

5922

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
DEC 24 1935
Acc. No.

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~TOPOGRAPHIC~~ }
Hydrographic } Sheet No. 8

Project H. T. 191

State FLORIDA

LOCALITY

FLORIDA KEYS

CUDJOE KEY TO SUGARLOAF KEY

193 5

CHIEF OF PARTY

No. 22

W.H. BAINBRIDGE

U. S. GOVERNMENT PRINTING OFFICE

5922

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

U. S. COAST & GEOD. SURV.
LIBRARY AND ARCHIVES
DEC 23 1935
REG. NO.
Acc. No.

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

Field No. 8

REGISTER NO. **H5922**

State FLORIDA

General locality FLORIDA KEYS

Locality CUDJOE KEY TO SUGAR LOAF KEY

Scale 1:10,000 Date of survey July 10 - Aug. 1, 1935

Vessel PARTY NO. 22

Chief of Party W.H. BAINBRIDGE

Surveyed by C.L. ROSHORE & C. B. HARVEY

Protracted by L. G. KING

Soundings penciled by C.G. LEWIN

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by C. F. Mc. Kenney

Verified by W. R. Jackson

Instructions dated July 20, 1934, Supp. Aug. 6, 1934

Remarks: _____

H-5922
5*-pp.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 8

AUTHORITY:

Director's Instructions dated July 20, 1934.
Supplemental Instructions dated August 6, 1934.

LIMITS:

~~Risky Lake~~ ^{Sugarloaf Sound} The water area within Sugar Loaf Key known as ~~Risky Lake~~ and the Sugar Loaf Channel between Sugar Loaf Key and Cudjoe Key, northward from the railroad bridge to the Inside Route.

SURVEY METHODS AND EQUIPMENT:

The soundings were made from a flat bottomed barge or punt, propelled by 13 H.P. outboard motor, with sounding pole and lead line.

The control was three point fixes on signals located by triangulation, and by sextant angles on triangulation stations.

Exact delineation of channels and the location of the sounding lines between positions 72b & 73b, located about 300 meters east of signal "Bet"; between positions 19d & 20d, and between 43r and 44r in Gandalfo Creek, located about 600 meters north of triangulation station "Gandalpho"; will depend upon the photo-topographic sheet of this area.

DISCREPANCIES:

The crossings of sounding lines and the junctions with sheets 6 & 7 were satisfactory. The maximum difference was one foot as shown on the sheet which, in many cases, was within $\frac{1}{2}$ foot (the $\frac{1}{2}$ foot was not plotted). The difference of one foot is to be expected in such a bottom, mud and rock.

DISCREPANCIES (CONTINUED):

The sheet is about 30% covered but that covered is considered to be completed.

DANGERS:(Obstructions)

1. As the draft of craft using the waters covered by this sheet is usually less than three feet the dangers to be avoided are the extensive shallow areas. Practically the entire bottom is rock, covered in spots with a grayish-white mud of undetermined thickness.
2. The piling of an abandoned railroad trestle, used in the construction of the railroad, intersects the highway bridge at signal "Road" (the eastern end of the bridge) and extends northwestward in Sugar Loaf Channel from this point to Lat. 24-40.45/Long. 81-31.9. Some of the piling have rotted off at the low water line, but many project $1\frac{1}{2}$ to 2 feet above high water.
3. The headroom and horizontal clearance of the multiple arch concrete railroad bridges are given for the following points: at high water:
(a) 300 meters ~~east~~^{west} of signal "Bet" - 6' headroom, 20' horizontal clearance. (b) 30 meters east of signal "Bet" - $5\frac{1}{2}$ ' headroom, 16' horizontal clearance. (c) Between Cudjoe Key and Sugar Loaf Key, south of signals "Road", "Span", and "Sig" - 8' headroom, 25 feet horizontal clearance.
4. The highway bridge on which signals "Road", "Span", and "Sig" are located has a vertical clearance of 6 feet and a horizontal clearance of 20 feet at signal "Span", the opening prepared for boats. However, the spans on both sides of the wide opening have a head room of 7 feet and a horizontal clearance of $9\frac{1}{2}$ '. The spans adjacent to the main opening and alternate span are blocked by diagonal bracing.

CHANNELS:

1. Sugarloaf Channel is the channel between Cudjoe Key and Sugarloaf Key connecting Hawk Channel on the south with the Inside Route.

The part of the channel covered by the sheet is from the railroad bridge south of signals "Road", "Span", and "Draw" to the Inside Route, north of triangulation station "Sugar".

The controlling depth of this channel is 2 feet. This limiting depth is found between beacons Nos. 17 and 18 near Lat. 24-41/Long. 81-32.4.

CHANNELS: (CONTINUED)

2. ⁴Gandolfo Creek is the name sometimes used in referring to the canal dredged through the southeastern part of Sugarloaf Key from Sugarloaf Sound to Sugarloaf Channel. This ~~channel~~ is located about 600 meters north of triangulation station "Gandolpho".

The eastern entrance is awash at mean low water.

Work on this channel was begun with the intention of furnishing a passageway for boats between the Sound and the Ocean, but a hurricane wrecked the dredge and the canal was not completed; according to local information.

COMPARISONS WITH PREVIOUS SURVEYS:

The agreement between the soundings shown on Chart No. 1251 and this sheet is very satisfactory except that the deeper water in the barrow pits on wither side of the string of piling in Sugarloaf Channel (Piling described under "Dangers") is not indicated on the chart.

GEOGRAPHIC NAMES:

1. Sugarloaf Channel is the generally accepted name of the marked route between Cudjoe Key and Sugarloaf Key, connecting Hawk Channel and the Inside Route.

This is the name given in the Local Light and Buoy List, Cape Lookout to Dry Tortugas, 1935, for the channel.

2. The shallow water area ~~area~~ enclosed by Sugarloaf Key approximately between the triangulation stations, "Gandolpho", "Sweet", "Perky", "S.W. Base", "Tip", and "Lake") is known as Sugarloaf Sound by old residents. This name was used in an act passed by the State Legislature in closing the sound for a sponge farm. The act was later repealed.

Since a Mr. Perky has established a sponge farm in the area, the name Perky Lake has been applied, presumably, by those interested in the project.

3. The small tidal watercourse through the southeastern part of Sugarloaf Key between the Ocean and Sugarloaf Sound, is known as Gandolfo Creek. However, this name has also been applied to the dredged canal which begins at the northwest end of the natural creek and runs slightly north of east to and through the east shore of Sugarloaf Key.

4. The small cove in the vicinity of triangulation station "Flag Pole" on the eastern shore of Sugarloaf Key has been given the name of Pirates Cove by the builder of the Pirates Cove Fishing Camp. The camp was built about 1926.

LANDMARKS:

For landmarks and Aids to Navigation see Report on Form 567, dated October 23, 1935. *Chart letter 944*

TIDAL NOTE:

The tidal control was furnished by portable automatic tide gauges at stations:

Gondolfo Creek	Lat. 24-37.8 /	Long. 81-30.9
Johnston Key	" 24-42.65 /	" 81-35.67
Perky Lake	" 24-39.3 /	" 81-32.3
Pirate	" 24-39.75 /	" 81-30.75 ⁹⁰
Ruf	" 24-42.1 /	" 81-31.6-
Key West Std.	" 24-33.2 /	" 81-48.5

The area of the sheet is divided into zones for tidal reducers. The zones are indicated in purple ink each with its gauge, time, and range.

The gauge, time, and range for each zone is shown in the index of each sounding record.

Curves were drawn only when the reducers could not be taken directly from the marigrams.

STATISTICS:

Statute miles of sounding lines	107.4
Number of soundings	4,296
Number of Positions	805
Number of days of sounding	15
Area in square miles (statute)	11.6

Report written from notes made by hydrographers, C.L. Roshore, Surveyor, and C.B. Harvey, Observer.

Respectfully submitted,

W. H. Bainbridge
W. H. Bainbridge,
Chief of Party.

December 19, 1935

Name and maker of paper was not shown on sheet because it was not known.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H5922**

The following statistics will be submitted with the
cartographer's report on the sheet:

Number of positions on sheet	..80.5
Number of positions checked!!
Number of positions revised!
Number of soundings recorded	..4.296
Number of soundings revised	...17.
Number of signals erroneously plotted or transferred

Date: *Dec. 8, 1936*

Verification by *W. R. Jackson*
Inked by *C. F. McKenney*
Review by *R. J. Christman*

Time: *18 hrs.*
Time: *14½ "*
Time: *16½ "*

Report on H-5922

1. The records conform to the General Instructions. ✓
2. No shore line or control has been received in the office. Sec. 1136
3. Sounding line crossings agree. ✓
4. The zero curve could not be completely drawn because of the lack of shore line. The 6 ft. curve was completely drawn. ✓
5. Aids to navigation are the beacons which were located ~~by signals~~ on the sheet by the field party except No. 19 and 20. ✓
These locations however should be checked by topo or photo. Signals were verified by field party. Shoreline comparison however is needed when topography becomes available.
6. No junctions were made. H-5923 and H-5925 have not been completed and it is doubtful if they will make a junction.
7. The field plotting was satisfactory. ✓
8. Between pos. 3 and 4 "h" a 6 ft. sanding falls in deeper water. This appears to be a recorder's

2470-N 20 7709-57

the 6 1/2 has been retained. a similar sounding
300 meters to the southeast was marked OK in
the sounding record. Fill material was removed
from this area while the railway was being
built and it is possible that some lumps
remain. These spots are not "dangerous to
navigation" as the controlling depth for this
channel is only 2 feet. Rpl

error and instead of 7 ft. it should have
been 11 ft. The sounding then would reduce
to 10 ft. and would be in perfect agreement.
It is suggested that this sounding be rejected
Lat. 24 - 40.05 6 1/2' sounding retained
Long. 81 - 31.20

In two places the soundings were not
inked because it was felt that their
location would depend considerably ~~on~~ ✓
on the topographic detail. see below

Lat. 24 - 38.9 and Lat. 24 - 37.8
Long. 81 - 33.5 Long. 81 - 30.5

Respectfully submitted,

William R. Jackson

12/8/36

shoreline, low water line, bridge clearances, (& penciled
soundings) all inked from T-5545. This sheet
to date has not been reviewed. There is only
one conflict between shoreline & hydrography, that at
 $\phi 24^{\circ} 37.5'$ $\lambda 81^{\circ} 31.0'$ which will be straightened out
at time of review.

W.A.B. 6/28/38

(OVER)

After a thorough search it was decided to show the bridge clearances in $\phi 24^{\circ} 39.7'$ & $81^{\circ} 31.0'$ as follows:

highway vert 6 ft
horiz 20 ft

R.R. ver. 8'
hor. 25'

The search included finding this conflicting information:

HIGHWAY BRIDGE	Sound Rec. Vol. 1, p. 69	Des Rpt	Bridge List
T-5545			
vert 9	vert 8 1/2	6	17
horiz 22	horiz 15	20	24

R.R. BRIDGE
T-5545

9
25

8
25

8
25

Values on T-5545 changed to agree with #5922 / B.G.F.

22/8/51

HYDROGRAPHIC SURVEY NO. H5922

Smooth Sheet yes

Boat Sheet 1

Sounding Records 3 Vols. _____

Descriptive Report yes

Title Sheet yes

List of Signals Vol 1

Landmarks for Charts (Form 567) yes *Chart letter 944/1935*

Statistics yes

Approved by Chief of Party no *Desc. Rep. written by chief of party from notes by the hydrographers.*

Recoverable Station Cards (Form 524) none

Special Chart for Lighthouse Service (Circular Nov. 30, 1933) no *no floating aids*

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

~~SURVEY~~
 DESCRIPTIVE REPORT } No. H 5922
~~PHOTOGRAPH OF~~ } ~~No. H~~

{ received December 23, 1935
 { registered Jan. 2, 1936
 { verified
 { reviewed
 { approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25	✓		<i>See P. R. pages 2 & 3 - "Channels"</i>
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	
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C.K.G. - Jan 4 '36

GEOGRAPHIC NAMES

Hydrographic

Survey No. H5922

Name on Survey	Source of Name																	
	A	B	C	D	E	F	G	H	K									
<u>Sugarloaf Key</u> ✓	1251										1							
Sugarloaf Sound ✓		Accepted in preference to "Perky Key" O'Keefe									2							
																		3
																		4
																		5
																		6
		Names approved Jan. 13 1936 O'Keefe									7							
											8							
✓ <u>Cudjoe Key</u>	169 1251	✓	✓	✓							9							
✓ <u>Sugarloaf Key</u>	169 1251	✓	✓	✓		✓					10							
✓ <u>Sugarloaf Channel</u>				✓					✓		11							
<u>Sugarloaf Sound</u>			✓	✓							12							
<u>Sugarloaf Creek</u>	169 1251		✓	✓							13							
<u>Rattlesnake Lumps</u>				✓							14							
<u>Dreguez Key</u>				✓							15							
<u>Tarpon Creek</u>				✓							16							
<u>Pirates Cove</u>				✓		✓	✓				17							
<u>Perky</u>				✓		✓	✓				18							
											19							
											20							
											21							
											22							
											23							
											24							
											25							
											26							
											27							

Names underlined in red approved
by L. Hack on 6-30-38

Remarks

Decisions

1		
2		
3		
4		
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7		
8		
9		
10		
11		
12	Not recommended by T-5545: used only by railroad	
13		Not on H-5922
14		
15	Douglas Key on chart 169. Also on mil. # 796	
16	T-5545 says older name than Gandolfo Creek.	
17		
18		
19		
20		
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23		
24		
25		
26		
27		

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography:

January 16, 1936

✓ Division of Charts: Attention: Mr. E. P. Ellis

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5922

Locality Cudjoe Key to Sugar ^{one word} Loaf Key, Florida Keys

W. A. B.

Chief of Party: W. H. Bainbridge in 1935
Plane of reference is mean low water reading

- 4.7 ft. on tide staff at ~~Gandolfo~~ Creek
- 4.5 ft. below B.M. 1 ~~TARPON~~
- 2.4 ft. on tide staff at Johnston Key
- 2.0 ft. below B.M. 1 ~~Sugarloaf Key~~
- 3.9 ft. on tide staff at ~~Perky Lake~~
- 9.4 ft. below B.M. 1
- 3.0 ft. on tide staff at Pirates Cove
- 14.8 ft. below B.M. 1
- 2.0 ft. on tide staff at Michael Key
- 3.7 ft. below B.M. 1

Allowance made when necessary for difference in time and height of tide at place of sounding.

~~Condition of records satisfactory except as noted below:~~

Height of mean high water above plane of reference is 0.4 ft. at ~~Gandolfo~~ ^{Tarpon} Creek and ~~Perky Lake~~ ^{Sugarloaf Key}; 1.0 ft. at Pirates Cove; 1.4 ft. at Johnston Key; 2.3 ft. at Michael Key.

W. A. B.
Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5922 (1935) FIELD NO. 8

Cudjoe Key to Sugarloaf Key, Florida Keys, Florida
Surveyed in July - August 1935, Scale 1:10,000
Instructions dated July 20, 1934 (W. H. Bainbridge)

Hand Lead and Pole Soundings.

3 Point fixes on shore signals.

Chief of Party - W. H. Bainbridge.
Surveyed by - C. L. Roshore, C. B. Harvey.
Protracted by - L. G. King.
Soundings penciled by - C. G. Lewin.
Verified and inked by - C. F. McKenney and W. R. Jackson.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

The Descriptive Report is complete and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the development are in accordance with the instructions for the project, except that fewer cross lines were run than were specified in the instructions (see par. 14 of Instructions to H. A. Cotton, dated Nov. 17, 1933).

3. Shoreline and Signals.

The shoreline originates with 1935 Topographic Maps T-5545, T-5546 and T-5547.

The locations of signals were determined by triangulation and by sextant fixes recorded in the sounding records.

4. Sounding Line Crossings.

The agreement in depths at the crossings of lines are satisfactory.

5. Depth Curves.

Within the area surveyed the usual depth curves can be satisfactorily drawn.

6. Junction with Contemporary Surveys.

The junctions with H-5925 (1935) and H-5923 (1935) to the north and west will be considered in the reviews of those sheets.

The boat sheet has been returned to the field for continuation of surveys to the south and east.

7. Comparison with Prior Surveys.

H-2006 (1890).

This survey on a scale of 1:40,000 shows widely spaced zigzag lines over the entire area covered by the present survey. The agreement in depth is good but depths of 1/2 to 1 foot greater are found in some places. The channel west of Cudjoe Key was the source of fill material while the railway was under construction and depths in this locality are from 3 to 7 feet deeper than on the above survey. Because of the larger scale and closer development of the present survey, H-5922 (1935) should supersede the above survey for charting purposes.

8. Comparison with Chart 1251 (New Print dated April 21, 1936).

a. Hydrography.

Within the area of the present survey the chart is based on the survey discussed in the foregoing paragraph and contains no additional information that needs consideration in this review.

b. Aids to Navigation.

The aids to navigation (beacons and channel markers) were charted from advance information given by the present field party (Chart letter 944 of 1935) and are in agreement with the positions given on the survey.

9. Field Plotting.

The field plotting was very satisfactory.

10. Additional Field Work Recommended.

The survey is satisfactory and no further work is required in the area surveyed.

11. Superseded Old Surveys.

Within the area surveyed the present survey supersedes the following survey for charting purposes:

H-2006 (1890) in part.

12. Reviewed by - R. J. Christman, Dec. 21, 1936.

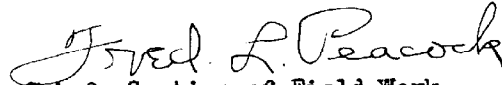
Inspected by - A. L. Shalowitz.

Examined and approved:



T. B. Reed,
Chief, Section of Field Records.

K. T. Adams
Chief, Division of Charts.



Fred L. Peacock
Chief, Section of Field Work.



G. H. Hude
Chief, Division of H. & T.

25 ~~19~~ 19
Jan 6, 1936

Applied to CAN 1251 - Dec - 1938 - J.W.S.
Checked for application to 1251 June 1952 J.W.S.
Applied to Ch 854 J.W.S. 5/25/56
" " " 853 J.W.S. 10/27/58