OT TO SEP

## 8842

8842

DIAR G. OIL DIAR, CH. NO. 1247
Form 504
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

Type of Survey Topographic
Field No. Ph-9(46) Office No. T-8842
LOCALITY
StateFlorida
General locality East Coast
Locality Indian River County
"Riomar"
194 6-48
CHIEF OF PARTY
R.A.Gilmore
LIBRARY & ARCHIVES
DATE July 21, 1949

B-1870-1 (1)

## DATA RECORD

T-8842

Quadrangle (II): Riomar

Project No. (II): Ph-9(46)

Field Office: Vero Beach, Fla.

Chief of Party: Lt. Comdr. Ross A. Gilmore

Compilation Office: Tampa, Fla. Chief of Party: "

Instructions dated (II III): 28 May 1947

Copy filed in Descriptive

Report No. T-

Completed survey received in office:

6/24/48

Reported to Nautical Chart Section:

Reviewed: 23 June 49

Applied to chart No.

Date:

Redrafting Completed:

Registered: 12 July 49

Published:

Compilation Scale: 1; 20,000

Published Scale: 1:24000

Scale Factor (III): None

Geographic Datum (III): N.A. 1927

Datum Plane (III): M.S.L.

Reference Station (III): Clarkson, 1934

Lat.:

Adjusted aliozdjansked

27° 40' 119170 (343.8m)

80° 21 394637 (1086.3m)

State Plane Coordinates (VI): Florida East Zone

Military Grid Zone (VI)

## PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
16367	27 April 146	10:57	1: 20,000	0.1'
16368	27 April '46	10:58	1: 20,000	0.1

Tide from (III): Fort Pierce (City Dock) Fort Pierce Inlet (breakwater)
Mean Range Spring Range Mean Range Spring Range

Masacabanga: 0.7! 0.8! xSpecing/danga: 2.6! 3.0!

Camera: (Kind or source) Nine-lens, USC&GS, 81 focal length

Field Inspection by: James H. Clark date: January 1948

Field Edit by: 5, J. Hathorn date: Dec 48

Date of Mean High-Water Line Location (III): January 1948

Projection and Grids ruled by (III) T.L.J. date: 22 October 1947

" " checked by: T.L.J. date: 22 October 1947

Control plotted by: R. Dossett date: 14 November 1947

Control checked by: E.C. Andrews date: 21 November 1947

M.M. Slavney

Radial Plot by: M.M. Slavney date: 24 March 1948

Detailed by: Enola N. Cross date: 15 April-14 May 1948

Reviewed in compilation office by: J.A. Giles date: June 1948

Reviewed in compliantion office by: 0.84 diffes date. Care 1940

Map Manuscript
Elevations on First Market

checked by: J.A. Giles date: " "

## STATISTICS (III)

Land Area (Sq. Statute Miles): 4.5 statute miles

Shoreline (More than 200 meters to opposite shore): 17.1 statute miles

Shoreline (Less than 200 meters to opposite shore): 9.4 statute miles

Number of Recoverable Topographic Stations established: 11

Number of Temporary Hydrographic Stations located by radial plot: None.

Leveling (to control contours) - miles: 3.5

Roman numerals indicate whether the item is to be entered by, (II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks:

MAP T. 8842		PROJE	PROJECT NO. Ph-9(46)	(97)6	SCALE OF MAP1:20,000	000	SCALE FACTOR	
STATION	SOURCE OF INFORMATION	ратим	LATITUDE OR LONGITUDE OF	LATITUDE OR v-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
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CLARKSON 1934	P.128	=	77	11,170				
EGGS, 1881	P.156	Ξ,	27 40	28.613 44.567				
SQUAIL, 1881	P.155	=	27 42 380 22	18.180 21.368			559.6 (1287.2) 585.4 (1058.4)	
BEND, 1930	P.155	=	Z7 42 80 22	36.401. 28.385			1120.5 (726.3)	
CRUB, 1924	P+155	=	# 65	02.518 57.620	Falls on asjorning		4	
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TT 3048006 METER DO COMPUTED BY.	Dossett	40	DATE 27 August	st 1947	W.H. She	Shearouse	DATE 29 August	nst 1947 H. 2388-12

## FIELD INSPECTION REPORT

TO ACCOMPANY

QUADRANGLE T-8842

"RIOMAR"

N 2737.5 - W 8015/7.5

PROJECT Ph-9 (46)

30 JANUARY 1948

## 1. DESCRIPTION OF THE AREA

Lying on the eastern edge of Indian River County, Florida; this quadrangle could best be characterized by its paucity of land area. There are only three and one-half square miles of land in the quadrangle. This includes most of that portion of the City of Vero Beach lying east of the Indian River.

Dense woods cover the bulk of the land area, with the exception of a narrow strip along the ocean, and the islands in the Indian River. The islands are very low in elevation, even marshy, for the most part.

In the southern part of the quadrangle, there is a small and rather exclusive residential community, known as Riomar. To the north of this community and at the east end of Beachland Boulevard, are a few beach hotels and cottages.

## 2. COMPLETENESS OF FIELD INSPECTION

All field work was done on two, nine-lens photographs, numbered 16367 and 16358. Field inspection for the area is believed to be adequate and complete.

## 3. INTERPRETATION OF THE PHOTOGRAPHS

Along with notes on the photographs, most of the details are self-explanatory. However, there is one item which needs clarification. In the northern portion of the quadrangle, along the ocean beach, there is no apparent line of demarkation between the area of palmetto brush and the heavily wooded area. This line should be drawn period approximately two hundred feet back from the beach and during compilation parallel to it; from the vicinity of the most northerly house on the beach (a new building) north to the quadrangle limits.

## 4. HORIZONTAL CONTROL

Six U. S. Coast and Geodetic Survey triangulation stations were recovered in the quadrangle, and one lost. Station SQUALL, 1881, was not identified on the photograph because of its proximity to station BEND, 1930, which was identified.

Two third-order horizontal control stations established by the U. S. Engineer Department were recovered and identified.

## 5. VERTICAL CONTROL

No vertical control stations were recovered within the area. One line of wye levels was run the length of the land area. The closure, 0.39 ft., was adjusted. All level points are shown on the photographs with a cross, labelled with the quadrangle designation letters "RR", and numbered consecutively.

## 6. CONTOURS AND DRAINAGE

All contouring was done with planetable directly on the photographs, and are shown in violet ink.

The contours on photo No.16367 are carried farther away from the center chamber than is desirable. The adjoining photograph, No.16368, was being used on other work at the time of contouring.

There were no large vertical closures in planetable traverse.

Immediately adjacent to the ocean beach, and running parallel to it, is a comparatively high, sand ridge. All drainage runs westward from this ridge, gradually falling away to the Indian River.

## 7. MEAN HIGH-WATER LINE

The ocean beach is a comparatively steep slope, the entire length of the quadrangle, and places the mean high water line very close to the five-foot contour. It is identified on the photographs at intervals, by a red dashed line.

Along the Indian River, the mean high water line is generally very indefinite, obscured by mangrove, and complicated by tidal marsh.

## 8. LOW-WATER LINE

With the exception of a few small spoil islands in the Indian River, the mean low water line is very close to the mean high water line, and similarly, is very indefinite. Along the Atlantic Ocean it is identified at intervals by a green dotted line.

## WHARVES AND SHORELINE STRUCTURES

All existing piers and shoreline structures are designated on the photographs.

## 10. DETAILS OFFSHORE FROM THE HIGH-WATER LINE

All offshore details appearing above the low water line have been noted on the photographs. There is a very shoal rock reef near the northeast corner of the Riomar Club Golf Course.

- Rionar, BEACH Vero Beach, Particular attention is called to the remains of a wreck, or wrecks, about twelve hundred feet directly offshore from Vere Beach, in the ocean, as evidenced by an old boiler, which is plainly visible from the beach. No consistent information was available regarding the number of wrecks submerged in the vicinity; local estimates running from one to fifteen. This should be thoroughly investigated by the Hydrographic Party.

## 11. LANDMARKS AND AIDS TO NAVIGATION

The ocean shoreline was not inspected from offshore.

One new landmark is recommended for charting because of its prominence from both the Atlantic Ocean and the Indian River. This is the elevated water tank located on the east side of the Indian River.

In the Indian River, along the Intracoastal Waterway, the two channel lights within the quadrangle were pricked direct on the photographs, and the four pile daybeacons were located by theodolite cuts from photo points. All of the above items are being submitted on Forms 524 and 567.

HYDROGRAPHIC CONTROL

Towns 524 filed in Din.

Report

Report

12. HYDROGRAPHIC CONTROL

No Hydrographic Control signals were required.

## 13. LANDING FIELDS AND AEROMAUTICAL AIDS

No landing fields or aeronautical aids are located within the quadrangle. The red aero light on water tank (paragraph No.11) could be shown as an obstruction.

## 14. ROAD CLASSIFICATION

All roads are classified according to Photogrammetry Instructions No.10 and Amendment dated 24 October 1947.

## 15. BRIDGES

There is one bridge over navigable water; the Vero Beach bridge. Clearances are shown on photograph No.16367.

## 16. BUILDINGS AND STRUCTURES

All buildings to be shown have been circled in red ink. New buildings have been blocked-in, in red ink. Structures other than buildings have been noted on the photographs. Buildings, and other items to be deleted have been crossed-out in green ink.

## 17. BOUNDARY MONUMENTS AND LINES

One section corner was recovered, and is identified on photograph No.16367.

Corporate limits have been shown in black ink on photograph No.16367 for that portion of the City of Vero Beach lying within the quadrangle.

Only a portion of one precinct line falls within the quadrangle. This line, between precincts four and nine of Indian River County, can be delineated from the Special Report of Boundaries for project Ph-9 (46), to be submitted by Joseph K. Wilson. In Fite Section Wilson Special Report

## 18. GEOGRAPHIC NAMES

Geographic Names for this quadrangle are included in a Special Report on Geographic Names for project Ph-9 (46), submitted by Joseph K. Wilson to the Washington Office on 8 January 1948. Filed in Geographic Name Section, Div of Charts

## 19. JUNCTION WITH ADJOINING QUADRANGLES

A junction has been made with quadrangle T-8844 to the south, and quadrangle T-8841 to the west. There are no junctioning quadrangles to the east and north. All junctions are in good agreement.

SUBMITTED BY:

James H. Clark
Engineering Aid.

SUPERVISED:

william a. Rasure

William A. Rasure

Photogrammetric Engineer

APPROVED AND FORWARDED:

Ross A. Gilmore

Chief of Party

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## COMPILATION REPORT TO ACCOMPANY QUADRANGLE RIOMAR T-8842

## 26. and 27. CONTROL AND RADIAL PLOT:

A special report prepared by M.M. Slavney, Photogrammetric in #Engineer, was submitted to the Washington Office on 17 May 1943.

## 28 . DELINEATION:

The map manuscript was delineated in accordance with the latest instructions for Project Ph-9(46), and no difficulties were encountered.

Nine-lens photographs—16367 and 16368— used in the delineation of this map manuscript were clear and of good scale.

The field inspection was good. A few discrepancies have been noted on the overlay for the field editor.

## 30. MEAN HIGH-WATER LINE:

The mean high-water line was delineated from field inspection notes, from observation of the effice photographs, and from Forms M-2226-12 and 526.

## 31. LON WATER AND SHOAL LINES:

The low-water line was not delineated along the Atlantic Coast. (See Field Inspection Report, item No. 8)

On the Indian River shore the low water was delineated in accordance with field inspection notes.

Shoal lines were also shown in accordance with field inspection notes.

## 32. DETAILS OFFSHORE FROM THE HIGH-WATER LINE:

One boiler (remains of a wreck) was located by radial plot methods.

A very shoal rock reef is shown.

## 33. WHARVES AND SHORELINE STRUCTURES:

All wharves, piers, and other shoreline structures identified on the field photographs were delineated.

## 34. LANDMARKS AND AIDS TO NAVIGATION:

One landmark and two channel lights were located by radial-plot methods.

Four daybeacons were located by theodolite cuts from photo points. All cuts were satisfactory, with the exception of the radial from photo point No. 5 of Daybeacon No. 173.

These landmarks and aids to navigation are being submitted on Forms 524 and 567.

## 37. BRIDGES:

Vero Beach bridge is the only bridge over navigable water. The horizontal and vertical clearances furnished by the field inspector have been shown. Discrepancies were noted between these clearances and those listed in the U. S. Engineer's "List of Bridges Over the Navigable Waters of the United States," 1941. These discrepancies have been referred to the field editor.

## 38. SECTION CORNERS:

The only section corner is shown in accordance with field inspection notes. (See Field Inspection Report, item No. 17.) General Land Office plats proved to be of little aid in determining the section lines in the area covered by this quadrangle. Section lines have been tentatively constructed on the map manuscript in red pencil. A discrepancy print has been made for the field editor's use, and upon its returnation the field, the lines will be made permanent according to his findings.

## 39. GEOGRAPHIC NAMES:

Geographic names have been shown according to the Special Report on Geographic Names for Projects Ph-9(46), furnished by the Washington Office.

## 40. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES AND OTHER MAPS:

No topographic quadrangles are available for comparison.

In comparison with U.S. Coast and Geodetic Survey planimetric map No. T-4549 (which was delineated from photographs taken on 29 April 1928) a few features were found to be different on this map manuscript:

(1) The addition of several islands in the Indian River south of Vero Beach bridge.

(2) The addition of a shoal area north of the bridge.

- (3) The addition of two causeways connecting islands with the
- (4) The abandonment of the grove in the northern part of the map manuscript.

(5) The addition of buildings.

(6) The deletion of roads in Riomar.
(7) The direction of the east-west streets in Riomar on both sides of Florida State Highway 502.

## 45. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with U.S. Coast and Geodetic Survey nautical chart No. 845, bearing a print date of 3 March 1947. The only major 📉 changes noted were as follows:

(1) The addition of a causeway in the Indian River.

(2) A boiler (remains of a wreck) off the Atlantic Coast.

(3) The absence of a pier in Jandrew Cove

Respectfully submitted.

Engla M. Cross

Enola N. Cross Engr. Draftsman

Approved and forwarded:

Ross A. Gilmore

Lieut. Comdr. USC&GS

Chief of Party.

## DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

# NONFLOATING AIDS APPINAMARRAS/FOR CHARTS

STRIKE OUT ONE TO BE CHARTED MP/ 月年/ 月年/ 月7月 月

April 1945

Vero Beach, Florida

19 48 TO January

CHARTS AFFECTED Chief of Party. I recommend that the following objects which have (######### been inspected from seaward to determine their value as landmarks be 5 513 8.ES 뙶 3 3 OFFSHORE CHART INSHORE CHART НАВВОЯ СИАВТ Boss A. Gilmore Rad. Plot. T-5542 1/22/48 34/0£/1 3/30/18 1/30/18 M/62/1 LOCATION 1/30/48 DATE LOCATION AND SURVEY No. METHOD DATUM 1981 D. P. METERS 994 38 8 3 R 552 The positions given have been checked after listing by Enols N. Cross LONGITUDE ż 500 221 60° 221 80° 22' 800 221 600 22 POSITION Š 0 D. M. METERS 270 381 1640 270 to 277 270 381 1667 270 581 1305 270 \$8: 14.55 270 381 248 LATITUDE ٥ SIGNAL Black square daynark with yellow Flashing light on red briangular Plaching light on black equare Black arrow on single pile Red arrow on single pile Red errow on single pile daymerk on pile dolphin daymark on pile dolphin DESCRIPTION border on pile STATE FLORIDA CHARTING , NAME 170 172 176 173 151 111

arks and nonfloating if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted land le given. ley sheets. Information under each column heading shou This form shall be prepared aids to navigation. individual field

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16-51696-1 U. S. GOVERHMENT PRINTIN

## DEPARTMENT OF COMMERCE

April 1945

U. S. COAST AND GEODETIC SURVEY

# INGNIGHTANTING HIPPIPY LANDMARKS FOR CHARTS

Vero Beach, Florida STRIKE OUT ONE TO BE CHARTED 19月月月月月月月月月月月

1948

30 January

I recommend that the following objects which have (ndde pp) been inspected from seaward to determine their value as landmarks be 

CHARTS AFFECTED Chief of Party. 製造 OFFSHORE CHART INSHORE CHART HARBOR CHART Gilmore LOCATION 84 Rad. Plot 1927 2-8842 1/21/48 DATE Rose A. METHOD OF LOCATION AND SURVEY No. DATUM D. P. METERS 800 21 1488 LONGITUDE POSITION ٥ D. M. METERS 270 39' 194 LATITUDE 0 SIGNAL centest top. 140' above ground-148 Elevated water tank, red light on above moan high-water. DESCRIPTION PLONIDA CHARTING 24.KK STATE

arks 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 individual field by sheets. Information under each column heading should be given. 16-51098-1 U. S. GOVERNMENT PRINTIN in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted land This form shall be prepared

## FIELD EDIT REPORT

## QUADRANGLE T-8842

## PROJECT PH-9(46)

Field edit of quadrangle T-8842 was performed in accordance with Field Edit Instructions dated 24 August 1945, and Supplement I dated 4 February 1946. Actual field work was during the period 13 - 14 December 1948.

## 46. METHODS

Field edit was accomplished by riding out all passable roads; walking to other areas in which the reviewer requested information, or where the field editor suspected a weakness in the compilation.

Planetable and tape methods were used to locate corrections and additions not shown on the photographs. On the field edit sheet, red ink was used to show corrections and additions; green ink for deletions. Violet ink was used for all work on the regular discrepancy print, the section line discrepancy print, and the field photographs.

The reviewers questions were answered on the discrepancy prints whenever possible. Other work was shown on the field photographs or field edit sheet. All work shown on the photographs is referenced on the field edit sheet or the regular discrepancy print along with the photograph number.

## 47. ADEQUACY OF COMPILATION

The manuscript compilation is believed to be adequate with the corrections made by the field editor.

## 48. ACCURACY TESTS

No accuracy tests were required for this quadrangle. The map is believed to comply with standard horizontal and vertical accuracy specifications. However, information concerning the two nearest map accuracy tests to this quadrangle was not available to the field editor.

## 15. BRIDGES

All bridge information for the area covered by this report as listed in the U.S. Engineers "List of Bridges Over Navigable Waters in the U.S." dated July 1941 was verified in the field, all clearances were carefully measured with a steel tape, and the published descriptions and clearances were found to be correct, except for the following discrepancy in the vertical clearances of both spans of the swing bridge across Indian River at Vero Beach:

Published Vertical Clearance at MHW - 9.8 ft.
Minimum Existing Vertical Clearance at estimated MHW - 9.0 ft.

This minimum vertical clearance actually exists in only the 10 west feet of the west span and the 10 east feet of the east span. The minimum vertical clearance in the remainder of both spans is 9.0 ft. as listed in the "List of Bridges". This difference in vertical clearance is a result of the way lateral stiffners are attached underneath the bridge. See Review Report.

## 49. CONTOUR EXPRESSION

The contour expression for the sheet is believed to be adequate.

## 50. EXAMINATION OF PROOF COPY

It is believed that the City Engineer of Vero Beach is best qualified to examine a proof copy of this quadrangle.

Submitted by:

Stanley J. Hathorn Stanley J. Hathorn Cartographer (Photo)

Approved and forwarded:

Chief of Party

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## Division of Photogrammetry Review Report of Topographic Map Manuscript T-8842

Subject numbers not used in this report have been adequately covered in other parts of the descriptive report.

## 11 Landmarks and Aids to Navigation

Form 567 submitted during Field Inspection is filed as Chart Letter No. 513 (1948) in the Nautical Chart Branch, Division of Charts. Carbon copies are attached to the Descriptive Report.

## 15 Bridges

A copy of the letter to the USE District Engineers describing the discrepancy found by the Field Editor is filed as Chart Letter No. 63 (1949) in the Neutical Chart Branch, Division of Charts.

## 28 Detailing

The land lines are not very reliable. They have been shown with the dash line symbol.

## 43 Comparisons with Previous Surveys

Comparisons were made with: T-1630 (1882) 1:20,000 T-4549 (1930) 1:20,000

## 48 Accuracy

This map complies with national map accuracy standards.

## 51 Overlay

An overlay has been prepared showing control, road classification etc. This map will be edited and published by the U. S. Geological Survey.

## 52 Application to Nautical Charts

This survey has not been applied to nautical charts prior to review.

Reviewed by:

Jock J. Wihn / Kh.M.
Jeck L. Rihn, Cartographer 6/23/49

Approved by:

Chief, Review Section Kala

Division of Charts

Approved by:

Chief. Div. of Photogrammetry

Chief, Div. of Coastal Surveys