

6501ab

Graphic Control

U. S. COAST & GEODETIC SURVEY  
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DEC 28 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. T

LOCALITY

Intracoastal Waterway  
Atlantic Co., N.J.

Great Bay to Grassy Bay

1935  
1936

CHIEF OF PARTY

Benjamin H. Rigg

John A. Bond

U. S. GOVERNMENT PRINTING OFFICE: 1923

*W. H. Graham*

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6501ab

Graphic Control

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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. T

REGISTER NO. T6501a Graphic Control

State New Jersey

General locality ~~Atlantic County~~ Intracoastal Waterway *Place the*

Locality Great Bay to Grassy Bay *title on the "a"*

Scale 1:10,000 Date of survey July, 1935  
June, 1936 *side of the number only on the "b" side*

Vessel Party No. 19 \* MIKAWA

Chief of party B. H. Rigg \* John A. Bond

Surveyed by A. S. Hall & A. M. Rogers \* E. L. Jones

Inked by T. B. Nutting \* E. L. Jones

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

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

Instructions dated \_\_\_\_\_ May 16, 1935

Remarks: No hydrography done in 1935

Hydrography completed in 1936 by MIKAWA

DESCRIPTIVE REPORT TO ACCOMPANY  
GRAPHIC CONTROL SHEET T

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 AIR PHOTO COMPILATION.
10. GEOGRAPHIC NAMES.
11. Supplemental Report ( 1936 work)

DESCRIPTIVE REPORT TO ACCOMPANY  
GRAPHIC CONTROL SHEET T

INSTRUCTIONS

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

PURPOSE

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

LIMITS OF SHEET

The territory included by sheet "T" extends from Lat.  $39^{\circ} 26.5'$  at Black Point on the New Jersey Inland Waterway northeastward to Lat.  $39^{\circ} 29'$ , Long.  $74^{\circ} 21'$  at Mile Thorofare south of Little Egg Inlet. It extends on the northwest to Lat.  $39^{\circ} 31'$ , Long.  $74^{\circ} 24.5'$  at Mott Creek on south shore of Great Bay. It extends southwestward to Lat.  $39^{\circ} 29'$ , Long.  $74^{\circ} 27.0'$ .

DESCRIPTION OF TERRITORY

Sheet "T" includes the southern edge of Great Bay, The New Jersey Inland Waterway from Main Marsh to Black Point, and the meadow extending south and west.

CONTROL

The following triangulation stations were used as control on sheet "T":

LEEDS POINT	Meany <sup>1867</sup> 1932
KNOLL	Woodward 1931
BIG SHAD C & N	Rigg 1935
OYSTER	" "
MAIN	" "

SURVEYING METHODS USED

The stations on sheet "T" were located by graphic triangulation. Set-ups were made first on triangulation stations MAIN, OYSTER, and BIG SHAD. The

survey was completed from set-ups on signals located by cuts from these stations. The triangulation control was adequate. No special methods were necessary. Patches of shoreline were located in conjunction with the other work to serve as a check between the topography and the air photo compilation.

PERMANENT STATIONS ESTABLISHED

A. Monumented stations. -- Station DOT on the south shore of Great Bay was located, designated by the letter "D" on the graphic control sheet, and described on form 524. The same applies to station HAM at the west edge of Hammock Cove south of Great Bay.

B. Natural Objects located and described. -- None

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 "T":

Station	Whether or Not Checked	Amt. of Discrep.	Remarks
MAIN MARSH C. & N.	Checked		
CHY. GREAT THORO.	"		Checked on sheet S
S. GAB. WEIGAN	Not Checked		No position when survey was made.
FIRST PRES. CHURCH LEEDS PT.	" "		

AIDS TO NAVIGATION AND LANDMARKS

For a discussion of aids to navigation see the corresponding paragraph in the report accompanying sheet "M". All lighted aids to navigation were described and submitted on form 567.

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


TOPOGRAPHIC FEATURES LOCATED FOR USE IN THE AIR PHOTO COMPILATION

Patches of shoreline were rodded in along the southern edge of Great Bay and at Hammock Cove for comparison with the air photo compilation. No adjustment was necessary.

GEOGRAPHIC NAMES

See air photo compilation for details.

Respectfully submitted,

  
Addison S. Hall,  
Surveyor

Forwarded by,

Lt. Benjamin H. Rigg,  
Chief of Party



POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

$\alpha$ 2		to 3		$\alpha$ 3		to 2			
$2^d \angle$		+		$3^d \angle$		&			
$\alpha$ 2		MAIN		MAIN MARSH C & N 302		12		43.7	
$\Delta \alpha$								to 1	
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				180		00		04.9	
				122		12		18.6	
$\alpha'$		MAIN MARSH C & N 2 Main Marsh						to 3	
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## SUPPLEMENTAL REPORT

To Accompany Graphic Control Sheet T.

Atlantic City, New Jersey

### INSTRUCTIONS

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

### EXTENT OF GRAPHIC CONTROL

Additional graphic control from that located by the party of Lieutenant B. H. Rigg in 1935 was necessary to control the hydrography on this sheet.

### SURVEY METHODS

The 29 signals located by this party were located by 3 or more intersecting cuts, 3 point fixes or resections.

The shoreline shown in pencil was transferred from air-photo compilation by Lieutenant (j.g.) E. H. Kirsch. Two discrepancies were noted between the compiled shoreline and the present shoreline. Where discrepancies were noted either by the topographic party or the hydrographic party sections of the shoreline were rodded in with the plane-table. The rodded shoreline at Lat.  $39^{\circ} 27.9'$ , Long.  $74^{\circ} 23.5'$  was found to be very indefinite and probably was misinterpreted on the air-photographs. The small section of shoreline rodded in in Lat.  $39^{\circ} 27.6'$ , Long.  $74^{\circ} 24.6'$  was eroded from the point shown on the air photographs. *See 4?*

The lights, beacons and ranges were located to conform with memorandum 2, (1936).

### RECOVERABLE TOPOGRAPHIC STATIONS

✓ No additional recoverable topographic stations were located by this party.

### LANDMARKS

There were no landmarks located by this party.

### NON-FLOATING AIDS TO NAVIGATION

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



GEOGRAPHIC NAMES

See air-photo compilation for geographic names.

Submitted by,

*Edmund L. Jones*

Edmund L. Jones  
Ensign U.S.C. & G.S.

Approved by,

*J. A. Bond*

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

REVIEW OF GRAPHIC CONTROL SURVEY T-6501a, SCALE 1:10,000

Date of Review 6/13/37

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5635, 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-5635, 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.

L. C. Landy

DEC 23 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. S*

LOCALITY

Atlantic Co.

Brigantine Inlet

Intracoastal Waterway

Great Bay to Grassy Bay

1935  
1936

CHIEF OF PARTY

Benjamin H. Rigg

John A. Bond

U. S. GOVERNMENT PRINTING OFFICE: 1923

*R. S. Patton*

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

DEC 29 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. S

REGISTER NO. T65016

State New Jersey

General locality ~~Atlantic County~~ Intracoastal Waterway

Locality ~~Brigantine Inlet~~ Great Bay to Grassy Bay

Scale 1:10,000 Date of survey April, 1935  
June 1936

Vessel Party No. 19 \* MIKAWA

Chief of party B. H. Rigg \* John A. Bond

Surveyed by A. S. Hall & A. M. Rogers \* E. L. Jones

Inked by T. B. Nutting \* E. L. Jones

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

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

Instructions dated May 16, 1935

Remarks: Hydrography partly completed in 1935

Hydrography completed by MIKAWA in 1936

DESCRIPTIVE REPORT TO ACCOMPANY  
GRAPHIC CONTROL SHEET S

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 COM'ILATION.
10. SUPPLEMENTAL REPORT ) 1936 work)

DESCRIPTIVE REPORT TO ACCOMPANY  
GRAPHIC CONTROL SHEET S

INSTRUCTIONS

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

PURPOSE OF SURVEY

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

LIMITS OF THE SHEET

The territory covered by sheet "S" is bounded on the S.E. by Lat.  $39^{\circ} 25'$ , Long.  $74^{\circ} 21'$ , on the ocean beach about  $1\frac{1}{2}$  miles S.W. of the Brigantine Coast Guard Station. It extends N.E. to Lat.  $39^{\circ} 28'$ , Long.  $74^{\circ} 18.5'$  on the ocean beach about one-half mile east of the Little Beach Coast Guard Observation Tower. It includes Brigantine Inlet. The sheet extends N.W. to Lat.  $39^{\circ} 29.5'$ , Long.  $74^{\circ} 21.0'$ , in Great Bay, and S.W. to Lat.  $39^{\circ} 26'$ , Long.  $74^{\circ} 24'$ , about one-half mile south of Black Point on the New Jersey Inland Waterway.

DESCRIPTION OF TERRITORY

Brigantine Inlet, in the central eastern portion of the sheet is blocked off from the Inland Waterway by a sand flat just east of the waterway. Boats drawing not more than four feet can pass this bar at half tide or better. Brigantine Inlet is a popular fishing grounds. Great Thorofare, which also empties into Brigantine Inlet, is navigable at high tide by boats drawing not more than three feet. Both Brigantine Channel and Great Thorofare are staked out by the New Jersey Board of Commerce and Navigation, but should not be used without consulting local

fishermen. The main channel of the inland waterway is adequately marked in the territory covered by this sheet.

# CONTROL

The following triangulation stations were used as control on sheet

"S": LITTLE BEACH L.S.S.	QUILLAN 1903
LITTLE BEACH	Meany 1932
BRIGANTINE	" "
GRASSY	Rigg 1935
DIRTY C. & N.	" "
SIMKIN	" "
LETTUCE C. & N.	" "
BRIGANTINE C.G.	Woodworth 1931

The following triangulation stations which fell on sheet "S" were not recovered:

L.S.S. QUILLAN 1903	Quillan 1903
BRIGANTINE L.S.S.	Quillan 1903
BRIGANTINE WATER TANK,	north of Meany 1932

# SURVEYING METHODS USED

It was necessary to locate the entire high water line around Brigantine Inlet because of the extensive changes which had taken place since the photos were taken. The section of the beach on the north side of the inlet was located by means of a traverse run from station TRIPOD northward to station BEA, the Observation Tower of the Little Beach Coast Guard Station. An adjustment of five meters was made in this traverse. Due to the building out of the point between Brigantine Inlet and the Coast Guard Tower, the control sheet was not laid out so as to include the tip of the point. The point itself was located by means of measurements taken at right angles to the traverse line, and was transferred directly to the compilation. The beach between the mouths of Great Thorofare and Brigantine Channel was located by means of three set-ups which were determined by resections. The strip of beach south of Brigantine Inlet was located from a set-up on



signal BUN, and a second set-up determined by rod reading from BUN. The hydrographic signals and the numerous C. & N. stations falling on sheet "S" were located by graphic triangulation. Set-ups on triangulation stations DIRTY, SIMKIN, and station BEA (Little Beach Coast Guard Observation Tower) were used to start the survey, which was finished by set-ups on signals already located. Patches of shoreline were rodded in to serve as a check between the topography and the air photo compilation.

PERMANENT STATIONS ESTABLISHED

A. Monumented Stations -- The following monumented stations established by the New Jersey Board of Commerce & Navigation were located, designated on the control sheet with the letter "D", and described on form 524.

SISTER  
PANSY  
MUDDY  
VIOLET  
DAHLIA  
PINK  
CREEK  
ROD  
INLET  
POINT  
ORE  
SPOON  
BANK  
FORK  
GUARD  
BLACK POINT  
GOLDEN

B. Natural Objects located and described -- Signal BEA (Coast Guard Observation at Little Beach) was described and listed in the report on sheet "P". No other natural objects were located.

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 "S":

Station	Whether or Not Checked	Amt. of Discrep.	Remarks
CHY. GREAT THORO.	Checked		Checked on sheet 3

4-+BT

#### AIDS TO NAVIGATION AND LANDMARKS

For a discussion of aids to navigation see the corresponding paragraph (T-6399b) in the descriptive report accompanying sheet "M". All lighted aids to navigation falling on sheet "S" have been submitted on form 567.

The present charts are correct as far as landmarks are concerned, in the area covered by sheet "S", with the exception of Brigantine W.T., north of. It is no longer in existence, and has been recommended for deletion. (T-6501b)

#### TOPOGRAPHIC FEATURES LOCATED FOR USE IN THE AIR PHOTO COMPILATION


The shoreline along the ocean beach on both sides of Brigantine Inlet was located, and transferred directly to the air photo compilation. The region just east of the Little Beach Coast Guard Tower was difficult to map, because of the indefiniteness of the high water line. The extreme high water line and the low water line were located. The high water line could be assumed with a fair degree of accuracy to be almost anywhere between these lines. On the compilation, the high water line was assumed to run through the indefinite portion in such a way as to connect most naturally with the definite portions. The patches of shoreline in the interior, located for

a check between the topography and the compilation agreed without adjustment.

GEOGRAPHIC NAMES

See air photo compilation for details.

Respectfully submitted,

  
Addison S. Hall,  
Surveyor

Forwarded by,

Lt. Benjamin H. Rigg,  
Chief of Party.

## SUPPLEMENTAL REPORT

To Accompany Graphic Control Sheet S.

Atlantic City, New Jersey

### INSTRUCTIONS

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

### EXTENT OF GRAPHIC CONTROL

Nearly all of the graphic control on this sheet was located by this party, except the described recoverable topographic stations which were located by the party of Lieutenant B. H. Rigg in 1935.

### SURVEY METHODS

All of the signals were located by three or more intersecting cuts three point fixes or resection.

The shoreline shown in pencil was transferred from air-photographs compiled by Lieutenant (j.g.) E. H. Kirsch. Where discrepancies were noted, either by the topographic or hydrographic party, sections of the shoreline were rodged in with the planetable.

### DISCREPANCIES

Discrepancies in the shoreline were noted in the following places:

Lat.  $39^{\circ} 26.4'$ , Long.  $74^{\circ} 20.7'$  - the shoreline has eroded from that shown on the air-photographs and is now shown correctly on the control sheet.

Lat.  $39^{\circ} 28.5'$ , Long.  $74^{\circ} 20.5'$  - a small marsh island has been built up since the air-photographs were taken.

Lat.  $39^{\circ} 28.1'$ , Long.  $74^{\circ} 21.4'$  - a small grass island has been built up since the air-photographs were taken.

Lat.  $39^{\circ} 28.7'$ , Long.  $74^{\circ} 22.2'$  - several small islands have formed since the air-photographs were taken.

*The above discrepancies have been reviewed and corrected on the compilation. The compilation is now in agreement 6/23/37 L.C. fandy*

### RECOVERABLE TOPOGRAPHIC STATIONS

Four additional recoverable topographic stations were located by this party.

### LANDMARKS FOR CHARTS

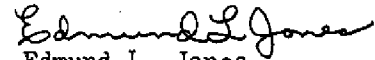
"Landmarks for Charts" and "Non-Floating Aids to Navigation" will be made the subjects of separate reports.




GEOGRAPHIC NAMES

See air-photo compilation for geographic names.

Submitted by,

  
Edmund L. Jones  
Ensign U.S.C. & G.S.

Approved by,

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

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
~~PHOTOSTAT OF~~

No. ~~H~~

No. T6501a&b

{ received DEC 28 1946  
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.*

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RETURN TO

82	C. H. Green
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✓

REVIEW OF GRAPHIC CONTROL SURVEY T-65016 , SCALE 1:10,000

Date of Review

6/23/32

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5635, , 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-5635, , 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.

L. C. Handy