

5643

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

DESCRIPTIVE REPORT

AIR
PHOTO

Topographic
Hydrographic
~~Hydrographic~~

FIELD 10

Sheet No. REG. T-5643

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CO

Applied to drawing of Chart 1217 - May 16, 1938 - JFW.

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. 10

REGISTER NO. T-5643 T5643

State NEW JERSEY

General locality CAPE MAY COUNTY TUCKAHOE RIVER

Locality TUCKAHOE RIVER VICINITY OF CEDAR SWAMP CREEK AND VICINITY
Photographs 4-18-32 & 8-1-32

Scale 1:10 000 Date of survey Compilation June & 19 36
July

Vessel Air Photo Party No. 21.

Chief of party E. H. Kirsch

Surveyed by See data sheet in descriptive report

Inked by F. H. McBath

Heights in feet above --- to ground to tops of trees

Contour, Approximate contour, Form line interval --- feet

Instructions dated May 16th, 1935, 19

Remarks: None.

SHEET NO. 10
REGISTER NO. T-5643

PHOTO NBS.
66-8-19 to 24
66-8-54 to 55
66-55-26 to 29

DATE
4-18-32
4-18-32
8-1-32

PROJECTION BY	L. C. RIPLEY 5-2-35
PROJECTION CHECKED BY	T. B. NUTTING 5-2-35
CONTROL PLOTTED BY	F. H. RICHARDSON 1935
CONTROL PLOTTING CHECKED BY	<i>F. H. McBeth</i> F. H. MCBETH JUNE 1936
CONTROL PLOTTED ON PHOTOS BY	F. H. RICHARDSON 1935
CONTROL CHECKED ON PHOTOS BY	<i>F. H. McBeth</i> F. H. MCBETH JUNE 1936
SMOOTH RADIAL PLOT BY	<i>E. H. Kirsch</i> E. H. KIRSCH JUNE 1936
SMOOTH RADIAL PLOT CHECKED BY	<i>F. H. McBeth</i> F. H. MCBETH JUNE 1936
DETAILED BY	<i>F. H. McBeth</i> F. H. MCBETH JUNE & JULY 1936

LAND AREA 20 Square statute miles

NO COAST LINE

NO SHORELINE MORE THAN 200 METERS WIDE

LENGTH OF STREAMS 27 STATUTE MILES (Less than 200 meters wide).

Reference Station Swamp 1935

Latitude 39° 15' 41.450"	(1278.2 meters)	} Field Computations
Longitude 74 42 21.326	(511.3 meters)	

N. J. Grid Coord. $x = 1,988,884.01$ ft.
 $y = 155,950.05$ ft.

GENERAL INFORMATION

STATISTICS:

There are 20 square statute miles composing this sheet; no coast line, no streams over 200 meters wide, and 27 statute miles of streams less than 200 meters wide.

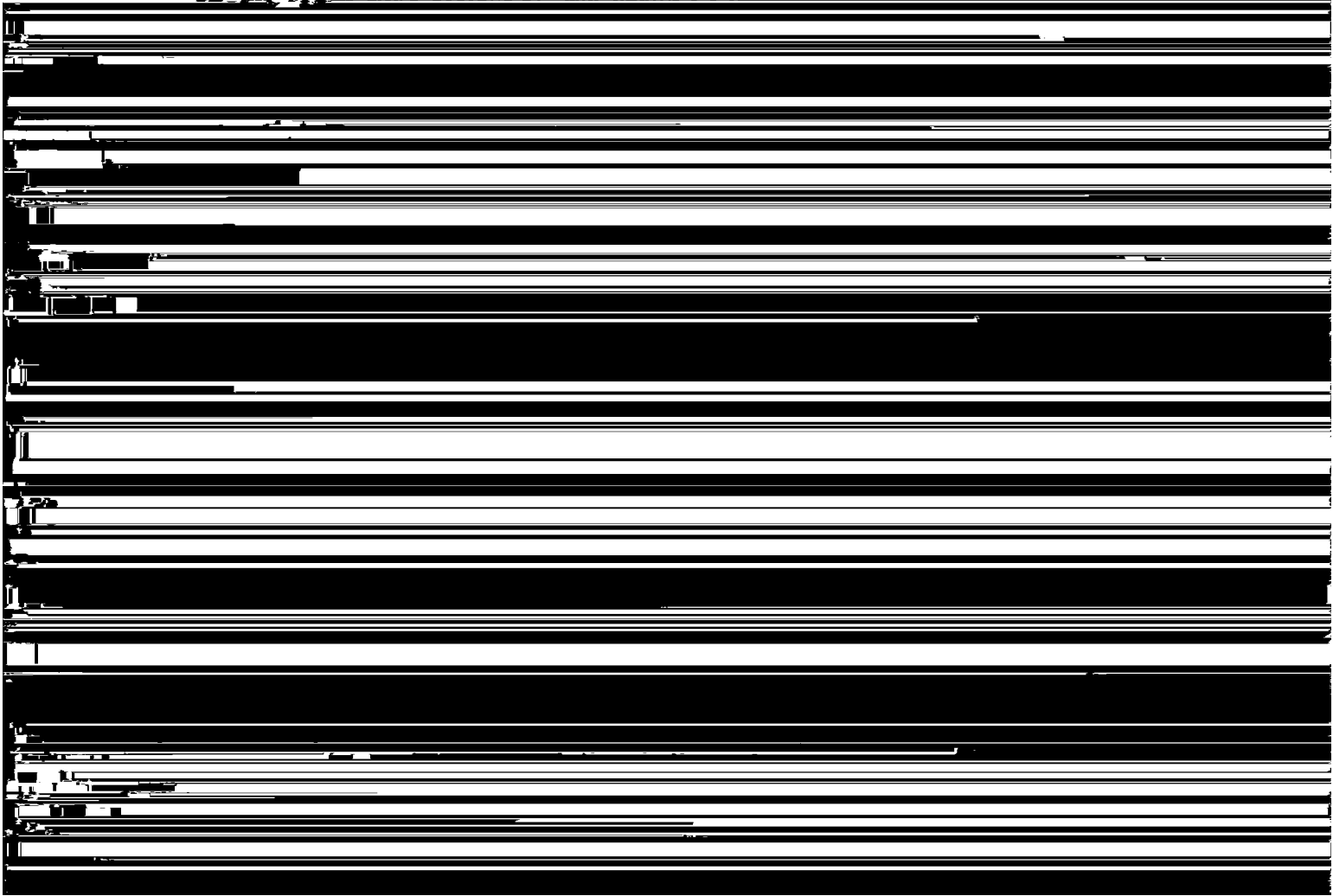
GENERAL REPORT:

This sheet covers the area about the confluence of Cedar Swamp Creek and the Tuckahoe River. While neither of these streams are at this location more than 200 meters wide there is considerable traffic on both as far as the two bridges shown at the town of Tuckahoe and the road crossing near Station SWAMP just east of Petersburg.

Back from the well developed tidal flats surrounding both streams the country is generally timbered, but along the two main roads (U. S. Highway No. 9) and (N. J. State Highway No. 50) the country is well developed for trucking and thickly settled.

PHOTOGRAPHS:

The sheet is detailed from three different flights of photographs. Photos 66-8-19 to 66-8-24 inclusive were from the flight down the western portion of the sheet and were taken on April 18th, 1932. Pictures No. 66-8-54 to 55 were taken in the vicinity of Palermo in the south east corner of the sheet on April 18th, 1932 and join up with



ADJUSTMENTS OF THE PLOT:

No unusual adjustments of the plot were found necessary.

INTERPRETATION:

The failure to record the time of the photographs has made the delineation of the high water line rather difficult at places. The water line along the Tuckahoe River in the vicinity of Lat. 39° - 18', Long. 74° - 44' has been difficult. The smoke from a forest fire in this area has obliterated the river bank and it has been found necessary to sketch a part of the water line. The river bank at this location has no marked irregularities and it is believed that the required accuracy has been attained by this method. The ditch system of drainage appearing on this sheet was dug by the mosquito and pest control organization operating in this vicinity. Where fairly definite they have been located but in places where the drainage has broken away from the system, the partially obliterated ditches have not been shown.

The Civilian Conservation Camp shown has undergone some more development since these photos were taken. These changes are not shown on the sheet.

INFORMATION FROM OTHER SOURCES:

Traverse stations from the N. J. Geodetic Control Survey. Names from a map published by the N. J. State Dept. of Conservation and development.

CONFLICTING NAMES:

This area has not been covered by any other U.S. C. & G. Survey Chart. The area has been mapped by the N. J. State Dept. of Conservation and development.* The original survey for this purpose was made in 1883-1884 and the principle features have been revised to the date of 1933. Although that map is not as detailed as this compilation, no discrepancies have been noticeable. There are no conflicting names.

* Sheet No. 37 filed in Geog. Names.

COMPARISON WITH OTHER SURVEYS:

Junctions have been made with the adjacent sheet as follows: Sheet No. T-5641 on the North, No. T-5642 on the East, and sheet No. 5644 on the south. The western edge of the sheet is the limit of the compiling.

LANDMARKS FOR CHARTS: A list of marked recoverable stations are submitted with this report.

There are no landmarks or objects of prominence suitable for such purposes occurring on this sheet.

BRIDGES:

The following bridge data was obtained by field inspection.

Highway bridge, Tuckahoe River, Corbin City, Lat. $39^{\circ}-17.8'$ Long. $74^{\circ}-45.2'$, Single leaf bascule, Hor. Clearance 30 feet, Ver. Clearance 9 feet at M. H. W. with bridge closed.

Highway bridge, Cedar Swamp Creek, Lat. $39^{\circ}-15.8'$ Long. $74^{\circ}-42.2'$, concrete, fixed, Hor. clearance 4 feet, Ver. clearance 2 feet at M. H. W.

Highway bridge, Cedar Swamp Creek, Lat. $39^{\circ}-14.9'$ Long. $74^{\circ}-42.8'$, wooden, fixed, Hor. clearance 10 feet, Ver. clearance 2 feet.

Railroad bridge, Cedar Swamp Creek, Lat. $39^{\circ}-14.8'$, Long. $74^{\circ}-43.1'$, wooden trestle, fixed, Hor. clearance 8 feet, Ver Clearance 1 foot.

Highway bridge, Cedar Swamp Creek, Lat. $39^{\circ}-14.8'$, Long. $74^{\circ}-43.1'$, wooden trestle, fixed, Hor clearance 11 feet, Ver clearance 3 feet.

RECOMMENDATIONS FOR FURTHER SURVEYS:

This compilation is believed to have an error of not more than .5 MM in position of well defined detail of importance for charting, and .8 MM for other detail. It is believed to be accurate, thorough, and complete for charting purposes, and that no additional surveys are necessary.

Assisted by E. H. Kirsch
Chief of Party. No. 21.

E. H. Kirsch

F. H. McBeth

F. H. McBeth.

Remarks

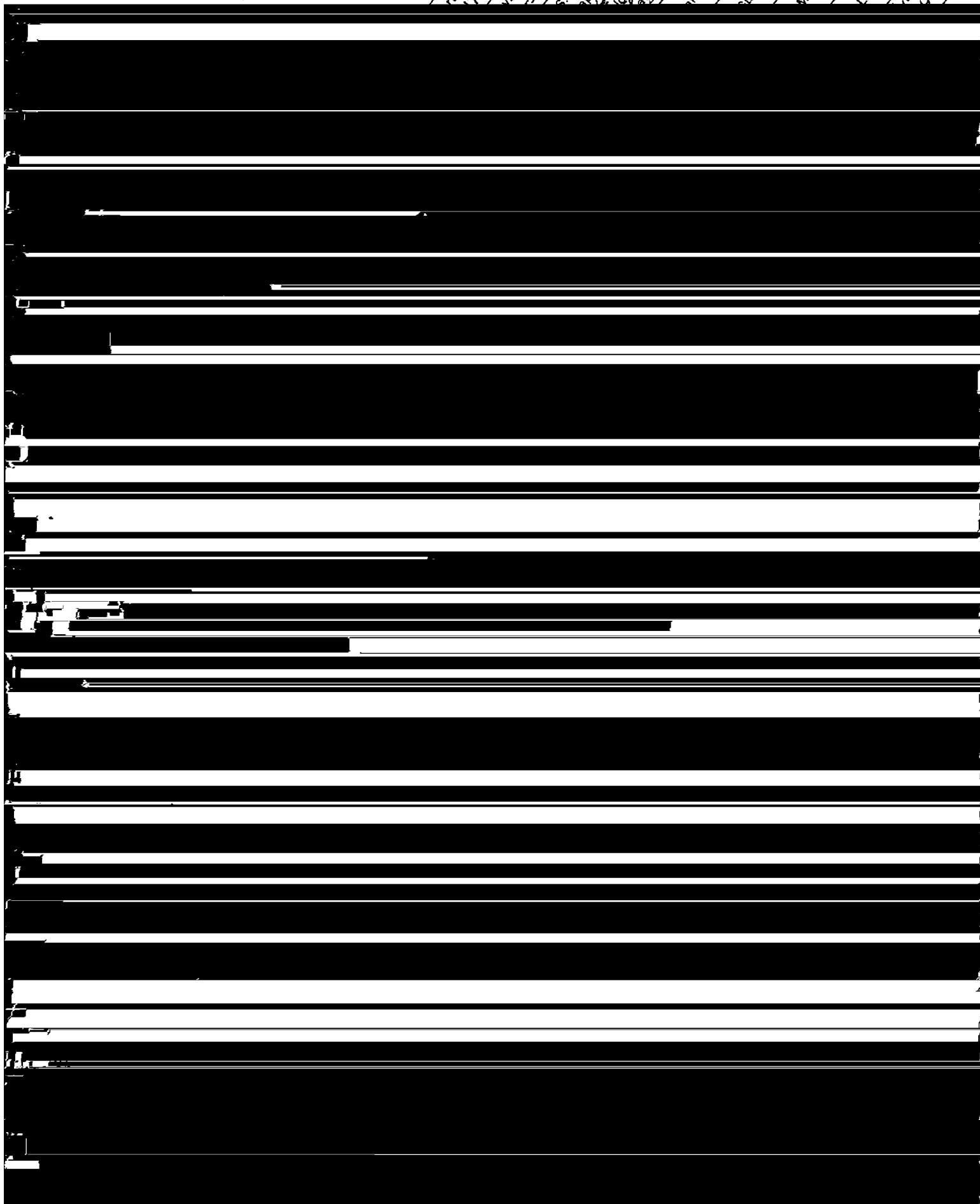
Decisions

1	called Corbin On the Prog. Mil. Map Quad (Tuckahoe)	
2		
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GEOGRAPHIC NAMES

Survey No. T-5643

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-146
quadrangle
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No. 37
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McNally Atlas
Light List
ial Guide



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 N. H. Schleuter

Points used for plotting grid:

x 1,975,000 ft.
y 170,000

x 1,995,000
y 170,000

x 1,985,000
y 155,000

x 1,975,000
y 145,000

x 1,995,000
y 145,000

x
y

x 1,975,000
y 155,000

x
y

Triangulation stations used for checking grid:

$x=1,988,884.01$ $y=155,950.05$

- | | |
|-----------------------------------|----------|
| 1. <u>Swamp 1935 (field Pos.)</u> | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION _____

x	<u>1,975,000.00</u>	$\log S_e$	<u>4.39793984</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>-25,000.00</u>	$\log (1/R)$	<u>10.86</u>
$x'^3/(6\rho_0^2)_0$	<u>+ .01</u>	$\log S_m$	<u>3.488196653</u>
S_e	<u>-24,999.99</u>	cor. arc to sine	<u>10</u>
		$\log S_1$	<u>3.88196643</u>
$3 \log x'$	<u>13.19382003</u>	$\log A$	<u>8.50913612</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810213</u>	$\log \sec \phi$	<u>0.11134909</u>
$\log x'^3/(6\rho_0^2)_0$	<u>17.7748413</u>	$\log \Delta\lambda_1$	<u>2.50245164</u>
		cor. sine to arc	<u>+ 18</u>
$\log S_m^2$	<u>7.76393306</u>	$\log \Delta\lambda$	<u>2.50245180</u>
$\log C$	<u>1.317613</u>	$\Delta\lambda$	<u>318.0181</u>
$\log \Delta\phi$	<u>9.081546</u>		
y	<u>170,000.00</u>		
ϕ' (by interpolation)	<u>39 18 00.3436</u>	λ (central mer.)	<u>74 40 00.0000</u>
$\Delta\phi$	<u>- .1207</u>	$\Delta\lambda$	<u>+ 5 18.0181</u>
ϕ	<u>39 18 00.2229</u>	λ	<u>74 45 18.0181</u>
	<u>0.69 mm.</u>		<u>43.17 mm.</u>

Explanation of form:

$$x' = x - K$$

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

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

R = scale reduction factor

ϕ' is interpolated from table of y

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

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

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

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

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

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

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION _____

x	<u>1,985,000.00</u>	$\log S_0$	<u>4.176 09126</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.484 01583</u>
$x' (=x-K)$	<u>-15,000.00</u>	$\log (1/R)$	<u>10.86</u>
$x'^3/(6\rho_0^2)_0$	<u>-.00</u>	$\log S_m$	<u>3.660 11795</u>
S_0	<u>-15,000.00</u>	cor. arc to sine	<u>4</u>
		$\log S_1$	<u>3.660 11791</u>
$3 \log x'$	<u>12.528 27378</u>	$\log A$	<u>8.509 13716</u>
$\log 1/(6\rho_0^2)_0$	<u>4.58 10 213</u>	$\log \sec \phi$	<u>0.111 09 391</u>
$\log x'^3/(6\rho_0^2)_0$	<u>7.109 2951</u>	$\log \Delta\lambda_1$	<u>2.240 34898</u>
		cor. sine to arc	<u>+ 6</u>
$\log S_m^2$	<u>7.320 23590</u>	$\log \Delta\lambda$	<u>2.280 34898</u>
$\log C$	<u>1.316 966</u>	$\Delta\lambda$	<u>190.6993</u>
$\log \Delta\phi$	<u>8.637 202</u>		
y	<u>155,000.00</u>		
ϕ' (by interpolation)	<u>39 15 32.0835</u>	λ (central mer.)	<u>74 40 00.0000</u>
$\Delta\phi$	<u>-.0434</u>	$\Delta\lambda$	<u>+ 3 10.6993</u>
ϕ	<u>39 15 32.0401</u>	λ	<u>74 43 10.6993</u>
	<u>98.81 mm</u>		<u>25.66 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

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

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

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

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

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

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

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GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION _____

x	<u>1,995,000.00</u>	$\log S_0$	<u>3.69897000</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>-5,000.00</u>	$\log (1/R)$	<u>10.46</u>
$x'^3/(6\rho_0^2)_0$	<u>.00</u>	$\log S_m$	<u>3.18299669</u>
S_0	<u>-5,000.00</u>	cor. arc to sine	<u>0</u>
$3 \log x'$	<u>11.09691000</u>	$\log S_1$	<u>3.18299669</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810213</u>	$\log A$	<u>8.50913785</u>
$\log x'^3/(6\rho_0^2)_0$	<u>5.6779313</u>	$\log \sec \phi$	<u>0.11092397</u>
$\log S_m^2$	<u>6.36599338</u>	$\log \Delta\lambda_1$	<u>1.80305851</u>
$\log C$	<u>1.316544</u>	cor. sine to arc	<u>+ 1</u>
$\log \Delta\phi$	<u>7.682537</u>	$\log \Delta\lambda$	<u>1.80305852</u>
y	<u>145,000.00</u>	$\Delta\lambda$	<u>63.5417"</u>
ϕ' (by interpolation)	<u>39 13 53.2428</u>	λ (central mer.)	<u>74 40 00.0000</u>
$\Delta\phi$	<u>.0048</u>	$\Delta\lambda$	<u>+ 1 03.5417</u>
ϕ	<u>39 13 53.2380</u>	λ	<u>74 41 03.5417</u>
	<u>164.18 mm</u>		<u>8.50 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

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

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

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

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

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

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

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N.J.

STATION _____

x	<u>1,975,000.00</u>	$\log S_e$	<u>4.39793984</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>-25,000.00</u>	$\log (1/R)$	<u>1.080</u>
$x'^2/(6\rho_0^2)$	<u>+</u> <u>.01</u>	$\log S_m$	<u>3.88196653</u>
S_e	<u>-24,999.99</u>	cor. arc to sine	<u>-</u> <u>16</u>
$3 \log x'$	<u>13,193,82003</u>	$\log S_1$	<u>3.88796643</u>
$\log 1/(6\rho_0^2)$	<u>4.5810213</u>	$\log A$	<u>8.50913716</u>
$\log x'^3/(6\rho_0^2)$	<u>17.7748413</u>	$\log \sec \phi$	<u>0.11109378</u>
$\log S_m^2$	<u>7.76393306</u>	$\log \Delta \lambda_1$	<u>2.50219737</u>
$\log C$	<u>1.316966</u>	cor. sine to arc	<u>+</u> <u>18</u>
$\log \Delta \phi$	<u>9.080899</u>	$\log \Delta \lambda$	<u>2.50219755</u>
y	<u>155,000.00</u>	$\Delta \lambda$	<u>312.8319</u>
ϕ' (by interpolation)	<u>39 15 32.0835</u>	λ (central mer.)	<u>74 40 00.0000</u>
$\Delta \phi$	<u>-</u> <u>1205</u>	$\Delta \lambda$	<u>+</u> <u>5 17.8319</u>
ϕ	<u>39 15 31.9630</u>	λ	<u>74 45 17.8319</u>
	<u>98.57 mm</u>		<u>42.76 mm</u>

Explanation of form:

$$x' = x - K$$

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

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

R = scale reduction factor

ϕ' is interpolated from table of y

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

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

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

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

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

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

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE <u>N. J.</u>		STATION _____	
x	<u>1,995,000.00</u>	$\log S_0$	<u>3.69897000</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>-5,000.00</u>	$\log (1/R)$	<u>1086</u>
$x'^3/(6\rho_0^2)_0$	<u>-.00</u>	$\log S_m$	<u>3.18299669</u>
S_0	<u>-5,000.00</u>	cor. arc to sine	<u>0</u>
		$\log S_1$	<u>3.18299669</u>
$3 \log x'$	<u>11.09691000</u>	$\log A$	<u>8.50913612</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810213</u>	$\log \sec \phi$	<u>0.11134929</u>
$\log x'^3/(6\rho_0^2)_0$	<u>15.6779313</u>	$\log \Delta\lambda_1$	<u>1.40348210</u>
		cor. sine to arc	<u>+1</u>
$\log S_m^2$	<u>6.36599338</u>	$\log \Delta\lambda$	<u>1.80348211</u>
$\log C$	<u>1.317613</u>	$\Delta\lambda$	<u>63.6037</u>
$\log \Delta\phi$	<u>7.283606</u>		
y	<u>170,000.00</u>		
ϕ' (by interpolation)	<u>39 18 00.3436</u>	λ (central mer.)	<u>74 40 00.0000</u>
$\Delta\phi$	<u>-.0048</u>	$\Delta\lambda$	<u>7 1 03.6037</u>
ϕ	<u>39 18 00.3388</u>	λ	<u>74 41 03.6037</u>
	<u>1.04^{mm}</u>		<u>8.64^{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

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

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

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

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

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

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

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Geodetic positions from transverse Mercator coordinates

State

N.J.

Station

x	1,975,000	log S_g	4.39794775
C	2	log (1200/3937)	9.48401583
$x' (=x-C)$	-25,000	log (1/R)	1046
$x'^3/(6\rho_o^2)_g$	-0.1	log S_m	-3.48196474
S_g	-24,999.99	cor. arc to sine	-
		log S_1	3.88196834
log S_m^2	7.76393688	log A	8.50913785-10
log C	1.316544	log sec ϕ	0.11092377
log $\Delta\phi$	9.080467	log $\Delta\lambda_1$	-2.50203016
		cor. sine to arc	+
y	145,000	log $\Delta\lambda$	2.50203053
ϕ' (by interpolation)	29° 13' 53.2424"	$\Delta\lambda$	317.7096
$\Delta\phi$	-1203"	λ (central mer.)	74° 40' 00.0000
ϕ	39° 13' 53.1224"	$\Delta\lambda$	5 17.7096
	163.82 mm	λ	74° 45' 17.7096
			17.7081

42.48 mm

Station

x		log S_g	
C		log (1200/3937)	9.48401583
$x' (=x-C)$		log (1/R)	
$x'^3/(6\rho_o^2)_g$	-	log S_m	
S_g		cor. arc to sine	-
		log S_1	
log S_m^2		log A	
log C		log sec ϕ	
log $\Delta\phi$		log $\Delta\lambda_1$	
		cor. sine to arc	+
y		log $\Delta\lambda$	
ϕ' (by interpolation)	° ' "	$\Delta\lambda$	"
$\Delta\phi$	-	λ (central mer.)	° ' "
ϕ		$\Delta\lambda$	
		λ	

(M-29)

(over)

Explanation of form:

$$x' = x - C$$

$$S_g = x' - \frac{x'^3}{(6\phi_o^2)_g}$$

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

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-5693

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State *N.J.*Station *Swamp*

Field Position

 λ (Central meridian)*74° 40' "* ϕ *39° 15' 41.450* λ *74 42 21.326* $\Delta\lambda$ (Central meridian- λ)*- 2 21.326* $\Delta\lambda$ (in sec.)*- 141.326*

log $\Delta\lambda$	<i>2.15022207</i>	log S_m^2	<i>7.059950</i>
Cor. arc to sine	<i>- 3</i>	log C^*	<i>1.317259</i>
log $\Delta\lambda_1$	<i>2.15022204</i>	log $\Delta\phi$	<i>8.377209</i>
log cos ϕ	<i>9.88888990</i>	ϕ	<i>39° 15' 41.450</i>
colog A	<i>1.49086291</i>	$\Delta\phi$	<i>+ 0.0238</i>
log S_1	<i>3.52997485</i>	ϕ'	<i>41.4738</i>
Cor. sine to arc	<i>+ 2</i>	Tabular difference of y for 1" of ϕ'	<i>101.17317</i>
log S_m	<i>3.52997487</i>	y (for min. of ϕ')	<i>151,754.01</i>
log 3937/1200	<i>0.51598417</i>	y (for seconds of ϕ')	<i>+ 4196.04</i>
log R	<i>- 1086</i>	y	<i>155,950.05</i>
log S_g	<i>4.04594818</i>	log sin $\frac{\phi + \phi'}{2}$	
log S_g^3	<i>12.1378</i>	log $\Delta\lambda$	
log $1/6\rho_0^2 R^2$	<i>4.5810213</i>	log $\Delta\alpha_1$	
log $(S_g^3/6\rho_0^2)_g$	<i>6.7188</i>	log $(\Delta\lambda)^3$	
S_g	<i>- 11,115.99</i>	log F	
$(S_g^3/6\rho_0^2)_g$		log b	
x'	<i>2,000,000.00</i>	$\Delta\alpha_1$	
x	<i>1,988,884.01</i>	b	
		$\Delta\alpha$	
		$\Delta\alpha$	

* Take out C first for ϕ and correct for approximate ϕ' .

(R 349)

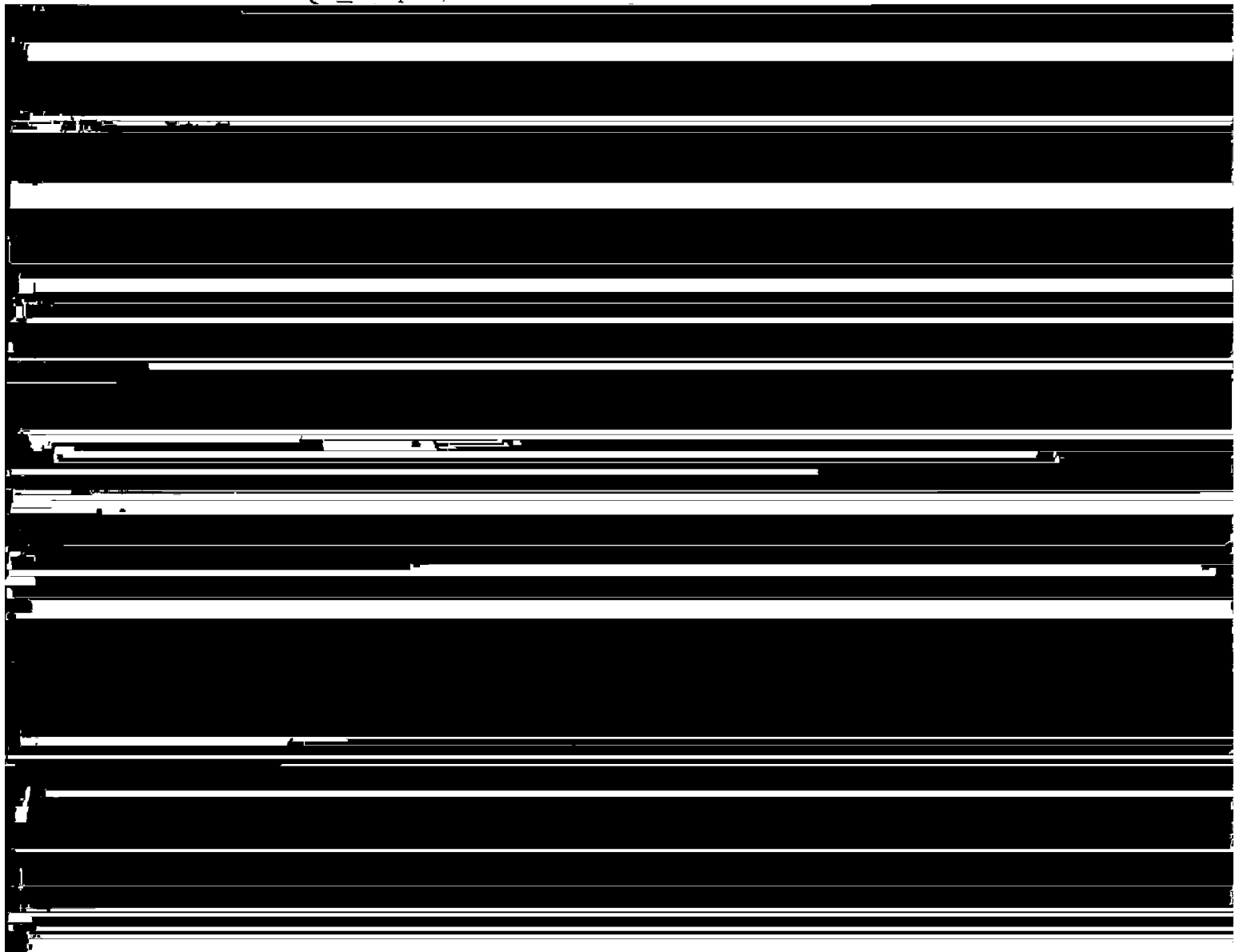
$$x = 2,000,000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6 \rho_0^2} \right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

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

$$c = \Delta \lambda_1 \cos \phi$$



REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: E. H. Kirsch

Compiled by: F. H. McBeth

Project: H. T. 205

Instructions dated: May 16th, 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
- 

- ✓ 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)
Overhead Electric Cable. Near lat. 39° 17.8' long 74° 40.6' Towers about 150' high, clearance about 100'.
- ✓ 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. *Unadjusted.*
- ✓ 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: *None*

✓ 18. Examined and approved;

E. H. Kirsch
Chief of Party

19. Remarks after review in office: *There are no previous surveys covering this area. Hydrographic & Topographic surveys are contemplated for this area in 1937. Corrections & additions to T-5643 as a result of these surveys will be made when this work is completed.*

Reviewed in office by:

R. E. Ask
Frank G. Enkine

Examined and approved:

E. H. Green
Chief, Section of Field Records
L. O. Colbert
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work
G. W. Hude
Chief, Division of Hydrography
and Topography.