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U. S. COAST & GEODETIC SURVEY  
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FEB 26 1936

Graphic Control

Acc. No. \_\_\_\_\_

and Add'l Work in 1936 on T6401a

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY R. S. Patton <i>Director</i>	
State: <u>New Jersey</u>	
DESCRIPTIVE REPORT	
GRAPHIC CONTROL	Sheet No. <u>P</u>
LOCALITY	
<u>Great Bay</u>	
<u>Mullica River</u>	
<u>1935</u>	
CHIEF OF PARTY	
<u>Benjamin H. Rigg</u>	

U. S. GOVERNMENT PRINTING OFFICE: 1925

6401a b

Graphic Control

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

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LIBRARY AND ARCHIVES

FEB 26 1936

Acc. No. \_\_\_\_\_

REG. NO.

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. P

REGISTER NO. **T6401a**

State New Jersey

General locality Great Bay ?

Locality Little Egg Inlet <sup>14</sup>

Scale 1/10,000 Date of survey May, 1935

Vessel Party No. 19

Chief of party Benjamin H. Rigg

Surveyed by A. H. Rogers

Inked by T. R. Nutting

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated May 16, 1935

Remarks: Inside hydrography completed.

DESCRIPTIVE REPORT TO ACCOMPANY  
GRAPHIC CONTROL SHEET P

Outline

1. INSTRUCTIONS.
2. PURPOSE
3. LIMITS OF SHEET.
4. DESCRIPTION OF TERRITORY.
5. CONTROL.
6. SURVEYING METHODS USED.
7. PERMANENT STATIONS ESTABLISHED.
8. AIDS TO NAVIGATION AND LANDMARKS.
9. TOPOGRAPHIC FEATURES LOCATED FOR USE IN THE AIR PHOTO COMPILATION.
10. STATIONS SEARCHED FOR BUT NOT FOUND.
11. GEOGRAPHIC NAMES.

DESCRIPTIVE REPORT TO ACCOMPANY  
GRAPHIC CONTROL SHEET P

INSTRUCTIONS

The survey was carried out under instructions dated May 16, 1935.

PURPOSE

The purpose of the survey was to establish control for hydrography, to locate aids to navigation and check landmarks, to establish permanent stations, and to locate topographic features for use in the air photo compilation.

LIMITS OF SHEET

The sheet is bounded on the S.E. by Lat.  $39^{\circ} 28'$ , Long.  $74^{\circ} 19'$  on the ocean beach just east of the Coast Guard Observation Tower at Little Beach. It extends northeastward past Little Egg Inlet to Lat.  $39^{\circ} 30.4'$ , Long.  $74^{\circ} 17'$  on Little Egg Beach. It extends southwestward to Lat.  $39^{\circ} 30.5'$ , in Great Bay, and northwestward to Lat.  $39^{\circ} 33'$ , Long.  $74^{\circ} 21'$  at the north edge of Great Bay.

DESCRIPTION OF TERRITORY

Little Egg Inlet which occupies the central eastern portion of the sheet, is a very changeable area, and a critical point on the New Jersey Inland Waterway. The Waterway here is exposed, and choppy seas may be encountered when the wind is from the S.E. The points at either side of the Inlet are very changeable, and would probably best be shown on the chart with dotted H.W.L. The shoreline at the edge of the marsh just east of the Little Egg Coast Guard Station is eroding rapidly. A highway extends across the marsh, connecting the Little Egg Coast Guard Station with the high ground. This highway was originally intended to cross Little Egg Inlet, but it has been extended only as far as the edge of the marsh to the east of the Coast Guard Station. At Lat.  $39^{\circ} 31'$  and Long.  $74^{\circ} 20'$ , there is a large Fish Factory.



The southwestern portion of the sheet is water (Great Bay).

# CONTROL

The following triangulation stations were used as control on sheet P:

LITTLE-EGG	<del>Meaney</del> 1932	(Meaning)
LITTLE BEACH	Meaney 1932	
SHEEPHEAD	Rigg 1935	
SHOOTING	" "	
BAY	" "	
INLET	" "	
LITTLE EGG 2	" "	
LETTUCE C. & N.	" "	

Stations FISH, HAT, COW, BEACH, TRIPOD, which were established by Quillan in 1903 were searched for but not recovered. Recovery notes to this effect have been submitted.

# SURVEYING METHODS USED

The H.W.L. along the ocean beach to the north of Little Egg Inlet was located by means of a traverse of six set-ups started at station LITTLE EGG 2 running down the outside beach, and back the inside beach, closing on LITTLE EGG 2. No adjustment was necessary in this short traverse. The H.W.L. on the ocean beach to the south of Little Egg Inlet was located by means of a traverse run from the Little Beach Coast Guard Station Observation Tower northward to signal MAN which had previously been located by graphic triangulation. A closing error of three meters was adjusted. The signals along the outside beach south of the inlet were located by graphic triangulation. The survey in the interior was started by set-ups on triangulation stations SHOOTING, SHEEPHEAD, BAY, INLET, LETTUCE C. & N., and LITTLE EGG 2. Cuts were taken to hydrographic signals, natural objects, and Bolstad's control stations from these set-ups. The survey was completed by set-ups on signals already located.

# PERMANENT STATIONS ESTABLISHED

A. Monumented Stations. -- New Jersey Board of Commerce & Navigation.

The following C. & N. Stations were located, designated with the letter D on the control sheet, and described on form 524:

CABBAGE C. & N.                      NEW FISH C. & N.



B. Natural Objects Located. -- The following natural objects were located, designated with the letter D on the control sheet, and described on form 524:

HOE - W. GAB. BOAT HOUSE - C.G. OBS. TOWER (BEA)

C. Bolstad Fourth Order Stations. -- All of Bolstad's "4th order" stations (located for Air-Photo Compilation Control) falling within the limits of the graphical control sheets were plotted. Wherever possible, they were checked with the planetable. In the few cases where discrepancies occurred, they were adjusted by re-checks of the computations or of the topography, or both. The final position as shown on the sheet and the card, is to be considered correct.

Following is a list of stations falling on sheet "P":

Station	Whether or Not Checked	Amount of Discrep.	Remarks
LAKE	Not Checked		Temp. station
W. GAB. SHACK	Checked		
N. GAB. SMALL SHACK	Not Checked	Checked on sheet "N"	
N. Gab. LARGER	Checked		
STACK FISH FACT.	"	Possibly 3 m.	Cut from Sta. Shooting Off (Bolstad's pos. held to)
LITTLE EGG C.G. CUP.	"		
CABLE	"		
S. GABLE SHOOTING THORO-	Not Checked		Station gone due to eroding shoreline.

#### AIDS TO NAVIGATION AND LANDMARKS

For a discussion of aids to navigation see corresponding paragraph in descriptive report for sheet M. Lighted aids to navigation located have been submitted on form 567.

The present charts are correct insofar as landmarks are concerned, for the area covered by sheet P.

TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION

All of the H.W.L. along the ocean beach was located and transferred to the Air Photo Compilation. Patches of Shoreline in the interior and the highway extending from the mainland to Little Egg Inlet were located for the purposes of comparison. No adjustment was necessary in the topographic location of these features.

STATIONS SEARCHED FOR BUT NOT FOUND

C. G. Quillian 1903 - Third Order Triangulation

FISH  
HOT  
COW  
BEACH  
TRIPOD

E. H. BERNSTEIN 1924 - Topo

Tucker Beach L.H. (Washed Out)  
Lie  
Sed  
Tre  
Rek  
Little Egg C. G. (House washed out)

GEOGRAPHIC NAMES

See air photo compilation for details.

Respectfully submitted,

A. M. Rogers, Jr.

Forwarded by,

Lt. Benjamin H. Tigg,  
Chief of Party.

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

FEB 26 1936

Acc. No.

Form 504  
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: New Jersey

DESCRIPTIVE REPORT

GRAPHIC CONTROL *Sheet No. R*

LOCALITY

Great Bay, N.J.

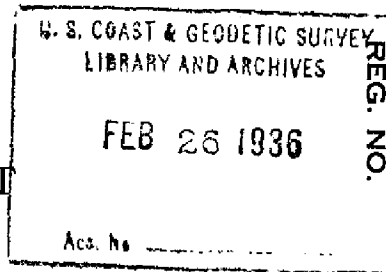
Mullica River

1935

CHIEF OF PARTY

Benjamin H. Rigg

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. R

REGISTER NO. **T6401 b**  
*04072*

State New Jersey

General locality Great Bay

Locality ~~Mallies River~~

Scale 1/10,000 Date of survey May, 1935

Vessel Party No. 19

Chief of party Benjamin H. Rigg

Surveyed by A. M. Rogers, Jr.

Inked by T. B. Hutting

Heights in feet above ..... to ground to tops of trees

Contour, Approximate contour, Form line interval ..... feet

Instructions dated May 16, 1935

Remarks: Hydrography completed.

DESCRIPTIVE REPORT TO ACCOMPANY  
GRAPHIC CONTROL SHEET R

1. INSTRUCTIONS.
2. PURPOSE.
3. LIMITS OF SHEET.
4. DESCRIPTION OF TERRITORY.
5. CONTROL.
- 6 . SURVEYING METHODS USED.
7. PERMANENT STATIONS ESTABLISHED.
8. AIDS TO NAVIGATION AND LANDMARKS.
9. TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION.
10. GEOGRAPHIC NAMES



DESCRIPTIVE REPORT TO ACCOMPANY  
GRAPHIC CONTROL SHEET R

INSTRUCTIONS

This survey was carried out under instructions dated May 16, 1935.

PURPOSE

The purpose of the survey was to establish permanent stations, to locate aids to navigation and check landmarks, to locate control for hydrography, and to locate topographic features for use in the Air Photo Compilation.

LIMITS OF SHEET

The topography on sheet R includes the upper or western portion of Great Bay and the mouth of the Mullica River, between Latitudes  $39^{\circ}31'$  and  $39^{\circ}34'$  and between Longitudes  $74^{\circ}21'$  and  $74^{\circ}27'$ .

DESCRIPTION OF TERRITORY

The territory covered by this sheet consists mostly of water. The marsh on the north shore of Great Bay and around the mouth of the Mullica River is entirely similar to that on the other sheets.

CONTROL

The following triangulation stations were used for control on sheet R:

TUCKERTON RADIO	Meanev 1932
TUCKERTON RADIO TOWER	Meanev 1932
BAY	Rigg 1935
GREAT	" "
*AKIMBO	" "

\*The geographic position of station AKIMBO was not available during the time of the survey. It was, however, cut in by topography. A check on the accuracy of the work was made by comparing the computed triangulation position with the topographic position. The two positions agreed without plottable error.



SURVEYING METHODS USED

Control, at the time of the survey, was rather inadequate in the western portion of the sheet. A special method had to be used in order to get good angles of intersection between cuts for the stations in this area. A set-up was made on triangulation station BAY and a cut taken from here to signal SIN and to the other hydrographic signals. A set-up was next made on triangulation station GREAT for the purpose of completing the location of SIN (A banner in the water in the southeastern corner of the sheet), and to take cuts to the rest of the signals. A set-up was next made on station URN orienting on BAY and re-secting on SIN. This gave a strong location for signal URN. From here the work was carried on in the usual manner, locating all signals by graphic triangulation. Patches of shoreline and aids to navigation were located in conjunction with this work.

PERMANENT STATIONS ESTABLISHED

A. Monumented Stations. -- The following permanently marked H. & T. stations were established on sheet R:

~~NEP~~  
REA  
DEEP  
WILL

These stations are designated on the sheet by the letter "D". Descriptions on form 524 accompany the sheet.

B. Natural Objects Located. -- None



6501  
6541

C. Bolstad Fourth Order Stations. -- All of Bolstad's "4th order" stations (located for Air-Photo Compilation Control) falling within the limits of the graphical control sheets were plotted. Wherever possible, they were checked with the planetable. In the few cases where discrepancies occurred, they were adjusted by re-checks of the computations or of the topography, or both. The final position as shown on the sheet and the card, is to be considered correct.

Following is a list of stations falling on sheet "R":

Station	Whether or Not Checked	Amt. of Discrep.	Remarks
BOG (SIG. 2)	Not Checked		Gone - Not plotted.
W. GAB. ROUND- ABOUT CR.	Checked		
MULLICA S.W. GAB.	Checked		
W. GAB. MULLICA RV.	Checked		
W. GAB. BLACK HOUSE-	Not Checked		No pos. when survey made.
W. GAB. HO. ON PT.	Checked		No pos. when survey made.
S. GAB. WILLET THORO-	Checked		
N. GAB. WALK	Not Checked		No pos. when survey made
N. GAB. LARGER	Checked	Checked on sheet "P"	

#### AIDS TO NAVIGATION AND LANDMARKS

For a discussion of aids to navigation see corresponding paragraph in descriptive report accompanying sheet M. A list of lighted aids to navigation on form 567 accompanies the report.

Landmarks on the present charts are correct for the area covered by this sheet. No new landmarks should be added.


TOPOGRAPHIC FEATURES LOCATED FOR USE IN THE AIR PHOTO COMPILATION

Patches of Shoreline were located at intervals for comparison with the Air Photo Compilation. There were no other important topographic features which could be used for comparison. No adjustment was necessary. Approximately 1.5 miles of shoreline were located.

GEOGRAPHIC NAMES

See air photo compilation for details.

Respectfully submitted,

  
Addison S. Hall,  
Surveyor.

Forwarded by,

Lt. Benjamin H. Rigg,  
Chief of Party.

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

DEC 28 1936

Acc. No. \_\_\_\_\_

Form 504  
Rev. April 1935

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Topographic  
~~Hydrographic~~

Sheet No. \_\_\_\_\_ P

State \_\_\_\_\_ New Jersey

LOCALITY

Little Egg Inlet

1936

CHIEF OF PARTY

John A. Bond

U. S. GOVERNMENT PRINTING OFFICE

*R. D. Graham*

SUPPLEMENTAL REPORT

To Accompany Graphic Control Sheet P. T6401a

Little Egg Inlet, N.J.

INSTRUCTIONS

The graphic control on sheet P is a part of Project HT-205, the instructions for which were dated May 16, 1935.

GENERAL INFORMATION

This sheet was surveyed in May, 1935 under Lieutenant B. H. Rigg. The hydrography in the inlets in this vicinity was not completed. In June 1936 the shoreline of Tucker Island was re-located and the necessary additional signals located to complete the hydrography in this area.

LANDMARKS

"Landmarks for Charts" will be made the subject of a separate report.

NON-FLOATING AIDS TO NAVIGATION

"Non- Floating Aids to Navigation" will be made the subject of a separate report.

RECOVERABLE TOPOGRAPHIC STATIONS

One additional recoverable topographic station was located and the report submitted on form 524.

Submitted by,

*D. M. Watt*

D. M. Watt

Approved by,

*J. A. Bond*

John A. Bond  
H. & G. Engineer  
Chief of Party

REVIEW OF GRAPHIC CONTROL SURVEY T-640/a, SCALE 1:10,000

Date of Review 3/3/37

- ✓ 1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5445, 5638, , 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.
- ✓ 2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5445, 5638, , 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.

H. R. Gollon  
L. C. Landy



Acc. No.

SUPPLEMENTAL  
DESCRIPTIVE REPORT

To Accompany Graphic Control Sheet R  
Great Bay, New Jersey

T640/b

INSTRUCTIONS

The graphic control on sheet R is a part of Project HT-205, the instructions for which were dated May 16, 1935.

General

The graphic control on this sheet was executed by the party of Lt. B. H. Rigg in 1935.

Since the hydrography in this vicinity was completed in 1935 there was no additional work done on this sheet by the MIKAWA in 1936.

Respectfully submitted by,

*Edmund L. Jones*  
Edmund L. Jones  
Aid, U.S.C. & G.S.

Approved by

*John A. Bond*  
John A. Bond  
H. & G. Eng.  
Chief of Party



REVIEW OF GRAPHIC CONTROL SURVEY T-6401 b , SCALE 1:10,000,

Date of Review 4/3/37

- ✓ 1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5447, 5634, , 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.
- ✓ 2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5447, 5634, , 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.

Frank R. Goll  
L. C. Landy

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
~~PHOTOSTAT OF~~

~~No. H.~~

No. T 6401a

Additional work

received DEC 28 1936  
registered JAN 9 1937  
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
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RETURN TO

82	C.K.Green
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