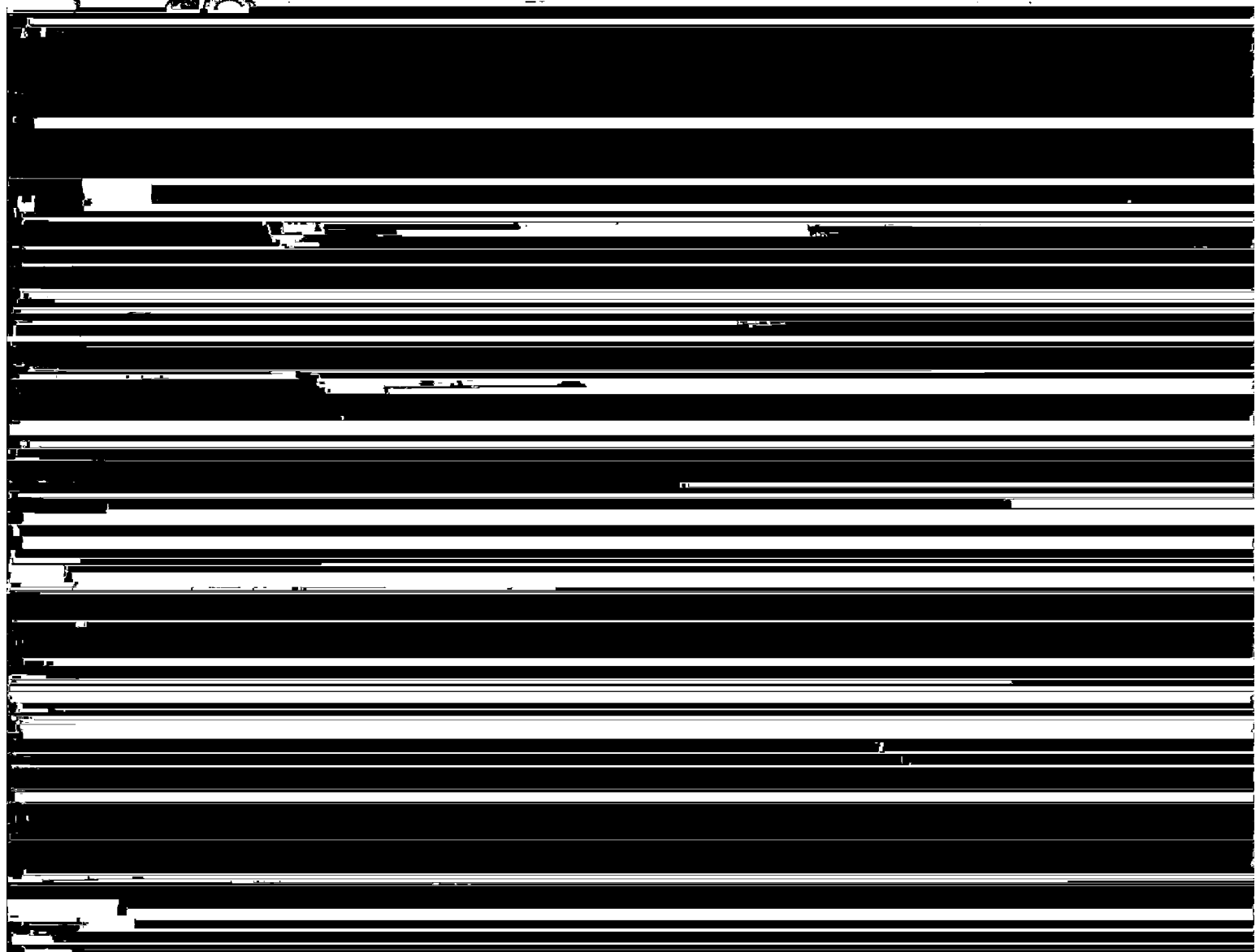
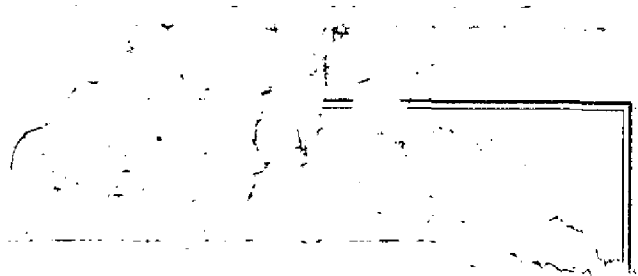


5636



Applied to drawing to Chart 1217- Apr. 12, 1938 - J.T.W.
Applied to chart 824 May 26 - 1938 H.C.

66-12-88 to 86

April 20, 1932

66-12-71 to 76

April 20, 1932

66-12-53 to 48

April 20, 1932

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 for-
warded to the Office.

Field No. 3

T5636

REGISTER NO. 5636

State New Jersey

General locality Absecon City and Vicinity Reed Bay

Locality Lake Bay to Reed Bay, Absecon and Vicinity

Photographs - April 20, 1932

Scale 1:10,000 Date of ~~survey~~ compilations Aug. 15, 1935, 19

Vessel Air Photo Compilation Party No. 21.

Chief of party E. H. Kirsch

Surveved by See data sheet in descriptive report.

GENERAL INFORMATION

Statistics:

There are 26.8 square statute miles of land area,
14.4 statute miles of shoreline over 200 meters from opposite shore, and
14.9 statute miles of streams less than 200 meters wide.

General description of Topography:

Covering the town of Absecon and a part of Pleasantville, this sheet is very unusual in that a great part of it is outlying suburban district with an abundance of roads and streets having no definite system of planning.

In the towns, the buildings are not shown; however, in the rural areas all the buildings that could be seen on the photographs are indicated as such.

Most of the marsh area (locally called meadow) is drained by ditches dug by the "Mosquito and Pest Control".

The vegetation in this area is generally deciduous and contains much brush which appears to be a second growth.

Photographs:

There are portions of four overlapping flights over this compilation, all of which run generally north and south. They were photographed April 20, 1932, the exact time being unavailable.

Photos No. 66-12 86 to 88 run along Long. $74^{\circ} 32'$.
Photos No. 66-12 76 to 71 run along Long. $74^{\circ} 30'$.
Photos No. 66-12 48 to 53 run along Long. $74^{\circ} 28'$.
Photos No. 66-12 38 to 36 run along Long. $74^{\circ} 25'$.

CONTROL

Sources:

Triangulation stations were established by C. D. Meaney 1931-32, Lt. R.C. Bolstad 1935, B. H. Rigg, 1935, and State of N. J. Traverse 1934 (E.R.A.). All control is on N. A. 1927 datum. Control established by C. D. Meaney has been ^{office}adjusted.

Errors:

The geographic position of ^{topographic} triangulation station STANDPIPE, PLEASANTVILLE ($39^{\circ} 24'$, $74^{\circ} 31'$) computed by Lt. R.C. Bolstad, was in variation approximately 450 meters as compared with its spotted position on the photographs. The location now appearing on the compilation was obtained by radial plotting from its pricked position on the photos. Enclosed with this sheet is Form No. 524 with the radial plotted position.

The radial plotted position accepted 1933

Discrepancies:

No control established by other organizations was used, except the ones listed under source of control.

Compilation:


The usual radial line method as described in "Notes on the Compilation of Planimetric Line Maps from Aerial Photographs 1933," was used.

Adjustment of Plots:

No unusual adjustments were necessary.

Interpretation:

The scale of the photos is very good and they have



Landmarks:

A list of landmarks and marked topographic stations will be submitted with G.C. sheet "V" Reg. No. *T6502A*, B. H. Rigg, 1935.

RECOMMENDATION FOR FURTHER SURVEYS

This compilation is believed to have a probable error not exceeding .3 mm in positions of well defined detail of importance for charting and not exceeding .6 mm in other detail.

To the best of my knowledge this sheet is complete in all detail of importance for charting and no additional surveys are necessary.

Assisted by,

E. H. Kirsch

E. H. Kirsch,
Chief of Party.

Submitted by,

Discharged

W. W. King.

ADDITIONAL INFORMATION FOR THE DESCRIPTIVE REPORT FOR AIR PHOTO SHEET NO. 5636

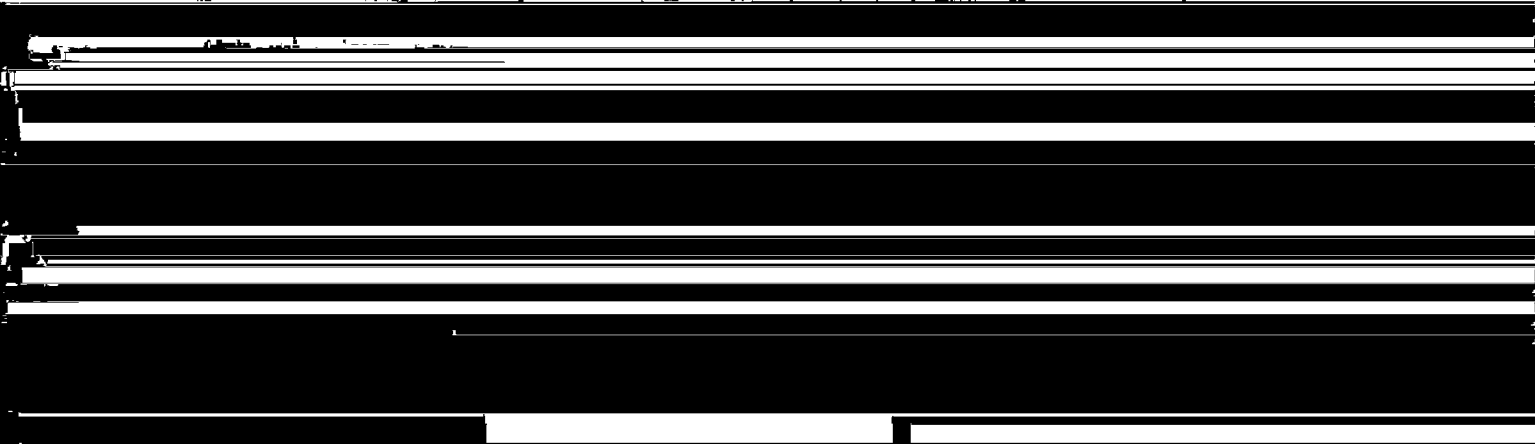
CONTROL

SOURCES:

Triangulation by Lieut. R. W. Woodworth in 1931, and by Joseph Heresheimer in 1886.

INFORMATION FROM OTHER SOURCES:

Lieut. J. A. Bond, Chief of Party, 1936 will submit additional landmarks for charts and marked topographic stations with the exception of N. J. Geod S. NOS. 1845, 1846, 1847, and 1848. Also STANDPIPE PLEASANTVILLE, BRICK STACK (A. C. W. D.) and ABSECON PRES. CHURCH



Submitted by C. J. Harryman.

C. J. Harryman

Remarks

Decisions

1		
2		GN 5-1937
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		GN 5-1937
13		GN 5-1937
14		USGB decision
15		→
16		GN 5-1937
17		GN 5-1937
18		GN 5-1937
19		
20		USGB decision
21		
22		
23		
24		GN 5-1937
25		GN 5-1937
26		
27		

GEOGRAPHIC NAMES
Survey No. T-5636

Name on Survey	A On Chart No.	B 1217 On previous survey No. T-142	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K
<u>Centerville</u>	✓		✓						1
<u>Lily Lake</u>									2
<u>Doughty Creek</u>	✓	<i>Doughty Creek</i>	✓						3
<u>Oceanville</u>	✓		✓						4
<u>Somersville</u>	✓		✓						5
<u>Somers Cove</u>	✓		✓						6
<u>Turtle Cove</u>	✓		✓						7
Atlantic City Estates					✓				8
<u>Conoverville</u>	✓		✓						9
<u>Cordery Creek</u>		T142	✓						10
<u>Reed Bay</u>	✓	<i>Reed Bay</i>	<i>Reed Bay</i>						11
<u>East Point Channel</u>		T142							12
<u>Broad Creek Thoro</u>			<i>East Point Channel</i>						13
<u>Absecon Creek</u>	✓	✓	✓						14
<u>Absecon</u>	✓		✓						15
<u>Cordery Steelmans Thorofare</u>			<i>Cordery Thoro</i>		<i>Cordery Thoro</i>				16
<u>Sheepshank Thorofare</u>									17
<u>Steelman Sloop Thorofare</u>		T142	<i>Steelman Thoro</i>		<i>Steelman Thoro</i>				18
<u>Pleasantville</u>	✓		✓						19
<u>Absecon Bay</u>	✓	✓	✓		✓				20
<u>Jonathan's Thorofare</u>		T142			<i>Jonathan's Thoro</i>				21
<u>Lake Bay</u>	✓		✓		<i>Lake Bay</i>				22
<u>Man's Conover Chan</u>	✓	✓	✓		✓				23
<u>Conover Chan</u>									24
<u>Sloop Thorofare</u>									25
									26
									27

Names underlined in red approved
by *RHE* on 2/18/37

REVIEW OF AIR PHOTO COMPILATION T-5636
Scale 1:10,000

Data Record

Triangulation to 1935
Photographs to 1932
Planetable surveys to 1936
Hydrography to 1936
Field inspection to 1936.

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

Comparison with Contemporary Graphic Control Surveys

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

T-6502a at lat. $39^{\circ} 24.4'$, long. $74^{\circ} 27.8'$, lat. $39^{\circ} 25.9'$, long. $74^{\circ} 26.7'$, lat. $39^{\circ} 26.1'$, long. $74^{\circ} 27.9'$, and lat. $39^{\circ} 26.9'$, long. $74^{\circ} 26.9'$ shows structures resembling duck blinds which cannot be seen on the photographs nor are they shown on H-6144. They have been left off the compilation.

Except as mentioned above all detail and information shown on T-6502a covered by this compilation has been shown on the compilation except temporary topographic signals and the magnetic meridian.

Comparison with Contemporary Hydrographic Surveys

H-6144 (1936), 1:10,000

The portion of the shoreline shown on H-6144 which covers 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

As these surveys are not to the same scale as the compilation only a visual comparison was made. There has been very little erosion or change in shoreline in the vicinity of the compilation but the compilation is much more complete in detail than the above surveys.

The compilation is complete and adequate to supersede those portions of the above surveys which it covers except for form lines on T-1166.

Comparison with Chart 1217 and 3243

A visual comparison has been made between the above charts and the compilation and they agree very well but the compilation is much more complete in detail.

May 27, 1937.

L. C. Lande
L. C. Lande.

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 Frank R. Geller

Points used for plotting grid:

x 2,055,000 ft.
y 235,000

x 2,040,000
y 205,000

x 2,040,000
y 220,000

x
y

x 2,070,000
y 220,000

x
y

x 2,055,000
y 210,000

x
y

Triangulation stations used for checking grid:

- $X=2,049,142.30$ $Y=213,459.26$ ft.
- | | |
|-----------------------------------|-----------------------------------|
| 1. <u>Steelman 1886 (ref sta)</u> | 5. <u>N. J. Geod. S. No. 1884</u> |
| 2. <u>Fly 1931</u> | 6. _____ |
| 3. <u>N. J. Geod. S. No. 1803</u> | 7. _____ |
| 4. <u>N. J. Geod. S. No. 1883</u> | 8. _____ |

T-5636

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J.

STATION _____

x	<u>2,055,000.00</u>	$\log S_0$	<u>4.74036222</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>755,000.00</u>	$\log (1/R)$	<u>1.086</u>
$x'^2/(6\rho_0^2)$	<u>0.6</u>	$\log S_m$	<u>4.22438891</u>
S_0	<u>+ 54,999.94</u>	cor. arc to sine	<u>50</u>
		$\log S_1$	<u>4.22438841</u>
$3 \log \gamma'$	<u>4.22104807</u>	$\log A$	<u>8.50913162</u>

T-5636

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J.

STATION _____

x	<u>2,040,000.00</u>	$\log S_0$	<u>4.60205977</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>+40,000.00</u>	$\log (1/R)$	<u>10.86</u>
$x'^2/(6\rho_0^2)_0$	<u>0.02</u>	$\log S_m$	<u>4.08608646</u>
S_0	<u>+39,999.98</u>	cor. arc to sine	<u>26</u>
		$\log S_1$	<u>4.08608620</u>
$3 \log x'$	<u>13.40617997</u>	$\log A$	<u>8.50913266</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810213</u>	$\log \sec \phi$	<u>0.11220251</u>
$\log x'^3/(6\rho_0^2)_0$	<u>8.3872013</u>	$\log \Delta\lambda_1$	<u>2.70742137</u>
		cor. sine to arc	<u>+44</u>
$\log S_m^2$	<u>8.17217292</u>	$\log \Delta\lambda$	<u>2.70742181</u>
$\log C$	<u>1.318707</u>	$\Delta\lambda$	<u>509.8258</u>
$\log \Delta\phi$	<u>9.491880</u>		
y	<u>220,000.00</u>		
ϕ' (by interpolation)	<u>39 26 14.5362</u>	λ (central mer.)	<u>74 40 00.0000</u>
$\Delta\phi$	<u>131.04</u>	$\Delta\lambda$	<u>8 29.8258</u>
ϕ	<u>39 26 14.2258</u>	λ	<u>74 31 30.1742</u>
	<u>43.87^{mm}</u>		<u>72.17^{mm}</u>

Explanation of form:

$$x' = x - K$$

$$S_0 = x' - \frac{x'^3}{(6\rho_0^2)_0}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_0$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

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

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

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

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

T-5636

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION _____

x	<u>2,070,000.00</u>	$\log S_0$	<u>4.44509723</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>+70,000.00</u>	$\log (1/R)$	<u>10.86</u>
$x'^3/(6\rho_0^2)_0$	<u>0.13</u>	$\log S_m$	<u>4.22912392</u>
S_0	<u>+69,999.87</u>	cor. arc to sine	<u>8.1</u>
		$\log S_1$	<u>4.22912311</u>
$3 \log x'$	<u>4.53529412</u>	$\log A$	<u>8.50913266</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810213</u>	$\log \sec \phi$	<u>0.11220140</u>
$\log x'^3/(6\rho_0^2)_0$	<u>9.1163154</u>	$\log \Delta\lambda_1$	<u>2.95045717</u>
		cor. sine to arc	<u>+1.36</u>
$\log S_m^2$	<u>8.65824784</u>	$\log \Delta\lambda$	<u>2.95045853</u>
$\log C$	<u>1.319707</u>	$\Delta\lambda$	<u>852.6824</u>
$\log \Delta\phi$	<u>9.977955</u>		
y	<u>220,000.00</u>		
ϕ' (by interpolation)	<u>39 26 14.5362</u>	λ (central mer.)	<u>74 40 00.0000</u>
$\Delta\phi$	<u>— .9505</u>	$\Delta\lambda$	<u>14 52.1924</u>
ϕ	<u>39 26 13.5857</u>	λ	<u>74 25 07.8076</u>
	<u>41.90 mm</u>		<u>18.68 mm</u>

Explanation of form:

$$x' = x - K$$

$$S_0 = x' - \frac{x'^3}{(6\rho_0^2)_0}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_0$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

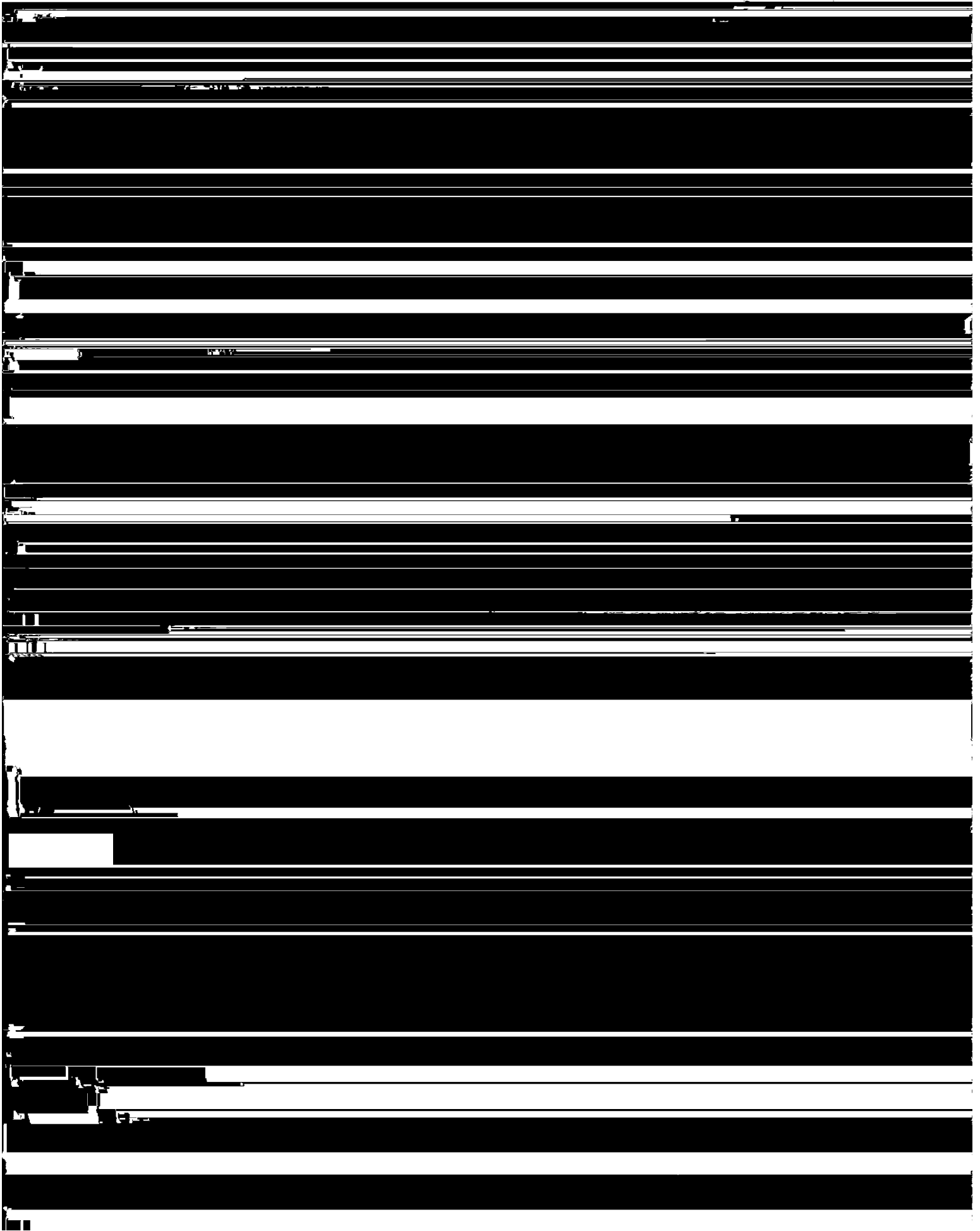
$$\phi = \phi' - \Delta\phi$$

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

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

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$



T-5636

15

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J.

STATION _____

x	<u>2,040,000.00</u>	$\log S_0$	<u>4.60205977</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>+40,000.00</u>	$\log (1/R)$	<u>1.086</u>
$x'^3/(6\rho_0^2)_0$	<u>0.02</u>	$\log S_m$	<u>4.08604648</u>
S_0	<u>+29,999.98</u>	cor. arc to sine	<u>26</u>
$3 \log x'$	<u>13.80617997</u>	$\log S_1$	<u>4.08604620</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810212</u>	$\log A$	<u>6.50913370</u>
$\log x'^3/(6\rho_0^2)_0$	<u>9.3872013</u>	$\log \sec \phi$	<u>0.11194584</u>
$\log S_m^2$	<u>8.17217292</u>	$\log \Delta\lambda_1$	<u>2.70716574</u>
$\log C$	<u>1.319075</u>	cor. sine to arc	<u>+44</u>
$\log \Delta\phi$	<u>9.491248</u>	$\log \Delta\lambda$	<u>2.70716618</u>
y	<u>205,000.00</u>	$\Delta\lambda$	<u>509.52540</u>
ϕ' (by interpolation)	<u>39 23 46.2757</u>	λ (central mer.)	<u>74 40 00.0000</u>
$\Delta\phi$	<u>3099</u>	$\Delta\lambda$	<u>8 29.5258</u>
ϕ	<u>39 23 45.9024</u>	λ'	<u>74 31 30.4742</u>
	<u>141.77 mm</u>		<u>72.94 mm</u>

Explanation of form:

$$x' = x - K$$

$$S_0 = x' - \frac{x'^3}{(6\rho_0^2)_0}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_0$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

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

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

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

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

REVIEW OF AIR PHOTO COMPILATION NO. 5636

Chief of Party: E.H.Kirsch

Compiled by: W.W.King

Project: HT 205

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. 16a, b,c,d,e,g 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. 26; 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,i)
- ✓ 7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 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 Compilation 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 60)
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 navigation is given in the descriptive report. (Par. 16c) *none*
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* *adjusted* 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 Longitude 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;

E. H. Kusch
Chief of Party

19. Remarks after review in office:

Reviewed in office by: L. C. Landy
5/26/37

Examined and approved:

C. K. Green
Chief, Section of Field Records

L. O. Tolbert
Chief, Division of Charts

Fred. L. Peacock
L. O. Tolbert
Chief, Section of Field Work

J. H. Hulse
Chief, Division of Hydrography
and Topography.