Air
Photo

DESCRIPTIVE REPORT

Field 5

Topographic }
~~Hydrographic~~   *Sheet No.* Reg. 5638

State New Jersey

LOCALITY

Coast
~~New Jersey Coast,~~ Atlantic ~~County~~

~~Ventnor City to Great Egg Inlet~~

Margate City

·

1936

CHIEF OF PARTY

E. H. Kirsch

Applied to drawing of Chart 1217 - Apr. 20, 1938 - J.F.W.

Supplemental T.5 638 (may 23,1938) Applied to chart 1217 - June 8,1938 - J.F.W.

Applied to chart 826, 1938 AMC June 15.

"   "   "   827, July 1939, R.

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. 5   T5638

REGISTER NO. 5638

State New Jersey

General locality N. J. Coast, Atlantic County Coast

1

Photos	Date
66-55-10 to 15	8-1-32
66-12-78 to 87	4-20-32
66-13-16 to 20	4-22-32

Projection by   L. C. Ripley 4-24-35

Projection Checked by   T. B. Nutting 4-24-35

Control Plotted by   P. W. Hund   1935

Control Checked by   E. J. Anderson   1935

Control plotted on Photos by   J. F. Richardson 1935

Control Checked on Photos by   C. J. Harryman   1935

Smooth radial plot by   E. J. Anderson   1935

Smooth radial plot checked by   C. J. Harryman   Jan. 1936

Detailed by   C. J. Harryman   Jan. 1936

STATISTICS:

Land Area	26.0 square statute miles
Coast line	3.9 Statute miles
Shore line	34.2 Statute miles (More than 200 meters wide)
Shore line	27.0 Statute miles (Less than 200 meters wide)

Ref. Sta. RYON (1884) Lat. 39°22'44.735" (1379.6M)
Long. 74°31'33.741" (807.6M) adjusted

N. J. Grid Coord. x = 2,039,753.18
y = 198,804.14

GENERAL INFORMATION

STATISTICS:

This sheet covers a land area of 26.0 square statute miles. There are 3.9 statute miles of Coast line, 34.2 statute miles of shore line as measured along channels, bays and streams with a width of 200 meters or more from the nearest opposite shore, and 27.0 statute miles of streams less than 200 meters wide.

The drainage ditches, ponds and small streams of less than 10 meters wide are not included in the above figures.

GENERAL REPORT:

This sheet covers the southern portion of Absecon Island which includes the cities of Longport, Margate City and a part of Ventnor City. It extends north westward to include the cities of Linwood, Northfield and a portion of Pleasantville. The remainder of the sheet, between the two land areas, consists of Scull Bay and a part of Lake Bay, and several small Islands which are covered with marsh. The marsh is locally called meadow and in many places it is drained with small ditches for misquito control. A wide sand beach runs along the entire outer coast and in various places it is protected from erosion by piling, rock and wooden jetties.

PHOTOGRAPHS:

This sheet was compiled from parts of four flights of single lens, 1:10 000 scale aerial photographs, taken by the Aero Service Corporation of Philadelhhia, Pa. The time of the day, and the consequent stage of tide, at which the pictures were taken is not available. Photos 66-55-10 to 15 run parallel with the Coast and were taken August 1, 1932. The following pictures run approximately north and south and were taken April 20th, 1932; Photos 66-12-78 to 79, along Long. 74° 30', 66-12-80 to 87 along Long. 74° 32'. Photos 66-13-16 to 20 were taken April 22nd, 1932, and run along Long. 74° 34'.

The pictures are good as to scale and free of excessive tilt. The high and low water lines in some cases are very indefinite.

CONTROL

SOURCES:

First order triangulation by C. D. Meaney, 1932. Second order triangulation by R. W. Woodworth, 1931. Second order triangulation by B. H. Rigg 1935. Fourth order triangulation by R. C. Bolstad, 1935. Bolstads stations are shown on the compilation with black circles such as are used to show marked topographic stations. All of the control was established on N. A. 1927 datum. One graphic Control sheet, field letter W Reg. No. T-6503a, Launch MIKWAE 1936.

ERRORS:

The station POLE FIRE HOUSE at Lat. 39° 21', Long. 74° 32', as located by R. C. Bolstad, fourth order triangulation was found to be in error and the location as it appears on the compilation is by the radial plot method.

COMPILATION

METHOD:

The radial line method as described in the "Notes on the compilation of planimetric line maps from five lens aerial Photographs" was used in compiling this sheet.

ADJUSTMENT OFT THE PLOT:

No unusual adjustments of the plot were necessary.

INTERPRETATION:

As stated in the paragraph under photographs, some of the pictures covering the marsh area were very blurred and indistinct. It was questionable in several places whether the line showing on the photo was high or low water line. In cases where there was some doubt the portions that had been field inspected were used as a guide and it is believed that a good degree of accuracy has been obtained in every case. The fact that the time at which the pictures were taken, and therefore the stage of the tide, was not available also made interpretation difficult.

The street systems and roads in the rural districts were very clear and no difficulty was experienced in tracing the detail, Street car tracks have been shown as a single line, the distance between tracks has been exaggerated somewhat so they will print more clearly.

There are numerous small rock and pile jetties along the outer beach. They have been shown by a single solid line approximately their width, except the big jetty at the extreme end of Absecon Island which has been shown as a rock fill.

The highway extending from Longport to Northfield, Lat. 39° 20.4', Long. 74° 30.8' has been closed and the draw bridge at the thorofare is open at all times.

A cable crossing is shown by a dashed line, crossing the thorofare at Lat. 39° 20.8', Long. 74° 29.3'. Another cable crossing is shown crossing the Beach thorofare from the mainland to the new Ventnor disposal plant. Information regarding the location of the crossings were furnished by the field inspection party of R. C. Bolstad, 1935. A single line across the thorofare at Lat. 39°-20.5' Long. 74° 29.1' represents a row of piling. The area back of these piling has been filled at one time but it is now covered with water at high tide.

In the towns, only the important buildings are shown, however in the suburban and rural districts all the buildings that could be seen on the photos were shown.

The new highway at Lat. 39°23.5' Long. 74° 32.5', known locally as the Whitehorse Pike, U. S. Highway No. 40, State Highway No.48, was compiled from notes furnished by the field inspection party of R. C. Bolstad, 1935. N. J. Geod. S. monuments were used as a center line for the new road and the distances to well defined objects were used as control on the turn. It is believed that a good degree of accuracy has been obtained in compiling this highway. The field inspection notes can be found on Photo No. 66-12-86.

A small amount of High water line has been rodded in by the graphic control party of B. H. Rigg, 1935 at Lat. 39° 20.4' Long. 74° 28.5'. Beyond this point the beach is protected by concrete bulkheads and they have been taken as the high water line, except for a small area near Lat. 39° 19' Long. 74° 31', where there are no bulkheads and the high water line was compiled from notes furnished by the field inspection party of R. C. Bolstad, 1935.

The Ventnor fishing pier at Lat. 39° 20' Long. 74° 28.5' as it appears on the compilation wsa taken from graphic control sheet Field letter W Reg. No. F-6503a Launch MIKAWE 1936. This is not in agreement with the picture as storms have taken out the last section of the pier since the photographs were taken.

INFORMATION FROM OTHER SOURCES:

Information was obtained from field inspection by R. C. Bolstad, 1934 & 1935, Graphic control sheet W Reg. No. F-6503a Launch MIKAWE 1936, and field inspection by the compiler.

CONFLICTING NAMES:

All the names on the overlay were taken from Chart No 3243 or were taken from field inspection notes by R. C. Bolstad 1934-1935. No conflicting names were recorded.

COMPARISION WITH OTHER SURVEYS:

Satisfactory junctions have been made with sheets No. 3 & 4 Reg. Nos. 5636 & 5637 on the north east, and with sheet No. 6 Reg No. 5639 on the southwest. Satisfactory comparisons were made with the graphic control sheets covering this area.

LANDMARKS:

A list of landmarks for charts and recoverable topographic stations will be submitted with Graphic control sheet field letter W Reg NO. F-6503a Launch MIKAWE 1936.

A few additional descriptions of marked topographic stations are submitted with this report. These come from an area that is not covered with an aluminum sheet. Additional landmarks for charts will be submitted as a separate report for the project at the close of the season.

Bridges:

The following data was obtained from the field inspection report of R. C. Bolstad, information furnished by the U. S. Army Engineers and the New Jersey Board of Commerce and navigation.

LOCALITY	LAT.	LONG.	TYPE	VERTICAL CLEARANCE (ABOVE M.H.W.)	HORIZONTAL CLEARANCE
Ventnor	39° 20.5'	74° 28.7'	2 Leaf Bascule	10.5 10.3 Feet	50.0 Feet
Margate	39° 20.4'	74° 30.8'	2 Leaf bascule (Left open)	14.0 Feet	60.0 * 50.0 Feet
Risley Channel	39° 20.5'	74° 31.3'	Fixed Concrete	10.0 Feet	36.0 Feet
Whirlpool Channel	39° 20.7'	74° 31.7'	Fixed Concrete	10.0 Feet	36.0 Feet
Dock Thoro	39° 21.1'	74° 32.3'	Fixed Concrete	10.0 Feet	36.0 Feet
Longport Risley Channel	39° 18.9'	74° 31.7'	2 leaf bascule	9.0 + 6.0 Feet	50.0 Feet

Values in red from U.S.E. Bridge Clearances (1935).
* 50.0 ft shown on compilation
+ 6.0 ft shown on compilation

RECOMMENDATIONS FOR FURTHER SURVEYS:

This compilation is believed to have a probable error of not more than .3MM in the position of well defined detail of importance for charting, and of not more than .6 MM for other detail.

To the best of my knowledge this sheet is thorough and complete in all detail of importance for charting, within the accuracy stated above and no additional topographic surveys are necessary.

Submitted by

C J Harryman
C. J. Harryman

Assisted by E. H. Kirsch

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

	Remarks	Decisions
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M 234

GEOGRAPHIC NAMES
Survey No. T-5638

Name on Survey	On Chart No. (A)	On previous survey No. (B)	On U.S. quadrangle Maps (C)	From local information (D)	On local Maps (E)	P.O. Guide or Map (F)	Rand McNally Atlas (G)	U.S. Light List (H)	(K)	
Maple Run ~~Creek~~			Maple Run							1
Pleasantville	✓				✓					2
Northfield City					✓					3
Lake Bay	✓	Lake's Bay	✓		Lake's Bay					4
Lake Channel	✓	Lake's Channel								5
South Lake										6
Patcong Creek	✓		✓							7
Bargaintown			✓							8
Linwood	✓		✓		✓					9
Dock Thorofare	✓	✓	✓		✓					10
Shelter Island	✓				✓					11
Shelter Islands Bay		✓	✓		✓					12
West Canal					✓					13
Scull Bay	✓	Scull's Bay	✓		Scull's Bay					14
~~Scull~~ Sod Thoro~~fare~~	✓	Scull's Thoro	Sod Thoro		Sod Thoro					15
Risley Channel	✓	Risley's Channel	✓		Risley's Channel					16
Whirlpool Channel	✓	✓	✓		✓					17
Pork Island	✓				✓					18
Jonas Island			✓		✓					19
Beach Thorofare	✓	✓	✓		✓					20
Ventnor ~~City~~	Ventnor				✓					21
Inside Thorofare					✓					22
Ventnor Heights										23
Broad Thorofare	✓	✓	✓					・		24
Lone Cedar Island	✓				✓					25
Longport	✓		✓		✓					26
Hospitality Creek					✓					27

M 234

	Remarks	Decisions
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5		*GN5-1937*
6		*GN5-1937*
7		*GN5-1937*
8		" "
9		" "
10		" "
11		" "
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M 234

GEOGRAPHIC NAMES

Survey No. *T-5638*

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Margate City	✓				✓					1
Atlantic Ocean										2
										3
Following Names	*Added*		*2/18/37*		*by GHE*					4
Methodist Ditchy		✓			✓					5
Toms Island					✓					6
Williams Island					✓					7
Whirlpool Island					✓					8

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 ___H. H. Schluter___

Points used for plotting grid:

x ___2,040,000___   x ___2,025,000___
y ___185,000___   y ___185,000___

x ___2,040,000___   x ___2,050,000___
y ___170,000___   y ___185,000___

x ___2,025,000___   x _____
y ___200,000___   y _____

x ___2,040,000___   x _____
y ___200,000___   y _____

Triangulation stations used for checking grid:
X=2,039,753.18 y=198,804.14

1. ___Ryon 1884 (ref.sta)___   5. ___Longport 1932___

2. ___Black Standpipe 1932___   6. ___Point 1932___

3. ___Pleasantville, aluminum Water tank, 1932___   7. ___High 1931___

4. ___Ventnor 1932___   8. ___Frambes 1932___

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GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE _N. J._   STATION _____

x	2,040,000.00	$\log S_o$	4.60205977
K	2,000,000.00	$\log (1200/3937)$	9.48401583
$x'\ (=x-K)$	40,000.00	$\log (1/R)$	1086
$x'^3/(6\rho_o^2)_o$	$-$ 02	$\log S_m$	4.04604646
S_o	$+$ 39,999.98	cor. arc to sine	$-$ 26
		$\log S_1$	4.08608620
$3 \log x'$	13.80617997	$\log A$	8.50913508
$\log 1/(6\rho_o^2)_o$	4.5810213	$\log \sec \phi$	0.11160446
$\log x'^3/(6\rho_o^2)_o$	8.3872013	$\log \Delta\lambda_1$	2.70682574
		cor. sine to arc	$+$ 44
$\log S_m^2$	8.17217292	$\log \Delta\lambda$	2.70682618
$\log C$	1.3188322	$\Delta\lambda$	509.1271
$\log \Delta\phi$	9.490405		
y	185,000.00		
ϕ' (by interpolation)	39 20 28.6026	λ (central mer.)	74 40 00.0000
$\Delta\phi$	$-$ .3093	$\Delta\lambda$	8 29.1271

T- 5638.

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

State____ N. J. _____ Station_____

x	2,040,000.00	$\log S_g$	4.6020 5977
K	2,000,000.00	$\log (1200/3937)$	9.4840 1583
$x' (=x-K)$	40,000.00	$\log (1/R)$	1046
$x'^3/(6\rho_o^2)_g$	.02	$\log S_m$	4.0460 8646
S_g	+ 39,999.98	cor. arc to sine	— 26
		$\log S_1$	4.0460 8620
$3 \log x'$	13.8061 7997	$\log A$	8.5091 3612
$\log 1/(6\rho_o^2)_g$	4.5410 2213	$\log \sec \phi$	0.1113 4877
$\log x'^3/(6\rho_o^2)_g$	8.3472 0013	$\log \Delta\lambda_1$	2.7065 7109
		cor. sine to arc	+ 44
$\log S_m^2$	8.1721 7292	$\log \Delta\lambda$	2.7065 7153
$\log C$	1.3126 13	$\Delta\lambda$	508.5286
$\log \Delta\phi$	9.4859 786		
y	170,000.00		
ϕ' (by interpolation)	39 18 00.3436	λ (central mer.)	74 40 00.0000
$\Delta\phi$	— .3089	$\Delta\lambda$	8 28.8276
ϕ	39 18 00.0347	λ	74 31 31.1714

0.11 mm.

74.69 mm.

Explanation of form:

$x' = x - K$

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

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

R = scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi = C S_m^2$

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

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

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

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

$\lambda = \lambda$ (central mer.) $- \Delta\lambda$

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GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE _N. J._   STATION_____

x	2,025,000.00	$\log S_\varrho$	4.3979398.54
K	2,000,000.00	$\log (1200/3937)$	9.48401583
$x'\ (=x-K)$	25,000.00	$\log (1/R)$	1.0996
$x'^3/(6\rho_o{}^2)_\varrho$	.01	$\log S_m$	3.8419666.53
S_ϱ	+ 24,999.99	cor. arc to sine	1.0
		$\log S_1$	3.8819666.43
$3 \log x'$	13.1938.2003	$\log A$	8.5091.3404
$\log 1/(6\rho_o{}^2)_\varrho$	4.5810.213	$\log \sec \phi$	0.1118608.4
$\log x'^3/(6\rho_o{}^2)_\varrho$	7.7748413	$\log \Delta\lambda_1$	2.5029613.1
		cor. sine to arc	+ 1.7
$\log S_m{}^2$	7.7639.3306	$\log \Delta\lambda$	2.5029614.8
$\log C$	1.318865	$\Delta\lambda$	318.3915
$\log \Delta\phi$	9.0827.98		
	200,000.00		
y			
ϕ' (by interpolation)	39 22 56.8666	λ (central mer.)	74 40 00.0000
$\Delta\phi$	.1210	$\Delta\lambda$	5 18.3915
ϕ	39 22 56.7396	λ	74 34 41.6085

174.98 mm   99.60 mm

Explanation of form:

$x' = x - K$

$$S_\varrho = x' - \frac{x'^3}{(6\rho_o{}^2)_\varrho}$$

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

R = scale reduction factor

ϕ' is interpolated from table of y

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

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

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

$\log S_1 = \log S_m$ — cor. arc to sine

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

$\lambda = \lambda$ (central mer.) — $\Delta\lambda$

T- 5638

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE _N. J._ STATION _____

x	2,040,000.00	$\log S_g$	4. 60 20 5977
K	2,000,000.00	$\log (1200/3937)$	9 . 4 8 4 0 1 5 8 3
$x'\ (=x-K)$	40,000.00	$\log (1/R)$	1056
$x'^3/(6\rho_o^2)_g$	— .02	$\log S_m$	4.096 096 46
S_g	+ 39,999.98	cor. arc to sine	— 26
		$\log S_1$	4.096 096 20
$3 \log x'$	13.806 17997	$\log A$	8.509 13404
$\log 1/(6\rho_o^2)_g$	4.58 10 2 13	$\log \sec \phi$	0.111 86052
$\log x'^3/(6\rho_o^2)_g$	8.387 20 13	$\log \Delta\lambda_1$	2.707 08076
		cor. sine to arc	+ 44
$\log S_m^2$	8.172 172 92	$\log \Delta\lambda$	2.707 08 12 6
$\log C$	1.318 86 5	$\Delta\lambda$	509.4261
$\log \Delta\phi$	9.49 103 8		
y	200,100.00		

		°	′	″		
ϕ' (by interpolation)		39	22	56.8606	λ (central mer.)	74 40 00.0000
$\Delta\phi$		—		.3098	$\Delta\lambda$	8 29.4261
ϕ		39	22	56.5508	λ	74 31 30.5739

174.39 mm. 73.19 mm.

Explanation of form:

$x' = x - K$

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

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

R = scale reduction factor

ϕ' is interpolated from table of y

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

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

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

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

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

$\lambda = \lambda$ (central mer.) $- \Delta\lambda$

Form No. 743
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Ed. May 1935

T- 5638

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE _____ N. J. _____   STATION _____

x	2,025,000.00	$\log S_g$	4. 3 9 7 9 3 9 8 4
K	2,000,000.00	$\log (1200/3937)$	9 . 4 8 4 0 1 5 8 3
$x' (=x-K)$	+ 25,000.00	$\log (1/R)$	1 0 86
$x'^3/(6\rho_0^2)_g$	− .0 1	$\log S_m$	3. 8 8 1 9 6 6 5 3
S_g	24,999.99	cor. arc to sine	− 1 0
		$\log S_1$	3. 8 8 1 9 6 6 4 3
$3 \log x'$	13. 1 9 3 8 2 0 0 3	$\log A$	8. 5 0 9 1 3 5 0 8
$\log 1/(6\rho_0^2)_g$	4. 5 8 1 0 2 1 3	$\log \sec \phi$	0. 1 1 1 6 0 4 7 8
$\log x'^3/(6\rho_0^2)_g$	7. 7 7 4 8 4 1 3	$\log \Delta\lambda_1$	2. 5 0 2 7 0 6 2 9
		cor. sine to arc	+ 1 8
$\log S_m^2$	7. 7 6 3 9 3 3 0 6	$\log \Delta\lambda$	2. 5 0 2 7 0 6 4 7
$\log C$	1. 3 1 8 2 3 2	$\Delta\lambda$	318.2046
$\log \Delta\phi$	9. 0 8 2 1 6 5		
y	185,000.00		
ϕ' (by interpolation)	39 20 28.6026	λ (central mer.)	74 40 00.0000
$\Delta\phi$	− .1208	$\Delta\lambda$	+ 5 18.2046
ϕ	39 20 28.4818	λ	74 45 18.2046
	87.83 mm		34 41.7954
			100.10 mm

Explanation of form:

$x' = x - K$

$S_g = x' - \dfrac{x'^3}{(6\rho_0^2)_g}$

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

$R =$ scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi = C S_m^2$

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

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

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

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

$\lambda = \lambda$ (central mer.) $- \Delta\lambda$

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE _N. J._ STATION _____

x	2,050,000.00	$\log S_g$	4.69896957
K	2,000,000.00	$\log (1200/3937)$	9.48401583
$x'\ (=x-K)$	50,000.00	$\log (1/R)$	1086
$x'^3/(6\rho_o^2)_g$	— .05	$\log S_m$	4.18299626
S_g	+ 49,999.95	cor. arc to sine	— 41
		$\log S_1$	4.18299585
$3 \log x'$	14.0969100 0	$\log A$	8.50913508
$\log 1/(6\rho_o^2)_g$	4.5810213	$\log \sec \phi$	0.11160416
$\log x'^3/(6\rho_o^2)_g$	8.6779313	$\log \Delta\lambda_1$	2.80373509
		cor. sine to arc	+ 70
$\log S_m^2$	8.36599252	$\log \Delta\lambda$	2.80373579
$\log C$	1.318232	$\Delta\lambda$	536.4082
$\log \Delta\phi$	9.684225		

	°	'	"		°	'	"
y	185,000.00						
ϕ' (by interpolation)	39	20	28.6026	λ (central mer.)	74	40	00.0000
$\Delta\phi$	—		.4833	$\Delta\lambda$		+ 10	36.4082
ϕ	39	20	28.1193	λ	74	50	36.4082
			86.72 mm			29	23.5918
							56.50 mm

Explanation of form:

$x' = x - K$

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

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

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 - $ 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-5638
Scale 1:10,000

There are no recent hydrographic surveys within the limits of this compilation.

Comparison with Graphic Control Survey T-6503a (1935-36) 1:10,000

All detail on T-6503a within the common area is shown on the compilation except the temporary plane table stations and the magnetic meridian. Only a small section, the southwest corner, of T-6503a is within the limits of this compilation.

Comparison with Previous Topographic Surveys

There have been numerous detail changes along the inner shore line and the coast line. The compilation is complete and adequate to supersede the sections of the following previous topographic surveys which it covers:

T- 142	(1841)	1:20,000
T- 143	(1841)	1:10,000
T-1166 bis	(1869-70)	1:20,000
T-1744	(1886)	1:20,000
T-2054	(1891)	1:20,000
T-2454	(1899)	1:20,000
T-2455	(1899)	1:20,000
T-2562	(1901)	1:10,000

Comparison with Charts Nos. 1217 and 3243

This compilation shows numerous corrections and additions to charts 1217 and 3243, due both to cultural and natural changes.

The one light shown on this compilation, at lat. 39° 21.2', long. 74° 29.7', is not a triangulation station and was located by graphic control survey T-6503a in August 1936. △ Light 1935 in this same vicinity is a station Mark not a light.

The list of landmarks for this area as submitted by the photo compilation party is filed as chart letter No. 751 (1936).

An additional list is to be submitted by the hydrographic party of Lieut. L. D. Graham.

Additional Surveys

The shoal lines shown on this compilation are approximate as traced from the photographs and will be developed by the 1937 hydrography. In view of the statement in paragraph 3, page 2, the 1937 surveys should check and report on corrections to the marsh shore line wherever this is practicable during the hydrographic surveys or the planetable surveys executed for control of hydrography.

Supplemental Data

The high water line on the outer coast is considered as of
the date of field inspection, November 1934 to March 1935. Very
few changes from conditions at the date of the photos were noted
as most of the shoreline is protected by a concrete bulkhead.
Field inspection notes are shown on the 1933 Beach Erosion Board
photographs.

At the eastern edge of the compilation shoreline east of
Ventnor Pier is from planetable survey T-6503 (1936) but is not
considerably different from the conditions on the photographs and
no special note has been made on the compilation.

The photographs of the Beach Erosion Board taken January 1935
along the coast only have been used for adding any additional detail
not contained on the 1932 photographs.

Feb. 23, 1937.   Leo S. Straw

                                        B. G. Jones

                                        B.G. Jones

⊙ Standpipe, Longport (d)
   Located by photo compilation
   13 m. in error. Corrected.
                T.M. Price
                7/14/37

REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: E. H. Kirsch   Compiled by: C. J. Harryman

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 1; 26; and 64)

2.   Change in position, or non-existence of wharfs, lights, and
      other topographic detail of particular importance to naviga-
      tion which affect the chart, is discussed in the descriptive
      report. (Par. 26; and 66 g,n)

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)

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 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:

Reviewed in office by *E. O. Strand* 2/19/37 *B. G. Jones*

Examained and approved:

C. K. Green.
Chief, Section of Field Records

Fred L. Peacock
Chief, Section of Field Work

K. O. Dolbut.
Chief, Division of Charts

G. Wade
Chief, Division of Hydrography and Topography.

Report for T 5638 Supplemental

All detail in red on T 5638 Supplemental
applied by Whitman and checked by
E.W. Frederick 5/23/38 from:

a. Planetable survey of Sept 36 and June 1937
Field No AA (office No. C.S. 120 M.) all details
on C.S. 120 M applied to O T 5638 Supplemental
except 1. Magnetic Meridian
      2. Temporary Planetable stations
      3. Several Recoverable stations (not
prominent) not needed on T5638
      4. Form 524 descriptions not put
in regular files as not needed
for recovery of the stations.

b. Planetable survey of June 1937 (Field No. BB)
Office No. C.S. 118 M.
    Same statements apply as for C.S 120M
above

c. H 6230 1937 compared with T 5638
No additions or changes to T 5638 required.

                B.G. Jones.