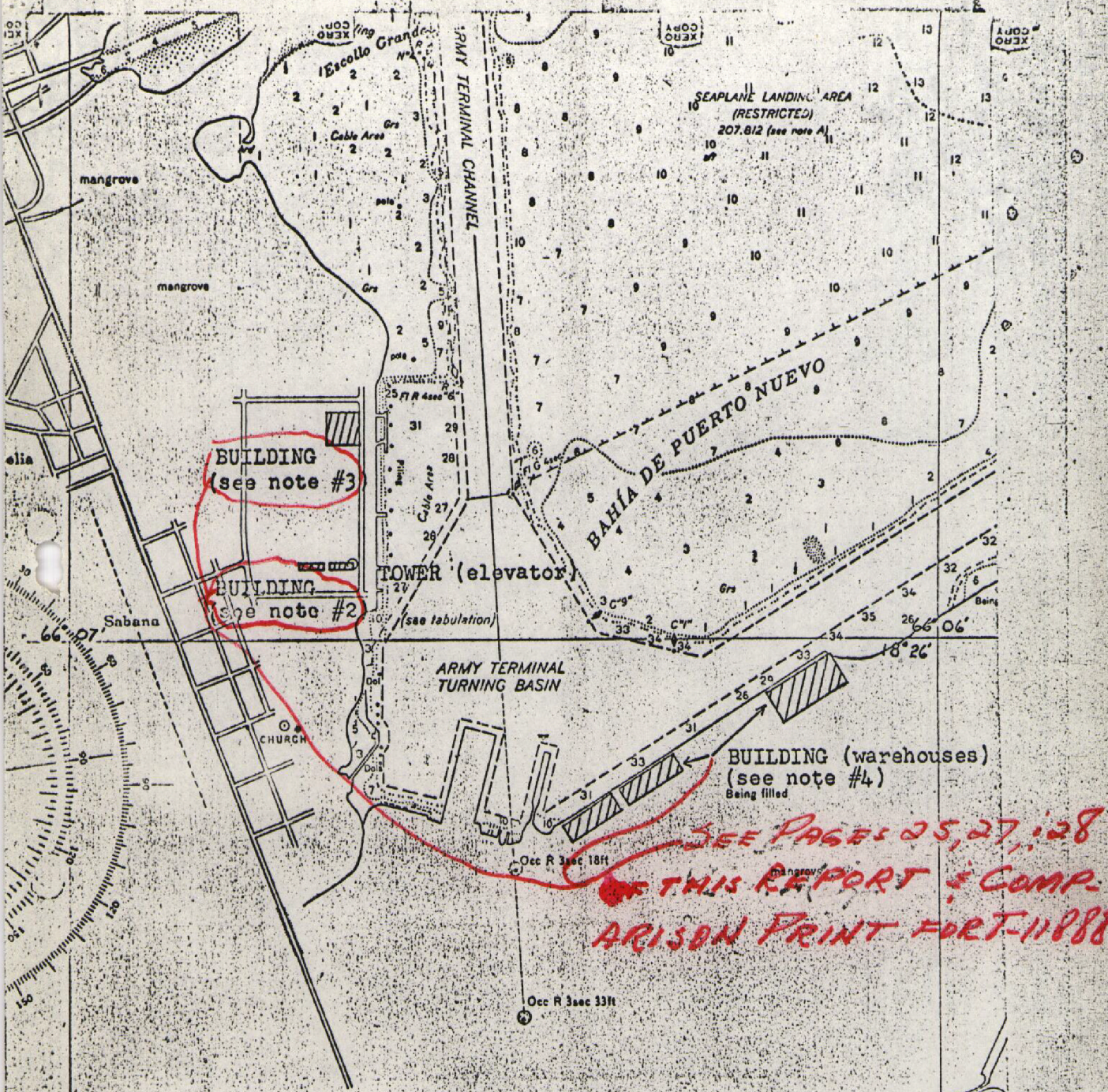
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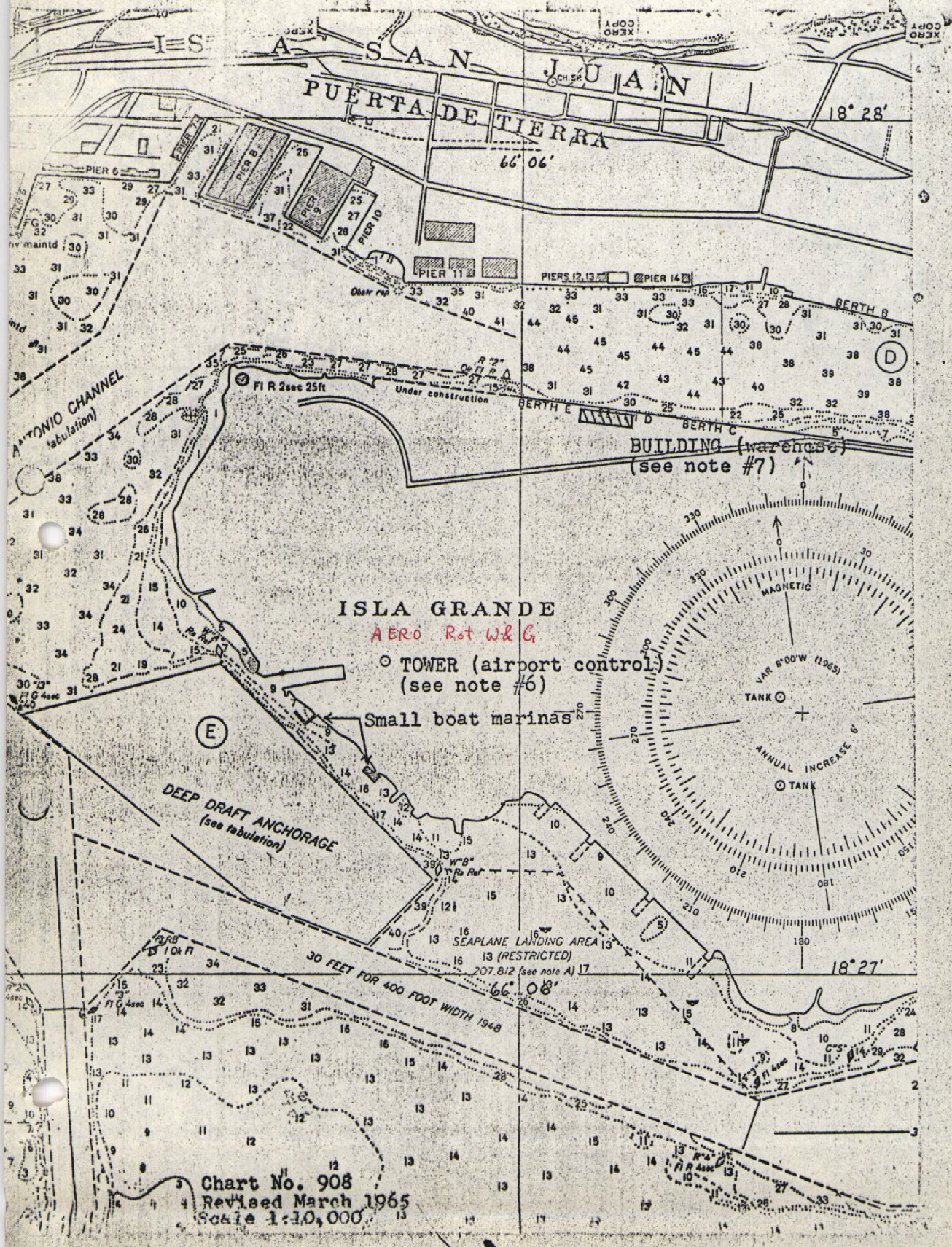
*SEE PAGES 25, 27, 28  
OF THIS REPORT & COMP.  
ARIZON PRINT FORT-11888*

Chart No. 908  
Revised March 1965  
Scale 1:10,000

STACKS      STACK



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REVIEW REPORT T-11884  
SHORELINE  
November, 1966

61. GENERAL STATEMENT

See summary, page 6, of this Descriptive Report.

Comparison of the field edit notes on ratio black and white photographs 64-W-3209 and 3219 with the color photographs 64-W-3137 through 3140 and 3250 through 3252 indicated that the field editor had overgeneralized the broken, rocky shoreline. He agreed with this during a visit to this office; and consequently, the final shoreline departs from the field edit when positive delineation could be done from interpretation of the photographs.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

No. 2413, 1:5,000 scale, 1899  
No. 2414, 1:5,000 scale, 1899  
No. 2487, 1:10,000 scale, 1900

There are changes in the size and shape of the rocky islands "Las Cabritas".

Large changes near Pta Palo Seco are probably the result of causeway construction and filling.

The "rock awash" at latitude  $18^{\circ}28'.4$ , longitude  $66^{\circ}08'$  is discussed under Item 65.

This map supersedes the listed prior surveys for nautical chart construction.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

BAYAMON, P.R., U.S.G.S., 1:20,000, 1939-Revised 1957

There are differences in the islands of "Las Cabritas", the shoreline of the east side of "Isla de Cabras", the northern part of "Pta Palo Seco". The spoil areas between  $18^{\circ}27'.2$  and  $18^{\circ}27'.4$  are new.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

BOAT SHEET H-8848 (EX-5-1-65), 1:5000, 1965

The boat sheet shows a "sunken rock" at latitude  $18^{\circ}28'.42$ , longitude  $66^{\circ}07'.97$ ; the field editor did not note it. Nothing

could be seen on the black and white photographs; color photographs 64-W-3250-3251 show something there, but positive identification could not be made.

The boat sheet shoreline is superseded, see Item 61.

#### 65. COMPARISON WITH NAUTICAL CHARTS

Chart 908, 1:10,000, 24th Edition of November 8, 1965, revised November 12, 1966.

Differences are shown in the Comparison Print; they consist of :

The size and shape of "Las Cabritas"; the shoreline at the northwest tip of "Isla de Cabras".

The "rock awash" at latitude  $18^{\circ}28'.4$ , longitude  $66^{\circ}08'$  is shown on the chart as a small island. The "rock awash" classification was discussed with the field editor, who persisted in this classification.

The chart shows an unlabelled rectangular area paralleling the shoreline at latitude  $18^{\circ}27'.8$ , longitude  $66^{\circ}08'.35$ . Nothing could be discerned on black and white photographs, 64-W-3208, 3209 or the color photographs 64-W-3139 and 3140. The area was not questioned on the discrepancy print and the field editor did not note it.

The field editor did not note the "cable area" across the Rio de Bayamon at longitude  $66^{\circ}08'.5$  and no evidence could be seen on the photographs.

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

No accuracy tests have been run in the field. This map meets the National Standards of Map Accuracy and Bureau requirements.

Approved by:

Reviewed by:

J. Bull  
Director, Atlantic Marine Center

M. M. Slavney  
M. M. Slavney

Shank L. Leman  
Chief, Photogrammetric Branch

J. Ralph Sobieralski  
Chief, Photogrammetry Division

Wallace A. Bruden, for  
Chief, Marine Chart Division

NOTES TO VERIFIER  
T-11884 Project 21415 (Ph-6403)  
BOAT SHEET NO. H-8848 (EX 5-1-65)

Please see the Comparison Print and Items 61, 64, and 65 of  
this report.

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-11884

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

- 1. Letter all information.
- 2. In "Remarks" column cross out words that do not apply.
- 3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
25670 (90E)	6 Aug 74	WARREN HAUSMAN	Adequate Full Part <del>Before</del> After Verification Review Inspection Signed Via Drawing No.
25670	12/2/77	JAY SHERMAN	Adequate Full Part Before After Verification Review Inspection Signed Via Drawing No.
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