

8402

Diag'd. on diag. ch. No. 1257-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Air Photo Compilation

Field No. _____ Office No. T-8402

Part of Harris Army Test

LOCALITY

State Florida

General locality Tampa Bay Area

Locality Manatee and Sarasota
Counties

Verna Quad

1944

CHIEF OF PARTY

Comdr. Ray L. Schoppe

LIBRARY & ARCHIVES

DATE February 9, 1948

B-1870-1 (1)++

8402

Completely Applied to 1114
(Inland no detail on chart)

L.S.S. 10/26/55

DATA RECORD

T#8402

Quadrangle (II): VERNA

Project No. (II): 290

Field Office: Tampa, Fla.

Chief of Party: Ray L. Schoppe

Compilation Office: Tampa, Fla. Chief of Party: Ray L. Schoppe

Instructions dated (II III): 11/16/42 Copy filed in Descriptive
Report No. T- (VI)
Div. Photogram. Office Files

Completed survey received in office: 11 May 1944

Reported to Nautical Chart Section:

Reviewed: 8 June, 1944 Applied to chart No. Date:

Redrafting Completed: 30 June 1944

Registered: ~~18 Jan 1944~~ Jan 1945 Published: 1944

Compilation Scale: 1:20,000 Published Scale: 1:31,680

Scale Factor (III): 1.00

Geographic Datum (III): N.A. 1927 Datum Plane (III): M.S.L. 1929

Reference Station (III): SCHROEDER, 1934

Lat: 27°28'31.008" (954.4 M) Long: 82°22'11.426" (313.7 M) Adjusted
Unadjusted

State Plane Coordinates (VI): Fla. W Zone

X = 380,080.35 ft.

Y = 1,142,074.62 ft.

Military Grid Zone (VI) M.I. Grid Zone "B"

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>State of Tide</u>
11693	11/12/42		1:20,000	Inshore Sheet
11694	"		"	
11695	"		"	
11714	"		"	
11715	"		"	
11716	"		"	
11717	"		"	

Tide from (III): --

Mean range: --

Spring range: --

Camera: (Kind or source) U. S. C. & G. S. Nine-Lens

Contours and
Field Inspection by: Carl A. Moritz

Date: March 1944

Field Edit by: *Lewis F. Hepburn*

Date: *1944*

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

Projection and Grids ruled by (III) Wash. Office

Date:

" " " checked by: " "

Date:

Control plotted by: M. Rutkin

Date: March 1944

Control checked by: J. H. S. Billmyer

Date: March 1944

Radial Plot by: Tampa Office Personnel

Date: March 1944

Detailed by: Frances M. Gaines

Date: April 1944

Reviewed in compilation office by: A. L. Kidwell

Date: May 1944

Elevations on Field Edit Sheet
checked by:

L. Forrester

Date: *June 1944*

STATISTICS (171)

Land Area (by Statute Miles): 64.4

Shoreline (More than 200 meters to opposite shore): 0

Shoreline (Less than 200 meters to opposite shore): 20.6 Statute Miles

Number of Recoverable Topographic Stations established:

Number of Temporary Hydrographic Stations located by radial plots:

Leveling (to control contours) - miles:

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:

22
SCHEDULE (XIII)

Land Area (by Statute Miles) 64.4

Gravel Area (by Statute Miles) 0

Gravel Area (by Statute Miles) 20.6 Statute Miles

Number of Temporary Hydrographic Stations Located by National

116.1

Lowlying (to control contours) - miles

No. of Islands located within the 12-mile limit entered
by, (XI) 12-mile limit, (XII) 12-mile limit, or, (VI) the
12-mile limit.

When entering water of 12 miles or more, the
12-mile limit (12-mile limit).

12-mile limit

General Procedure in the Production of Topographic
Quadrangles for the War Department T-8402

This quadrangle, together with similar adjoining maps produced under Project C.S. 290 C, was prepared by the Coast and Geodetic Survey for the War Department under "General Specifications for War Department Mapping Program" issued about December 1941, in which is incorporated the "Standard of Accuracy for a National Map Production Program" issued by the Bureau of the Budget under date of June 10, 1941.

The general procedure in the production of this and the adjoining quadrangles was:

FIELD SURVEYS

Aerial photography with the Coast and Geodetic Survey nine-lens camera, with airplane and flight crew furnished by the U. S. Coast Guard. The photographs were taken to the scale of 1:20,000.

Ground inspection of the photographs for identification of control points, and classification and clarification of planimetric details on the photographs.

Contouring by planetable directly on the photographs. Supplementary vertical control was established by means of an extensive subordinate level net, furnishing unmarked elevations at road intersections, driveways, and numerous other points identifiable on the photographs.

COMPILATION OF MANUSCRIPT

Compilation on the map manuscripts by radial plot methods (celluloid hand templates) of all planimetry and contours. These manuscripts were drawn on the scale of 1:20,000 on celluloid sheets on which polyconic projections had been ruled with the Projection Ruling Machine in the Washington Office. Compilation was accomplished in the Baltimore Tampa Photogrammetric Office.

FIELD EDIT

Comparison of a copy of the manuscript with the ground. This included inspection for completeness and accuracy as well as the location by planetable methods of additional details, checking of nautical and aeronautical aids to navigation, etc.

Accuracy Tests - Application of systematic horizontal and vertical accuracy tests to check the maps for conformity with the specifications. These tests consisted of comparison of the map position and elevation of selected random points with the true position and elevation as independently determined by standard survey methods.

PROCESSING IN THE WASHINGTON OFFICE

Review - Examination of the manuscript for accuracy and completeness of compilation and compliance with specifications, correcting where necessary; addition of military and state grids and other special features; and verification of the general adequacy of the manuscript as a basis for the production of a finished map.

Drafting and Reproduction - Preparation of smooth color separation drawings on 1:20,000 scale on metal-mounted "blue-line" copies of the manuscript. From these drawings, negatives and printing plates were prepared for reproduction of the finished map on the scale of 1:31,680 or 1:25,000.

DESCRIPTIVE REPORT TO ACCOMPANY
QUADRANGLE T-8402
Project CS 290 C
Ray L. Schoppe, Comdr., Chief of Party

1. Description of the Area. Quadrangle T-8402 lies east of Bradenton, Florida, in Manatee and Sarasota Counties. The major portion is in Manatee County; only a narrow strip along the southern boundary falls within Sarasota County. It is bounded on the north by 27°30' north latitude, on the east by 82°15' west longitude, on the south by 27°22'30" north latitude, and on the west by 82°22'30" west longitude.

There is considerably more relief in this quadrangle than in the adjoining ones to the west, east, and south. The maximum relief is about 95 feet, ranging from about seven or eight feet along the Manatee River, to a maximum elevation of 103 feet in the east central portion of the region. The general slope of the land is from east to west over the greater portion of the quadrangle.

The Manatee River and its small tributary streams drain the northern portion of the area; the southern portion is drained by a network of large ditches or canals. The Manatee River has carved a well-defined valley in the loose, sandy soil of the region, and it is in this valley where the greatest relief within the quadrangle occurs. Several small, low hills, which are shown by 100 foot closed contours, are found in the east central portion of the area. The depression contours, which occur in large numbers in quadrangles to the south, are not found in this quadrangle, with the exception of a few along the southern boundary.

Practically none of the land has been cultivated, with the exception of a few small citrus groves. Most of the region is barren, sandy soil, covered with palmetto and scattered pine; a few deciduous trees are found in and along the sides of the valley of the Manatee River. The small citrus groves are all found along the river valley in the northern part of the quadrangle.

Very little culture is found in this quadrangle. The principal roads include State Routes 161, 18A, and 18th. The most conspicuous cultural feature is the network of large ditches or "canals" which drain a large portion of the region. Only one church and one school are situated within the limits of the quadrangle. An abandoned railroad grade occurs south of the State Route 18A in the southern part of the quadrangle.

2. Completeness of Field Inspection. The field inspection for the clarification and classification of detail on the aerial photographs has been completed in the field and inked on the photographs. The few buildings, roads, ditches, and wooded areas which occur in this quadrangle are shown on the photographs. All roads and highways within the quadrangle, with the possible exception of several

farm roads or track roads have been classified on the photographs in accordance with instructions. Those which are not shown may be classified as 4U roads or may be deleted if desired.

3. Interpretation of the Photographs. The photographs as regards photographic tones and densities are typical of others for this same general locality and require no special comment.

4. Horizontal Control. Horizontal control has been recovered and proper recovery notes submitted to the compilation office. Recovery was completed by W. Bever, Jr. Topo. Engr., and J. A. Webb, Sr. Engr. Aid.

5. Vertical Control. Vertical control for control of the planetable work was accomplished by parties under the direction of C. B. Taylor, Jr., Jr. Topo. Engr., L. F. Hepburn, Engr. Aid, and J. W. Brett, Sr. Photo. Aid. All elevations which were checked by the planetable party were found to be within the limits of accuracy and may be shown on the final map.

6. Contours and Drainage. The sketching of the contours was done on seven nine lens photographs of 1:20,000 scale, numbered 11695, 11714, 11715, 11716, and 11717. The contours were sketched using the regulation U. S. Coast and Geodetic Survey planetable and alidade.

Elevations were established with the planetable and alidade at critical points, such as the tips of small hills, the bottoms of streams and valleys, points where contours cross roads or highways, etc. Because of the fact that the region is not heavily wooded and because of a plethora of supplemental vertical control, the sketching of the contours was a relatively simple matter.

Long planetable traverses were unnecessary, and the few which were closed on known elevation points checked satisfactorily; the closure error rarely exceeded .3 or .4 foot.

Items 7, 8, 9, and 10 are inapplicable to this quadrangle.

11. Landmarks and Aids to Navigation. There are no landmarks or aids to navigation in this quadrangle.

12. This item is inapplicable to this quadrangle.

13. Landing Fields and Aeronautical Aids. There are no landing fields or aeronautical aids within the limits of the quadrangle.

14. Road Classification. All roads have been classified and identified on the photographs in accordance with instructions, as has been noted in item 2.

15. Bridges. Refer to supplement by C. C. Fryer, Jr.
Topo. Engr.

16. Buildings and Structures. There are few substantial and permanent buildings in the area. The few which are found here have been classified and identified on the photographs. Those which are now abandoned or in very poor condition have been deleted in accordance with instructions.

17. Boundary Monuments and Lines. Refer to supplement by C. C. Fryer, Jr. Topo. Engr.

18. Geographic Names. This is the subject of a special report by J. W. Stingley, Jr. Topo. Engr.

19. Junctions. Satisfactory junctions were made with all adjoining quadrangles.

20. Data. Field inspection, contours and drainage are shown on photographs 11693, 11694, 11695, 11714, 11715, 11716, and 11717. Supplemental levels are on photographs 11714, 11716, and 11694. Bridges are shown on photograph 11716.

Respectfully submitted:

Carl A. Moritz

Carl A. Moritz
Junior Topographic Engineer
March 28, 1944

Approved:

Ray L. Schoppe

Ray L. Schoppe
Chief of Party

2

The political subdivision lines as shown on the photographs have been transferred to the photographs from a general highway and transportation map prepared by the Florida State Roads Department. This map is published on a small scale and an attempt has been made to transfer the political subdivision boundaries to the photographs as accurately as possible, but due to the varied scale of the photographs on which they were placed it is not to be assumed that they are correct. It is recommended that they be checked in the field by the field edit party on the compilations which are to a true scale of 1:20,000.

Each photograph that touches or borders on a quadrangle should be examined to locate these boundaries. In many cases they will appear on the wings of the photographs.

This same rule must be followed in regard to the classification of bridges.

Respectfully submitted:

C. C. Fryer
C. C. Fryer
Jr. Topo. Engr.
March 28, 1944

- I. Δ Schroeder, 1934
- II. Δ A-10 to K-10 inclusive, 1944

BM.	S 93	Y 76
	T 93	A 77
	X 93	Gaging Sta 1
	L 93	
	M 93	
	N 93	
	P 93	
	Q 93	
	R 93	

COMPILATION REPORT
To Accompany
SHEET NO. T-8402

26. CONTROL

One triangulation and ^{eleven} ~~nine~~ traverse stations fall within the limits of the sheet and were used for control. This control was adequate and all stations could be held to in the radial plot.

12 BMs.

27. RADIAL PLOT

A discussion of the main radial plot, of which this sheet was a part, is included in the compilation report for sheet T-8399.

28. DETAILING

Two projections were furnished for the quadrangle and the sheet was detailed in two parts but by the same compiler. This was done in order to hasten the field review of the work.

The photographs were clear and of fair scale. The field inspection was adequate and as there was no detail of any importance in the area, no difficulty was experienced in the photographic interpretation or compiling.

29. SUPPLEMENTAL DATA

There were no maps or plans by other organizations used to supplement the photographs or field inspection.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

There are no existing topographic quadrangle maps with which a comparison can be made.

45. COMPARISON WITH NAUTICAL CHARTS

None of the published nautical charts cover the area in detail.

Respectfully submitted,

Frances M. Gaines

Frances M. Gaines,
Photogrammetric Aid.

Forwarded by:

Ray L. Schoppa
Ray L. Schoppa,
Chief of Party.

FIELD EDIT REPORT
To Accompany
SHEET NO. T-8402

146. METHODS

In editing the map compilation, all roads were traversed by truck and a visual inspection was made of all topographic features.

Black ink was used for all additions and classifications; green ink was used for all deletions.

All additions, corrections and deletions are to be found on the ozalid print of the map compilation.

All citrus was classified by the field edit party--where the trees are large and overlap the ground, they are classified as Cit "A"; where they are less than ten feet tall, they are classified as Cit "C".

147. ADEQUACY OF THE COMPILATION

The compilation was found to be adequate and complete except for the additions, deletions and corrections noted on the field edit sheet.

The elevations shown on the map compilation were not checked against those shown on the field photographs by the field edit party, as the photographs were not accessible to this party.

148. ACCURACY TESTS

Covered by separate report.

14. ROAD CLASSIFICATIONS

All road classifications were checked in the field and corrections made where necessary. All roads not previously classified were classified according to instructions.

On the map compilation, it will be noted approximate location of roads, which can be located by referring to photographs 11714, 11716, 11694.

15. BRIDGES

All bridges have been inspected and classified according to instructions. Bridge classifications by the field edit party should supersede all other classifications.

18. GEOGRAPHIC NAMES

The geographic names as shown on the name overlay sheet have been checked against maps in the Tax Assessors office and were found to be correct *LA* as shown.

Respectfully submitted,

Lewis F. Hepburn,
Engr. Aid.

Forwarded by:

Ray L. Schoppe
Ray L. Schoppe,
Chief of Party.

VERTICAL ACCURACY TEST
QUADRANGLE 8402
PROJECT CS-290C

A vertical accuracy test in this quadrangle was accomplished by the writer on field photograph 11717.

The test was accomplished by following a single contour and taking shots on the contour at intervals of approximately 150 feet, which are shown by red dots in prick holes.

The test proves the contour is within the limits of the accuracy required.

Respectfully submitted,

George E. Varnadoe

George E. Varnadoe
Prin. Photo. Aid

TESTS FOR HORIZONTAL ACCURACY
 Quadrangle T-8402
 Project CS 290 C

This test consists of a traverse between triangulation station SCHROEDER and triangulation station VERNA. It is a second order traverse run by the party of Lieut. Comdr. Lovesee. It contains 28 test points, 22 of which are well defined and compiled. All the compiled points are within the boundary of quadrangle T-8402.

The test points are referred to in the computations as P.P. (Photo. Point), and the test points are scaled from the map manuscript and referred to as M.M.

Tabulation of Test Points				
Description of point	Test point number	Latitude ° ' "	Longitude ° ' "	Difference in mm.
Inter. sand road & edge of macadam road 90°	P.P. 1	27 28 932.0	82 22 76.0	.127
	M.M. 1	933.3	78.2	
Inter. road & ditch, 90 degrees	P.P. 2	27 28 929.0	82 21 1134.0	.193
	M.M. 2	955.9	1131.7	
Inter. of trail & road, 90 degrees	P.P. 3	27 28 917.0	82 20 1643.0	.270
	M.M. 3	911.7	1644.2	
Inter. of trail & road, 90 degrees	P.P. 4	27 28 914.0	82 20 1332.0	.332
	M.M. 4	907.4	1332.7	
Inter. drainage & road, 75 degrees	P.P. 10	27 28 836.0	82 18 992.0	.202
	M.M. 10	839.4	988.9	
Inter. ditch & road, 90 degrees	P.P. 11	27 28 830.0	82 18 316.0	.237
	M.M. 11	831.1	318.4	
Inter. road & road, 60 degrees	P.P. 12	27 28 823.0	82 18 275.0	.584 X
	M.M. 12	834.1	271.3	
Inter. road & sand road, 75 degrees	P.P. 13	27 28 30.0	82 18 334.0	.136
	M.M. 13	31.7	336.01	
Inter. fence & road, 90 degrees	P.P. 14	27 27 1175.0	82 18 339.0	.196
	M.M. 14	1174.5	342.9	
Inter road & ditch, 90 degrees	P.P. 15	27 27 1058.0	82 18 338.0	.447
	M.M. 15	1064.9	343.7	
Inter. road & ditch, 90 degrees	P.P. 16	27 27 760.0	82 18 342.0	.398
	M.M. 16	766.4	346.8	
Inter. road & ditch, 90 degrees	P.P. 17	27 27 314.0	82 18 348.0	.378
	M.M. 17	321.02	350.9	
Inter. ditch fence & road, 90 degrees	P.P. 18	27 26 504.0	82 18 362.0	.375
	M.M. 18	498.6	367.2	

Description of point	Test point number	Latitude ° ' "	Longitude ° ' "	Difference in mm.
Inter. sand road & road, 90 degrees	P.P. 19 M.M. 19	27 25 1552.0 1546.3	82 18 376.0 374.9	.290
Inter. road & ditch, 90 degrees	P.P. 20 M.M. 20	27 25 637.0 637.7	82 18 384.0 385.1	.051
Inter. road & ditch, 90 degrees	P.P. 21 M.M. 21	27 24 1382.0 1381.05	82 18 398.0 397.5	.055
Inter. road & ditch, 90 degrees	P.P. 22 M.M. 22	27 24 922.0 922.8	82 18 401.0 402.5	.085
Inter. ditch & road, 90 degrees	P.P. 23 M.M. 23	27 24 138.0 160.05	82 18 410.0 410.5	1.101 X
Inter. road & road, 90 degrees	P.P. 24 M.M. 24	27 23 636.0 637.7	82 17 47.0 47.3	.086
Inter. road & stream, 90 degrees	P.P. 25 M.M. 25	27 23 437.0 435.2	82 16 1297.0 1296.9	.018
Inter. Road & road, 90 degrees	P.P. 26 M.M. 26	27 23 392.0 388.4	82 16 472.0 469.3	.225
Corner of house	P.P. 27 M.M. 27	27 23 372.0 369.04	82 16 146.0 140.4	.316

The manuscript error is less than .5 mm. at all points tested except for test points Nos. 12 & 23. The horizontal accuracy is within the requirements of instructions. 91% of the points tested are within the required accuracy.

Submitted by: 6/17/44

L. W. Swanson
L. W. Swanson,
Lieut. Comdr.

Approved by:

Ray L. Schoppe
Ray L. Schoppe,
Chief of Party.

Remarks

Decisions

1		USGB
2		
3		
4		275826
5		Road Maps
6		
7		27,822-23
8		274822-23
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16		"
17		"
18		"
19		"
20		"
21		"
22		
23		
24		
25		
26		

GEOGRAPHIC NAMES

Survey No. T-8402

VERNA quadrangle

Name on Survey

	A	B	C	D	E	F	G	H	K	
Florida	✓									1
Manatee County	✓									2
Sarasota County	✓									3
Manatee River	✓									4
State Nos. 18A, 161, 180 (southward from Verna), 309										5
										6
Verna	✓									7
Verna Road	(No. 180)									8
Bethany Road	✓									9
Bethany Church	✓									10
Bethany School	✓									11
Waterbury	✓									12
Waterbury Road	✓									13
Sullivan Bridge	✓									14
Fisher Branch	✓									15
Corbit Branch	✓									16
Craig Branch	✓									17
Gilley Creek	✓									18
Little Deep Branch	✓									19
Poley Branch	✓									20
Hoggy Creek	✓									21
Sand Branch	✓									22
										23
										24
										25
										26
										27

Names underlined in red approved
by L. Heck on 6/15/44

RECORDS

Between January, 1942 and July, 1944, this Bureau completed 323 quadrangles. These maps have been published; or are in the process of being published on scales of 1:31,680 or 1:25,000. This series of quadrangles includes a land area of approximately 15,000 square miles. Incident to this work, a considerable volume of survey records and data has accumulated which will be filed for future reference. This material is filed as follows:

Registered and Filed in the Vault.

Cloth-mounted copy of the published quadrangle.

Black and white cloth-mounted copy of the published quadrangle at 1:20,000 scale. This copy is filed to preserve original survey detail shown on the manuscript at 1:20,000 scale which may not have been shown on the published sheet. For woodland, refer to the published quadrangle for the finally adopted outlines.

Descriptive Report.

Filed in the Photogrammetric Division.

Field inspection photographs.

Contoured photographs (on which planetable contouring work was performed.)

Field edit sheet.

Descriptions of recoverable topographic stations (Form 524), filed in Review Section.

Supplementary traverse and level records.

Field notes, computations, lists of positions, and tabulations of results of horizontal and vertical accuracy tests.

Reproduction proof.

Correction sheet (copy of quadrangle showing in red changes to be made when next printed.)

~~Check lists of work performed on each sheet in the Washington Office during review, drafting, edit, and reproduction.~~

Copies of specifications and all instructions to field parties and field offices.

Filed in Reproduction Branch.

Glass negatives of the color separation drawings.

Filed in the Library.

Special report on office work by B. G. Jones, 1944.

Season's report on field work by Commander F. L. Gallen, 1944.

Season's report on field work by Commander R. L. Schoppe, 1944.

Delivered to the Army Map Service in accordance with the contract.

Film negatives and film positives of the color separation drawings.

All color separation drawings.

A correction sheet consisting of a copy of the first edition of the quadrangle with notes in red indicating changes desirable at the next printing.

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF AIR PHOTOGRAPHIC SURVEY T- 8402

Verna. QUADRANGLE

This quadrangle manuscript has been examined for completeness, accuracy, and conformity with the specifications. It is adequate for smooth drafting, reproduction, and publication. Revisions found to be necessary in this office are discussed on the next page.

Horizontal and Vertical Accuracy

*Both tested and found satisfactory.
Refer to preceding pages of this report for
a summary of the tests.*

Previous Surveys

This manuscript has been compared with the following previous topographic surveys of this Bureau and other agencies. This map is satisfactory to supersede the previous surveys over the common area. *None*

Comparison with Nautical Charts Nos. *None*

The manuscript has not been applied to the charts at the date of this review. The following comments are pertinent to the compilation and correction of nautical charts:

The following revisions of the map manuscript were found to be necessary and were accomplished as a part of this review:

None of consequence

Reviewed 8 June 1944 By L. Forrester
under direction of D. H. Benson *per L.F.S.*

Inspected by B. G. Jones *B.G. Jones 1/48*

Examined and approved:

K.T. Adams
Chief, ~~Survey Branch~~
Division of Photogrammetry

H. F. Fitch
Chief, ~~Div. of Charts~~
Nautical Chart Br.

Chief, Topography Section

C. K. Green
Chief, Div. of Coastal
Surveys