

6503 ab

Graphic Control

U. S. COAST & GEODETIC SURVEY
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DEC 28 1936

Acc. No.

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: New Jersey

DESCRIPTIVE REPORT

GRAPHIC CONTROL Sheet No. W

LOCALITY

Atlantic Co. Intracoastal Waterway

Atlantic City, N. J. & Vicinity

1935
1936

CHIEF OF PARTY

Benjamin H. Rigg,
John A. Bond

U. S. GOVERNMENT PRINTING OFFICE: 1928

W. H. Graham

Graphic Control

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC
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DEC 29 1936

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. W

REGISTER NO. T6503a

State New Jersey

General locality ~~Atlantic County~~ Intracoastal Waterway

Locality Atlantic City + Vicinity

Scale 1/10,000 Date of survey May, 1935
August 1936

Vessel Party No. 19 * MIKAWA

Chief of party E. H. Rigg * John A. Bond

Surveyed by A. S. Hall * E. L. Jones

Inked by F. H. McBeth * 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 only partially completed in 1935

Hydrography completed by MIKAWA in 1936

DESCRIPTIVE REPORT TO ACCOMPANY
ALUMINUM MOUNTED CONTROL SHEET
NO. W

1. INSTRUCTIONS.
2. PURPOSE.
3. LIMITS OF SHEET.
4. DESCRIPTION OF TERRITORY.
5. CONTROL.
6. SURVEYING METHODS USED.
7. PERMANENT STATIONS ESTABLISHED.
 - A. New Stations.
 - B. Stations Established by Other Organizations.
8. LANDMARKS AND NAMES
9. AIDS TO NAVIGATION.
10. TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR-PHOTO COMPILATION.
11. GEOGRAPHIC NAMES.
12. Supplemental Report (1936 work)

DESCRIPTIVE REPORT TO ACCOMPANY
GRAPHIC CONTROL SHEET W

INSTRUCTIONS

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

PURPOSE

The purpose of the survey was to establish control for hydrography of the Intracoastal Waterway on the inland side of Atlantic City, and for hydrography of Absecon Inlet and outside of Atlantic City. The purpose was also to establish permanent H. & T. stations, to locate new landmarks for the charts and check the landmarks on the present charts, and to locate topographic features along the Atlantic City Boardwalk for use in the Air-Photo Compilation.

LIMITS OF SHEET

Sheet W includes Atlantic City from Absecon Inlet (Lat $39^{\circ} 22'$, Long. $74^{\circ} 24.9'$) southwestward to the Ventnor Fishing Pier (Lat. $39^{\circ} 20.2'$, Long. $74^{\circ} 28.6'$). It also includes the Intracoastal Waterway and adjacent waters from Lat. $39^{\circ} 23.5'$, Long. $79^{\circ} 25.5'$ southwestward to Lat. $39^{\circ} 21.5'$, Long. $74^{\circ} 30'$. The survey in the area back of Atlantic City was not completed because of a lack of funds.

DESCRIPTION OF TERRITORY

Absecon Island is a typical barrier island, ^{one} of the largest in the vicinity. Atlantic City, with a year-round population of about 65,000, and with hundreds of thousands of summer visitors, comprises the northern end of the island. The ocean beach is very flat, and during the past few years has built out into the ocean. The beach between the steel pier and the Garden Pier, for example extends 175 meters farther eastward than is shown on the present charts. This is no doubt an effect of the building of the long amusement piers along the Boardwalk. In the past there has been considerable erosion along the northern end of the island, at the Inlet. An elaborate system of jettys has stopped

this erosion to a great extent. Long sandbars extend out on either side of Absecon Inlet, and frequent dredging is necessary to keep a depth of ^{16 feet in 1936} six feet in the channel. The fifteen or twenty large water-front hotels, some rising to a height of twenty stories, gives Atlantic City an imposing skyline, visible far out at sea.

The marsh, or meadow land to the westward of Absecon Island is cut up by winding creeks or Thorofares, as here designated. The meadowland is firm, and covered with short marsh grass. The shorelines are broken and irregular. A portion of Lake Bay falls in the Southwestern corner of the sheet.

CONTROL

The following triangulation stations were used as control on sheet 'W'.

Absecon Light	Farley 1867 : Ritz Aero Beacon	Woodworth 1931
Atlantic	Meaney 1932 : Ventnor	Meaney 1932
A.C. Claridge Hotel Dome	Meaney 1932 : Magnetic	Rigg 1935
Ritz,	Woodworth 1931 : Gas	Rigg 1935

SURVEYING METHODS USED

The method used in the survey of the Boardwalk and the ocean beach was first, to establish control stations on the ends of the amusement piers, second, establish intermediate stations along the Boardwalk from the set-ups at the ends of the piers, and third, to locate the detail along the boardwalk from these intermediate stations.

The survey was started by setting up on station RITZ and taking cuts to the tower of the Curtiss Flying Station, and to predetermined points on the Heinz, Garden, Steel, Steeplechase, Central, Young's Million Dollar, and Ventnor Fishing Piers.

Set-ups were then made on each of these points, locating the plane-table by resection on at least two triangulation stations. From these points the detail at the ends of the piers, and the highwater line, was rodded in, and cuts taken to intermediate stations along the boardwalk.

The survey was completed by set-ups on these intermediate stations. A steel wire traverse was run along the ocean beach from a set-up located by resection, just east of the President Hotel, to the flagpole at the Ventnor Fishing Pier, which had been cut in by graphic triangulation. An adjustment of 1.5 meters was made. Short taped traverses were run in some cases between the intermediate stations along the boardwalk, especially at the northern end of the sheet.

The hydrographic signals for the hydrography of the area adjacent to the Airport were located by graphic triangulation. No special methods were used. All signals were located by the intersections of at least three strong cuts.

PERMANENT STATIONS ESTABLISHED

Natural objects were selected wherever possible for hydrographic signals. Along the ocean beach natural objects were located approximately every 600 meters. The following permanent hydrographic stations were located on sheet W:

N.E. Corner Hackney's Pier	Penguin Kool Sign
N.E. Cor. Pavillion	Diving Tower Steel Pier
Traymore Dome North	Steel U.S.E.D.
Traymore Dome South	Haddon Hall South Finial
R.R. Signal Tower	Flagpole St. Charles U.S.E.D.
Red Brick Chimney	Thin Black Standpipe
OK Thick Black Standpipe (See 1936 location)	South Stack Power House
Atlantic City Gas Tank	N.E. Cor. Garden Pier
N.E. Cor. Million \$ Pier	N.E. Cor. Heinz
Iron Spire Shelburne Hotel	S.E. Cor. President Hotel
Main Dome Blenheim	S.W. Cor. Colonnade Con. Hall
Watertank A. C. Hospital	Coast Guard Obs. Tower
*Mon. Albany Avenue	Incinerator Stack
*Mon. New Hampshire Avenue	Flagpole Ventnor Pier

(*) These stations plotted on Photo Compilation T-5637 and are also shown on City BluePrint forwarded with this compilation.

C. Bolstad Fourth Order Stations. -- Allof 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 "W":

Station	Whether or Not Checked	Amt. of Discrep.	Remarks
ESSO FLAGPOLE	Checked		
W. RADIO TOWER W.P.G.	"		
N. END TRUSS	Not checked		
E.R.A. 1886	checked		

D. E.R.A. Stations:

E.R.A. 1880

" 1879

" 1800

" 1801

" 1828

" 1829

LANDMARKS

The following landmarks should be added to the charts:

Gas Tank
Three stacks-Power Plant
Incinerator Stack
Thin Black Standpipe
Thick Black Standpipe

The following landmarks shown on the present charts should be retained:

Domes Traymore
Dome Claridge
Dome Shelburne
Aero Beacon
Tower (Absecon Light)

The following landmarks should be deleted.

Atlantic City C.G.
Absecon C.G.

These changes are shown on a letter size chart section forwarded to the charting division. Geographic Positions of all landmarks on form 567 accompany the sheet. The instructions on the preparation and submission of form 567 have been complied with.

AIDS TO NAVIGATION

No Aids to Navigation fell within the limits of sheet W.

TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION.

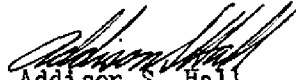
The entire Boardwalk, all of the ocean piers and more important waterfront buildings were located on the control sheet and transferred directly to the 1-10,000 air photo compilation. The high water line along the ocean beach was also located. The high water line had changed considerably since the photographs were taken.

*H.W. line
located in May 1935, date of this survey.
KJH*

GEOGRAPHIC NAMES

See Air Photo Compilation for details.

Respectfully,


Addison S. Hall
Surveyor

Forwarded by,

Lt. Benjamin H. Rigg,
Chief of Party.

SUPPLEMENTAL REPORT

To Accompany Graphic Control Sheet W. *T6503a*

Atlantic City, New Jersey

INSTRUCTIONS

The graphic control on Sheet W 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 in the upper reaches of Beach Thorofare and in Inside Thorofare to the south and west of Pleasantville and Atlantic City Bridge.

SURVEY METHODS

Hydrographic signals on this sheet were located by three or more intersecting cuts, three point fixes and resections, except a few signals in Inside Thorofare which were located by rodded distances.

Non-floating aids to navigation were located to conform with field memorandum number 2, 1936.

RECOVERABLE TOPOGRAPHIC STATIONS

Twelve additional recoverable topographic stations were located on this sheet.

The recoverable station "Thin Black Standpipe" (listed on page 3 of the descriptive report for this sheet) 1935 has been moved to a new location. The position of this standpipe is now shown correctly on the sheet and a description on form 524 is attached to this report.

DISCREPANCIES

There were no discrepancies noted in the air-photo shoreline transferred to this sheet.

There are no field indications of signal CENT (located in 1935) at its position on control sheet (Lat. $39^{\circ} 21.3'$; Long. $74^{\circ} 27.4'$). It is believed that signal CENT was the top of bridge house but located 14 meters in error. The 1936 location ^{CEN} agrees with the air-photo compilation.

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.

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-6503a, SCALE 1:10,000

Date of Review

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T⁵⁶³⁸, ⁵⁶³⁷, , 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. *Jetties near Ventnor Fishing Pier photo compilation accepted.*
- (d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above. *8 cards describing stations within the limits of T-5638. No discrepancies*

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T⁵⁶³⁸, , , 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. ~~the~~

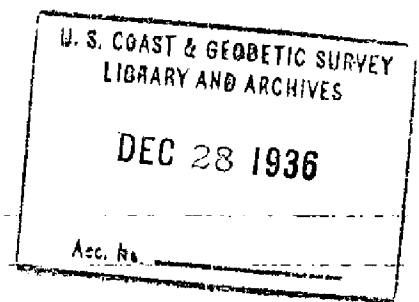
Notes and corrections resulting from the review are shown on this survey in green. ✓

T-5638 *L. C. Hardy* Feb. 8, 1937.

Comparison with T 5637 6/1/37
whereas Δ N. g. geod. S. 1828 and 1829
out of position 50 meters. Noted
in green on T 6503 A and
discussed in review T 5637

L. C. Hardy
W. B. Jones

Oct. 13, 1937
These stations
not shown on
H-6214. L.S.S.



T-65036

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY R. S. Patton <small>Director</small>	
<div></div>	
State: <u>New Jersey</u>	
DESCRIPTIVE REPORT	
GRAPHIC CONTROL Sheet No. <u>Y (T-65036)</u>	
LOCALITY	
<u>Atlantic Co. Intracoastal Waterway</u>	
<u>Atlantic City, N.J. Vicinity</u>	
<div></div>	
<div></div>	
193 5 1936 *	
CHIEF OF PARTY	
<u>Benjamin H. Rigg,</u>	
* <u>John A. Bond</u>	

U. S. GOVERNMENT PRINTING OFFICE: 1925

J. D. Graham

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

DEC 29 1936

REG. NO.

TOPOGRAPHIC TITLE SHEET

Acc. No.

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. Y

REGISTER NO. T 6503b

State New Jersey

General locality ~~Atlantic Co.~~ Intracoastal Waterway

Locality Atlantic City & Vicinity

Scale 1/5,000 Date of survey June, 1935
August 1936

Vessel Party No. 19 * MIKAWA

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

Surveyed by A. S. Hall * E. L. Jones

Inked by F. H. McBeth * 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 only partially completed in 1935

Hydrography completed by MIKAWA in 1936

✓

DESCRIPTIVE REPORT TO ACCOMPANY

GRAPHIC CONTROL SHEET "Y"

Outline

1. INSTRUCTIONS.
2. PURPOSE.
3. LIMITS OF SHEET.
4. DESCRIPTION OF TERRITORY.
 - A. Sheet Y₁
 - B. Sheet Y₂
5. CONTROL.
6. SURVEYING METHODS USED.
 - A. Sheet Y₁
 - B. Sheet Y₂
7. PERMANENT STATIONS ESTABLISHED.
8. LANDMARKS AND NAMES.
9. AIDS TO NAVIGATION.
10. TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION.
11. GEOGRAPHIC NAMES.
12. SUPPLEMENTAL REPORT (1936 work)

DESCRIPTIVE REPORT TO ACCOMPANY
GRAPHIC CONTROL SHEET "Y" (T-65036)

INSTRUCTIONS

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

PURPOSE OF SURVEY

The purpose of the survey was to lay out a system of ranges for the motor boat race course of the Absecon Island Yacht Club, to map topographic detail at the Airport and along Beach Thorofare, and to map the detail at the Gardner, Snug Harbor, Brigantine, and Chelsea Yacht Basins.

LIMITS OF SHEET

Sheet Y is divided into two sections Y₁ and Y₂. Section Y₁ includes the Airport and the two Albany Ave. highway bridges, and five drawbridges over Beach Thorofare east of the Airport. It also includes the Chelsea Yacht Basin.

Sheet Y₂ includes the Yachting Center Pier, and the Gardner, Snug Harbor, and ^{DELTA} Brigantine Yacht Basins.

DESCRIPTION OF TERRITORY

A. Sheet Y₁: The Atlantic City Municipal Airport has a well kept landing field and three large steel hangars. .

Beach Thorofare is lined on the Atlantic City side with boat houses, boat slips, and small docks, mostly in poor condition. Six draw bridges, including four railway bridges, cross Beach Thorofare within the limits of sheet Y₁. The Chelsea Yacht Basin, on the east bank of the Thorofare just below the Albany Ave draw, is a small, little used basin lined with houses.

B. Y₂: The Yachting Center is a large wooden pier at the southern shore of Absecon Inlet. The Gardner Yacht Basin is the largest and most used of the Atlantic City basins. The U. S. Lighthouse Service and the Coast Guard both base here, and many large Yachts, as well as small

fishing craft, use the basin.

The Snug Harbor Basin is smaller and is of less importance. It is completely lined with small dwellings and boat houses.

The ^{DELTA}~~Brigantine~~ Yacht Basin is used as a base for the U. S. Army Engineers as well as for some smaller craft. The Standard Oil Co. and the American Oil Co. have docks at this basin. ✓

CONTROL

The following triangulation Stations were used as control on sheet Y:

A. Sheet Y1

Ritz 1934 ^{Woodworth}~~(Meaney)~~
Magnetic 1935 (Rigg)

B. Sheet Y2

Atlantic 1932 (Meaney)
~~Absecon 1931 (Woodworth)~~
Absecon LIGHT 1867 FARLEY

SURVEYING METHODS USED

A. Sheet Y1; For the method used in locating the ranges for the motor boat race course, see the special report forwarded from this office on June 11, 1935.

The Albany Ave. highway bridge was located from an eccentric set-up at the west radio tower of W.P.G.. The Chelsea Yacht Basin was located by making a set-up at either end. The set-ups were determined by means of a closed tape and stadia traverse, which was tied in to W. Radio Tower W.P.G. An adjustment of 2 m. was made.

The detail along Beach Thorofare, including the five draw bridges, was rodded in from five set-ups located by graphic triangulation. The clearances of all of the bridges were measured with a tape in the field.

Sheet Y2: Stakes were located at the western ends of the Gardner, Snug Harbor, and ^{DELTA}~~Brigantine~~ Basins by means of cuts taken from triangulation station ATLANTIC, and resection on station CURTISS which was

transferred from Sheet "W". Station ABSECON^{LIGHT} was used to check the location of these stakes. In the case of the Gardner Basin a taped traverse was run completely around the basin, and most of the detail located by taping from the traverse line. The practice followed was to show the dock and building line, not the bulkhead line. Runways less than one meter in width were not shown.

PERMANENT STATIONS ESTABLISHED

The five Range Markers for the motor boat race course were permanently marked with 12" Square concrete blocks in which a 2 1/4" length of 2" galvanized pipe was imbedded. (See descriptive report on the lay-out of the motor boat course.). Descriptions on form 524 are forwarded.

Several other permanent stations fell within the limits of the sheet. These stations were located on sheet "W" and dealt with in the descriptive report accompanying that sheet.

LANDMARKS AND NAMES

Landmarks falling within the limits of sheet Y were dealt with in connection with sheet W.

The names of the Yacht Basins should be shown on the charts. The three on sheet Y2 should be named Gardner, Snug Harbor, and ^{DELTA} ~~Brigantine~~ Basins respectively. Charts affected are 1217 and 3243.

AIDS TO NAVIGATION

No aids to navigation of charting importance, with the exception of the landmarks dealt with in connection with sheet "W" were located on sheet "Y".

TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION

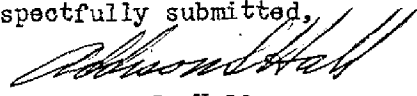
The primary purpose of this 1-5,000 graphical control sheet was to locate topographic detail at the yacht basins and boat slip areas to the west of Atlantic City. This detail was projected to a 1-10,000 scale

and transferred to the compilation.

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 Y.

Atlantic City, New Jersey

INSTRUCTIONS

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

SURVEY METHODS

The shoreline shown in pencil was transferred from air-photographs compiled by Lieutenant (j.g.) E. H. Kirsch.

The shoreline shown in ink was located by the party of Lieutenant B. H. Rigg in 1935. Hydrographic signals were placed on the corners of docks and buildings in Gardners Basin and Snug Harbor and were identified on the topographic sheet in the field.

The location of recoverable topographic stations by this party was carefully obtained by resection.

RECOVERABLE TOPOGRAPHIC STATIONS

The following recoverable topographic stations are on the U. S. Engineers base lines and traverses, and will prove valuable in tying in future work by the U. S. Engineers:

F (U.S.E.), C (U.S.E.), B' (U.S.E.), and -18+00.

LANDMARKS

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

Approved by,

J. A. Bond

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

*T 6503 B compared with
compilation T 5637 6/1/37. No
discrepancies noted.*

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. ~~H~~

No. T6503 a+b

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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