6349

Graphic Control

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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R.S.Patton, *Director*

State: Florida

DESCRIPTIVE REPORT

Topographic
~~*Hydrographic*~~ } *Sheet No.* B 6349

LOCALITY

Key West, Fla

Stock Island and Boca Chica Key

1934

CHIEF OF PARTY

W. H. Bainbridge

U. S. GOVERNMENT PRINTING OFFICE: 1933

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. B

REGISTER NO. 6349

State Florida

General locality ~~Key West, Fla.~~ Florida Keys

Locality Stock Island and Boca Chica Key

Scale 1:10,000 Date of survey Nov., and Dec., 1934

Vessel Party No. 22

Chief of party W. H. Bainbridge

Surveyed by E. W. Albrecht

Inked by E. W. Albrecht

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated July 20, 1934

Remarks:

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET "B", PROJECT H.T. 191, KEY WEST, FLORIDA, IN ACCORDANCE WITH INSTRUCTIONS DATED JULY 20, 1934.

GENERAL:

Topographic Sheet "B", drawn to the scale of 1:10,000, was done chiefly to provide hydrographic control points.

The sheet gives such information along the shores of Stock Island, Raccoon Key, Channel Key, and part of Boca Chica, comprising an area bounded on the north by parallel 24° 36' 30"; on the south by parallel 24° 33' 20"; on the east by meridian 81° 41' 10"; on the west by meridian 81° 45' 30".

That portion of Key West Island shown on Sheet "B" has been transferred from topographic Sheet "A".

The principal features on Sheet "B" are the F.E.C. Ry. bridge intersected by meridian 81° 43', and the highway bridge joining, in a southeasterly direction, Stock Island and Boca Chica. A short strip of beach is presented by a full line, at the southeasterly extreme of the mentioned highway bridge, on the southwesterly tip of Boca Chica.

The dotted and dashed lines on Sheet "B" indicate very roughly a shoreline. The information was assembled from large scale maps, the transfer to this sheet having been effected by means of a pantograph. No pretense to accuracy is made relative to the shorelines, as not coming within the scope of objectives for this sheet, which was to supply primarily hydrographic control. Exact topographic data are to be obtained from aero-photography procedings, in the near future.

Mangrove growth, i.e. mangrove trees and bush cover the area shown as land on Sheet "B". Much of this mangrove growth thrives in water a foot deep and will appear as "land" or "islands" on aero-photographs without really being either.

Shoals of considerable extent make up the main submerged area of the Atlantic Ocean, on Sheet "B". The same condition holds true with regards to the northerly basins - as part of the Gulf of Mexico. Geological classification defines the bottom formation as amorphous limestone, (calcium carbonate), which local terminology frequently, but incorrectly, identifies with "Coral Rock", due to the presence - not in abundance - of low coral reefs such as are built up in all sub-tropical (and tropical) waters by polyps, i.e. rock building organisms.

LANDMARKS:

(a) Visible from the Atlantic Ocean, are:
1. The long white wooden highway bridge connecting the northeasterly tip of Stock Island with the southwesterly extreme of Boca Chica.
2. Either of the two radio towers at the U.S.Airways Station. They are of square cross-section and painted in alternate white and red horizontal sections.
3. Massive red brick masonry structure and super-structure of East Martello Tower, an obsolete fort of some historical rating.

(b) Visible from the Gulf of Mexico:
1. Large concrete bridge of the F.E.C. Ry., near the middle of the sheet.

Visible from the air, are:
Same features as cited in preceding paragraph, and,
1. Track of the F.E.C. Ry. traversing the area in a general east-westerly direction.
2. Country Club House on the north shore of Stock Island.
3. A group of buildings on the narrow southeasterly extension of Stock Island, the most conspicuous one being the northerly high-gabled house of Mr. Martin Key (Hydrographic control point "Key").

See report on "Landmarks", Form 567, dated Oct. 23, 1935 and chart section No 9, attached to that report. W.W.B. Landrye

CHARACTER OF CONTROL:

Vertices of first order on Sheet "B" are East Martello Tower and Rock Point 3. The former was recovered.

Rock Point 3, Stock, and Channel Key were newly determined as points of second order (excepting Rock Point 3).

Newly determined were furthermore, as points of third order: N.E.Radio Tower (U.S.Airways) Country Club (East Gable), Chan, Chica, Section Corner, Coon, Long Point, Beacon No. 85 and No. 79.

By means of the well distributed triangulations system, most of the hydrographic control stations could be fixed by graphical triangulation. All set-ups or plane-table stations were located by the three-point problem. Traversing proper by the telemetric method as seemed possible on the F.E.C.Ry. track and on the highway bridge, was not relied upon as a single or principal factor of determining plane-table stations.

Hydrographic control point "Aid" (mile post) served as a plane-table set-up, at the same time. Graphical triangulation i.e. intersections, were checked by stadia distance measurements wherever possible.

TRAVERSE CLOSURES:

A criterion as to closures by traversing could not be applied in view of the fact that determinations of plane-table positions by the three-point problem seemed more practical. All available sights on triangulation stations were

utilized at such set-ups.

SURVEYING METHODS USED:

The method employed to obtain the data recorded on Sheet "B" was the plane-table procedure, which means the use of the alidade, the plane-table proper, and a telemeter rod. The hydrographic control points were for the greater part determined by graphical triangulation (intersection), the remainder by distance and direction measurements.

In three instances wooden platforms had to be constructed at convenient points in shoal water so as to effect favorable intersections for plane-table operation. Various set-ups were made in water, particularly in checking the location of hydrographical control points as, Flat, Cop, Gin, Nag, and Mut.

Out of 64 hydrographic control points shown on Sheet "B", 13 have been transferred from Sheet "A" for reasons of completeness. They are: Colt, Lim, Pet, Star, Tea, Corn, Ral, Show, Free, Nose, Low, Ad, Flat.

Among the remaining 51 hydrographic control points only one, Aid, found use as a plane-table set-up. The S.W. Radio Tower and the Tank (elevated) in the vicinity of triangulation station Net were located on this sheet.

CHARACTER OF MARSHES AND EXTENT COVERED BY WATER:

A location of swamps and ~~immediate~~ inundated areas did not come within the scope of objectives for Sheet "B". The water near the shore lines in general is shoal; with tidal action the shore lines are inundated and will recede to a contour line difficult to determine. When the tide is low the formerly submerged area remains saturated with moisture giving the appearance of swamp land or marsh land without factually being of such nature. Even an approximate estimate of the extent of marshes would under the circumstances seem highly fallacious. Aero-photographic operations may shed some light on the subject.

INCOMPLETE WORK AND REASONS THEREFOR:

Topographic information of the low order as only could be presented on Sheet "B" was not considered expedient, nor economical. Aero-photographic operation is expected to satisfy this feature, at an early convenience.

MAGNETIC OBSERVATIONS:

The one station on this sheet, where magnetic observations were practiced is "Tea." The results averaged with two other observations on Key West Island fixed a magnetic declination of N 2° 43'E fro Key West and was assumed to be the same for Sheet "B".

S T A T I S T I C S

Area surveyed in square statute miles - - - - - - - - - - 0.0

Length of detached shore-line in statute miles - - ---- 0.5

Length of roads - 0.9

Respectfully submitted,

E. W. Albrecht

E.W.Albrecht, Surveyor,
U.S.Coast & Geodetic Survey.

Approved:

W. H. Bainbridge

W.H.Bainbridge, H.& G.E.
Chief of Party,
U.S.Coast & Geodetic Survey.
Oct. 29. 1935

GEOGRAPHIC NAMES

Survey No. 6349

Date. Nov. 14, 1935

Chart No. 1251

Diagram No. 1251

Approved by the Division of Geographic Names, Department of Interior. ✳

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Key West Island ✓	584 ~~Key West~~			
	Cow Key Channel ✓				
	Stock Island ✓	same			
	Cow Key ✓	same			
	Raccoon Key ✓	same			
	Channel Keys ✓ O.K.	same			
	Bush Key ✓	same			
	Boca Chica ✓	same			
	F.E.C.R.R. ✓				
	CHANNEL KEYS ✓	584			

Names approved Dec. 16 1935

O. M. Meginnes

(M-136)

M 189

REVIEW OF GRAPHIC CONTROL SURVEY T-6349 , SCALE 1:10000 , 1934

Date of Review 12/9/38

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5546, , , with particular attention to the following details:

(a) Projection has been checked in the Field.

(b) Accuracy of location of plane table control points.

(c) Discrepancies between detail on this survey and the air photo compilations listed above.

(d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above. None

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T- , , , for a more complete discussion of any errors or discrepancies found.

Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section.

Notes and corrections resulting from the review are shown on this survey in green.

Refer to air photographic survey T 5546 for topography of this area. T 6349 was made for the location of hydrographic stations and the preliminary sketching of shore line for use on the boat sheets prior to the completion of the air photographic surveys.

B.G. Jones
12/9/38