

# 12166

Diag. Cht. No. 904.

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. Ph-5909 Office No. T-12166

### LOCALITY

State Puerto Rico

General locality Isla De Vieques

Locality Disembarcadera Mosquito

1959-67

### CHIEF OF PARTY

J. Bull, Atlantic Marine Center

### LIBRARY & ARCHIVES

DATE April 1968

USCOMM-DC 87022-P66

# 12166

## DESCRIPTIVE REPORT - DATA RECORD

T - 12166

PROJECT NO. (II):  JOB PH-5909		
FIELD OFFICE (II):		CHIEF OF PARTY
PHOTOGRAMMETRIC OFFICE (III):  Atlantic Marine Center		OFFICER-IN-CHARGE  J. Bull, Director
INSTRUCTIONS DATED (II) (III):  12 November 1965		
METHOD OF COMPILATION (III):  Wild B-8 and Kelsh		
MANUSCRIPT SCALE (III):  1:20,000		STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):  1:6,000 Pantagraph to 1:20,000
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): <del>Mean low water or mean lower low water</del> 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):  BOCA (USGS) 1938 ✓		
LAT.:  18° 06' 15".905 (489.0m) ✓	LONG.:  65° 34' 38".725 (1138.6m) ✓	<input checked="" type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV):  Y = 99,126.94 ft. ✓      X = 797,218.12 ft. ✓		STATE  PUERTO RICO
		ZONE  Zone 1
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.		

FORM C&GS-181b (12-61)		U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY
DESCRIPTIVE REPORT - DATA RECORD T - 12166		
FIELD INSPECTION BY (III):  None		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):  Air Photo Compilation  Date of photography: April 20, 1959 and February 21, 1964		
PROJECTION AND GRIDS RULED BY (IV):  A. E. Roundtree		DATE November 1965
PROJECTION AND GRIDS CHECKED BY (IV):  R. S. Kornspan		DATE November 1965
CONTROL PLOTTED BY (III):  R. E. Smith		DATE January 1966
CONTROL CHECKED BY (III):  B. H. Barnes		DATE January 1966
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):  Robert B. Kelly (WSC)		DATE No date
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY L. Neterer and B. H. Barnes	DATE January 1966
	CONTOURS Inapplicable	DATE
MANUSCRIPT DELINEATED BY (III):  L. L. Graves		DATE February 1966
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):  R. E. Smith		DATE June 1966
REMARKS:  Field Edit D. R. Rich LTjg, USESSA April 1966		

FORM C&GS-181c  
(12-61)U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEYDESCRIPTIVE REPORT - DATA RECORD  
T-12166

CAMERA (KIND OR SOURCE) (III):

S and W cameras

## PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
64 W 3499	21 Feb. 1964	10:08- <del>10:10</del>	1:30,000	0.1 <sup>above</sup> <i>M.L.W.</i>
64 W 3500	"	"	"	"
64 W 3501	"	10:09	"	"
64 W 3502	"	10:10	"	"
59 S 3963	20 April 1959	09:04	1:30,000	0.2
59 S 3964	"	"	"	"
59 S 3965	"	"	"	"
59 S 3966	"	09:05	"	"

## TIDE (III) Predicted

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: GALVESTON, TEXAS      SAN JUAN, PUERTO RICO			
SUBORDINATE STATION: BAHIA DE MULAS, ISLA DE VIEQUES	.73	.8	1.0
SUBORDINATE STATION: PUERTO FERRO, ISLA DE VIEQUES	.60	.6	Diurnal 0.8

Atlantic Marine Center  
WASHINGTON OFFICE REVIEW BY (IV):

M.M. SLAVNEY

DATE:

JAN. 1967

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

RECOVERED:

IDENTIFIED:

2

2

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

RECOVERED:

IDENTIFIED

none

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

none

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

none

REMARKS:



T-12166

## COMPIATION RECORD

## COMPLETION DATE

## REMARKS

Alongshore area for hydro	February 1966	Superseded
Field Edit applied Manuscript complete	June 1966	<i>SUPERSEDED</i>
<i>FINAL REVIEW DONE REVISIONS</i>	<i>JAN., 1967</i>	



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT T-12166

Shoreline manuscript T-12166 is one of three 1:20,000 scale manuscripts of the Vieques Island part of Ph-5909, which also contains 8 maps of Culebra Island and adjoining islands. The sketch on page 5 of this report shows the position of this manuscript in this part of the project.

This is a stereo-instrument project in advance of hydrographic surveys of the area. Two strips of 1:30,000 scale panchromatic photographs the southern one taken in 1959 with "S" camera, and the northern flight taken in 1964 with the "W" camera. 1962 color photographs at 1:10,000 scale provided added information along the shoreline.

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 1:20,000 scale were processed, and provided for photo-hydro support.

Field work preceding compilation consisted of control identification only. The manuscript was field edited in conjunction with photo-hydro support.

The compilation manuscript was a vinylite sheet 7 minutes, 30 second in latitude, and 7 minutes 30 seconds in longitude. The smooth manuscript is on cronaflex for registry and record after final review.

## FIELD INSPECTION REPORT

There was no field inspection prior to compilation.

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
DESCRIPTIVE REPORT  
CONTROL RECORD

MAP T. 12166 PROJECT NO. 5909 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\nu$ -COORDINATE LONGITUDE OR $x$ -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
				FORWARD	(BACK)		FORWARD	(BACK)	FORWARD	(BACK)
BOCA (USGS) 1938-41 1938-41	G.P.P. P. 178	P.R.	18° 06' 15.905	488.97	(1355.61)	✓				
			65° 34' 38.725	1138.55	( 625.51)	✓				
EL BUEY (USGS)	"	"	18° 06' 30.342	932.80	( 911.78)	✓				
			65° 32' 29.696	873.06	( 890.94)	✓				
MALDONADA (USGS) 1938-41	G.P. P. 177	"	18° 07' 04.906	150.8	(1693.8)	✓				
			65° 31' 39.239	1153.6	( 610.3)	✓				
TIO (USGS) 1938-41	G.P. P. 177	"	18° 05' 24.759	761.2	(1083.4)	✓				
			65° 31' 52.309	1538.1	( 226.2)	✓				
RESOLUCION (USGS) 1938-41	G.P. P. 178	"	18° 06' 57.323	1762.3	( 82.3)	✓				
			65° 33' 17.007	500.0	(1263.9)	✓				
PUNTA ARENAS No. 12 (USGS) 1938-41	G.P. P. 179	"	18° 07' 11.052	339.8	(1504.8)	✓				
			65° 30' 50.546	1486.0	( 277.9)	✓				
PUNTA ARENAS No. 11 (USGS) 1938-41	G.P. P. 179	"	18° 07' 04.26	131.0	(1713.6)	✓				
			65° 32' 00.86	25.3	(1738.6)	✓				
PUNTA ARENAS No. 2 (USGS) 1938-41	G.P. P. 180	"	18° 06' 10.134	311.5	(1533.1)	✓				
			65° 33' 25.429	747.6	(1016.5)	✓				
PUNTA ARENAS No. 1 (USGS) 1938-41	G.P. P. 180	"	18° 05' 40.30	1238.9	( 605.7)	✓				
			65° 34' 00.94	27.6	(1736.5)	✓				
MT. PIRATA 2 1941	G.P. P. 38	"	18° 05' 42.425	1304.3	( 540.3)	✓				
			65° 33' 05.173	152.1	(1612.1)	✓				

1 FT. = 3048006 METER  
COMPUTED BY: LIG

DATE 2/8/66

CHECKED BY: RJP

DATE 2/8/66

COMM-DC-57843

8

Aerotriangulation Report  
Island of Vieques  
Puerto Rico  
PH-5909

21. Area Covered

This report covers T sheets 12166, 12167 and 12168 on the Island of Vieques.

22. Method

Two horizontal east-west bridges were run to provide control for compilation. Strip #1 was bridged on the C-5 and Strip #2 was bridged on the C-8. Points were drilled in the diapositives with the PUG to provide the passpoints for bridging. The adjustment on the IBM 1620 utilized eight control stations for Strip #1 and three stations for Strip #2.

23. Adequacy of Control

Horizontal control accuracy meets the standards for delineating T sheets at 20,000.

Identification of control on this project was very difficult due to the nature of the terrain. The first attempt at recovery resulted in totally inadequate identification. The second attempt resulted in good identification on some of the points; however, other substations were almost impossible to locate. This problem was further complicated by the difference in the time of photography between the two strips (Strip #1 was flown in 1964, while Strip #2 was flown in 1959).

The following stations and substations could not be held within National Map Accuracy Standards.

<u>Strip #1</u>	<u>Strip #2</u>
Boca, 1941, SSB	Boca, 1941, SSA
Perez, 1941, SSA	Point Negro, 1941, SS
Compana, 1941, SSB	Point Ferro, LH 2, 1941
Fossil Cliff, 1900, SSA	Ensenada, 1941, SSA & B
Ensenada, 1941, SSA & B	Port Diablo, 1941, SSA & B
	Matias, 1941, SSA
	East End, 1900

Most of the stations were not being held due to the inability to transfer the identification from 1964 photography to the 1959 photography and vice versa. The exceptions to the above are: Ensenada, 1941, SSA & B, which could not be held within fifty feet on either strip. No reason could be determined for this error. In the case of Point Ferro, LH 2, 1941, (a good identification) the point was allowed to drift out to enable the tie points between the two strips to be pulled closer together.

The final adjustments of two strips are the best results that could be obtained with the control available and will meet the requirements for 1:20,000 scale mapping.

Common points were hit between Strips #1 and #2 to augment datum tie. All tie points were averaged between the two strips.

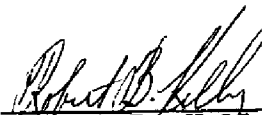
24. Supplemental Data

USGS Quad, Island of Vieques, was used to provide vertical control for bridging.


25. Photography

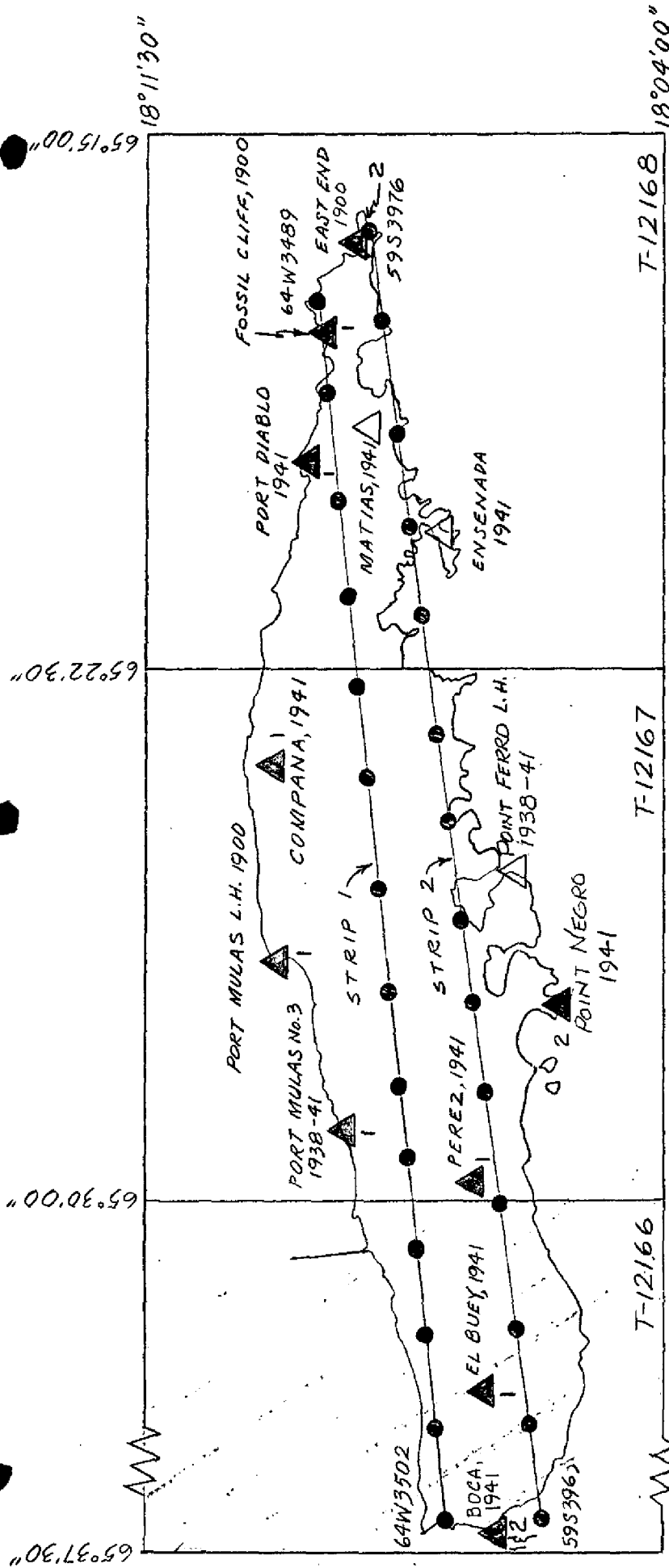
Photography was adequate as to coverage, overlap and definition.

Submitted by:

  
Robert E. Kelly

Approved by:

  
John D. Perrow, Jr.



# AEROTRIANGULATION SKETCH ISLAND OF VIEQUES Project 21023 (Ph-5909)

## LEGEND

- ▲ Used in the adjustment
- △ Used as check



COMPILATION REPORT  
T-12166

Aerotriangulation Report is submitted with this report.

31. DELINEATION

The Kelsh and Wild B-8 plotters were used. There was no field inspection. Photography was satisfactory.

32. CONTROL

See Aerotriangulation Report.

33. SUPPLEMENTAL DATA

None.

34. CONTOURS AND DRAINAGE

Inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS

There was no shoreline inspection. Shoreline and alongshore details were compiled by office interpretation of the photography. No low waterline was shown.

36. OFFSHORE DETAILS

See Item 49.

37. LANDMARKS AND AIDS

None.

38. CONTROL FOR FUTURE SURVEYS

None.

39. JUNCTIONS

A satisfactory junction was made with T-12167 to the east. The Caribbean Sea is to the south and west, and the Pasaje De Vieques is to the north.

40. HORIZONTAL AND VERTICAL ACCURACY

No statement.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with U.S.G.S. Quadrangles, ISLAND OF VIEQUES, PUERTO RICO; scale 1:50,000 and Topographic Map of the Island of Vieques,

PUERTO RICO, scale 1:30,000.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with Chart 940, PASSAJE DE VIEQUES and RADAS ROOSEVELT, scale 1:25,000 and Chart 904, VIRGIN PASSAGE and SONDA DE VIEQUES, scale 1:100,000.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

*L. L. Graves*

L. L. Graves  
Cartographic Technician

Approved and Forwarded:

*J. Bull*

J. Bull, CAPT, USESSA  
Director, Atlantic Marine Center

48. GEOGRAPHIC NAME LIST

CARIBBEAN SEA

DESEMBARCADERO MOSQUITO

ESCOLLO DE ARENAS

ISLA DE VIEQUES

LAGUNA ARENAS

LAGUNA EL POBRE

LAGUNA KIANI

LAGUNA PLAYA GRANDE

MOSQUITO AIRFIELD

PASAJE RADAS ROOSEVELT

PASAJE DE VIEQUES

PTA BERMUDES \*

PUNTA ARENAS

PUNTA BOCA QUEBRADA

PUNTA CABALIO

PUNTA VACA

RADAS ROOSEVELT

\* From Chart No. 940

GEOGRAPHIC NAMES

FINAL NAMES LIST

PH-5909

T-12166

Caribbean Sea ✓

\* Cerro El Buey

Desembarcadero Mosquito ✓

Escollo de Arenas ✓

\* Hacienda Arcadia

Isla de Vieques ✓

Laguna Arenas ✓

Laguna El Pobre ✓

Laguna Kiani

Laguna Playa Grande ✓

\* Monte Pirata

Mosquito Airfield ✓

Pasaje de Vieques ✓

Pasaje Radas Roosevelt ✓

\* Playa Grande (Village)

Punta Arenas ✓

Punta Bermudes Not on Name Quad., is on Chart 940,  
name used

Punta Boca Quebrada ✓

Punta Caballo ?



Punta Vaca ✓

Radas Roosevelt ✓

\* Resolution Not on Name Quad., is on Chart 940

Approved by:

A. J. Wraight

A. J. Wraight  
Chief Geographer

Prepared by:

Frank Pickett

Frank Pickett  
Cartographic Technician

\* Feature not delineated, name not used

T-12166

49. NOTES FOR THE HYDROGRAPHER

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

Rocks, shoals and other offshore features have been shown from office interpretation and should be verified.

Due to the time and date difference in photography, many shoreline points which appear on the 1964 photographs do not appear on the 1959 photos and vice-versa.

## PHOTOGRAMMETRIC OFFICE REVIEW

T-10863 T-12166

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) XX		7. PHOTO HYDRO STATIONS XX
8. BENCH MARKS XX	9. PLOTTING OF SEXTANT FIXES XX	10. PHOTOGRAMMETRIC PLOT REPORT Bridge (WSC)	11. DETAIL POINTS Kelsh
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE RES	13. LOW-WATER LINE XX	14. ROCKS, SHOALS, ETC. RES	15. BRIDGES XX
16. AIDS TO NAVIGATION XX	17. LANDMARKS 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 XX
23. STEREOSCOPIC INSTRUMENT CONTOURS XX	24. CONTOURS IN GENERAL XX	25. SPOT ELEVATIONS XX	26. OTHER PHYSICAL FEATURES RES
CULTURAL FEATURES			
27. ROADS RES	28. BUILDINGS RES	29. RAILROADS XX	30. OTHER CULTURAL FEATURES RES
BOUNDARIES			
31. BOUNDARY LINES XX		32. PUBLIC LAND LINES XX	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES RES		34. JUNCTIONS RES	35. LEGIBILITY OF THE MANUSCRIPT RES
36. DISCREPANCY OVERLAY XX	37. DESCRIPTIVE REPORT RES	38. FIELD INSPECTION PHOTOGRAPHS XX	39. FORMS RES
40. REVIEWER RES <i>P. E. Smith</i>		SUPERVISOR, REVIEW SECTION OR UNIT ACR <i>Albert C. Rauck, Jr.</i>	
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 LLG <i>L. L. Graves</i>		SUPERVISOR ACR <i>Albert C. Rauck, Jr.</i>	
43. REMARKS			

# TIDE COMPUTATION

PROJECT NO. PH-5709 T. 12166

Time and date of exposure 09 02 2/18/42 Reference station SAN JUAN, PUERTO RICO Mean range 0.8  
 Date of field inspection 2/18/42 Subordinate station BAHIA DE MULAS, Island of Vieques Ratio of ranges .73

	Time		Height feet	Height x Ratio of ranges	High tide at Ref. Sta. Time difference Corrected time at Subordinate station	Time	
	h.	m.				h.	m.
High tide	8	35	1.1	0.73 = 0.8		8	57
Low tide	14	53	0.0	.73 0.0		-	22
Duration of rise or fall	6	18	1.1	0.8		9	35
					Low tide at Ref. Sta. Time difference Corrected time at Subordinate station	15	24
						-0	31
						14	53

	h.	m.	feet	Photo. No.
Time H. T. or L. T. Required time Interval	8	35	Feature bares Stage of tide above MLW Feature above MLW	625632
	9	02		
		27		
Time H. T. or L. T. Required time Interval			Feature bares Stage of tide above MLW Feature above MLW	
Time H. T. or L. T. Required time Interval			Feature bares Stage of tide above MLW Feature above MLW	
Time H. T. or L. T. Required time Interval			Feature bares Stage of tide above MLW Feature above MLW	
Time H. T. or L. T. Required time Interval			Feature bares Stage of tide above MLW Feature above MLW	
Time H. T. or L. T. Required time Interval			Feature bares Stage of tide above MLW Feature above MLW	
Time H. T. or L. T. Required time Interval			Feature bares Stage of tide above MLW Feature above MLW	



FIELD EDIT REPORT

Vieques Island

Puerto Rico

April 1966

USC&amp;GS SHIP WHITING

LCDR JAMES P. RANDALL, USESSA, COMMANDING

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51: METHODS

For the most part the entire shoreline of Vieques Island was inspected from shore. Coral reefs along most of the shoreline inhibited the use of boat or skiff. Field edit was not finished in a few small areas due to the inaccessibility by boat or land.

All corrections, deletions and additions have been noted and cross referenced on the appropriate photographs and discrepancy prints. Elevations of rocks were determined by use of a hand level.

All field edit information has been shown on the following sheets and photographs.

SHEETS: T-12166, T-12167, T-12168

PHOTOS: 59S3964-3965, 59S3967

64W3489-3490, 64W3493, 64W3502

## 52: ADEQUACY OF COMPILATION

Compilation is, with the following corrections, considered complete and adequate.

## T-12166

## Deletions:

1. Row of stakes or piles..... 18°07'06"N  
65°34'36"W
2. Trails..... 18°05'48"  
65°30'12"
3. Tanks as landmarks..... 18°07'03"  
65°34'33"

Additions: NONE

Corrections: NONE

## T-12167

## Deletions:

1. Rk awash symbol..... 18°09'48"N  
65°23'15"W
2. " " " ..... 18°09'46"  
65°23'02"
3. " " " ..... 18°05'49"  
65°26'27"
4. " " " ..... 18°05'54"  
65°28'53"
5. Light..... 18°05'27"  
65°26'45"

## Additions:

1. Row of piling..... 18°08'15"N  
65°29'50"W
2. Rk awash symbol..... 18°09'43"  
65°22'55"
3. " " " ..... 18°05'49"  
65°28'48"

Corrections: NONE

(3)

T-12168

Deletions:

- 1. Trails..... 18°05'50"N  
65°30'20"W

Additions:

- 1. Rk awash symbol..... 18°07'55"N  
65°17'23"W
- 2. " " " ..... 18°07'54"N  
65°17'36"

Corrections: NONE

53: MAP ACCURACY

No accuracy tests were made except by the hydrographer. In all cases the plot appeared well within hydrographic needs.

54: RECOMMENDATIONS

No recommendations are offered. The office interpretation of photo images was good.

55: EXAMINATION OF PROOF COPY

No residents of Vieques Island examined the discrepancy prints for any possible errors.

56: SHORELINE

All shoreline was adequate as shown.

APPROVAL SHEET

Submitted by:

*Donald R. Rich*  
Donald R. Rich  
LTjg, USESSA

Approved:

*James P. Randall*  
James P. Randall, LCDR, USESSA  
Commanding USC&GS Ship WHITING

FIELD EDIT  
REPORT

VIEQUES PASSAGE, PUERTO RICO

MAY 1967

USC&GS SHIP WHITING

LCDR Sidney C. Miller, USESSA, Commanding

- - - - -

51. METHODS:

For the most part the Northwest, West, and Southwest shoreline of Vieques Island was inspected from a skiff. Certain features were measured from shore.

All corrections, deletions, and additions have been noted on the discrepancy print and cross referenced on an appropriate photograph where possible.

All field edit information has been shown on the following sheets and photographs:

Sheet: T-12166  
Photos: 21Feb64 W3502 & 20Apr59 S3965

52. ADEQUACY OF COMPILATION:

Compilation is, with the following corrections, considered complete and adequate:

T-12166

Deletions:

1. Broken line beginning at..... $18^{\circ}07'04''$   
 $65^{\circ}34'33''$



\* See note on back of this page

- 2 -

2. Broken line beginning at..... $18^{\circ}06'59''$   
 $65^{\circ}34'34''$
3. Jetty ruins beginning at..... $18^{\circ}06'52''$   
 $65^{\circ}34'34''$
4. Rock awash..... $18^{\circ}05'06''$   
 $65^{\circ}33'15''$

Additions: None

Corrections:

1. Pilings beginning at  $18^{\circ}07'56''$ ,  $65^{\circ}30'54''$  are at right angle to shore rather than skewed as shown on T-12166.
2. Jetty at  $18^{\circ}06'52''$ ,  $65^{\circ}34'34''$  is shown correctly -on T-12166 and incorrectly on Chart 940. The jetty is 148 feet long from its offshore end to the High Water mark on the north side.

#### Verifications:

1. Navy pier beginning at  $18^{\circ}09'02''$ ,  $65^{\circ}30'51''$  and shown on Chart 940 extends 755 feet from center-line of rock causeway.
2. Several points of coral awash in area of  $18^{\circ}05'53''$   $65^{\circ}34'23''$ , offshore point approximately 100 meters from shore.
3. Measured nautical mile markers on southwest Coast of Vieques appear to be as shown on Chart 940.
4. Submerged rocks at  $18^{\circ}04'52''$ ;  $65^{\circ}32'31''$  and  $18^{\circ}04'52''$ ;  $65^{\circ}32'00''$  are as shown on Chart 940.
5. Rock awash at  $18^{\circ}05'34''$ ;  $65^{\circ}30'24''$  as shown on Chart 940 projects 6 inches between seas at 1000 LMT, 3 May 1967.

#### 54. RECOMMENDATIONS:

No recommendations are offered. The office interpretation of photo images was good.

information for mapping subject rocks was  
not furnished  
see



\* Information concerning the jetty is also included on Field Edit Sheet 1 of 2 (April 1966) and Field Edit Sheet 2 of 2 (May 1967). The jetty as charted on Nautical Chart 940 was found to be in error by both field editors; however, the field information is contradictory concerning the offshore extent of the feature.

For the greater part of its length the jetty forms a small point (for mapping purposes) on the north shore of a small point of land. The existence of a portion of the jetty extending approximately 50 ft offshore is uncertain.

Additional: None

Corrections:

1. Pillage beginning at  $18^{\circ}07'56''$ ,  $65^{\circ}30'54''$  are at right angle to shore rather than skewed as shown on T-1216.
2. Jetty at  $18^{\circ}06'52''$ ,  $65^{\circ}34'34''$  is shown correctly on T-1216 and incorrectly on Chart 940. The jetty is 118 feet long from its offshore end to the High Water mark on the north side.

Verifications:

1. Navy pier beginning at  $18^{\circ}09'02''$ ,  $65^{\circ}30'51''$  and shown on Chart 940 extends 755 feet from centerline of rock causeway.
2. Several points of coral wash in area of  $18^{\circ}05'53''$ ,  $65^{\circ}34'23''$ , offshore point approximately 100 meters from shore.
3. Measured nautical mile markers on southwest coast of Vieques appear to be as shown on Chart 940.
4. Submerged rocks at  $18^{\circ}04'52''$ ,  $65^{\circ}32'00''$  are as shown on Chart 940.
5. Rock wash at  $18^{\circ}05'31''$ ,  $65^{\circ}30'54''$  as shown on Chart 940 projects 6 inches between seas at 1000 LMT, 3 May 1967.

RECOMMENDATIONS:

No recommendations are offered. The office interpretation of photo images was good.

Information for mapping project was not furnished.

APPROVAL SHEET

Submitted by:

*David McCall*

David McCall

Ensign, USESSA

Approved:

*Sidney C. Miller*LCDR Sidney C. Miller, USESSA  
Commanding, USC&GS Ship WHITING

DM/jrb



REVIEW REPORT T-12166  
SHORELINE  
June 1967

61. GENERAL STATEMENT:

See Summary accompanying Descriptive Report (page 6).

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Reg. No. 2528; 1:20,000; 1901 (datum corrected to Puerto Rican datum)  
Reg. No. 2587; 1:10,000; 1902; Puerto Rican Datum  
Reg. No. 2804; 1:20,000; 1906; Puerto Rican Datum  
Reg. No. 4725; 1:10,000; 1927; Puerto Rican Datum

The Comparison Print shows the areas covered by these registered surveys on this map. *FILED IN TUBE WITH MAP*

The quay at Desembarcadero Mosquito is new since the 1902 survey. There are some minor shoreline changes; the exposed area of Punta Arense<sup>as</sup> probably changes constantly.

Registered Surveys 2804 and 4725 show numerous sunken rocks along the south shore of the Island that could not be seen on the photographs, and were not noted by the field editor. Coral reefs visible on the color photographs enclose many of these sunken rocks, and these reefs are shown on the manuscript.

Color photographs used are 62-S-571 thru 574, 62-S-632 thru 636, 62-S-576 thru 582, 62-S-641 thru 645; 62-S-9977 thru 9989. The flight lines are shown on the comparison print in brown.

The registered surveys showed no details interior from the shoreline.

T-12166 supersedes these registered topographic surveys for nautical chart construction.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Island of Vieques; 1:30,000; U.S.G.S.; 1943, revised 1949.

Agreement is quite good. There is a difference in the position of the quay of Desembarcadero Mosquito; the quadrangle shows the quay about 20 meters east of its position on T-12166.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

*NOTE: SEE ADDENDUM  
PAGE 21*

None, excepting the small (350 meter) overlap of Boat Sheet WH-20-1-66A, which is for Pasaje Radas Roosevelt east of T-12166.



# 65. COMPARISON WITH NAUTICAL CHARTS:

Chart 940; 1:25,000; 3rd Edition of July 25, 1966, corrected through Notice to Mariners No. 40 of October 1, 1966.

The Comparison Prints reveal these differences:

1- The chart shows a shore row of pilings at latitude  $18^{\circ} 07' .93$ , longitude  $65^{\circ} 30' .9$ , and a ledge in this area. Positive identification is not possible from the photographs, color or black and white, and the "piling", as noted on Discrepancy Print #2 of 2, is "at right angle to the shoreline", and not almost parallel to the shoreline as shown on the Chart.

2- The jetty ruins at latitude  $18^{\circ} 06' .85$ , longitude  $65^{\circ} 34' .6$  extend about 100 meters further west on the chart than on this survey.

The 1967 Hydrographic Party on the Ship WHITING was asked to check differences #1 and #2. T-12166 is delineated to conform to their notes on Field Edit Discrepancy Print #2, and Item 52 of their Field Edit Report for May 1967, see page 18A<sup>185</sup> of this report.

3- Several small ledges, and numerous sunken rocks are shown along the west and south coast on the chart, that could not be identified on the photographs, and were not noted by the field editor.

4- There are minor shoreline changes, the one at Punta Arenas is the largest. It is noted that Discrepancy Print #2 of 2 indicates that the shoreline at Punta Arenas changes frequently.

# 66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

No accuracy tests were run in the field. The map meets the National Standards of Map Accuracy and Bureau requirements.

Approved by:

J. B. [Signature]  
Director, Atlantic Marine Center

Reviewed by:

M. M. Slavney  
M. M. Slavney

Approved by:

Charles [Signature] 56A  
Chief, Cartographic Branch

John [Signature]  
Chief, Chart Division  
Marine

J. Ralph [Signature]  
Chief, Photogrammetry Division  
12-07-67

[Signature]  
Chief, Operations Division



NOTES TO VERIFIER  
T-12166 Project 21023 (Ph-5909)  
BOAT SHEET NO. Projected

Please note Item 65 of the Descriptive Report for T-12166, Field Edit Print #2 of 2, and the Comparison Print for discrepancies between the T-12166 and the July 1966 edition of Chart 940.

#### 64. APPENDUM

Reefs were compiled from office interpreted color photography to assist the hydrographer. Outer limit lines visible on the photography were compiled. In some cases the lines will define the outer limits of sunken reef rather than the 4LW Line.

*S. H. Blankenship*  
9/26/61

