

6218a

U. S. COAST & GEODETIC SURVEY  
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Form 504  
Rev. Dec. 1933  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

## DESCRIPTIVE REPORT

Topographic

~~Hydrographic~~

Sheet No. E

State NEW JERSEY

LOCALITY

~~SOUTH SHORE RARITAN BAY~~

~~Gliswood Beach to Seaboard Coal~~  
Perth Amboy to Whale Creek  
~~Commons, South Amboy~~

1931

CHIEF OF PARTY

E. R. McCarthy

U. S. GOVERNMENT PRINTING OFFICE: 1934

6218a

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
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REG.-NO.

TOPOGRAPHIC TITLE SHEET

FEB 28 1935

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

The Topographic Sheet should be accompanied by this form,  
filled in as completely as possible, when the sheet is for-  
warded to the Office.

Field No. E

REGISTER NO. 6218a

State New Jersey

General locality South Shore Raritan Bay (Including Cheesapeake Creek)

Perth Amboy to Whale Creek

Locality Cliffwood Beach to Seaboard Ice Co. (South Amboy N.J.)

Scale 1:10,000 Date of survey July - August, 1934

Vessel Field Party No. 14

Chief of party E. R. McCarthy

Surveyed by J. R. Brosnan

Inked by J. R. Brosnan

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

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

Instructions dated May 10, 1934

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

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT  
to accompany  
TOPOGRAPHIC SHEET NO. E

SOUTH SHORE RARITAN BAY from  
CLIFFWOOD BEACH TO SOUTH AMBOY

NEW JERSEY

Field Party No. 14

E. R. McCarthy,  
Lieut. (j.g.) C. & G. S.  
Chief of Party.

DESCRIPTIVE REPORT  
to accompany  
TOPOGRAPHIC SHEET NO. E

AUTHORITY:

Instructions of the Director dated May 10, 1934.

LIMITS:

The shore of the Raritan Bay, from Cliffwood Beach to Seaboard Coal Company at South Amboy, N. J. including Cheesequake Creek.

CONTROL:

There is ample control on this sheet from 1932 triangulation of Greater New York.

METHODS AND CLOSURES:

Usual plane table methods of traverse were used. The traverse being checked by frequent resections. An aluminum sheet was used.

CLOSURES:

	Error
Morgan 2 -Chy. (Seaboard Coal Co.)	0
Morgan 2 -Mar.	0
Mar -Helen (Topo)	0

A three point fix was taken at topographic signal HELEN and the traverse on sheets DD was adjusted to this point.

DESCRIPTION OF COAST:

The shoreline along the south shore of Raritan Bay is regular. It consists of alternate stretches of sand beaches and marsh of varying lengths. There are public amusements and concessions at Cliffwood, Lawrence Harbor Beach and Siedler Beach. The buildings at Cliffwood Beach is more permanently constructed than those at either Siedler or Lawrence Harbor.

Cheesequake Creek was at one time an important waterway for freight boats, but in recent years it is used very little except for small pleasure fishing boats.

TOWNS AND BOROS:

Lawrence Harbor is located on the east side of Cheesequake Creek. During the summer months three fish houses and two boat works are open and crowds gather at the beach, otherwise this settlement is of no importance today.

Morgan is a small summer colony just west of highway number 35 bridge over the Central Railroad of New Jersey tracks. It is of no importance.

South Amboy is the largest city on the south shore of Raritan Bay. Commercially it is important for shipment of coal, petroleum products and building material. At the present most of the wharves are in need of repair.

This town is connected to larger cities by Pennsylvania Railroad and New York & Long Branch division of the Central Railroad of New Jersey.

U. S. ENGINEERS SURVEYS:

A system of traverse was executed by the U. S. Engineers (U. S. Harbor Line and Second New York District) along the south shore of Raritan Bay during the years 1912, 1915 and 1920. It was, in all probability, carried down from the base line along Arthur Kill, across the Perth Amboy Railroad Bridge and down into the Bay. Marked stations were established at frequent intervals.

In 1932, the Coast and Geodetic Survey recovered a few of these stations and tied them into the Greater New York triangulation scheme. The 1934 topographic survey located on the sheet the recoverable stations not already located by triangulation.

The co-ordinate system shown on the sheet was carried south from Sheet EE and is based on the point 6A (USE) as an origin. The co-ordinates of this point as given by the Engineers were assumed correct. A projection was made by drawing the five thousand foot intervals perpendicular and parallel to the latitudes.

The engineers stations were plotted on the co-ordinate grid using the values as shown in the Harbor Line blueprint and the following differences noted.

RnR 2	plots	3 meters north and 6 meters west of true station.
Morgan2	plots	8 meters north and 4 meters west of true station.

LANDMARKS:

List of landmarks is attached.

MISCELLANEOUS:

The shoreline drawn in pencil on the sheet was obtained from blueprints furnished by air photo topographic party.

Respectfully submitted

*J. R. Brosnan*  
J. R. Brosnan,  
Topographer, C. & G.S.

Approved and Forwarded:

*E. R. McCarthy*  
E. R. McCarthy, Chief of Party,  
U. S. C. & G. Survey.

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

**STATUS: E**

# LANDMARKS FOR CHARTS

**Miami, Florida**

February 18, 1935

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

[illegible]

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore. (2) Inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaves and like objects are not sufficiently permanent to chart.

REVIEW OF GRAPHIC CONTROL SURVEY T-628a, SCALE 1:10,000

## Date of Review

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5792 , , 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-5792 , , 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.

*Thompson*  
*B. J. Jones*



REVIEW OF GRAPHIC CONTROL SURVEY T-67189, SCALE 1:10,000

## Date of Review

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5103 , , 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-5103 , , 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.

*J.W.A.*  
*1-19-35*  
*B.G. Jones*

6218b

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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

## DESCRIPTIVE REPORT

Topographic

~~Hydrographic~~

Sheet No. EF

State New Jersey

### LOCALITY

ARTHUR KILL

~~Fortonville to Rossville~~

Port Reading to Perth Amboy

~~STATEN ISLAND~~

~~Wards Point to Princess Bay~~

1934

CHIEF OF PARTY

E. R. McCarthy

U. S. GOVERNMENT PRINTING OFFICE: 1934

6218b

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
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REG. NO.

FEB 28 1935

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

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form,  
filled in as completely as possible, when the sheet is for-  
warded to the Office.

Field No. EE

REGISTER NO. 6218b

State New Jersey

General locality Arthur Kill and section of south shore Staten Is.

Locality Port Reading to Perth Amboy  
~~Tottenville to Rossville~~

Scale 1:10,000 Date of survey September, 1934

Vessel Field Party No. 14

Chief of party E. R. McCarthy

Surveyed by A. E. Durie

Inked by A. E. Durie and S. M. Green

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

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

Instructions dated May 10, 1934

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

DESCRIPTIVE REPORT  
to accompany  
TOPOGRAPHIC SHEET NO. EE.

AUTHORITY:

Instructions of the Director dated May 10, 1934.

LIMITS:

Arthur Kill (New Jersey and Staten Island shores) from 0.6 mile south of Outerbridge Crossing (40° 31') to Tufts Point and Rossville; Woodbridge Creek from its mouth to Woodbridge, and the south shore of Staten Island from Wards Point to Princess Bay.

CONTROL:

Ample triangulation control well distributed over the sheet, from 1930-32 triangulation of Greater New York.

METHODS:

All signals and objects were located by plane table cuts. No traverse was run. Shoreline was located only where needed to supplement the aerial photo topography.

DESCRIPTION OF SHORELINE:

GENERAL:

This shore, especially the New Jersey side is a concentrated industrial section. Although the original shore on the New Jersey side was low lying ground and marsh, it has been so built up with docks, bulkheads and fills that very little of the marsh remains (the longest section being from Port Reading to Smith Creek, and this is gradually being reclaimed). The Staten Island shore is, in general, a narrow fringe of marsh or sand beach backed by a clay bank. The Industries, in general, although not working to capacity are operating on a reduced scale, with the exception of the International Ultra Marine Plants on Staten Island and the Brick and Terra Cotta Plants on Woodbridge Creek. These plants have not been in operation for several years; their buildings are dilapidated, and their piers and bulkhead in ruins.

The south shore of Staten Island is an all year residential section.

DESCRIPTION OF SHORELINE:GENERAL (CON'T)

The Kill, above Woodbridge Creek is in the process of industrial development and there are large sections being filled and new plants built.

DETAILS:

The New Jersey side of the Kill from the north limits of the sheet to Smith Creek is marsh - behind which is a fill - except in the vicinity of Port Reading ( The coal terminal of the Reading R.R.) where there are piers and bulkheads. Below Port Reading the marsh is being reclaimed. The shoreline between Smith Creek and Woodbridge Creek is sand behind which is a high (40-60') clay bank and is undeveloped except for the terminal of the Shell Oil Company on the north bank of Woodbridge Creek. South of this point to the limits of the sheet is largely built up with bulkheads and docks which, altho old, are in fair condition altho, at present, are not used a great deal.

The Staten Island side of the Kill from Rossville to the Outerbridge is marsh and is largely undeveloped. There is a chemical plant at Rossville, the Standard Oil is building a large plant at Kreicherville, and there is also an abandoned brick works at Kreicherville. South of the Outerbridge is a copper and a terra cotta works - both operating on reduced schedules - below which the shoreline is built up with bulkheads and docks which are in fair condition and are little used.

Woodbridge Creek is marshy on both banks and the docks, if not in ruins, are not kept up except for the Woodbridge Town Dock.

Smith Creek is used as a harbor for shoal draft pleasure boats and there are small private piers built out at frequent intervals, mostly along the west bank.

The south shore of Staten Island is sand beach and is a residential section. There are a few private piers.

TOWNS AND BOROS:

There are no town or boros of any size within the limits of the sheet.

U. S. ENGINEERS SURVEYS:

The control of the U. S. Engineers consists of a system of traverse and triangulation along both banks of the Kill, which was originally put down about 1912 and has been revised, added to, and - in sections- rerun, at irregular intervals up to the present time. The greater part of it comprises a base line for control of their hydrographic surveys.

Some of the base line stations are monumented with permanent concrete marks and the sounding stations - usually on piers and docks - located from the base line monuments. The sounding stations are marked with nails or tacks or wooden hubs and are not intended for permanency.

Some of the base line stations were located by the 1932 triangulation survey and some additional base line monuments and all the sounding stations that could be recovered, by topography. ✓

The co-ordinate system of the Engineers was plotted on the sheet by assuming that the co-ordinates of the station Mon 6A (USE) was correct as given and then making a projection by drawing in the five thousand foot intervals perpendicular to and parallel to the latitudes.

A number of engineers stations located by triangulation or topography ~~was~~ then plotted by co-ordinates and the following differences noted:

Edison	- 7 meters west of true station.
Dock	- 2.2 meters northwest of true station.
Asiatic Oil	- 1 meter southeast of true station.
Mon 5B	- Correct.
Tracy	- 3 meters south-southwest of true station.
RnR 1	- 7 meters southeast of true station.

The reason for the various discrepancies is probably due to a swing in the original traverse and the irregularities due to the patchwork surveys.

A blueprint showing the Harbor lines with co-ordinates and descriptions of the permanently marked stations is filed with the sheet.

NAMES:

Names were obtained by the air photo topographic party; those shown in pencil on the sheet are local names in local use.



LANDMARKS:

List of Landmarks is attached.

MISCELLANEOUS:

There are two boat 'graveyards' on the sheet north of the Outerbridge.

Respectfully submitted

*Albert E. Durie*

A. E. Durie,  
Topographer, C. & G. Survey.

Approved and Forwarded:

*E. R. McCarthy*

E. R. McCarthy,  
Lieut. (j.g.) C. & G. Survey,  
Chief of Party.

*See Review T-5109 (Air Photo Compilation)*

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY  
**AIDS TO NAVIGATION**  
**LANDMARKS FOR CHARTS**

**Miami, Florida**

February 14 1935

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

~~E. R. McCarthy~~

*Chief of Party.*

[illegible]

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaves and like objects are not sufficiently permanent to chart.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Miami, Florida

February 14 1935

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

M. H. McCarthy

Chief of Party.

[illegible]

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

REVIEW OF GRAPHIC CONTROL SURVEY T- 62186, SCALE 1,10,000

Date of Review 8-8-35

1. ✓ This survey has been reviewed in connection with Air Photo Compilation Nos. T- , 5107, , 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- , , , 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.

The letter (d) has been added after the names of all recoverable stations submitted on Form 524. *Ja<sup>3</sup>* 8-8-35 *Bggones*