

# 8370

no  
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Form 504

## U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

### DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. T-8370 Office No. \_\_\_\_\_

#### LOCALITY

State Florida

General locality Tampa Bay

Locality Auburndale

194 3

#### CHIEF OF PARTY

Ray L. Schoppe - Field  
Kenneth G. Crosby - Compilation

#### LIBRARY & ARCHIVES

DATE

Sept 19-1946

B-1870-1 (1)++

# 8370

DATA RECORD

T- 8370

Quadrangle (II): Auburndale

Project No. (II): CS 290 B

Field Office: 1101 E. Broadway  
Tampa, Florida

Chief of Party: Ray L. Schoppe

Compilation Office: "

Chief of Party: Kenneth G. Crosby

Instructions dated (II III):

Copy filed in Descriptive  
Report No. T- (VI)

Nov. 16, 1942

Completed survey received in office: 1/5/44

Reported to Nautical Chart Section: 1/6/44

Reviewed: 3/6/44

Applied to chart No.

Date:

Redrafting Completed: 4/12/44

Registered:

Published:

Compilation Scale: 1:20,000

Published Scale: 1/31680

Scale Factor (III): 1.00

Geographic Datum (III): N. A. 1927

Datum Plane (III): M.S.L. 1929

Reference Station (III): Auburndale, 1935

Lat.:

Long.:

Adjusted  
Unadjusted

28°03'30.992" (954.0m)

81°47'19.380" (529.2m)

State Plane Coordinates (VI): Fla. W-Zone

X = 568,143.47 ft.

Y = 1,354,013.90 ft. W. Zone

Military Grid Zone (VI) Zone "B"

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
11779	Nov. 13, 1942	----	1:20,000	Inshore sheet
11780	"		"	
11781	"		"	
11782	"		"	
11783	"		"	
11789	"		"	
11790	"		"	

Tide from (III): ----

Mean Range: ----

Spring Range: ----

Camera: (Kind or source) U.S.C. and G.S. Nine lens

Field Inspection by: J. W. Stingley

date: May, 1943

Jr. Topo. Engineer

Field Edit by:

date:

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

Projection and Grids ruled by (III) B.R.C. and F.E.B. date: Apr. 21, 1943

" " " checked by: B.R.C. date: " 22, 1943

Control plotted by: B. R. Finch, Jr. Engr. Drafts. date: Aug. 16, 1943

Control checked by: H.W. Thune, Jr. Photo. Engr. date: " "

Radial Plot by: Tampa Office Personnel date: Aug. 19, 1943

Detailed by: M. N. Lyon, Ass't Engr. Drafts. date: Aug-Dec. 1943  
E.A. Worrell " " "

Reviewed in compilation office by: A.L. Kidwell, Jr. Topo. Engr. date: December 1943  
J.H.S. Billmyer, Ass't Photo. Engr.

Elevations on Field Edit Sheet  
checked by:

GEV

date: Feb. 1944

STATISTICS (III)

Land Area (Sq. Statute Miles); 58.2

Shoreline (More than 200 meters to opposite shore);

Shoreline (Less than 200 meters to opposite shore);

Number of Recoverable Topographic Stations established;

Number of Temporary Hydrographic Stations located by radial plot;

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;

## General Procedure in the Production of Topographic Quadrangles for the War Department

This quadrangle, together with similar adjoining maps produced under Project C.S.290-B, 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, drive-ways, 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

Quadrangle T-8370

Project CS 290 B

The area involved is a  $7\frac{1}{2}$  minute quadrangle bounded on the west by longitude  $79^{\circ}52'30''$ , on the south by latitude  $28^{\circ}00'00''$ , on the east by longitude  $79^{\circ}45'00''$ , and on the north by latitude  $28^{\circ}07'30''$ . The area is located in Polk County, Florida, between Lakeland and Winter Haven.

The area ranges in elevation from 97 feet above sea level on Lake Hancock in the extreme southwestern corner of the quadrangle to 180 feet above sea level in the northeast and central sections. The 180 foot contour is found only as a small, closed contour in the northeast section; this area is completely covered with citrus groves. The general slope of the land is toward the south and southwest.

The northeastern and eastern sections are mostly devoted to citrus growing, and the area is dotted with small lakes. The central and northern portions are mostly grazing and farming country, and the western and southwestern sections are grazing country and swamps which are heavily wooded with deciduous and evergreen vegetation. In dry seasons, these swamps are dry except for a few small, perennial streams in the southern section. In rainy seasons, these areas are found to be wet throughout and would impede progress on foot and in small vehicles. Most of the roads in the quadrangle are used commercially by the farmers and fruit growers. The only main route running east-west across the quadrangle is U. S. Highway 92; there is no main route north-south.

The city of Auburndale is located toward the middle of the quad-

range. Its major enterprise is the citrus packing corporation. The western city limits of Winter Haven are located within the southeastern quadrangle limits. This section is very well populated.

*(see Field Edit Report)*

2. The field inspection for classification of detail is complete. The town of Auburndale and its adjacent areas were inspected by J. Stingley.

3. The swamp and marshy areas are plainly visible on the photographs, the dense sections of these being denoted by a very dark tone. The citrus groves are easily identifiable with the exception of groves where the foliage is extremely thick, and these are identified on the photographs by a solid black area with smooth boundaries. The lakes are identified by dark black color on some photographs and white on others. The intermittent ponds and scattered wooded areas are easily identified, and in some of the heavily wooded areas the evergreen can be picked out by its darker color - the deciduous are of a lighter tone.

4. Horizontal control stations have been established by the Coast and Geodetic Survey and State Survey. Reports and recovery has been completed and submitted to the Tampa office by W. Beaver and Brancroft.

5. Vertical control for planetable contouring was provided by Coast & Geodetic Survey bench marks. All supplemental levels for control of the planetable were run over existing roads and trails. Elevation points were set at road intersections, bridges, and other identifiable points. At some elevation points, where loose sand in the trails might make the elevation vary, stakes were driven flush with the ground and the elevation taken on the top of the stake.

Three long lines were run in this quadrangle between the bench marks on a Second Order line of levels with small closures followed by



secondary lines beginning and ending with recoverable points on the initial lines. All closures were well within the allowable error with the exception of two secondary lines from the southeast to the northwest, the ZY and 2Z lines. These two lines were staisfactorily adjusted, one of which was rerun in part resulting in small closures for the two within the allowable error.

All C & G Survey and Geological Bench Marks have been searched for in this quadrangle and recovery cards made.

Below is a list of Second Order level bench marks used in the control of the supplemental levels run on this quadrangle.

BM XL7 - 1933	BM U 10 - 1934
TL7 - 1933	U 11 - 1934
TS17 - 1933	U 13 - 1934
AL05 - 1942	U 14 - 1934
U 17 - 1933	U 22 - 1934
V 17 - 1933	U 23 - 1934
W 17 - 1933	U 24 - 1934
XL04 - 1942	U 25 - 1934
YL04 - 1942	U 26 - 1934 ( <del>card sent to Tampa</del> recently)
ZL04 - 1942	

6. The contouring was done with the Aid of Aerial Photobraphs. The methods used were with the planetable. Streams in wooded areas were located by planetable traverse, field inspection and stereoscope. The eastern section of the quadrangle is drained by a series of lakes connected by drainage ditches which drain toward the southeast. The central and western parts of the quadrangle are drained by two swamps running two thirds of the length of the quadrangle from north to south. These swamps drain into Lake Hancock in the southern <sup>western</sup> eastern corner. The 100 foot contour in this area becomes submerged

in wet seasons. There are also several lakes that have 140 foot contour around them at the water's edge; this is also submerged in raining seasons. As this quadrangle was worked in a comparatively dry season these contours were not entirely affected and have been located accordingly. There were no large closures of plane-table traverse between vertical control points.

9. Wharves and shoreline structures such as small piers and dock houses around lakes have not been inspected but are easily identified on the photographs.

13. There are four landing fields in this quadrangle. The Auburndale Auxiliary airfield is located on the east side of Auburndale and is used as a practice landing field for Army Cadets; the other auxiliary landing field is located north of Auburndale; both fields have grass runways and can be identified on the photographs. The Winter Haven Municipal Airport is located on U. S. highway 92, about 2 miles east of Auburndale and is in good condition, although it has no hanger facilities. It has asphalt runways that are easily identified on the photographs. The Southeastern Airfield is located about 3 miles south of Auburndale and is now under construction. All the limits of these fields have been shown on the photographs:

14. All roads have been classified accordingly and proper deletions have been made in red ink. Roads that cannot be identified on the photographs have been shown by a dash red line. In general all the 4U roads are very sandy.

15. All bridges have been classified according to the instructions by Mr. Clarence C. Fryer, Jr. Topo. Engineer.

16. All buildings are encircled and labeled in red ink and those that are not easily identified on the photograph have been located by the plane table and blocked in.

17. A report on the boundary monuments and lines of Polk County has been submitted by J. Wilson, Engineering Aid.

18. The portion of the work covering geographic names was accomplished by Mr. Jack W. Stingley, Jr. Topo. Engineer, and is covered by a separate report.

The levels for this quadrangle and that part of the report pertaining thereto were accomplished by Mr. A. W. Rogers, Engineering Aid.

The contouring for this quadrangle and that part of the report pertaining thereto were accomplished by Mr. Sam C. Dionisio, Photo. Aid.

The report on field inspection was accomplished by Mr. Jack W. Stingley, Junior Topographic Engineer, who inspected the area.

Respectfully submitted,

Sam C. Dionisio

Photo. Aid

Approved



Ray L. Schoppe  
Comdr. U.S.C&G S  
Chief of Party

## COMPILATION REPORT

TO ACCOMPANY

SHEET T-8370

### 26. CONTROL

Ten stations, only three of which fell within the tracing limits, were used for control on this sheet. All could be "held" to in the main radial plot and were sufficient for the insurance of an accurate plot.

### 27. RADIAL PLOT

The main radial plot, which included this sheet, is discussed in the compilation report for Sheet T-8368.

### 28. DETAILING

The photographs covering this area were satisfactory for detailing and of fair scale. No difficulty was experienced in the interpretation as the field inspection notes were quite sufficient.

### 29. SUPPLEMENTAL CONTROL

Blueprints of the railroad track layout in the town of Auburndale were the only maps used to supplement the photographs and field inspection. These maps were borrowed from the Tampa office of the Atlantic Coast Line Railway and returned after obtaining the information from them necessary to detail the tracks accurately.

### 36. LANDING FIELDS AND AERONAUTICAL AILS

The four landing fields, which fall on this quadrangle are mentioned in the field inspection under heading number thirteen.

### 44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

There are no existing standard topographic quadrangle maps in the Tampa Office with which T-8370 could be compared.

### 45. COMPARISON WITH NAUTICAL CHARTS

None of the published nautical charts show the area covered by this sheet in detail.

Forwarded by:  
Kenneth G. Crosby,  
Chief of Party....

Respectfully submitted,  
*Emma A. Worrell*  
E. A. Worrell, Ass't Engr. Draftsman.

FIELD EDIT REPORT TO ACCOMPANY  
QUADRANGLE T-8370  
Project CS 290 B  
Ray L. Schoppe, Comdr., Chief of Party

Items 1, 2, 3, 4, and 5 are covered in the Field Inspection Report.

6. Contours and Drainage. After a thorough inspection of the area wherein P.D.U. is shown, it was determined that where the P.D.U. has been deleted, no definite drainage exists. Except for the two streams in the southern part of the quadrangle, the only definite drainage existing is in canals and ditches.

Items 7, 8, 9, 10, 11, 12, and 13 are covered in the Field Inspection Report.

14. Road Classification. All roads not previously classified have been classified according to instructions; and in a few instances, roads have been reclassified by the field edit party.

Items 15 and 16 are covered in the Field Inspection Report.

17. Boundary Monuments and Lines. The city limits of Auburndale have been added to the compilation. These were scaled from a city map.

Contrary to a statement made by the topographer in the Field Inspection Report, it has been ascertained after an examination of a city map of Winter Haven, that the limits of this city do not touch this quadrangle.

18. Geographic Names. A Geographic Names report for this quadrangle was completed by J. W. Stingley, Jr. Topo. Engr; but as the field edit party did not have access to this report, and the name sheet accompanying it (it being used by the Tampa Photogrammetric Office), no check against this sheet has been made to ascertain if all geographic names appear on the compilation. Inquiries were made during the field edit, and no geographic names were found that do not appear on the compilation.

46. Methods. Field edit methods are the same as those discussed in the field edit report accompanying quadrangle T-8376. Refer to that report for this information. All elevations found on the print have been checked against those on the photographs, and corrections made where necessary. All corrections, additions, and deletions are to be found on the cloth bound print of the compilation.

47. Adequacy of the Compilation. The compilation is adequate except for the additions, corrections, and changes noted on the field edit sheet.

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48. Accuracy Tests. Vertical accuracy tests in this quadrangle were run by the writer. The accuracy test on part of the contours accomplished by Mr. Gifford is to be found on field photograph 11789, and the accuracy test on part of the contours accomplished by Mr. Dionisio is to be found on field photograph 11790. The accuracy tests were accomplished by running a single contour and taking shots on the contour at intervals of approximately 150 feet. The accuracy tests are inked in red, with dots showing the actual shots on the contour. Both tests prove that the contours are well within the required limits of accuracy.

For horizontal accuracy test, refer to sections withheld from the Lakeland - Zephyr and Lakeland - Polk City traverses, previously forwarded to the Washington office. These will fall within one or more of the following quadrangles: T-8366, T-8367, T-8368, T-8369, and T-8371.

Respectfully submitted:

*George E. Varnadoe*

George E. Varnadoe  
Prin. Photo. Aid.  
February 15, 1944

Approved:

*Ray L. Schoppe*

Ray L. Schoppe  
Chief of Party

## Remarks

## Decisions

1		
2		Railway Guide
3		"
4		Road Maps
5		"
6		
7		280817-818
8		"
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16		"
17		"
18		"
19		"
20		"
21		"
22		"
23		"
24		"
25		"
26		"
27		"

# GEOGRAPHIC NAMES

Survey No. T-8370

AUBURNDALE quadrangle

1	Name on Survey	A	B	C	D	E	F	G	H	K	
	Polk County			✓							1
	Atlantic Coast Line R.R.			✓							2
	Seaboard Air Line Ry.			✓							3
	U.S. No. 92 (also in part Florida No. 17 on area of this quad.)			✓							4
	Florida No. 61			✓							5
											6
	Auburndale			✓							7
	Eagle Lake			✓							8
	Sears Lake			✓							9
	Olds Lake			✓							10
	Thomas Lake			✓							11
	Deer Lake			✓							12
	Innwood School	✓		✓							13
	Howard Lake			✓							13
	Cannon Lake			✓							14
	Idylwild Lake			✓							15
	Lake Jessie			✓							16
	Blue Lake			✓							17
	Lake Stella			✓							18
	<sup>a</sup> <del>X</del> Southeast Airport			✓							19
	Winter Haven Airport			✓							20
	Lake Sanitary			✓							21
	Ariana Lake			✓							22
	Heart Lake			✓							23
	Lynchburg			✓							24
	Lynchburg Road			✓							25
	Lake Medora			✓							26
	Lake Whistler			✓							27

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T-8370

2

Remarks

Decisions

1		280817-818
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		"
13		"
14		281817-818
15		"
16		"
17	Lake Julian on all available sources, including Names Report: changed to Juliana on manuscript:	"
18	preferable to stick to name as reported, although most of the lake names in vicinity are feminine.	"
19		"
20		"
21		"
22		"
23		"
24		"
25		
26		
27		

# GEOGRAPHIC NAMES

Survey No. T-8370

GEOGRAPHIC NAMES											
Survey No. T-8370											
		On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
2	Name on Survey	A,	B,	C,	D	E	F	G	H	K	
✓	Lake Myrtle			✓							1
✓	Lake Leha			✓							2
✓	Jones Corner			✓							3
✓	Kings Road			✓							4
✓	Winter Haven Road			✓							5
✓	Lake Hancock			✓							6
✓	Saddle Creek			✓							7
✓	Carters <u>Corner</u>			✓							8
✓	Fussells Corner			✓							9
✓	Carver School			✓							10
✓	Old Auburndale Road			✓							11
✓	Eaton Park Road			✓							12
✓	Phosphate Mines			✓							13
✓	Ritter Road			✓							14
✓	Lake Aretta			✓							15
✓	Berkley Road			✓							16
✓	Lake Julian			✓							17
✓	Lake Van			✓							18
✓	Little Van Lake			✓							19
✓	The Gapway	(road)		✓							20
✓	Lake Mattie			✓							21
✓	U.S. Landing Field			✓							22
✓	Lake Alfred			✓							23
✓	Adams Grove Road			✓							24
											25
											26
											27

Names underlined in red approved  
by L. Heck on 3/14/44

M 234

Names underlined in red approved  
by L. HECK on 3/14/44

## 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.

published quadrangle at 1:20,000 scale  
Black and white cloth-mounted copy of the ~~map~~  
~~manuscript~~. 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 ~~political boundaries,~~  
~~woodland, marsh, and swamp limits,~~ refer to the  
published quadrangle for the finally adopted  
~~positions.~~ outlines.

Descriptive Report.

Division.

Filed in the Photogrammetric Section - ~~Surveys Branch~~

Field inspection photographs.

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

Field edit sheet.

Descriptions of recoverable topographic stations  
(Form 524), filed in Reviewing Unit 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.

Original celluloid manuscript.



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 field work by Commander K. T.  
Adams, 1944.~~

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.

~~Original celluloid manuscript.~~

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-8370

AUBURNDALE 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

The nearest horizontal accuracy test was run in quadrangles T-8366, T-8367, T-8368, T-8369 and T-8371.

A vertical accuracy test was run in this area and found to be satisfactory. See Item 48 in the Field Edit Report enclosed in this Descriptive Report.

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.

There are no previous topographic surveys in this area.

Comparison with Nautical Charts Nos.

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:

No nautical charts cover this area.

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

Only changes of a minor nature were necessary during the review of this map manuscript.

Reviewed March 4, 1944 By Willis H. John  
under direction of D. H. Benson *(per W.H.J.)*

Inspected by B. G. Jones *B.G. Jones 8/46*

Examined and approved:

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

~~Chief, Topography Section~~

Robert W. Kiser  
Chief, Div. of Charts  
Nautical Chart Branch  
Raymond E. Kiser  
Chief, Div. of Coastal  
Surveys