

4695  
4695

Form 504

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

....., Director

State: New Jersey

U. S. COAST AND GEODETIC SURVEY  
L. & A.  
Acc. No.

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 4695  
Hydrographic }

LOCALITY

Cape May

Cape May Harbor

1927

CHIEF OF PARTY

G.C. Mattison, R.F.A. Studs

4695

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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. 1

REGISTER NO. 4695

State NEW JERSEY

General locality Cape May Harbor

Locality Cape May Harbor

Scale 1/5,000 Date of survey Aug. Oct., 19 27

Vessel RANGER

Chief of Party G.C.MATTISON, and R.F.A.STUDDS

Surveyed by R.C.OVERTON, C.F. EHLERS

Protracted by J.M.BAKER JR.

Soundings penciled by J.M.BAKER JR.

Soundings in ~~fathoms~~ feet

Plane of reference M.T.L.

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by \_\_\_\_\_

Verified by \_\_\_\_\_

Instructions dated July 13, 19 27

Remarks: \_\_\_\_\_

DEPARTMENT OF COMMERCE  
U.S.COAST AND GEODETIC SURVEY  
E. LESTER JONES, DIRECTOR.

C. & G. SURVEY  
L & A  
DEC 19 1927  
Acc. No.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET #1, 4695

CAPE MAY HARBOR, N. J.

S.S. RANGER

G.C.MATTISON,  
Chief of Party.

1927.

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SHEET #1  
CAPE MAY HARBOR, N.J.

Instructions dated July 13, 1927.

The survey of Cape May Harbor was made on the scale of 1 to 5,000. It included the harbor proper and such navigable waterways and creeks that enter into the harbor, with the exception of the outer entrance. The waterways included are: Cape Island Creek, in the vicinity of Schellengers Landing, Skunk Sound, Mill Creek, the inland passage to Jarvis Sound and Wildwood, and the waterway to the Pennsylvania R.R. Fish Dock. The survey was carried into the entrance channel to 1300 meters from the outer end of the jetties, allowing sufficient overlap of the work done in the entrance by the U.S. Army Engineers.

SURVEY METHODS:

The launch "MARINDIN", the motor dinghy and the whale-boat were used in making the survey.

The hand lead, with wire centered line was used entirely in sounding.

Work in the creeks and waterways was done using the motor dinghy. When running against the current, it was found that a uniform and slow speed could be obtained. All sounding lines in these places were run against the current. An attempt was made to use the whaleboat in the waterways but was given up. It was found to be too difficult to maneuver for sounding, due to the current. The whaleboat was later used for development work.

Soundings were obtained alongside the face of the Penn. R.R. Fish Dock, the docks at the Coast Guard Base and the two large docks shown at Schellengers Landing. These soundings have not been plotted on the sheet.

The signals used were located by triangulation and topography.

An automatic tide gauge was in operation at the U.S. Coast Guard boat-house during the survey.

DISCREPANCIES:

Unusual soundings and discrepancies have been noted as follows:

At the entrance to the inland passage, a 9.5 foot sounding was obtained, plotting in the vicinity of 21 foot soundings. Probably due to variation in speed and error in time, as it is near the end of the line.

The 8-1/4 and 9-1/2 foot soundings at the entrance to Skunk Sound, spaced poorly due to current or being off time. They should be plotted closed inshore.

Note the 30 foot sounding at position 23 b, whale-boat and those soundings between 23 and 24 b.

All discrepancies have been noted on the smooth sheet.

GENERAL RESULTS:

The harbor westward of the Coast Guard Docks is <sup>of</sup> uniform depth excepting for a shoal on which the least depth was found to be 5 feet. It is marked by a black can buoy, 35 meters north of the shoal. This shoal extends about 200 meters to the southward. The banks of the harbor are generally steep-to, due to previous dredging operations. X

A good anchorage is afforded to the westward of the shoal, in this part of the harbor, with a generally sticky bottom.

The entrance channel is generally deep water, between three and four fathoms. At the junction between Mill Creek, the inland passage and the channel, the effect of the current can be noted. A shoal has been built out into the channel from Mill Creek. Attention is called to the 8.5 foot and 9.5 foot soundings that are almost in the center of the passage to Jarvis Sound and the Penn. R.R. Fish Dock.

The harbor is limited by 14 foot and 15 foot depths in the vicinity of and to the westward of the flashing white buoy.

Mill Creek and Skunk Sound can hardly be considered navigable and are only used by local fishermen with small craft.

Schellengers Landing is used by the larger fishing craft for docking. There are numerous boat-houses in that vicinity along Cape Island Creek. Soundings were taken along face of the docks at Schellengers Landing and another line sounded some 5 to 20 meters off and found considerably deeper. The latter have been plotted.

CURRENTS:

All currents are tidal currents. They reach their maximum velocity in the waterways and are quite pronounced in the entrance channel. The time of slack water is very short.

COMPARISON WITH CHART:

The one foot sounding was not verified. Five feet was the least depth found on the shoal. Twenty eight feet was the maximum depth found in the entrance channel where 30 feet is shown now. Other soundings are practically the same. Differences in shoreline are shown on the topographic sheet for this section.

Forwarded  
J. C. Mathison  
Adj. S. S. Ranger.

Respectfully submitted.

Carl F. E. Reed

Statistics  
Sheet #1  
Cape May Harbor, N.J.

DATE 1927	Letter	Vol.	Posi.	Soundings	Miles Stat.	Vessels
Aug. 10	A	1	80	286	9.3	Marindin
Oct. 20	B	3	52	366	2.5	"
Sept. 13	a	2	127	664	10.2	Motor Dinghy
Sept 14	b	2	117	644	8.2	" "
Sept. 15	c	2	99	499	6.8	" "
spt 16	d	3	50	481	3.4	" "
Sept. 17	e	3	22	82	1.4	" "
Sept. 14	a	2	12	97	0.8	Whale-boat
Oct. 13	b	3	71	398	2.9	" "
Totals			630	3517	45.5	

Area Surveyed      0.80 sq. stat. miles.

TIDE

Automatic Tide Gauge at Coast Guard Dock, Cape May Hbr.

Plane of reference - reading on staff      2.7'

Lowest tide observed      "      "      "      1.9'

Highest tide observed      "      "      "      9.0'

LIST OF SIGNALS  
 Sheet # 1  
 Cape May Hbr. N.J.

NAME	LAT.	D.M.	Long.	D.M.	Remarks
Wood tank (Wood)	38 57	S e e	74 57	S e e	Triangulation
Pole	38 57		74 52		"
Tripod (Pod)	38 57	T o p	74 53	T o p	"
C.G.Lockout Tower (Rod)	38 56	e g r	74 52	e g r	"
Navy P.H. Stack (Stack)	38 56	a p h	74 53	a p h	"
Hotel Chim. (Hot)	38 56	i c	74 54	i c	"
Water Tower (Tow)	38 56	R e p	74 55	R e p	"
Dee	38 57	o r t	74 52	o r t	Topographic
Red	38 57	t	74 52	t	"
Top	38 57		74 52		"
White	38 56		74 51		"
Tel	38 56		74 52		"
Chim	38 56		74 52		"
Bul	38 57		74 52		"
Boat	38 56		74 53		"
Go	38 56		74 53		"
Ran	38 56		74 53		"
Ma	38 56		74 53		"
Shack	38 57		74 54		"
Gab	38 56		74 54		"
Dog	38 56		74 54		"
Res	38 56		74 54		"
Cat	38 56		74 <del>55</del> 54		"

LIST OF SIGNALS  
Sheet #1

Name	Lat.	D.M.	Long.	D.P.	Remarks
East	38 <sup>m</sup> 56		74 54		Topographic
West	38 56		74 54		"
Gas	38 56		74 54		"
Flag	38 56		74 54		"

Copy for Records Section.

DECEMBER 10, 1927.

(11)

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in  
5 volumes of sounding records for

HYDROGRAPHIC SHEET 4695

Locality: CAPE MAY, NEW JERSEY.

Chief of Party: G. C. Mattison, 1927.

Plane of reference is M L W

2.7 ft. on tide staff at Cold Spring Inlet.

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

*G. C. Mattison*

Chief, Division of Tides and Currents.

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

January 11, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4695

Surveyed in 1927

Chiefs of Party, G. C. Mattison and R. F. A. Studds.

Protracted and soundings plotted by J. M. Baker, Jr.

Verified and inked by H. E. MacEwen.

1. The records conform to the requirements of the General Instructions except that the boat's headings by compass were omitted throughout. Also the system used by the field in designating the day's work by letter is confusing. A uniform progressive arrangement was not used and in one case the work on one day was interspersed throughout the work on other days.
2. The plan and character of the development fulfill the requirements of the general instructions except in the sounding of the streams and inlets. No cross lines were run in the narrow streams thus making the location of the actual channel doubtful and the drawing of the depth curves difficult. There are several soundings on the sheet that should have been investigated or developed to clear up doubt as to their correct location or the correctness of depth.
3. The plan and extent of the development satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The usual depth curves can be completely drawn except the six foot curve, and the twelve foot curve in some areas. At the entrance to Inland Passage the development is not sufficient to completely delineate the channel.
6. The field plotting was completed to the extent prescribed in the General Instructions.
7. The office draftsman did not have to do over any of the work done by the field draftsman. The soundings along the face of the four docks were omitted on the sheet. These were shown by the drawing of insets on a larger scale to show all the soundings omitted.

8. There are no sheets joining this work.
9. No further surveying is required to fully develop important areas within the limits of this sheet, except at the entrance to Inland Passage to Wildwood.

More lines of soundings in this locality judiciously placed would establish beyond doubt the location of the main channel whereas at the present time the gaps in this area might hide shoals or a channel not indicated.

There has been considerable dredging done within the area covered by this sheet which may account for the few irregular depths.

10. Remarks: Following are some soundings that might bear investigation:-

- |               |  |               |                 |                                |
|---------------|--|---------------|-----------------|--------------------------------|
| ✓ 8 1/2 feet  | Lat. 38° 57'   | 245.0 meters  |                 |                                |
|               | Long. 74° 52'  | 774.2 meters  |                 |                                |
| ✓ 9 1/2 feet  | Lat. 38° 57'   | 187.5 meters  |                 |                                |
|               | Long. 74° 52'  | 800.0 meters  |                 |                                |
| { 18 1/2 feet | Lat. 38° 57'   | 339.6 meters  | Deep near shore | ✓                              |
|               | Long. 74° 52'  | 1078.3 meters |                 |                                |
| 3 1/2 feet    | At signal $\odot$ Bul falls considerably inside the low water line as established by topographic survey. |               |                 | <i>This is a -3.0 foot sdg</i> |
| 30 feet       | Lat. 38° 57'   | 347.3 meters  | Deep near shore | ✓                              |
|               | Long. 74° 53'  | 21.6 meters   |                 | <i>A L S</i>                   |
| 8 1/2 feet    | Lat. 38° 57'   | 364.1 meters  |                 | ✓                              |
|               | Long. 74° 53'  | 434.7 meters  |                 |                                |
| 3 1/2 feet    | Lat. 38° 57'   | 384.2 meters  |                 | ✓                              |
|               | Long. 74° 53'  | 467.9 meters  |                 |                                |
| 16 1/2 feet   | Lat. 38° 56'   | 1811.7 meters |                 | ✓                              |
|               | Long. 74° 53'  | 408.7 meters  |                 |                                |
| 8 1/2 feet    | Lat. 38° 56'   | 1709.4 meters |                 | ✓                              |
|               | Long. 74° 53'  | 547.4 meters  |                 |                                |
| 9 1/2 feet    | Lat. 38° 57'   | 660.0 meters  | approx          |                                |
|               | Long. 74° 52'  | 698.7         | "               | "                              |

11. Rating of work:

- a. Character and scope of surveying, good.
- b. Field drafting, good.

12. Reviewed by H. E. MacEwen.

Sheet inspected by A. L. Shalowitz.

Approved:

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Chief, Section of Field Records (Charts)



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Chief, Section of Field Work (H. & T.)

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