

8491

D.C.No.1251

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. CS-301 Office No. T-8491

LOCALITY

State Florida

General locality Vicinity of Key West

Locality Roca Chica Quad

1943

CHIEF OF PARTY

R.L.Schoppe

LIBRARY & ARCHIVES

DATE June 2, 1949

B-1870-1 (1)

8491

DATA RECORD

T- 8491

Quadrangle (II): *BOCA CHICA, FLA.* Project No. (II): CS 301
N2430-W 8137.5/7.5

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

Compilation Office: Tampa, Fla. Chief of Party: Lieut. Comdr. K.G. Crosby

Instructions dated (II III):
March 3, 1943

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

Completed survey received in office: *22 June, 1943*

Reported to Nautical Chart Section:

58401251

3/4/44

Reviewed: *8/2/43*

Applied to chart No. *1351*

Date:

6/14/44
8/1/44

Redrafting Completed: *11 Oct. 1943*

Registered: *24 Nov. 1948*

Published: *Mar. 1944*

Compilation Scale: 1:20,000

Published Scale: *1:25,000*

Scale Factor (III): - - -

Geographic Datum (III): N.A. 1927

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

Reference Station (III): *GHICA 1934*

or

Lat.: *24° 34' 43.554"* (1340.0m) Long.: *81° 42' 29.634"* (833.8 m) Adjusted

~~UNADJUSTED~~

State Plane Coordinates (VI): *(Will not appear on published sheet)*
Florida East zone:

X = *264,645.8 ft.*

Y = *89,785.94 ft.*

Military Grid Zone (VI) *# 8B*

'Harbor Defense Grid, Key West Area,' will be shown on published sheet by ticks inside nest line.

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
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No photographs used for radial plot. This sheet is a redline print of previously compiled sheets. Such photographs used were for checking the detail by holding to previously compiled topographic features and detailing the Boca Chica Airport area.

Tide from (III):

Mean Range:

Spring Range:

Camera: (Kind or source)

Field Inspection by:

date:

Field Edit by: G.E. Varnados, Prin. Photo. Aid.

date: May 1943

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

(red line print on celluloid)
Projection and Grids ruled by (III) Washington Office date: May 1943

" " " checked by: " " date: "

Control plotted by: (printed on projection) date:

Control checked by: " " date:

Radial Plot by: None

date:

Detailed by: Revision: Marie R. Blake
Jr, Engr. Draftsman

date: June 1943

Reviewed in compilation office by:

J.A. Giles, Asst. Photo. Engr.

date: June 1943

J.H.S. Billmyer
Asst. Photo. Engr.

Elevations on ^{Map Manuscript} ~~Field Edit Sheet~~

checked by: G.E. Varnados, Prin. Photo. Aid.

date: May 1943

STATISTICS (III)

Land Area (Sq. Statute Miles): 8.1 (previously reported by Key West
Photogrammetric Office -1938)

Shoreline (More than 200 meters to opposite shore):

(previously reported)

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:

This sheet is a red line print from previously compiled sheets
No. T-5545 and T-5546 .

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

T-8491

This quadrangle, together with similar adjoining maps produced under Project C.S.301, 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:

PREPARATION OF BASE MAPS

Assembly into quadrangle base sheets by photographic means of previously produced planimetric maps of the area. These maps were compiled by this Bureau from aerial photographs taken in 1935 and were published in 1938 on the scale of 1:20,000. Lithographic prints of the quadrangle base sheets on cloth-mounted paper were furnished to the field parties and similar prints in red ink on celluloid sheets were furnished to the compilation office.

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. The field parties were permitted to make field inspection notes either on the photographs or on the planimetric base sheet.

Contouring by planetable, directly on the photographs or on the planimetric base sheet at the option of the field party. The contouring for this quadrangle was done on the

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

Revision of the planimetric base map from the new photographs and addition of contours and corrections obtained by the field parties. No radial plot was made for this work.

FIELD EDIT

Comparison of a copy of the corrected 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.

Compilation Report Sheet T-8491

GENERAL:

Sheet T-8491 is a revision of a 7 1/2 min. quadrangle made from portions of sheets T-5545 and T-5546, compiled from aerial photographs by the Key West Air Photographic Survey party in 1938. The main revision made was the addition of the Boca Chica Airport, (U.S. Navy Air Field)

Control:

Traverse points TP-17, TP-19, and TP-21, established by the field party in April, 1943, were plotted on the plane table sheet in pencil, then transferred to the celluloid sheet and used for control, in addition to triangulation stations, Rock Point 3 and Big, to tie in the Boca Chica Airport, (U.S. Navy Air Field). The traverse computations and report has been sent to the Washington Office.

Detailing:

The Boca Chica Airport, (U.S. Navy Air Field) was transferred by partly holding to the detail of the previous compilation and the above mentioned control stations, and by tracing directly from the single lens photographs taken by the 17th Antisubmarine Squadron, U.S. Army Air Forces, and two nine lens photographs, taken by the U.S.C. & G.S.

Landing and Aeronautical Aids:

One Aeronautical Aid, Boca Chica Airport control tower, was picked direct from the single lens photograph on to the celluloid sheet T-8491. The scaled geographic position is listed on the attached Form 567

Boca Chica Airport, (U.S. Navy Air Field) falls within the limits of sheet T-8491.

Respectfully submitted by

Marie R. Blake
Marie R. Blake, Jr. Engr. Draftsman

Approved and Forwarded by

Kenneth G. Crosby
Kenneth G. Crosby, Chief of Party

DESCRIPTIVE REPORT

Project CS 301 - Quadrangle T-8491

The field work for quadrangle T-8491 was accomplished on a base sheet compiled in the Washington office from existing planimetric maps.

There is no pertinent information for several of the descriptive report topics. Therefore, only those topics to which existent material is applicable have been used in this report.

1. The area in this quadrangle consists of a group of low and flat mangrove keys. The larger keys are connected by highway bridges and/or the bridges along the abandoned Florida East Coast Railroad, which is now under construction for a new highway.
4. Three additional horizontal control points were located near the airport on Boca Chica Key. These points are road intersections not shown on the map manuscript and were located for the purpose of control for a photograph of this airport (furnished by the U.S. Army) from which this area is to be detailed. The control points are temporary and are unmarked. They were located by theodolite traverse, while running a horizontal accuracy check.
5. Refer to the report on quadrangle T-8488.
6. None
13. The complete Boca Chica Airport is shown in detail on an aerial photograph.
14. All roads were classified according to instructions.

15. All bridges were classified according to instructions.

16. Since the time the compilation was made, a building has been erected near the western limits of this quadrangle, between the abandoned Florida East Coast Railroad right-of-way and the highway. This is shown to scale on the map manuscript.

17. The boundary of the reservation at Boca Chica Airport is not monumented, and the boundary was taken from a reservation map furnished by the U. S. Engineers Corps.

The boundary as shown is indefinite, as the boundary had not been fully determined at the time the field work was done. This information is based on a personal interview with an official of the U. S. Army, who built the airport, and the commanding officer of the U. S. Navy, to whom the airport was transferred.

The boundaries of the city of Key West are the same as indicated in the report on quadrangle T-8490.

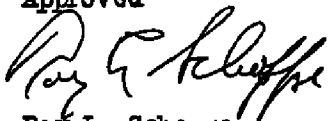
19. Water pipe line - Refer to report for quadrangle T-8488.

Respectfully submitted,



George E. Varnadoe
Principal Photogrammetric Aid

Approved



Ray L. Schoppe
Chief of WMFP#2

47. ADEQUACY OF COMPILATION.

The adequacy of the compilation appeared to be complete except for the additions which have been made to satisfy the particular requirements for this work.

48. ACCURACY TESTS.

A special report will cover the horizontal accuracy tests for the quadrangles of this project. Since there were no contours, no vertical accuracy tests were run.



C. F. Chenworth

Lieut. U.S.C&G Survey

Approved



Ray L. Schoppe

Comdr. U.S.C&G Survey

Chief of Party

Remarks.

Decisions

1		246815
2		245816
3		"
4		"
5		"
6		"
7		"
8		"
9	Not Pelote Creek	" U.S.G.B.
10		"
11		"
12		"
13		" U.S.G.B.
14		"
15		"
16		245817
17		"
18		"
19		"
20		"
21		" U.S.G.B.
22		"
23		246817
24		"
25		"
26		"
27		246816
M 234		

GEOGRAPHIC NAMES

Survey No. T-8491

BOCA CHICA quadrangle

No. 1

Name on Survey

	A	B	C	D	E	F	G	H	K	
	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		
Saddlebunch Keys	✓									1
Pelican Key	✓									2
Saddlebunch Harbor	✓									3
Little Sandy Keys	✓									4
Bird Key	✓									5
Similar Sound	✓									6
Saddlehill Key	✓									7
Geiger Key	✓									8
Geiger Creek	✓									9
Big Coppitt Key	✓									10
East Rockland Key	✓									11
Rockland Key	✓									12
Anonimo Key	✓									13
Boca Chica Airport (U.S. Navy Air Field)				✓						14
Boca Chica Key	✓									15
Boca Chica Channel	✓									16
Raccoon Key	✓									17
Stock Island	✓									18
Cow Key	✓									19
Cow Key Channel	✓									20
Key West	(city)									21
Meehan Field	✓									22
Channel Key	✓									23
Grassy Keys	✓									24
Harper Key	✓									25
Long Point	✓									26
Big Harper Key	✓									27

Remarks.

1		246816
2	North end of Duck Key	"
3		"
4		"
5		"
6		"
7		
8		
9		
10		
11	If this name is applied at all on this quad- angle it should be close to bottom edge.	
12		
13		Road Maps
14		
15		
16		
17		
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19		
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21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No.

No. 2

Name on Survey

T-8491

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
Duck Key	✓										1
Duck Key Point	✓										2
Halfmoon Key	✓										3
Jim Pent Point	✓										4
Shark Key											5
O'Hara Key											6
											7
											8
Gulf of Mexico											9
Hawk Channel											10
Straits of Florida											11
Monroe County											12
U.S. Highway No. 1 (also Florida Highway No. 4 A)											13
											14
Name of quadrangle adjoining on east not yet fixed, but it will probably be either Saddlebunch or Saddlebunch Keys											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

in rod approved
L. Heck on 8/9/43

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF AIR PHOTOGRAPHIC SURVEY T- 8491

BOCA CHICA QUADRANGLE, FLORIDA

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

This map conforms to the National Standard Map Accuracy requirements.

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.

T-5545 & T-4546, 1/20000, 1938 which form the base upon which revisions and additions were made to form T-8491.

Comparison with Nautical Charts Nos. 1251 1/80000

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 important discrepancy of shoreline. Boca Chica airport is not shown on the chart

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

NOTE: This review report is made from scanty notes left by the reviewer.

The Review Report contains page 3 of a report from C. F. Chenworth. Pages 1 and 2 were not in the report nor in the envelope at the time this map was registered, nor does the statistical record at the front of the report indicate the nature of Lieut Chenworth's work. LTS

Reviewed _____ By _____
under direction of D. H. Benson L. R. Harshman, 29 July, 1943

Inspected by B. G. Jones *B.G. Jones*

Examined and approved:

A. C. ...
Chief, ~~Survey Branch~~
Nautical Chart

~~Chief, Div. of Charts~~

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

W. M. Sciffe
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.