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

DESCRIPTIVE REPORT
Field No. 2

Topographic

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

JUN 15 1936

State
New Jersey

LOCALITY
ATLANTIC COAST
North of Atlantic City
INLET AND VICINITY
Brigantine, north to Little Egg Inlet

1935

CHIEF OF PARTY
E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934
Applied to drawing & Chart 1216 - Aug 16, 1937 - JFW
" " " " " " " " " " " " " " 17 Apr. 1938 - JFW
Applied to Chart 820 - May 24, 1938 - JFW
FIELD NO. 2
Reg. No. 35635

PROJECTION BY
Discharged 4-19-35
L. C. Ripley

PROJECTION CHECKED BY
Discharged 4-20-35
T. B. Nutting

CONTROL PLOTTED BY 4-30-35
Ab leave
F. W. Hund

CONTROL CHECKED BY 4-30-35
Ab leave
E. J. Anderson

TRIANGULATION SPOTTED BY
Discharged 4-30-35
J. F. Richardson

RADIAL PLOT BY 6-14-35
Ab leave
E. J. Anderson

DETAIL STARTED BY 6-14-35
Discharged
T. P. Mitchell

DETAIL FINISHED BY 7-20-35
Discharged
T. P. Mitchell

DETAIL CHECKED BY 7-23-35
Ab leave
F. W. Hund

TOPOGRAPHY TRANSFERRED BY 7-18-35
Discharged
T. P. Mitchell

AREA DETAIL INKED: 13.7 Square statute miles.

LENGTH OF SHORELINE: 33.0 Statute miles (over 200 meters wide)

LENGTH OF STREAMS: 64.8 Statute miles (less 200 meters wide)

LENGTH OF COASTLINE: 8.8 Statute miles.

Datum N.A. 1927

Ref. Sta. Little Beach 1932

Lat. 39° 28' 14.668" (450.5 M) \(\text{adjusted}\)

Long. 74° 19' 41.935" (1002.4 M)
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. T - 5635

REGISTER NO. T5635

State. New Jersey

General locality. North of Atlantic City Coast

Inlet and Vicinity

Locality. Brigantine, North to Little Eg. Inlet

Photographs - April 1932

Scale. 1:10,000 Date of Survey. 19...

Compilation - July 20, 1935

Vessel Air Photo Compilation Party No. 21.

Chief of party. E. H. Kirsch

Surveyed by See data sheet in descriptive report

Inked by T. P. Mitchell

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval 0 - Feet

Instructions dated May 16, 1935.

Remarks: None.

...
GENERAL INFORMATION

Statistics:

The total land area covered by this sheet is 13.7 square statute miles. The total length of the outside coast shoreline is 9.2 statute miles. There are 33.0 statute miles of River shoreline more than 200 meters from the nearest opposite shore, and 64.8 statute miles of streams and sloughs less than 200 meters wide.

General Topographic Information:

The general description of the area covered by this sheet, along with adjoining sheets of this series, is of low coastal plane type with very little relief. The coastal shoreline in general is very regular, being broken only by a few small inlets. Just inside the coastal shoreline we find a strip of ground slightly elevated, and approximately 75 to 100 meters wide, which has been classed as beaches and sand dune. The dune area is interspersed with small patches of marshy ground and the only vegetation afforded is grass and scrub bushes. Between the dune area and the mainland is a vast area comprised of marshes, bays, thorofares, creeks and numerous sloughs and ponds. Any number of islands also appear in this area; some of which are practically covered at high water. On the larger islands are found ponds which are usually surrounded by sand upon which grows grass and bushes. The only solid ground appearing on this sheet is the extreme southern part. The street system represents the town of Brigantine and its subdivisional development.

Report:

The general report is listed under "General Topographic Information."

Photographs:

Photographs from part of four flights were used in the compilation of this sheet.

Flight No. 66 - 6 with photos No. 77 - 80 inclusive, began at Little Egg Inlet, ran south parallel to the coastline to the entrance of Great Thorofare. This flight was made April 15, 1932.

Flight No. 66 - 11 with photos No. 81 - 88 inclusive, began at the northwest end of Salt Island and ran southeast to Brigantine's Coast Guard Station. This flight was made April 20, 1932.

Flight No. 66 - 11 with photos No. 94 - 97 inclusive, began at triangulation station "Shack" and ran northwest to the northwest end of Shad Island. This flight was made April 20, 1932.

Flight No. 66 - 55 with photos No. 14 - 16 inclusive, began at Brigantine and paralleled the coastline to Great Egg Inlet. This flight was made August 1, 1932. Only one photo of this flight was used in this compilation. All photos were taken with a Standard Single
Note. The paragraph on the opposite page
headed 'Interpretation is not clear
the mean high water line on the
outer coast from Little Egg Inlet to
lot 39'28' was located on T 64014 May 1935.
The mean high water line from lot 39'28'
to lot 39'26.1 including Brigantine inlet
was located on T 65013 July 1935. This
area is very changeable as discussed on
page of descriptive report T 65018.
The high water line south of lot 39'26.1
was determined by field inspection
on 31 July 1935.

All photos are very good as to scale but seem to be blurred. Therefore, much difficulty was had in transferring detail, but with assistance from the field party, along with inspection by the compiler, it is felt that all difficulties have been cleared up and no appreciable error will be found. These photos were made some three years ago and drastic topographic changes have taken place along the coast shoreline and inlets but this matter will be discussed later in this report.

Sources:


Errors:

No errors was found in the plotting of control or radial plot.

Discrepancies:

No control stations established by other organizations were used in the compilation of this sheet.

Method:

The standard radial line method was used as described in the U. S. Coast and Geodetic Survey notes on the compilation of planimetric line maps from Single Lens Aerial Photographs.

Adjustment of Plot:

No unusual adjustment was had in making the radial plot. Triangulation station "Big Shad" was not held to in making the plot due to the fact that spoilis around this station obliterated the possibility of making accurate measurements in the field, therefore it could not be spotted correctly on the photo.

Interpretation:

Since the photos were made three years previous to the compilation, we find the coast line has eroded to such an extent that a plane table survey was necessary to determine the exact high water line. This survey has been made from Little Egg Inlet, south to Brigantine Channel. When the photos were too indefinite to compile an actual high water line, a survey was made and this survey will be shown on the over-]lay sheet by dashed lines. It is presumed that exceedingly high waters and storm tides caused the eroding of the beach area, as the interior seems fairly well preserved. Where the high water line could not be defined on the photos, nor a survey made, the broken marsh lines indicate the boundary of the highwater, as shown just north of Brigantine's Coast Guard Station. The coastal high water line from Brigantine Channel southwest to
No plantable survey on the islands in the back of the area.
Brigantine Hotel, was determined by measurements from object on the photos to the high water line. However, a plane table survey over part of this area was made later and checked remarkably well. Consult photo 66-11-88 for more information. Along the northeast, east and southeast part of Pullen Island the high water line as shown, although obtained by a plane table survey, is subject to frequent changes and should not be firmly relied upon. The prevailing conditions of this area are such that a small rise in elevation of the tide will move the present high water line inland by several hundred meters. The low water line obtained by the same survey should be within the required limit of accuracy as it was taken at approximate low tide. The low water line just south of Lat. 39° 27' and east of Long 71° 20' was not obtained by a survey but was detailed in accordance with other prevailing low water lines. A cable crossing is shown by a dashed line across Little Egg Inlet. This cable was from a point on Salt Island N.E. to triangulation station "Cable". Since we have the location of the last pole on Salt Island we get our authority to show the crossing: Submerged cable.

Sea walls have been built along the coast to preserve the beaches since the photos were made and will be shown on the overlay sheet. One small dock, just west of Triangulation station "Brigantine Beach Water Tank" (North of) does not appear on the photo. The subdivisional development, northwest of Brigantine, upon field inspection, shows an unkempt seawall around the entire area, with a golf course on the left as you enter to the clubhouse, which is near the bank of Ohe's Thorofare. The roads are not paved. All buildings have been shown that could be clearly seen on the photo. Street names of Brigantine and the surrounding development will be found on a map accompanying this sheet.

All symbols were taken from the Topographic manual.

Information from Other Sources:

Graphic Control sheets No. "P" Reg. No. 7401

Field inspection by Lieutenant B. H. Rigg and Lieutenant (j.g.) E. H. Kirsch, and the compiler. July 1935 -

Conflicting Names:
There are no conflicting names on this sheet.

Comparison with other Surveys:

A comparison with U. S. Coast and Geodetic Survey Chart No. 1217 has been made and the Topographic Changes discussed previously in this report.

Junctions:

Satisfactory junctions have been made with sheet No. 4 Reg. No. T 5637 on the South. Sheet No. 1, Reg. No. T 5634 on the West. Atlantic Ocean on The East and Great Bay on the North.
Landmarks:

A list of landmarks for charts and marked Topographic Stations will be submitted with Graphic Control sheets mentioned previously in this report by Lt. E. H. Riggs, Chief of Party 1935.

Recommendation for Further Surveys:

The compilation of this sheet is believed to be accurate, thorough, and complete for charting purposes and no additional surveys are necessary. A probable error of not more than .3 mm may be found in detail of importance and not more than .6 mm for detail of lesser importance.

Approved by:  
E. H. Kirsch  
Chief of Party.

Submitted by:  
T. P. Mitchell.
Additional information to be added to the descriptive report for air photo topographic sheet No. T5635

CONTROL

Sources


Landmarks

Lieutenant J. A. Bond, Chief of Party 1936, will also submit additional landmarks for charts and marked topographic stations, covering the area of this sheet.

Information from other sources.

The additional information that has been added to the compilation since the press plate was made has been shown in red ink on a copy of the advance print. These changes include the 1936 location of the lights and beacons and minor changes in the shoreline for agreement with the hydrographic sheet. The changes were in areas where the image was very indistinct on the photographs and in several cases a new location of the shoreline was obtained with the planetable. The 1936 location of landmarks for charts and marked topographic stations were also added to the sheet.

Assisted by,

E. H. Kirsch
Lieut. E. H. Kirsch,
Chief of Party.

Submitted by,

C. O. Harman
C. O. Harryman
<table>
<thead>
<tr>
<th>Remarks</th>
<th>Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Thoro. is an abbreviation for Thorofare. Use complete spelling unless crowded for space</td>
</tr>
<tr>
<td>8</td>
<td>See note above on Thorofare.</td>
</tr>
<tr>
<td>9</td>
<td>USGS has “Sinkings”</td>
</tr>
<tr>
<td>10</td>
<td>Sinkings</td>
</tr>
<tr>
<td>11</td>
<td>Add s See 5/4/39</td>
</tr>
<tr>
<td>16</td>
<td>Has “Big Mud Thorofare” on T142 See note above on Thorofare Mud Thorofare</td>
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<tr>
<td>18</td>
<td>USGS has “Steelmen”</td>
</tr>
<tr>
<td>19</td>
<td>Steelmen</td>
</tr>
<tr>
<td>22</td>
<td>USGS has “Thorofare” See note above on Thorofare Thoro</td>
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<tr>
<td>24</td>
<td>Court Judge Hodges reports the name O.K.</td>
</tr>
<tr>
<td>Name on Survey</td>
<td>A</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---</td>
</tr>
<tr>
<td>Little Egg Inlet</td>
<td>✓</td>
</tr>
<tr>
<td>Great Bay</td>
<td>✓</td>
</tr>
<tr>
<td>Main Marsh Thoro</td>
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</tr>
<tr>
<td>Great Thoro</td>
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<tr>
<td>Egg Island</td>
<td>✓</td>
</tr>
<tr>
<td>Mile Thoro</td>
<td>✓</td>
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<tr>
<td>Salt Island</td>
<td>✓</td>
</tr>
<tr>
<td>Pullen Island</td>
<td>✓</td>
</tr>
<tr>
<td>Little Mud Thoro</td>
<td></td>
</tr>
<tr>
<td>Sink In Thoro</td>
<td></td>
</tr>
<tr>
<td>Little Bay</td>
<td></td>
</tr>
<tr>
<td>Shad Island</td>
<td>✓</td>
</tr>
<tr>
<td>Perch Cove</td>
<td>✓</td>
</tr>
<tr>
<td>Grassy Bay</td>
<td>✓</td>
</tr>
<tr>
<td>Black Point</td>
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<tr>
<td>Mud Thoro</td>
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<tr>
<td>Brigantine Channel</td>
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<tr>
<td>Brigantine Inlet</td>
<td>✓</td>
</tr>
<tr>
<td>Steelman's Bay</td>
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</tr>
<tr>
<td>Oakes Thoro</td>
<td></td>
</tr>
<tr>
<td>Wading Thoro</td>
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</tr>
<tr>
<td>Brigantine</td>
<td>✓</td>
</tr>
<tr>
<td>Little Beach C.G.</td>
<td>✓</td>
</tr>
<tr>
<td>Brigantine C.G.</td>
<td>✓</td>
</tr>
<tr>
<td>Brigantine Beach</td>
<td>✓</td>
</tr>
</tbody>
</table>

Names underlined in red approved by [signature] on 7/23/36
PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by **R. E. Ask**

Positions checked by **R. E. Ask**

Grid inked on machine by **R. E. Ask**

Intersections inked by **Paul P. Zeiler**

Points used for plotting grid:

\[
\begin{array}{ll}
\text{x} & 2,095,000 \text{ ft} \\
\text{y} & 240,000 \\
\hline
\text{x} & 2,080,000 \\
\text{y} & 220,000 \\
\hline
\text{x} & 2,095,000 \\
\text{y} & 220,000 \\
\hline
\text{x} & 2,080,000 \\
\text{y} & 210,000 \\
\end{array}
\]

Triangulation stations used for checking grid:

\[
\begin{array}{ll}
\text{x} = 2,095,215.4 \text{ ft} & \text{y} = 232,327.75 \text{ ft} \\
1. \text{ Little Beach 1931 (ref. shr.)} & 5. \\
2. \text{ Brigantine 1932} & 6. \\
3. \text{ Hotel 1931} & 7. \\
4. \text{ } & 8. \\
\end{array}
\]
GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

<table>
<thead>
<tr>
<th>State</th>
<th>N.</th>
<th>J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td>2.095,000.00</td>
<td>log $S_i$</td>
</tr>
<tr>
<td>$K$</td>
<td>2.000,000.00</td>
<td>log (1200/3937)</td>
</tr>
<tr>
<td>$x' = x-K$</td>
<td>+ 95,000.00</td>
<td>log (1/R)</td>
</tr>
<tr>
<td>$y''/(6p^2)_{s}$</td>
<td>0.32</td>
<td>log $S_m$</td>
</tr>
<tr>
<td>$S_i$</td>
<td>+ 94,999.67</td>
<td>corr. arc to sine</td>
</tr>
<tr>
<td>$3 \log x'$</td>
<td>4.93317053</td>
<td>log $S_i$</td>
</tr>
<tr>
<td>$\log 1/(6p^3)_{s}$</td>
<td>4.5410213</td>
<td>log $A$</td>
</tr>
<tr>
<td>$\log x''/(6p^4)_{s}$</td>
<td>9.51141921</td>
<td>log sec $\phi$</td>
</tr>
<tr>
<td>$\log S_m'$</td>
<td>4.2349759</td>
<td>log $\Delta \lambda$</td>
</tr>
<tr>
<td>$\log C$</td>
<td>1.320556</td>
<td>cor. sine to arc</td>
</tr>
<tr>
<td>$\log \Delta \phi$</td>
<td>0.244048</td>
<td></td>
</tr>
</tbody>
</table>

Explanation of form:

$x' = x - K$

$$S_i = z' - \frac{x''}{(6p^3)_{s}}$$

$$S_m = \frac{1}{R} \left( \frac{1200}{3937} \right) S_i$$

$R =$ scale reduction factor

$\phi'$ is interpolated from table of $y$

$\Delta \phi = C S_m$

$\phi = \phi' - \Delta \phi$

$\Delta \lambda = S_i A \sec \phi$

$\log S_i = \log S_m - \text{corr. arc to sine}$

$\log \Delta \lambda = \log \Delta \lambda + \text{corr. arc to sine}$

$\lambda = \lambda (\text{central mer.}) - \Delta \lambda$
### GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

<table>
<thead>
<tr>
<th>STATE</th>
<th>J.</th>
<th>STATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x$</td>
<td>2,080,000.00</td>
<td>log $S_t$ 4.913054.40</td>
</tr>
<tr>
<td>$K$</td>
<td>2,000,000.00</td>
<td>log (1200/3937) 9.48401583</td>
</tr>
<tr>
<td>$x' = x - K$</td>
<td>40,000.00</td>
<td>log (1/R) 1.056</td>
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<tr>
<td>$z'^2/(6p_3^2)$</td>
<td>0.20</td>
<td>log $S_m$ 4.34711559</td>
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<tr>
<td>$S_t$</td>
<td>79.999.60</td>
<td>cor. arc to sine 1.06</td>
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<tr>
<td>3 log $x'$</td>
<td>4.709226937</td>
<td>log $S_t$ 4.34711453</td>
</tr>
<tr>
<td>log $1/(6p_3^2)$</td>
<td>4.5810213</td>
<td>log $A_\lambda$ 5.50913267</td>
</tr>
<tr>
<td>log $z'^2/(6p_3^2)$</td>
<td>9.2902913</td>
<td>log sec $\phi$ 0.11220090</td>
</tr>
<tr>
<td>log $S_m^2$</td>
<td>5.77423118</td>
<td>log $\Delta\lambda$ 3.008449410</td>
</tr>
<tr>
<td>log $C$</td>
<td>1.314707</td>
<td>cor. sine to arc 1.76</td>
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<tr>
<td>log $\Delta\phi$</td>
<td>0.693934</td>
<td>log $\Delta\lambda$ 3.008449486</td>
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<tr>
<td>$y$</td>
<td>220,000.00</td>
<td>$\lambda$ (central mer.) 74.00000000</td>
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<tr>
<td>$\phi'$ (by interpolation)</td>
<td>39.2674.8360</td>
<td>$\Delta\lambda$ 16.596470</td>
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<tr>
<td>$\Delta\phi$</td>
<td>1.2415</td>
<td>$\lambda$ 74.23003530</td>
</tr>
<tr>
<td>$\phi$</td>
<td>39.2613.2447</td>
<td></td>
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#### Explanation of form:

- $x' = x - K$
- $S_t = x' - \frac{x'^2}{(6p_3^2)}$
- $S_m = \frac{1}{R} \left( \frac{1200}{3937} \right) S_t$
- $R =$ scale reduction factor
- $\phi'$ is interpolated from table of $y$
- $\Delta\phi = C S_m^2$
- $\phi = \phi' - \Delta\phi$
- $\Delta\lambda = S_t A \sec \phi$
- $\log S_t = \log S_m -$ cor. arc to sine
- $\log \Delta\lambda = \log \Delta\lambda +$ cor. arc to sine
- $\lambda = \lambda$ (central mer.) $- \Delta\lambda$
### Geodetic Positions from Transverse Mercator Coordinates

<table>
<thead>
<tr>
<th>Station</th>
<th>log (S_t)</th>
<th>log ((1200/3937))</th>
<th>log ((1/R))</th>
<th>log (S_m)</th>
<th>cor. arc to sine</th>
<th>(\lambda) (central mer.)</th>
<th>(\lambda)</th>
<th>(\Delta\lambda)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.97772110</td>
<td>9.48401583</td>
<td>1.086</td>
<td>4.46174779</td>
<td>149</td>
<td>74° 44' 06.1884&quot;</td>
<td>74°</td>
<td>19° 49.1179&quot;</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Explanation of Form:

- \(x' = x - K\)
- \(S_t = x' - \frac{x'^2}{(6\rho_t^2)}\)
- \(S_m = \frac{1}{R} \frac{1200}{3937} S_t\)
- \(R = \) scale reduction factor
- \(\phi'\) is interpolated from table of \(y\)
- \(\Delta\phi = C S_t^2\)
- \(\phi = \phi' - \Delta\phi\)
- \(\Delta\lambda_t = S_t A\) sec \(\phi\)
- \(\log S_t = \) log \(S_m\) - cor. arc to sine
- \(\log \Delta\lambda = \) log \(\Delta\lambda_t\) + cor. arc to sine
- \(\lambda = \lambda\) (central mer.) - \(\Delta\lambda\)
# Geodetic Positions from Transverse Mercator Coordinates

**State: New Jersey**

<table>
<thead>
<tr>
<th>State</th>
<th>Station T-5636</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>x</strong></td>
<td>2,080,000.00</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td></td>
</tr>
<tr>
<td><strong>z' (-z-K)</strong></td>
<td>80,000.00</td>
</tr>
<tr>
<td><strong>$x^2/(6p_x^2)$</strong></td>
<td>20</td>
</tr>
<tr>
<td><strong>$S_t$</strong></td>
<td>79,999.90</td>
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<tr>
<td>3 log $z'$</td>
<td>4.709,269.97</td>
</tr>
<tr>
<td>log $1/(6p_x^2)$</td>
<td>4.581,0213</td>
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<tr>
<td>log $x^3/(6p_x^2)$</td>
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</tr>
<tr>
<td><strong>log $S_m^2$</strong></td>
<td>8.774,231.18</td>
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<td><strong>log C</strong></td>
<td>1.319,286</td>
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<tr>
<td><strong>log $\Delta_\phi$</strong></td>
<td>0.093,517.18</td>
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<tr>
<td><strong>y</strong></td>
<td>2,100,000.00</td>
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<td><strong>$\phi'$ (by interpolation)</strong></td>
<td>39° 24' 35.6986</td>
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<td><strong>$\Delta_\phi$</strong></td>
<td>1.12403</td>
</tr>
<tr>
<td><strong>$\phi$</strong></td>
<td>39° 24' 34.4583</td>
</tr>
</tbody>
</table>

**Explanation of form:**

- $z' = x - K$
- $S_t = z' - \frac{z'^2}{(6p_x^2)}$
- $S_m = \frac{1}{R \left( \frac{1200}{3937} \right)} S_t$
- $R =$ scale reduction factor
- $\phi'$ is interpolated from table of $y$
- $\Delta_\phi = C S_m^2$
- $\phi = \phi' - \Delta_\phi$
- $\Delta_1 = S_4 A \sec \phi$
- $\log S_t = \log S_m - \text{cor. arc to sine}$
- $\log \Delta_\lambda = \log \Delta_1 + \text{cor. arc to sine}$
- $\lambda = \lambda$ (central mer.) $- \Delta_\lambda$
GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

<table>
<thead>
<tr>
<th>State</th>
<th>New Jersey</th>
<th>Station T-5635 + T-5634</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x$</td>
<td>2.080 000,00</td>
<td>log $S_z$</td>
</tr>
<tr>
<td>$K$</td>
<td>2</td>
<td>log $(1200/3937)$</td>
</tr>
<tr>
<td>$z'$ ($=z-K$)</td>
<td></td>
<td>log $(1/R)$</td>
</tr>
<tr>
<td>$S_z$</td>
<td></td>
<td>log $S_a$</td>
</tr>
<tr>
<td>$3 \log z'$</td>
<td></td>
<td>cor. arc to sine</td>
</tr>
<tr>
<td>$\log 1/(6\rho_z^2)z$</td>
<td></td>
<td>log $S_z$</td>
</tr>
<tr>
<td>$\log z'^2/(6\rho_z^2)z$</td>
<td></td>
<td>log $A$</td>
</tr>
<tr>
<td>$\log S_a$</td>
<td>8.77423118</td>
<td>log $\sec \phi$</td>
</tr>
<tr>
<td>$\log C$</td>
<td>1.320129</td>
<td>log $\Delta \lambda_1$</td>
</tr>
<tr>
<td>$\log \Delta \phi$</td>
<td>0.04436018</td>
<td>cor. sine to arc</td>
</tr>
<tr>
<td>$y$</td>
<td>2.00 000,00</td>
<td>log $\Delta \lambda$</td>
</tr>
<tr>
<td>$\phi'$ (by interpolation)</td>
<td>39 27 53.3724</td>
<td>$\phi$ (central mer.)</td>
</tr>
<tr>
<td>$\Delta \phi$</td>
<td>1.2427</td>
<td>$\lambda$</td>
</tr>
<tr>
<td>$\phi$</td>
<td>39 27 52.1307</td>
<td>$\lambda$</td>
</tr>
</tbody>
</table>

Explanation of form:

$x' = z - K$

$S_z = z' - \frac{z'^2}{(6\rho_z^2)z}$

$S_a = \frac{1}{R} \left( \frac{1200}{3937} \right) S_z$

$R =$ scale reduction factor

$\phi'$ is interpolated from table of $y$

$\Delta \phi = C S_a^2$

$\phi = \phi' - \Delta \phi$

$\Delta \lambda_1 = S_z A \sec \phi$

$log S_z = log S_a -$ cor. arc to sine

$log \Delta \lambda = log \Delta \lambda_1 +$ cor. arc to sine

$\lambda = \lambda$ (central mer.) $-$ $\Delta \lambda$
REVIEW OF AIR PHOTO COMPILATION T-5635
Scale 1:10,000

Data Record

Triangulation to 1935
Photographs to 1932
Planetary surveys to 1936
Hydrography to 1936
Field inspection to 1935

The detail on this compilation is that of the date of the photographs except for changes along the shoreline as determined by field inspection and 1935 and 1936 planetary surveys.

Comparison with Contemporary Graphic Control Surveys

T-6401a (1935 and 1936), 1:10,000
T-6501a (1935 and 1936), 1:10,000
T-6501b (1935 and 1936), 1:10,000
T-6502b (1935 and 1936), 1:10,000

The above graphic control surveys are in agreement with the compilation.

All detail and information shown on the above graphic control surveys is shown on the compilation except temporary topographic signals and the magnetic meridians.

Comparison with Contemporary Hydrographic Surveys

H-5825 (1935), 1:10,000
H-5144 (1936),
H-5145 (1936),
H-6196 (1936),

The shoreline for the portions of the above hydrographic surveys covered by this compilation was taken from the compilation and is in agreement with the soundings.

Comparison with Former Topographic Surveys

T-142 (1841), 1:20,000
T-1166 (1870), 1:20,000
T-2455 (1899), 1:20,000
T-2640 (1903), 1:10,000

The former surveys show that there has been very little change or erosion along the streams but the outer coast in the vicinity of Brigantine Inlet shows considerable erosion. The compilation is complete and adequate to supersede those portions of the above surveys which it covers.

Comparison with Charts 1217 and 5243

A visual comparison shows no other outstanding difference than that the compilation is more complete in detail.

July 7, 1937

L. C. Landy
L. C. Lande
REVIEW OF AIR PHOTO COMPILATION NO. T-5635

Chief of Party:  E. H. Kirsch

Project:  HT-205

Compiled by:  T.P. Mitchell

Instructions dated:  May 16, 1935.

1. The charts of this area have been examined and topographic
   information necessary to bring the charts up to date is shown
   on this compilation.  (Par. 18a, 2b, c, d, e, f, and i; 26; and 64)

2. Change in position, or non-existence of wharfs, lights, and
   other topographic detail of particular importance to navigation
   which affect the chart, is discussed in the descriptive report.  (Par. 25; and 66 g,n)

3. Ground surveys by plane table, sextant, or theodolite have been
   used to supplement the photographic plot where necessary to
   obtain complete information, and all such surveys are discussed
   in the descriptive report.  (Par. 65; and 66 d,e)

4. Blue-prints and maps from other sources which were transmitted
   by the field party contain sufficient control for their application
   to the charts.  (Par. 28)

5. Differences between this compilation and contemporary plane
   table and hydrographic surveys have been examined and rectified
   in the field before forwarding the compilations to the office
   and are discussed in the descriptive report.

6. The control and adjustment of the photo plot are discussed in the
   descriptive report.  Unusual or large adjustments are discussed
   in detail and limits of the area affected are stated.  (Par.
   12b; 44; and 66 c,h,1)

7. High water line on marshy and mangrove coast is clear and ade-
   quate for chart compilation.  (Par. 18a, 43, and 44)

NOTE:  Strike out paragraphs, words or phrases not applicable and
modify those requiring it.  Paragraph numbers refer to those in the
Topographic Manual.  Refer also to the pamphlet "Notes on the Compila-
tion of Planimetric Line Maps from Five Lens Air Photographs."
8. The representation of low water lines, reefs, coral reefs and
rocks, and legends pertaining to them is satisfactory. (Par.
36, 37, 38, 39, 40, 41)

9. Recoverable objects have been located and described on Form 524
in accordance with circular 30, 1933, circular letter of March 3,
1933, and circular 31, 1934. (Par. 29, 30, and 57)

10. A list of landmarks was furnished on Form 567 and instructions
in the Director's letter of July 16, 1934, Landmarks for Charts,
complied with. (Par. 16d, e; and 80)

11. All bridges shown on the compilation are accompanied by a note
stating whether fixed or draw, clearance, and width of draw if
a draw bridge. Additional information of importance to naviga-
tion is given in the descriptive report. (Par. 18c)

12. Geographic names are shown on the overlay tracing. The accepted
local usage of new names has been determined and they are listed
in the report, together with a general statement as to source of
information and a specific statement when advisable. Complete
discussion of place names differing from the charts and from the
U. S. G. S. Quadrangles is given in the descriptive report,
together with reasons for recommendations made. (Par. 64, and 66k)

13. The geographic datum of the compilation is N. A. 1927 and the
reference station is correctly noted.

14. Junctions with adjoining compilations have been examined and are
in agreement. (Par. 66j)

15. The drafting is satisfactory and particular attention has been
given the following:

1. Standard symbols authorized by the Board of
Surveys and Maps have been used throughout
except as noted in the report.

2. The degrees and minutes of Latitude and Longi-
tude are correctly marked.
3. All station points are exactly marked by fine black dots.

4. Closely spaced lines are drawn sharp and clear for printing.

5. Topographic symbols for similar features are of uniform weight.

6. All drawing has been retouched where partially rubbed off.

7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

✓16. No additional surveying is recommended at this time.

✓17. Remarks:

✓18. Examined and approved;

[Signature]
Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Examined and approved:

[Signature]
Chief, Section of Field Records

[Signature]
Acting Chief, Section of Field Work

[Signature]
Chief, Division of Charts

[Signature]
Chief, Division of Hydrography and Topography.