

5871

5871

Form 504  
Rev. April 1935

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

**DESCRIPTIVE REPORT**

Topographic }  
Hydrographic } Sheet No. 2

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State New Jersey

LOCALITY

Barnegat Bay

Tom's River and Vicinity

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1935

CHIEF OF PARTY

Jack C. Sammons

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. 2 5871

REGISTER NO.

State NEW JERSEY<sup>10</sup>

General locality Inland waters Barneqat Bay<sup>12</sup>

Locality ~~Barneqat Bay~~ Toms River and Vicinity<sup>19</sup>

Scale 1:10,000 Date of survey June, 1935

Vessel Chartered launches

Chief of Party Jack C. Sammons

Surveyed by L. C. Adams

Protracted by C. J. Harryman

Soundings penciled by C. J. Harryman

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

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

Inked by G. C. Mc-Glosson

Verified by G. C. Mc-Glosson

Instructions dated May 16., 1935

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

## DESCRIPTIVE REPORT TO ACCOMPANY

### HYDROGRAPHIC SHEET NO. 2.

#### INSTRUCTIONS

The work on this sheet was done in accordance with instructions dated May 16, 1935, Project H.T.205.

#### LIMITS OF SHEET

This sheet extends from Lat.  $39^{\circ}53'$  to Lat.  $39^{\circ}57'$  and from Long.  $74^{\circ}05'$  to Long.  $74^{\circ}12'$  and includes all of Barnegat Bay within these limits, as well as all of Toms River as far as the limits of the chart. It joins on to Sheet No. 1 at the northern limits and to Sheet No. 3 at the southern limits.

#### SURVEY METHODS

All work on this sheet was accomplished by standard launch hydrographic methods, using shallow draft chartered motor launches. All soundings are recorded in fathoms and feet and reduced to feet. Sextant fixes were taken to objects located by triangulation on an aluminum mounted graphic control sheet. The shore line was transferred from tracings on celluloid of the photo compilation.

#### CHANNELS

The main channel of the New Jersey Inland route passes through the section of Barnegat Bay shown on this sheet. It has a controlling depth of five feet near buoy No. 43. The channel is well marked by beacons, buoys and temporary day markers.

Toms River has a controlling depth of six feet as far up as the city of Toms River. The controlling depth in Barnegat Bay to the northward in sheet No. 1 is five feet and to the southward on this sheet it is five feet. The channel is well marked by buoys and day markers. There are no other channels of importance on this sheet.

#### DANGERS

Beacon No. 48-A (Lat.  $39^{\circ}55.7'$  - Long.  $74^{\circ}06.2'$ ) is a single pole with red flashing light on top. It is in the northeast end of a wreck which is bare at all stages of the tide. This wreck is in six feet of water. There are two wrecks submerged at all stages of the tide near

Lat. 39°55.2' - Long. 74°05.1'. These wrecks are in shallow water and of little importance, except to shallow draft boats.

The spans in all the bridges are being discussed in a special report on Coast Pilot notes.

#### DISCREPANCIES

The cross line in Toms River below Long Point disagrees from one to two feet. It will be noted the tide curves for Beachwood and Island Heights are approximately one-half foot apart on this day and that in applying these reducers, another half-foot error is introduced by dropping the fractions. It is believed this accounts for the apparent disagreement in cross lines.

#### GEOGRAPHIC NAMES

No new names were obtained for geographic features shown on the sheet. All names shown were taken from Chart No. 3243 and appear to be in common usage.

#### LANDMARKS FOR CHARTS

Lists of land marks for charts and non-floating aids to navigation are attached to descriptive reports for the graphic control sheets and another list with section of chart showing their location, was forwarded direct to the office under separate cover.

#### COMPARISON WITH PREVIOUS SURVEYS

There is no overlap of soundings on this sheet and sheet No.1, as the limits of both sheets are the highway bridge. These two sheets appear to join very well. There is a good overlap of soundings at the junction of this sheet with sheet No. 3 and the soundings agree within one foot. All soundings shown on Chart 3243 were transferred to an overlap sheet for this smooth sheet and very little changes were noted.

#### CHANGES IN SHORE LINE

This party located no shore line except on the outside beach and we have only a rough tracing of the shore line as determined by the photo compilation party. No comparison was made by this party to determine changes in shore line.

*Jack C. Sammons*  
Lt. Jack C. Sammons.  
Chief of Party.

STATISTICS FOR HYDROGRAPHIC SHEET NO. 2 5871

Date 1935	Day Letter	Statute Miles of Sounding Line	Number of Soundings	Number of Positions
May 24	a (EmmaW)	15.2	994	135
25	b	19.5	1173	161
27	c	17.3	1104	156
28	d	15.9	1086	159
29	e	14.0	816	117
30	f	19.8	1172	164
June 3	g	18.7	1043	146
4	h	9.9	574	76
5	j	9.0	509	75
6	k	20.6	1145	162
7	l	22.7	1351	182
8	m	21.6	1239	208
11	n	22.2	1386	232
12	p	25.7	1277	189
13	q	21.8	1064	161
14	r	7.2	513	96
17	s	19.0	967	135
20	t	18.1	1068	149
21	u	12.6	739	109
22	v	16.1	840	120
24	w	19.6	1136	159
25	x	15.0	848	122
26	y	12.2	877	129
25	a' (Doris)	11.7	640	108
26	b' "	7.8	402	54
July 11	Z	0.0	49	54
<b>Totals</b>		<b>413.2</b>	<b>24012</b>	<b>3558</b>

HYDROGRAPHIC SIGNALS  
SHEET NO. 2  
Lt. Jack C. Sammons.

Triangulation Stations

Topographic Stations

Triang. or Topo Name	Hydro Name	Year	Hydro Name	Sheet
△ Island Heights S.P.	Land	1932	Toby	D
△ Coates	Coates	1935	Feed	"
△ Park	Park	1935	Coal	"
△ Tom	Tom	1935	Esso	"
△ Wrights Light Cupola	Rite	1935	Gulf	"
△ Bend	Bend	1935	Sum	"
△ Penn	Penn	1926	Pointey	"
△ Luck	Luck	1935	Apex	"
△ Pottery	Pot	1935	Jim	"
△ Ocean View	Ocean	1932	Mac	"
△ Island Beach C.G. Station	Sta	1926	Gene	"
△ Layman	Lay	1926	Bocar	E
△ Seaside Park W. T.	Side	1932	Imm	D
△ Homs River C.G. Cupola	Cup	1935	Stand	"
△ Homs River C.G. Flagtower	River	1935	High	"
△ Seaside Heights S.P.	Pipe	1926	Ted	D
T Lawn	Lawn	1935	Mark	"
T Dock	Dock	1935	Long	"
T Boardwalk	Walk	1934	Gate	"
T F.P. Polyhue Yacht Club	Hue	1934	Ban	"
T Bulkhead	Head	1935	Gill	"
T Red Cupola	Red	1934	Sign	C
T Inn Tank	Tan	1934	Way	C
T Flag Pole 1	Front	1935	Pol	"
T Flagpole 3	Flack	1935	Hat	"
T Bank	Bank	1935	Tuley	"
T Wanamaker Flag Pole	Make	1935	Yat	"
T Cottage	Cot	1935	Sam	"
T Pier	Pier	1935	For	"
T So. Gable Grey House	Gray	1934	Max	"
T Dome	Dome	1935	Cri	E
T Cupola Gate House	Small	1935	Em	"
			Tab	"
			Pola	"
			John	E

△ Located by Triangulation.  
T Located by Topography.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5871 .....

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

Number of positions on sheet	3558
Number of positions checked	.52.
Number of positions revised	..0...
Number of soundings recorded	24012
Number of soundings revised	.3098
Number of signals erroneously plotted or transferred	One

Date: 2 May, 1936  
Verification by E. C. McElroon  
Review by R. J. Christman

Time: 11 days 3 hours  
Time: 10 hrs

HYDROGRAPHIC SURVEY NO. 5871

Smooth Sheet Yes

Boat Sheet 1

Sounding Records 13 Vols. \_\_\_\_\_

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol. 1

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Report written by Chief of Party  
No

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service  
(Circular Nov. 30, 1933) No Lighthouse Service aids on this chart.  
No

Remarks \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## TIDE NOTE FOR HYDROGRAPHIC SHEET

December 11, 1935.

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
13 volumes of sounding records for

HYDROGRAPHIC SHEET 5871

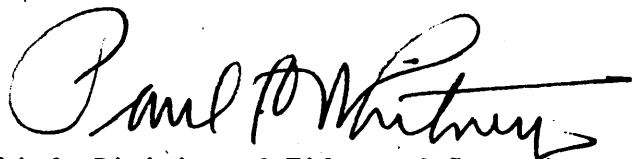
Locality Toms River and Vicinity, Barnegat Bay, N. J.

Chief of Party: J. C. Sammons in 1935  
Plane of reference is mean low water reading  
2.8 ft. on tide staff at Island Heights  
3.7 ft. below B.M. 1  
2.9 ft. on tide staff at Beachwood  
5.6 ft. below B.M. 1

Height of mean high water above plane of reference is 0.6 foot at  
both Island Heights and Beachwood.

Condition of records satisfactory except as noted below:

Due to a mistake in tabulating tide record for Island Heights it was  
necessary to correct ~~several~~ many of the tide reducers.



Chief, Division of Tides and Currents.

# Verification Report on H 5871

1. The records conform to the requirements of the General Instructions.
2. The usual depth curves are shown as far as possible. The main channel has a controlling depth of five feet, and Towns River has a controlling depth of six feet. However on the sheet the half foot was added or dropped in order to smooth out the one fathom curve where possible.
3. The field plotting was completed to the extent prescribed in the Hydrographic Manual.
4. The office draftsmen had to do over drafting done by the field party as follows:  
Throughout the records the tide reducer was corrected and it changed the sounding as shown on the smooth sheet, consequently the verifier revised 3098 soundings. Moreover the shoreline was shown in pencil, except in

in a few places, and it was taken from a rough tracing of the shoreline as determined by the air photo compilation party. Therefore many corrections were made when this shoreline was checked by the verifier. The progress of the sheet was rather slow due to the above facts.

5. The junctions with contemporary adjacent sheets will be considered at a later date as they have not been finished at the present time.

6. The shoreline was taken from air photo compilation sheets, T 5329, T 5330, and T 5096. B. 1932.

The signals were taken from the Aluminum mounted control sheets, T 6396 a, T 6396 b, and T 6397 a.

7. In volume 8, page 57, between positions 35 and 36 g. The hydrograph records a "clump of sod" submerged. This note was not plotted on the smooth sheet because the verifier does not believe it is of any importance, for charting purposes.

8. In volume 5, page 66, position 82; volume 8, page 14, position 54 n; and volume 8, page 11, position 39 n, fish nets are recorded but are not definitely located, however a note is made on the smooth sheet to this effect and a leader is drawn to show the approximate location.

9. In hole  $39^{\circ} 54.9'$ , log  $74^{\circ} 05.2'$  an old channel marker "B 32" is still in location and it is shown on the smooth sheet as a small black circle with its proper designation.

Respectfully submitted,  
E.C. McGlown

2 May, 1936

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5871 (1935) FIELD NO. 2

Toms River and Vicinity, Barnegat Bay, New Jersey

Surveyed in June, 1935

Instructions dated May 16, 1935 (JACK C. SAMMONS).

Hand Lead Soundings.

3 Point fixes on shore signals.

Chief of Party - Jack C. Sammons.

Surveyed by - L. C. Adams.

Protracted by - C. J. Harryman.

Soundings penciled by - C. J. Harryman.

Verified and inked by - G. C. McGlasson.

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 development are in accordance with the instructions for the project.

3. Shoreline and Signals.

The shoreline originates with air photo compilations T-5329 (1932), T-5330 (1932) and T-5096 (1932).

The signals were located by triangulation and by plane table on Graphic Control surveys T-6396a (1935), T-6396b (1935), and T-6397a (1935).

4. Sounding Line Crossings.

The sounding line crossings are satisfactory, the depths agreeing to within 1 foot or less. The larger differences are due principally to the plotting of the soundings to whole feet, the halves being used only to show controlling depths in channels or to generalize the 6 foot curve.

5. Depth Curves.

Within the area covered by the survey the usual depth curves may be satisfactorily drawn.

6. Junctions with Contemporary Surveys.

The junction with H-5870 (1935) to the north is satisfactory.

Surveys to the south are not yet available.

7. Comparison with Prior Surveys.a. H-108 (1840).

This survey on a scale of 1:10,000, shows zigzag sounding lines widely spaced and has the general appearance of a reconnaissance. In general the depths are in fair agreement with the present survey. However, all the information from this survey has been superseded on the chart by later surveys and it need not be considered in future charting.

b. H-1197b (1874), H-1317 (1876).

These surveys on scale 1:20,000 are in very good agreement with the present survey. There has been a slight shoaling southward of the east end of the railroad bridge and a shifting of relative positions of shoals and deeps in the upper reaches of Toms River. The present survey shows several deep holes in Toms River for which the records give no special explanation. They appear to be the results of dredging for fill. Most of the changes in details of the 6 foot curve are due to the plotting of soundings to the whole foot on the present survey. The charted sand spot in latitude  $39^{\circ}54.2'$ , longitude  $74^{\circ}05.9'$ , is a representation of the fractional foot soundings on H-1317 (1876), the depths being  $3/4$  and  $1/2$  foot on that survey. The present survey does not show any depths less than 1 foot in the vicinity.

Because of the larger scale and the closer development on the present survey, H-5871 (1935) should supersede the above survey for future charting purposes.

8. Comparison with Chart 1216 (New Print dated Feb. 12, 1936),  
Chart 3243 (New Print dated Oct. 11, 1935).a. Hydrography.

Within the area of the present survey the charts are based on the surveys discussed in the foregoing paragraphs and contain no other information that needs consideration in this review.

b. Controlling Depths.

The controlling depth of the Inland Waterway is charted as "5-1/2 feet Sept. 1935", from Chart letter 802 of 1935. This is in agreement with the present survey.

The controlling depth of 6 feet Oct. 1935 in Toms River is given on the chart by a note based on Coast Pilot information shown on a copy of Chart 3243 filed as blue print 29078 (1935). This is in agreement with U. S. Engineer survey B.P. 28097 (1934) and the present survey, although the soundings on the latter missed the dredged channel in lat.  $39^{\circ}56.95'$ , longitude  $74^{\circ}11.65'$ .

c. Aids to Navigation.

No aids to navigation are charted in this area on Chart 1216.

The aids shown on Chart 3243 are in agreement with the present survey. It is noted, however, that beacons 49 and 49A are not charted, only the lighted buoys at these places being shown on the chart.

9. Field Plotting.

The protracting of positions was satisfactory.

Changes in tide reducers and the consequent correction of soundings made necessary the revision of many soundings penciled on the smooth sheet.

10. Additional Field Work Recommended.

The survey is very satisfactory and no further work is required.

11. Superseding Old Surveys.

Within the area covered the present survey supersedes the following surveys for charting purposes:

H-108	(1840)	in part
H-1197b	(1874)	" "
H-1317	(1876)	" "

12. Reviewed by - R. J. Christman, June 8, 1936.

Inspected by - A. L. Shalowitz.

Examined and approved:

*C. K. Green.*  
C. K. Green,  
Chief, Section of Field Records.

*L. O. Polbit.*  
Chief, Division of Charts.

*Fred. L. Peacock*  
Chief, Section of Field Work.

*Stude*  
Chief, Division of H. & T.

*Applied to drawing of Chart 1216 - Jan. 13, 1937 J.W.*

Applied to compilation of Cht. 825 Oct. 1939 B.P.

J.M.G.