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Diag. Cht. No. 1252-1

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*
Field No. Office No. *26483*
26495

LOCALITY

State *Florida*
General locality *Approaches to*
Locality *Key West.*

194

CHIEF OF PARTY

P. A. Welker

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U. S. COAST AND GEODETIC SURVEY.

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Superintendent.

State: *Florida*

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DESCRIPTIVE REPORT.

Hydrographic Sheet No. { *2648*
2649 }

LOCALITY:

*Approaches to Key
West*

1903

CHIEF OF PARTY:

P. A. Welker & W. L. Vinal

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St. "Hydrographer",
Baltimore, Md., July 18th, 1903.

ACKNOWLEDGED

JUL 18 1903

Mr. C. H. Tittmann,
Superintendent, Coast & Survey,
Washington, D.C.

C. & G. SURVEY ARCHIVES

Sir:

The following descriptive report relates to the recent hydrographic survey of approaches to Key West, Florida.

Soundings in West Channel were made for the purpose of developing the Anchorage for deep draught vessels. They extend from 81° 52' 45" to 81° 56' 20" West Longitude, and about one-quarter of a mile on either side of 24° 30' 00" North Latitude. The drag was used while sounding and the lines were run at an average distance of forty meters apart. Over a greater part of the area surveyed the depth exceeded five fathoms, with sticky bottom, and no obstructions, or coral heads, etc., were found.

None of this area of deep water is shown in the

surveys of Sand Key and South West Channels; the work in the last named channel being done by the party under Assistant P. H. Walker.

Sand Key Channel, extending in a general N. N. E. direction from a point about two and one-half miles N. W. of Sand Key Light House is not buoyed. It is however considered safe for vessels drawing less than 18 feet, with a smooth sea and in the daytime. A narrow passage, between four and five fathoms deep, crosses the bulkhead at the outer end of this channel; inside of the bulkhead the channel widens and deepens. With comparatively little excavation Sand Key Channel can be made safe for vessels of 24 feet draft, affording a short and direct course to a point one mile west of buoy No. 6, when the sailing directions for entering by South West Channel can be used. A rock, of small area, about one-half mile S. E. of buoy No. 4, with 19.2 feet of water over it, is the most dangerous spot in this vicinity. Sand Key Channel is not used by vessels running to and from Key West. The channels most in use are the Main Ship Channel, from the S. E., South West Channel, North West and West Channels. These are all well marked with buoys and beacons.

Key West City, at the west end of the island of Key West, has a population of 20,000. It is the county seat of Monroe County, Fla.

Steamers of the Peninsular and Occidental Steamship Line from Miami, on the east coast of Florida, and from Tampa, on the west side, stop here several times a week on their way to and from Havana, Cuba.

Boats of the Mallory Steamship Line, running from New York to Galveston, Texas, touch here weekly.

There is considerable trade, carried on by schooners, with the Bahama Islands, and with the Florida Keys.

Several small Marine Railways are located here, the largest of which belongs to Mr. Curry's Sons. The dimensions of this Railway are: Depth over sill, 16 feet; length of Cradle, 175 feet; Capacity, 1000 to 1200 tons.

It is intended to double the capacity of this Railway and to add 100 feet to the length of the cradle.

There is an important Naval Station at Key West.

It is provided with a large Equipment Building, condensing and distilling apparatus, concrete cisterns for the storage of water, water barge, coaling plant with a capacity of about 15,000 tons, two piers, each having two movable coal handling cranes, and every facility for supplying vessels.

Coal and water is furnished, not only to vessels of the Navy, but to those of the Revenue Cutter Service, Light House Service, Coast and Geodetic Survey and Fish Commission. This station is connected with the cone at Dry Tortugas by cable and wireless telegraph. Barracks, east of the city, are garrisoned by U.S. Artillery. Fort Taylor and Batteries are located at the west end of the island -

A U.S. Marine Hospital and a U.S. Weather Bureau Station are located in the city. The Post Office and Custom House occupy the same public building.

The principal industries of Key West are cigar making, sponging and wrecking. The city is traversed by an electric street railway 10 miles in length, is well lighted by electricity, and the streets are surfaced with crushed coral rock. The city has a good park, a public library, two good hotels, public, private and convent schools, and a number of churches of various denominations. The highest point in the city is about 12 feet above mean tide.

Respectfully yours,
 W. Irving Vinal,
 Assistant, Coast & Geodetic Survey,
 Commanding.

Report
on
Hydrographic Sheet
No. 2648.
Approaches to Key West,
The Anchorage-West Channel,
Florida,
Assistant Vinal,
1903.

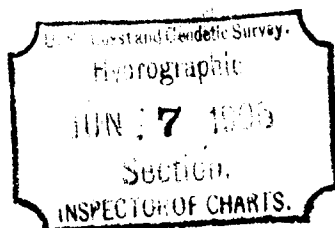
The tide gauge used for the reduction of soundings should be noted at the beginning of each day's record.

Leadline correction should be applied to reduced soundings and so noted, that the correction can be made with certainty. (See notes on verification of Hyd. Sheet 2643 for comment on result of operations with drag and use of fractions in sounding and plotting.)

The work is incomplete and does not develop the area covered; but is of good quality apparently.

1/20/04.

J. T. Watkins. (Signed).



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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tinsmann
Superintendent.

State: *Fla.*

DESCRIPTIVE REPORT.

Hyde Sheet No. *2649*

LOCALITY:

Lake Thomas
right only
See

2648

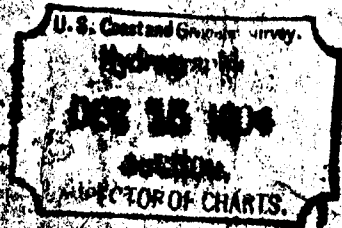
1903

CHIEF OF PARTY:

P. A. Walker

2649

REPORT
ON
HYDROGRAPHIC SHEET
NO. 2649
Approaches to Key West
Sand Key Channel
Fla.
Assistant Vinal.
1903.



Beginning and ends of lines should be described by reference to natural or other objects, signals or projection intersections on boat sheet.

No erasures should be made in sounding record, corrections being entered without the use of a rubber. Where errors are found in leadline, sextant, clock, etc., in course of a day's work, a note of same should be entered at beginning of record for that day.

Tide gauge used for reduction of soundings should be noted in sounding record. That there is any sufficient reason for attempting or pretending to determine depths to the nearest half foot in 7-1/2 fathoms of water with "choppy sea, 1-1/2 to 2 ft. high" is a matter of extreme doubt. Especially in the open waters of the Gulf of Mexico, particularly where the soundings are recorded in fathoms, feet and tenths. Often the recorded mistakes 0.5 ft. for 5.0 ft., etc., and so records it; the result being that the soundings appear to be not more than 1/4 ft. in error where they are not within 4 ft. of the true depth. Except on bars or rocks, where for some particular purpose a precise determination of depth is required, soundings should be taken and recorded in fathoms and feet (no fractions) or feet and tenths. The degree of

precision actually attained in this work is clearly indicated by the discrepant curves and soundings where sheets 2649 and 2643 overlap, the average difference being about one foot. Yet they are plotted to the nearest quarter foot.

The work is good and is lacking only in completeness, some further development being required as will appear from an examination of the sheet.

1/19/04.

J.T.Watkins. (Signed).