

8371

Diag'd. on Diag. Ch. No. - 1257-2(insert)

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. CS-290-B Office No. T-8371

LOCALITY

State Florida

General locality Tampa Bay

Locality Lakeland

1942-43

CHIEF OF PARTY

Ray L. Schoppe

LIBRARY & ARCHIVES

DATE

May 24-1949

B-1870-1 (1)++

8371

## DATA RECORD

T- 8371

Quadrangle (II): Lakeland

Project No. (II): CS 290 B

N2800-W 8152.5/7.5-

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):

Nov. 16, 1942

Copy filed in *Division of*  
~~Report No. T-~~ ~~(VI)~~ *Descriptive**Photogrammetry Office Files*

Completed survey received in office: 24 Jan. 1944

Reported to Nautical Chart Section:

Reviewed: 4/26/44

Applied to chart No.

Date:

Redrafting Completed: 23 May 1944

Registered: 11 Oct. 1948

Published: March, 1948

Compilation Scale: 1:20,000

Published Scale: 1:31680

Scale Factor (III): 1.00

Geographic Datum (III): N.A. 1927

Datum Plane (III): MSL 1929

Reference Station (III): LAKELAND 2,1941

Lat.:

Long.:

Adjusted

28° 02' 52.320" (1610.5m) 81° 56' 36.408" (994.3m)

~~Unadjusted~~ xxxxxx

State Plane Coordinates (VI): Florida, West Zone

X =

Not available

Y =

Military Grid Zone (VI) "B"



PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
11792	11/13/42		1:20,000	Inshore Sheet
11793	"		"	
11794	"		"	
11795	"		"	
11802	"		"	
11803	"		"	
11804	"		"	
11805	"		"	

Tide from (III): ----

Mean Range:-----

Spring Range: ----

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

Field Inspection by: J. W. Stingley date: May, 1943

Jr. Topo. Engineer

Field Edit by: George E. Varnadoe date:

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

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

" " " checked by: F.E.B. 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: Cornelius A. J. Pauw, Prin. Photo Aid date: Oct. Nov. Dec. 1943

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

*Map Manuscript*  
Elevations on ~~Field Edit Sheet~~ G.C. Varnadoe  
checked by:

date:

STATISTICS (III)

Land Area (Sq. Statute Miles): 60.0

Shoreline (More than 200 meters to opposite shore): 21 miles

Shoreline (Less than 200 meters to opposite shore): 8 miles

Number of Recoverable Topographic Stations established: 0

Number of Temporary <sup>Topographic</sup> ~~Geographic~~ Stations located by radial plot: 4

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.2908, 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

QUADRANGLE T-8371 PROJECT CS 290 B

### 1. DESCRIPTION OF THE AREA.

The area is a 7 1/2 minute quadrangle bounded as follows: on the west, by longitude 82° 00' 00"; on the north, by latitude 28° 07' 30"; on the east, by longitude 81° 52' 30"; on the south, by latitude 28° 00' 00". The city of Lakeland is in the southern part of the quadrangle. The population of the city is 22,000.

The northeastern and eastern area is covered by small cypress swamps. The area is very flat and is used chiefly for the grazing of cattle. Very few hard-surfaced roads are to be found in that part of the quadrangle and most of the roads are 4U and 4UP class, making automobile travel difficult in both the extreme wet and dry seasons.

The northwestern and western portion of the quadrangle is comparatively rugged with very much relief. Numerous groves cover this section. This area is more thickly populated than the northeastern and eastern sections.

On the southern boundary and near Lakeland Airport there are a number of phosphate mines, some working and others abandoned. In the areas covered by the mines there are mounds caused by the skimming off of the top surface of the earth, which rise from 25 feet to 45 feet above the natural ground elevation. In the course of these excavations and operations, there are, also, pits remaining, some going as low as 20 - 30 feet below average ground. These pits are almost always filled with water which accumulates from the mining operations and from rains and are designated as bodies of water.

## 2. COMPLETENESS OF FIELD INSPECTION.

As this quadrangle has an urban area thickly settled, there was help given us to carry on the field inspection. This was performed by Mr. Jack Stingley. He not only classified the urban area, but also all features in the field beyond the urban limits.

## 3. INTERPRETATION OF THE PHOTOGRAPHS.

Unimproved sand roads appear to be first class highways on the photographs, due to the white sand showing so plainly.

Dense woods, that is, those of cypress or pine, have photographed very dark, while those areas wooded by scrub oaks and brush are of a much lighter color. Higher land as a rule photographed lighter than the surrounding terrain, as did sandy areas. Citrus groves also have two colors; the more dense and bigger trees are dark while the newer, less dense groves are lighter in color.

## 4. HORIZONTAL CONTROL.

The existing triangulation has been supplemented by portions of two traverses extending across this quadrangle. These are the Lakeland-Polk City and the Lakeland-Zephyrhills traverses and were run by Mr. William A. Rasure, Prin. Photo. Aid.

## 5. VERTICAL CONTROL.

The B.M.'S were established by the C & G Survey and disks set in pre-cast concrete monuments. Supplementary levels were established primarily by Mr. Joseph Wilson, Engr. Aid, and later by Mr. Applefield, Engr. Aid, who finished the leveling on the quadrangle. The lines were established with a builders level and closures were less than 0.3 of a foot. Level notes have been checked and adjusted.

The levels for this area were run with a builders level and two level



rods graduated in feet and tenths of feet. The party consisted of 4 men and the work was accomplished on foot. The northern two-thirds of this quadrangle was leveled by Joseph K. Wilson, and the southern third by M. Applefield.

A network of loop point numbers and their corrected corresponding elevations for the quadrangle were inked in blue on photo. 11794. Elevations were so placed that every square mile within the quadrangle has at least some elevations spotted within it. A greater coverage of elevations was made in the southern third of the quadrangle, particularly in and around the city of Lakeland. Elevation points were set approximately every 1/4 mile along roads and other such features and were located at identifiable points as follows:

1. Center line road intersections indicated on the photo with an X.
2. Center line road and railroad intersections indicated with an X.
3. Intersections of fence lines, brush lines, ditches and edges of woods, fields or orchards with the road indicated with an X.
4. Stakes driven, at doubtful points, to within a few inches of the ground level and labeled reference stake driven in close by, indicated with an XSTK.
5. Center line bridges indicated by XBR and center line culverts indicated by X CV.

The front of each level book was indexed, showing the Loop Number, starting and tie point, length of loop, error of closure, and the photo number on which the inked elevations are to be found.

The control for the levels was based primarily on the USC&G Survey Bench Marks in the middle of the quadrangle, from which a series of controlling lines were run which had closures no greater than 0.3'. From these lines a network of fly-lines were run throughout the area. The average error of closure was approximately 0.198'. The largest errors of closure were in the WBQ Loop (+0.56'), the AK Loop (+0.56') and the WBR Loop (+0.54'). Those loops

*probably,  
±.05*

and all others having a closure greater than + or -0.005' were adjusted, and only the adjusted elevations of those loops having an error of closure of 0.3' or less were used as starting or tie-points for other loops.

All adjustments were made by dividing the error of closure by the number of instrument set-ups and distributing the resultant amount proportionately along the line to the elevation points.

All notes were checked and corrected.

6. CONTOURS AND DRAINAGE.

Photographs 11792, 11795, 11802, and 11804 were used for contouring. Drainage in some instances was very hard to determine. All drainage on the photographs was done either by inspection in the field or by use of the stereoscope. Contouring was done directly onto the photos; a 20-foot interval was used. The contours were established by the topographic parties of Joseph Wilson and Joseph Babic by plane-table survey. Closures on all closed lines were less than one half foot in most instances at plus or minus 0.3 of a foot. The contours in the city proper were established by profiling the city streets and sketching, after inspection, between the blocks.

7. MEAN HIGH-WATER LINE. None

8. LOW-WATER LINE. None

9. WHARVES AND SHORELINE STRUCTURES. None

10. DETAILS OFFSHORE FROM THE HIGH WATER LINE. None

11. LANDMARKS AND AIDS TO NAVIGATION. None

12. HYDROGRAPHIC CONTROL.

There were three hydrographic control stations established and pricked on the photographs. Station <sup>✓ Fm 5-24</sup> Stack was located by plane table, reading stadia distance. The other hydrographic stations were pricked from measurements.

## 13. LANDING FIELDS AND AERONAUTICAL AIDS.

All landing fields were inspected. Reservation and boundary limits were shown in red, and names of airfields were shown when such airfields had names. Emergency fields and those without hard surfaced runways were indicated as such. If the field had hard surfaced runways, that fact was also indicated and runways were identified.

Hangars and other structures were identified on the photo. This quadrangle contains one large training field and is owned by the army. It is classified as a restricted area.

In the northern section of the quadrangle there is a temporary landing field for the Lodwich School of Aeronautics of Lakeland. While this field is now being used, this topographer is of the opinion that it will not accommodate heavier and larger craft except in an emergency. There are no hangers, control tower, or other structures, except a small shelter on the field. The outlines of the usable portion of the field are denoted as follows: — — — —

The Lodwich School of Aeronautics is located one mile north of Lakeland on state highway No. 2 on the western shore of Lake Parker. The Lodwich School of Aeronautics is an elementary flight school for the U.S. Army Air Corps.

There is a radio transmitting tower on the shores of Lake Bonnie--  
Station W.L.A.K. *Shown as a less than 3rd order control station* fm 5-24

There is also another landing field located just north of the Bartow Highway in the southeastern section of the quadrangle. This field is being used by the Lodwich Aeronautical School and is very similar to the temporary landing field in the northern section of the quadrangle.

## 14. ROAD CLASSIFICATION.

All roads were classified according to the prescribed classification. Proper deletions were made when necessary. All streets within the City of Lakeland can be considered classified as Rd. 1 unless marked otherwise. Roads in



this quadrangle are in general of good quality.

#### 15. BRIDGES

All bridges were classified according to the instructions by Mr. Clarence C. Fryer, Jr. Topo. Engineer. There are also a number of railroad drains which are classed as culverts and also a number of cattle guards on some of the 4UP roads which will not bear the strain of a heavy load.

#### 16. BUILDINGS AND STRUCTURES.

All buildings were identified on the photograph by a red circle. Proper deletions were made when necessary, by crossing out the buildings. Buildings and structures within the city of Lakeland, except public buildings, were not identified, since this is classified as urban area. All public buildings were identified and names shown nearby. Buildings other than dwellings were identified and indicated as such on the photo.

#### 17. BOUNDARY MONUMENTS AND LINES.

As no boundaries were encountered with the exception of the municipal boundaries, only those markers that were found on the highways leading into the city are shown. Also, Joseph Wilson has before submitted to the Tampa Office a detailed written description of these boundaries. Also enclosed is a municipal map showing the lines as well as the city streets. These street names are correct and are official by action of the municipal government. These were substantiated by Mr. Wilson, City Engineer of Lakeland, the source of the information.

#### 18. GEOGRAPHIC NAMES.

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

The names on the photos are those which appear on official maps and documents and are substantiated by the enclosed reprint of the street layout of the city of Lakeland.

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

The contouring for this quadrangle and that part of the report were accomplished by Joseph K. Wilson, Engineering Aid, and Joseph J. Babic, Photo. Aid.

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

Respectfully submitted,

Joseph K. Wilson, Engineering Aid

*Joseph J. Babic*  
Joseph J. Babic, Photo. Aid

Approved

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

## ABBREVIATIONS

### ROADS

W	— Width (feet bet. shoulders)
P	— Private road
OP	— Overpass
UP	— Underpass
X	— Abandoned trail, road, etc.
RR	— Railroad tracks; as 2 tracks

### WOODS CLASSIFICATION

#### Density Classification

1	— Scattered
2	— Thinly wooded
3.	— Heavily wooded
4	— Densely wooded

#### Types of woods

D	— Deciduous
P	— Evergreen and pine
R	— Brush
S	— Scrub
Y	— Cypress
L	— Young trees (LP—young pines)
LD	— young-deciduous trees)

### SHORE LINE

HWL	— Mean high water; fast land
LWL	— Low water line
LL	— Light line; marsh shore line
M	— Marsh inshore limits
MW	— Marsh grass in water
Dk	— Dock
Pier	— Pier
Se W	— Sea wall
Bkhd	— Bulkhead
Jet	— Jetty
Dol	— Dolphin
Pile	— Pile
S	— Sand
Mud	— Mud
Rk	— Rock or rocky
Sty	— Stony
Conc	— Concrete
Wo	— Wood
Blf	— Bluff
Dune	— Dune

### BOUNDARIES

F	— Fence
Sty F	— Stone fence
F B	— Fire Break
Hdg	— Hedge
Park	— Park
Cem	— Cemetery
Co	— County
Md.	— Maryland
Va.	— Virginia
Bdy	— Boundary

### VEGETATION

C	— Cultivation
Gr	— Grass

### BUILDINGS

Ho	— House
Ba	— Barn
Sh	— Shed
Bldg	— Building
Bo Ho	— Boat House
Ch	— Church (give name)
Ct Ho	— Court House (give name)
P O	— Post Office (give name)
Sch	— School (give name)
Hos	— Hospital (give name)
RR Sta	— Railroad station
Sto	— Country store or gas sta.
P Sta	— Power Station
Ck H	— Chicken House
D	— Dwelling

### LANDMARKS

FT	— Fire tower
TT	— Transmission tower
RT	— Radio Tower or mast
Air Bn	— Airway beacon
Bn	— Non-lighted aid to navigation
Lt	— Lighted aid to navigation
Tk	— Low tank
Tk elev	— Tall tank
Stk	— Stack

### STREAMS, PONDS & BRIDGES

D	— Largest ditches only
DX	— Small
IS	— Intermittent stream
PD	— Probable drainage
Cr	— Creek
Ca	— Canal
Brg	— Bridge, (capacity & clearance)
Cv	— Culvert (capacity)
Lev	— Levee
Dam	— Dam
P	— Pond
IP	— Intermittent pond



## BRIDGE AND TUNNEL CLASSIFICATION

<u>First Symbol</u>	<u>One Lane</u>	<u>Unlimited</u>
Capacity	5 m.p.h.	
A	50 tons	25 tons
B	25 tons	10 tons
C	10 tons	13 tons
D	10 tons	7 tons
E	6 tons	4 tons
F	Light vehicles only	

### Second Symbol

Vertical Clearance	A - over 14 feet
	B - over 13 feet
	C - over 12 feet
	D - over 11 feet, etc.

### Third Symbol

Horizontal Clearance	A - over 18 feet
	B - over 17 feet
	C - over 16 feet
	D - over 15 feet, etc.

### Fourth Symbol - Year of Classification

## WOODS AND BRUSH

### TYPE

D Deciduous  
E Evergreen  
Cy Cypress

### CONCEALMENT

Z Trees 10 feet or more in height, and thick enough when in foliage to conceal troop and vehicles.

Y Brush and undergrowth thick enough to impede foot troops and conceal troops lying down.

X Scattered trees not thick enough to conceal troops.

W Scattered brush not thick enough to conceal troops.

### TERMINAL FEATURES

HG Higher ground - usually appears in light tone on photograph; either wooded or cultivated area; may be scrub trees or brush. (usually not symbolized on photographs.)

LG Low areas - generally appears dark on photograph; becomes swampy during rainy season; often covered with dense growth of brush.

SW Swamp - ground covered with water or boggy most of the time; lower in elevation than LG; wooded and/or brush.

S Salt marshes

NOTE: The above areas are not outlined. Notes are made on each photograph so in cases can be correctly interpreted.

If sufficient the variation the office.

## ROAD CLASSIFICATION FOR MAPS OF ALL SCALES

CLASS	LABEL	STRUCTURE	LOADING
1	Dependable hard-surface heavy duty road.	Concrete, asphaltic concrete bituminous Macadam, H-15 type structures.	Will bear heaviest loads with little maintenance.
2	Secondary, hard-surface all-weather road.	Surface-treated, oiled gravel, waterbound Macadam, structures generally lighter than H-15 but sturdy.	Will bear fairly heavy military loads in all weather if maintained.
3	Loose-surface graded, dry-weather road.	Gravel or stone surface, stable material, selected sand-clay, etc. Drained and graded.	Will bear light military loads in good weather.
4	Unimproved road.	Graded and drained earth, with very light structure.	Generally unsuitable for military loads.
4U	Truck road	Woods roads, farm roads, etc. over which a standard gage vehicle can be driven.	
5	Trail	(Horse trails, foot trails, etc.)	

Roads with more than two (2) lanes are indicated by note along road, e. g. 3 LANE. Change in lanes shown by tick at point of change. Main roads have two lanes unless otherwise marked.

Private roads are designated by the letter P after the road classification.

### WOODS-CONCEALMENT-CLASSIFICATION—

Class-A:—Trees over 10' high and thick enough to hide troops.

Class-B:—Brush thick enough to hide troops but dense enough to impede progress.

Class-C:—Scattered brush thick enough to hide troops but not thick enough to impede progress.



Control on map manuscript:

Triangulation:	- Lakeland 2, 1941		
Traverse:	- U-3	FGS	1934
	- U-5	"	"
	- U-5A	"	1939
	- U-6	"	"
	- U-7	"	"
	- DC-26	"	"
	- DC-27	"	"
	- DC-28	"	"
	- DC-30	"	"
	- DC-31	"	"
	A(2)		1943
	B(2)		"
	C(2)		"
	-D(2)		"
	E(2)		"
	F(2)		"
	G(2)		"
	H(2)		"
	I(2)		"
	J(2)		"
	-K(2)		"
	-L(2)		"
	Lakeland Azimuth		"
Topographic:	Carpenters & Joiners Smoke Stack		1943
(forms 524)	Radio Tower		"
	Silver Water Tank		"
	Florida Avenue Water Tower		"
Bench Marks:	- A 18		
	U-3 (triangulation)		1934
	U-5	"	"
	U-6	"	"
	U-7	"	"
	B-104		1942
	C-104		"
	D-104		"
	B-105		"
	C-105		"
	-X-55		
	Lakeland		
	Lakeland A		1942
	Z-17		
	Y-17		

COMPILATION REPORT  
To Accompany  
SHEET No. T-8371

26. CONTROL

Control was furnished by one triangulation station and five traverse stations of the F.M.P. Surveys.

~~Two~~ <sup>Seven</sup> marked and twelve unmarked traverse stations established by U.S.C. & G.S. War Mapping Party No. 2 were also available. The twelve unmarked stations were not identified by the field party on either field or office photographs. No descriptions were furnished for the unmarked stations. For detailing purposes only, it was assumed, that these unmarked stations are located at highway intersections.

The distribution of the control was satisfactory.

27. RADIAL PLOT

The main radial plot, of which this sheet was a part, is discussed in the compilation report for sheet T-8368.

28. DETAILING

No unusual difficulties were encountered in detailing the northern and eastern portions of this sheet. The south-western portion, however, presented many difficulties, caused primarily by sharp relief and congestion in the Lakeland City area. It proved necessary to plot numerous additional radial points. To aid in the identification of streets, judicious use was made of the official City map furnished to us by the field party (scale 1 inch = 2000 ft.) The Atlantic Coast Line RR. furnished us blue-prints of their yards and trackage, without which it would have been extremely difficult to detail adequately the extensive RR. development. Not all the trackage has been shown in the main freight yards; however, all the principal through routes have been shown, together with sufficient sidings to yield a clear presentation of the general layout of these yards.

Three open-pit phosphate mines are also located in the southern portion of this sheet. Their physical features have been described in the field report. Hachuring was employed in the detailing of these mines, to indicate the steep embankments and spoil banks. Although some of the minor details were obscured by hachuring, this treatment gives an accurate general presentation of the mines as they are today. The loss of minor details is not felt to be serious, because present mining operations constantly change these areas. 160 and 180 foot contours not completed in mine at S.W. corner. Hachuring and spot elevations should be sufficient.

Field inspection was adequate with the exception of the following items:

(1) Numerous intermittent streams were shown flowing through swamp areas. It is doubtful whether this symbol is applicable, and therefore the P.D.U. symbol has frequently substituted.

(2) Location of Lake shores throughout this area was erroneous. Field inspection indicated shore-lines to be along the edges of open water, disregarding large areas of floating vegetation (principally hyacinth).

The detailer made a field inspection trip to locate shorelines exactly. Numerous chained distances from identifiable objects to the shorelines were taken and recorded in pencil upon field photograph No. 11794.

(3) RR. trackage to the phosphate mine (eastern-most of three mines) was shown incorrectly. The superintendent of the mine was consulted and he indicated the projected limits of this new mine. (Shown by dash and two dots, on the map drawing.)

(4) A large tall <sup>silver</sup> water tank clearly visible on the photographs located at Hunter Str. and Florida Ave. in Lakeland had not been described and marked upon the photographs. It is indicated as a topographic station upon the map drawing; and was tied in in the field by the detailer. Fm 524

(5) There are shown on the field prints B.M.'s established in 1942. No picking cards or descriptions and elevations have been furnished to this office. These B.M.'s, were picked directly from field-photographs onto map drawing and labeled. B.M. elevations, where shown on photographs, were also transferred to map drawing.

(6) Traverse stations shown without names in black (names in blue on back of map drawing only) are picture points. Co-ordinates for these were furnished by War Mapping Party No. 2, however, no descriptions are available in this office. It was assumed that these positions fall at the road intersections. These stations should be deleted in the Washington office.

Name overlay sheet shown precinct and City limits as well as all geographic names.

#### SUPPLEMENTAL DATA

Supplemental data consisted of City map and R. R. trackage plans; their use was indicated under the heading "Detailing" above.



COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES.

There were no existing standard topographic quadrangle maps available in the Tampa Office with which T-8371 could be compared.

COMPARISON WITH NAUTICAL CHARTS

Sheet No. T-8371 being an inshore quadrangle, far removed from navigable waters, no nautical charts are known to exist.

Respectfully submitted,

*Cornelius A. J. Pauw*  
Cornelius A. J. Pauw,  
Prin. Photo. Aid

Forwarded by:

*Kenneth G. Crosby*  
Kenneth G. Crosby  
Chief of Party....

FIELD EDIT REPORT  
Quadrangle T-8371

Items 1 through 13 are covered in the field inspection report.

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

Items 15 through 17 are covered in the field inspection report.

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, 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 or overlay.

46. Methods. The field edit methods are the same as those discussed in the field edit report accompanying Quadrangle T-8376. It will be noted that the Urban area for the City of Lakeland, Fla. has been changed somewhat. This was accomplished by the field edit party measuring and blocking in all buildings, in the area, that are not discernable on the photographs, and circling all others. These buildings were transferred by the Tampa Photogrammetric Office. All elevations found on the compilation 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, except the City Limits of Lakeland, which are to be found on the Chart Paper Print.

47. Adequacy of the Compilation. The compilation was found to be adequate and complete except for the additions, deletions and changes shown on the field edit sheet.

48. Accuracy Tests. A vertical accuracy test was accomplished by the writer on field photograph No. 11802 at Lat. 28 07.0' Long. 81 59.5'. This test was accomplished by running a cross section across several contours and following each contour for several hundred feet on either side of the cross section. The accuracy test is inked in red ink, with shots on the contour at intervals of approximately 150 feet which are shown by red dots in pricked holes. The test proves the contours are within the limits of the accuracy required. A horizontal accuracy test was accomplished in this quadrangle by Mr. W. A. Rasure, but the results of this test are unknown to the writer. *Transverse used for control*

Respectfully submitted:

*George E. Varnadoe*  
George E. Varnadoe, Prin. Photo. Aid.

Approved:

Ray L. Schoppe  
Chief of Party

T-8371

1

Remarks

Decisions

1		USGB
2		
3		Railway Guide
4		Road Maps
5		Road Maps
6		Descrip. Report
7		"
8		
9		280818-819
10		"
11		"
12		"
13		"
14		"
15		"
16		"
17		"
18		"
19		"
20		"
21		"
22		"
23		"
24		"
25		"
26		"
27		"

# GEOGRAPHIC NAMES

Survey No. T-8371

LAKELAND quadrangle

1 Name on Survey

	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	
A	B	C	D	E	F	G	H	K	
✓ Florida									1
✓ Polk County									2
✓ Atlantic Coast Line R.R.									3
✓ State Roads Nos. 2, 34									4
✓ U.S. No. 92 (State No. 17)									5
✓ Lakeland Airport									6
✓ Lodwich School of Aeronautics (west side Lake Parker)									7
									8
✓ Lakeland									9
✓ Eaton Park									10
✓ Eaton Park Road									11
✓ Crystal Lake									12
✓ Crystal Lake Road									13
✓ Reynolds Road									14
✓ Old Auburndale Road									15
✓ Combee School									16
✓ Saddle Creek (in part here)									17
✓ Fish Lake									18
✓ Combee Road									19
✓ Lake Parker									20
✓ Lake Parker Drive									21
✓ Gapway Church									22
✓ Sarden Lake									23
✓ Lake Holloway									24
✓ Lake Bonny									25
✓ Mirror Lake									26
✓ Lake Morton									27

## Remarks

## Decisions

1		280818-819
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		280820
12		281818-819
13		"
14		"
15		"
16		280820 280818-819
17		"
18		281818-819
19		"
20		"
21		"
22		"
23		"
24		"
25		"
26		"
27		"

## GEOGRAPHIC NAMES

Survey No. No. 8371

2	Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K
✓	Lake Hollingsworth									1
✓	Bartow Road	(State No. 2, SE of Lakeland)								2
	Phosphate Pits	(descriptive)								3
	Lake Watkins	does not exist any more								4
✓	Florida Avenue	(State No. 34)								5
✓	Phosphate Mines	(descriptive)								6
✓	Lake Hunter									7
✓	Lake Beulah									8
✓	Wire Lake									9
✓	Lake Bonnet									10
✓	Winston	(any of it here?) very little								11
✓	Swindell Road									12
✓	10th Street									13
✓	Bellevista Drive									14
✓	Griffin									15
✓	Knights-Griffin Road									16
✓	Griffin Baptist Church									16
✓	Griffin Grade School									17
✓	Galloway									18
	Martin Lake	not exist								19
✓	Lester Lake									20
✓	Gibsonia									21
✓	High Pond	int. Pond only ?								22
✓	Providence Road									23
✓	Lake Gibson									24
✓	Lake Deeson									25
	Sick Lake	(no) (very little of it here, if any)								26
✓	Luther Lake	Int. Pond ?								27



T-8511

3

Remarks

Decisions

1		281818-819
2		"
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# GEOGRAPHIC NAMES

Survey No. T-8511

3	Name on Survey	A	B	C	D	E	F	G	H	K	
	<u>Ritter Road</u> ✓										1
	<u>Old Polk City Road</u> ✓ (part of State No. 2)										2
											3
											4
											5
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Names underlined in red approved  
by L. Heck on 5/15/44

M 234

Names underlined in red approved  
by L. Heck on 5/15/44

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF AIR PHOTOGRAPHIC SURVEY T- 8371

LAKELAND QUADRANGLE FLA.

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      See heading No. 48 of  
Field Edit 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.

No earlier surveys cover the area of this map manuscript.

Comparison with Nautical Charts Nos.      This is an inland sheet.

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:

Reviewed \_\_\_\_\_ By Jack P. [Signature]  
under direction of D. H. Benson 26 April, 1944

Inspected by B. G. Jones

Examined and approved:

B. G. Jones  
Chief, Surveys Branch

[Signature]  
for Chief, Div. of Charts

K. T. Adams  
Chief, Topography Section  
Division of Photogrammetry

W. M. Scarfe  
Chief, Div. of Coastal  
Surveys

## 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.