5647

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. 14 Office No. 5647

LOCALITY

State New Jersey

General locality Atlantic Coast

Locality Wildwood

1936

CHIEF OF PARTY

E. H. Kirsch

LIBRARY & ARCHIVES

DATE

5647

B-1870-1 (1)++

5647

Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

AIR PHOTO

Topographic / ~~*Hydrographic*~~ } *Sheet No.* FIELD 14 REG. 5647

State NEW JERSEY

LOCALITY

Atlantic Coast

~~OUTSIDE COAST SOUTHERN N. J.~~

WILDWOOD

193 6

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934

5647

Form 537a
Ed. Nov. 1929

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. 14

REGISTER NO. 5647 T5647

State NEW JERSEY

General locality ~~OUTSIDE COAST SOUTHERN NEW JERSEY~~ Atlantic Coast

Locality WILDWOOD

Scale 1:10 000 Date of survey Photos 4-18-32 Compilation Sept., 19 36

Vessel Air Photo Party No. 21.

Chief of party E. H. Kirsch

Surveyed by See data sheet in the descriptive report

Inked by F. H. McBeth

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. 14
REGISTER 5647

Photos	Date
66-8-36	4-18-32
66-8-67 to 72	4-8-32
66-7-23 to 29	4-8-32
66-7-55 to 58	4-8-32
M 205 to M 226 (871-14)	1-23-33

Projection by	L. C. Ripley 5-6-35
Projection Checked by	T. B. Nutting 5-6-35
Control Plotted by	E. J. Anderson 1935
Control Checked by	P. W. Hund 1935
Control Plotted on Photos by	J. F. Richardson 1935
Control Checked on Photos by	E. H. Kirsch Aug. 1936
Smooth Radial Plot by	E. H. Kirsch Aug. 1936
Smooth Radial Plot Checked by	F. H. McBeth Sept. 1936
Detailed by	F. H. McBeth Sept. 1936

STATISTICS:

Land Area 25 square statute miles

Coastline 7.25 statute miles

Shoreline 23.5 statute miles (more than 200 meters wide)

Shoreline 74.5 statute miles of streams (less than 200 meters wide)

GENERAL INFORMATION

Reference Station: School 1932
Latitude: 38° 59' 8.331" 256.9 meters
Longitude: 74° 49' 13.810" 332.4 " adjusted

STATISTICS:

Land area 25 square statute miles
Coastline 7.25 statute miles
Shoreline 23.5 statute miles (more than 200 meters)
Streams 74.5 statute miles(less than 200 meters Wide)

The drainage ditches, ponds and smallest of the streams are not included in the above figures.

GENERAL REPORT:

The area covered by this sheet comprises the city of Wildwood and the Coastal strip of high ground upon which it is built, Hereford Inlet and another similar strip of high ground north to within a few meters of triangulation station STONE HARBOR. Back of this area is the coastal marsh with its drainage system and on the north west edge of the sheet is shown a narrow area of the mainland.

PHOTOGRAPHS:

Picture No. 66-8-36 was used to compile the coastal area north of Hereford Inlet.

Running north and south along the 74° 48' meridian is flight No. 66-8-67 to 72.

Paralleling this flight between meridians 74° 50' and 74° 51' is flight No. 66-7-23 to 29.

The Southern and western parts of this sheet were compiled from a flight paralleling the above mentioned flights and laying further to the west centering over ground between 74° 52' and 74° 53'. Pictures covering this area on this flight are 66-7-55 to 58.

All of the above mentioned pictures were taken on 4-18-32. The time of the day and consequent tide stage on the flights covering this area is unrecorded.

CONTROL

SOURCES:

First order triangulation by C. D. Meaney, 1932. Second order triangulation by J. A. Bond 1936. Third Order triangulation by R. F. A. Studds and G. C. Mattison 1927 and Third order triangulation by R. L. Shoppe in 1928.

ERRORS AND DESCREPANCIES:

No errors or descrepancies have been found in the control on this sheet.

X

COMPILATION

METHOD:

The usual method as described in the 1933 edition of U. S. C. & G. Survey "Notes on the compilation of ~~planmi~~, planimetric line maps from 5 lens aerial photographs" was used in the compilation of this sheet.

ADJUSTMENTS OF THE PLOT:

No unusual adjustment of the plot was found necessary for this sheet.

INTERPRETATION:

The railroads shown as abandoned on this sheet appear to have been so since the photos were taken, and have been shown with the usual railroad symbol, dashed. The railroad bridges of the now abandoned railroad which crosses Grassy Sound Channel and Beach Creek have been removed since the pictures covering this area were taken.

The fills upon which the roads and railroads are built across the marsh are in this vicinity between 3 and 6 feet high. A 12 foot bluff and the near by dunes in the area north of Hereford Inlet and East of Great Channel have been indicated.

To the south of Triangulation Station GABLES in the street system known as Wildwood Crest and between the railroad and the Ocean is an area of filled land which has blown into dunes. These dunes are now covered with grass and brush.

The densely built up small areas connected with the fishing industry have been difficult to interpret due to the small demensions and crowded proximity of the buildings. Such areas are found at Grassy Sound Channel and along the roads and abandoned railroads in that area This condition is also true along the constructed waterways running into the town itself.

INFORMATION FROM OTHER SOURCES:

All of the Coastline on this sheet from the south west edge of the compilation to and including the south shore of Hereford Inlet was located by field inspection on September 1st, 1936.* The actual low water line on the south shore of Hereford Inlet was located by a series of sextant fixes, ~~and the low water line so located has been indicated with a dashed line~~. The north shore of Hereford Inlet was located by field inspection, sextant fixes, on Aug. 3rd, 1936.

*Concerns that portion north of Lat. 39° 0.3'

CONFLICTING NAMES:

U. S. C. & G. Survey Chart No. 1218 / 1217	Dennisville Quad. U. S. G. S.	N. J. State Conservation Map. Atlas Sheet No. 37
Does not appear (north side of Dung Thoro)	Bluefish Creek ✓	Bluefish Creek ✓ X

U. S. C. & G. Survey Chart No. 1218 (1217)	Dennisville Quad. U. S. G. S?	N. J. State Conservation Map Atlas No. 37
NUMMY ~~Mummy~~ Island	Mummy Island	~~Mummy~~ Island NUMMYS
Does Not Appear (Jenkins Sound to Dead Thoro)	Jenkins Channel	Jenkins Channel
Does not Appear (On Mummy Island)	Mat Gut	Does not appear
Does not appear (Between Dead Thoro & Dung Thoro)	Great Flat Thoro.	Great Flat Thoro
Does not appear (Between Drum Thoro & Dung Thoro)	Little Sound	Little Sound
Does not appear Opposite shore north of Triangulation Station CUP.	Turtle Gut	Turtle Gut.
Does not appear (North of abandoned R.R. opposite Triangulation Station ROAD	Gravelly Run	Gravelly Run
Does not appear (South of highway West of Grassy Sound)	Cresse Thoro.	Cresse's Thoro.
Does not appear (W. of N. Wildwood, enters Hereford)	Beach Creek	Beach Creek
Richardson Sound	Richardsons Sound	Richardsons Sound
Richardson Channel	Richardsons Channel	Richardsons Channel
Does not appear	Does not appear	West Wildwood
Does not appear Near triangulation station Delevan	Does not appear	Weeks Landing

U. S. C. & G. Survey Chart No. 1218 / 1217	Dennisville Quad. U. S. G. S.	N. J. State Conservation Map. Atlas No. 37
Does not appear	Seven mile Beach ✓	Seven Mile Beach
Does not appear (Northern end Sunset Lake)	Ephraim Island ✓	Ephraims Island
Delevan Creek ✓	Does not appear	Jones Creek
Swain Channel ✓	Swan Channel	Swans Channel
Does not appear	Does not appear	Bennett's Creek ✓
Parson Harbor ✓	Does not appear	Upper Thorofare
Wildwood Crest ✓	Holly Beach	Wildwood Crest
Does not appear	Week's Landing ✓	Does not appear

Above is given a list of conflicting names with the sources from which they came. The names checked have been used on the cover sheet.

The name Wildwood carries some descrespancies. On the Army Engineers map the town is known as ANGLESEA with the division names of North Wildwood, Wildwood, and Holly Beach.

On the U. S. G. S. Quad. the town of Wildwood is known as ANGLESEA and the junction of two railroad tracks is known as Anglesea Junction. This railroad is now abandoned and the one not shown on this map is now used.

On U. S. C. & G. Survey Chart No. 1218 the names Wildwood, North Wildwood, and Wildwood Crest appear as shown on the overlay.

The N. J. State Conservation map agrees with U. S. C. &. G. Survey Chart No. 1218 with the addition of the Railroad station on the abandoned railroad which is called Anglesea.

The descrepancies are explained by the fact that with the growth of the town it has changed its name and agrees with the wording as given on the overlay. The latest development appears in the recently filled area to the south of Wildwood Crest, which proposed development at present carries the name of Wildwood Gables.

The Street names in the City layout will be found on the accompanying map obtained through the courtesy of the City Engineers.

COMPARISON WITH OTHER SURVEYS

Satisfactory junctions have been made with compilation No. T 5646 on the south west, with compilation No. T 5648 on the north east and with compilation No. 5649 on the North west.

There appears on this sheet one important descrepancy. At the confluence of Great Channel and Hereford Inlet, north of Noeth Wildwood, there appears on the U. S. G. S. Quadrangle an Island known as Gull Bar. On the State Conservation map the name Gull Bar appears in a slightly different position and no indication of land appears in the water area of that vicinity. On U. S. C. &. G Chart No. 1218 there appears in still a different position a sizeable Island which is called MIDDLEGROUND.

On the aerial photographs both of our own and of those of the Riparian Survey nothing in any way resembling a land form appears in this area. There does appear evidences of a shapeless shoal area in this vicinity. The area should be thoroughly investigated by hydrography.

LANDMARKS:

Triangulation stations are so dense in this area that marked topo. stations were considered unnecessary.

A list of landmarks for charts will be submitted at the close of the season as a separate report for the project. This list of landmarks has been submitted and is filed as chart letter 751 - 1936

BRIDGES:

There are eight bridges on this sheet as follows:

Highway bridge over Richardson Channel at Lat. 39° 00' Long. 74° 51' is a fixed trestle. Hor. Clear.*6 feet. Vert. Clear. 5 feet at M. H. W.
*Clearance of bents supporting waterpipe

Highway bridge over Grassy Sound Channel at Lat. 38° 59½' long. 74° 50' is a swing span. Hor. Clear. 50 feet each side. Vert. Clear. 5 feet at M. H. W.

Railroad bridge over Post Creek at 38° 59 3/4' Long. 74° 49' is a fixed trestle. Hor. Clear. 8 feet Vert. Clear. 5 feet at M. H. W.

Street bridge over Post Creek is fixed. Vert. Clear. 5 feet at M. H. W.

Railroad bridge over Grassy Sound Channel at Lat. 39° 00½' Long. 74° 49 3/4' is a ~~rolling lift~~ Bascule. Hor Clear. 50 feet. Vert Clear. 6 feet at M. H. W.

Highway bridge over Beach Creek at Lat. 39° 01' Long. 74° 48' is a fixed trestle. Vert. Clear at M. H. W. is 4 feet. Horizontal clearance 8 feet

Highway bridge over Grassy Sound Channel at Lat. 39° 01' 45'' Long. 74° 48' 45" is a double bascule. Hor. Clear 51 feet. Vert. Clear 8 feet at M. H. W.
" " 5 " " "

Railroad bridge over Turtle thoro. at Lat. 39° 01' Long. 74° 50½' is a fixed trestle. Vertical Clearance 7 feet
Horizontal " 15 "

Values in red taken from U.S.E. bridge list 1935.

RECOMMENDATION FOR FURTHER SURVEYS:

This compilation is believed to have a probable error not exceeding .3 MM in position of well defined detail for charting and not exceeding .~~6~~ 8 MM in other detail.

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

Submitted by

F. H. McBeth

Assisted by

E. H. Kirsch

E. H. Kirsch, Chief of Party.

1

	Remarks	Decisions
1		
2		
3		
4	unnamed on T-148	
5		
6		
7		
8	T-1532 "Dung Thoro"	
9	very small - bare at L.W. see H-6236	Rejected 4/14/38
10		
11		
12		
13		
14		
15	"Old Turtle Thoro" on T-1483	
16	T-148 shows Cresse's Sd also - a part of Cresse Thoro.	Another Cresse Thoro just North (~~Great~~ Great Sd.)
17	"Firman's I" on H-2166 is another small Id. in So. End of Grassy Sd.	
18		
19	T-148 Chan. North of Grassy Sd is called Grassy Sd. Thoro.	
20		
21		
22		
23	on T-148 an old inlet separated 5 Mile Beach from 2 Mile Beach. Inlet now closed ~~[illegible]~~	
24		
25		
26		
27	Also "West Wildwood" in Official R.R. Guide	

M 234

Sheet 8

GEOGRAPHIC NAMES

Survey No. T-5647

Name on Survey	A On Chart No. 1217, 1218	B On previous survey No. H-2166 T-148, T-147 T-1532	C On U. S. quadrangle Maps	D From local information	E ~~On local Maps~~ N.J. State Atlas Sheet No. 37	F	G P. O. Guide or Map	H Rand McNally Atlas	K U. S. Light List BP 14914	
Jenkins Sound	✓	✓	✓		✓					1
Gravelly Run		✓ H-2166	✓		✓					2
Jenkins Channel	Dead Thoro.	Dead Sd. T-1532	✓		✓				✓	3
Drum Thorofare	✓	✓	✓		✓				✓	4
Turtle Gut			✓		✓					5
~~Dead Thorofare~~	✓	Nummy's I. Thoro	✓		✓				✓	6
Great Flat Thorofare		Great Flats	✓		✓				✓	7
Dung Thorofare	✓	Jennings' Bay Th.	✓		✓				✓	8
~~Little Sound~~		✓	✓		✓				✓	9
Bluefish Creek		Bluefish Cr. Th.	✓		✓					10
Nummy Island	✓	Nummy's Island	✓		Nummys I					11
Mat Gut			✓							12
Great Channel	✓	✓ T-1532	✓		✓					13
Wildwood Junction	GN Stand 1218				✓					14
Old Turtle Thorofare	✓	Turtle Thoro	✓		✓				✓	15
~~Cresse Thorofare~~	Part of Old Turtle Thoro.	Cresse Sd. Thoro	✓		Cresses Thoro.					16
~~Firman Island~~ see Below	✓									17
Grassy Sound	✓	✓	✓		✓					18
Grassy Sound	✓	✓ &	✓		✓					19
Channel		Grassy Sd Thoro.								20
Beach Creek	✓	✓	✓		✓					21
Hereford Inlet	✓	✓	✓		✓					22
Seven Mile Beach	✓	~~Seven Mile Beach~~	✓		✓					23
Atlantic Ocean			✓							24
Richardson Sound	✓	Richardsons Sd.	Richardsons Sd.		Richardsons Sd.					25
Richardson Channel	✓	Richardsons Chan.			Richardsons Ch.					26
West Wildwood					✓		✓			27

M 234

	Remarks	Decisions
1		
2		
3		
4		
5	"Post Creek" on T-1483	
6		
7		
8		
9		
10		
11	"Swann's Chan." on T-1483 & Swann Ch. on ch/1217 Ed. July 1915	Swain Chan USGB decision
12		Applies only to Easterly Island
13	An old inlet on T-148 Now closed.	
14		
15		
16	"Tempes Cr" on H-2166	
17	"Shooting I" on H-2166	
18		too similar to old Turtle Thoro.
19		
20		unimportant Feature
21		
22	* Island not shown on Celluloid.- Questionable if it still exists,	
23	P.O. Guide 1936 - Grassy Sd. P.O. discontinued, Mail received in Wildwood.	
24		shown as part of N. Wildwood on City Engrs Map.
25		
26		
27		

M 234

GEOGRAPHIC NAMES

Survey No. T-5647

sheet 10

Name on Survey	A On Chart No. 1217, 1218	B On previous survey No. T-148, T-147, T-1532, T-1483, H-2166	C On U. S. quadrangle Maps	D From local information	E On local Maps N.J. State Atlas Sheet 37	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
North Wildwood	✓		Prog Mil Map		✓	Anglesea △	✓			1
~~Weeks Landing~~		✓	Prog Mil Map		✓					2
Delaven Creek	Dela-van Cr. (1218)	Dela-vans Cr.			Jones Cr.					3
Taylor Sound	✓				Taylors Sd.					4
Post Creek	✓	Pine I Cr.	✓		✓					5
Ottens' Harbor	✓	✓ T-4366		City Engr Map						6
Wildwood	✓		Prog Mil Map		✓	✓	✓			7
~~Parson Harbor~~	✓	Parsons Hbr								8
Bennetts Creek		Reubens Thoro			✓					9
Jarvis Sound	✓	✓	✓		✓					10
Hold for USBGN decision ~~Swann~~ Swain Channel	✓	Black-bank Thoro	Swan Chan.		Swans Ch					11
Ephraim Island		Eph-raim's I.	✓		Ephraims Id.					12
Sunset Lake	✓			City Engr. Map						13
Wildwood Crest	✓		Holly Beach		✓	✓	✓			14
~~Crassel's Creek~~		T-148								15
~~Tempe~~ Creek		T-148								16
shooting Island		T-148								17
~~Turtle Thoro~~		T-148								18
Great Flat		T-1532								19
~~Middle Thoro~~		T-1483								20
Long Pt.		T-1483								21
Firman I *	✓	H-2166								22
~~Grassy Sound~~ (Settlement)	✓					✓ See Remarks	✓			23
~~Beach Creek~~ (Settlement)	✓						✓			24
Wildwood Canal	from local map of wildwood									25
										26
										27

Names underlined in red approved by GHC on 1/7/37

M 234

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 W. H. Schleiter

Points used for plotting grid:

x 1,960,000 ft
y 75,000 ft

x 1,950,000
y 75,000
Offset from Road 1928

x 1,945,000
y 60,000

x 1,950,000
y 50,000
Offset from Gables 1932

x 1,960,000
y 60,000

x
y

x 1,970,000
y 75,000
Offset from Stone Harbor 1932

x
y

Triangulation stations used for checking grid:

X = 1,956,269.86 y = 55,509.94

1. School 1932 (ref. Sta.)
2. North Wildwood 1932
3. Wildwood, large S.P. 1932
4.
5.
6.
7.
8.

T 5647

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

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N.J. STATION

x	1960 000	$\log S_g$	4.60205977
K		$\log (1200/3937)$	9.484015 83
x' $(=x-K)$	-40 000	$\log (1/R)$	1086
$x'^3/(6\rho_o^2)_g$	- .02	$\log S_m$	4.08608646
S_g	39 999.98	cor. arc to sine	- 26
		$\log S_1$	4.08608620
$3 \log x'$	13.8060	$\log A$	8.50914269
$\log 1/(6\rho_o^2)_g$	4.5810	$\log \sec \phi$	0.10973805
$\log x'^3/(6\rho_o^2)_g$	8.3870	$\log \Delta\lambda_1$	2.70496694
		cor. sine to arc	+ 44
$\log S_m^2$	8.172173	$\log \Delta\lambda$	2.70496738
$\log C$	1.313587	$\Delta\lambda$	506.9526
$\log \Delta\phi$	9.485760		
y	75 000		
ϕ' (by interpolation)	39° 02′ 21.3449″	λ (central mer.)	74° 40′ ″
$\Delta\phi$	-- 0.3060	$\Delta\lambda$	- 8 26.9526
ϕ	39 02 21.0389	λ	74 48 26.9526

64.88 mm ✓ 64.83 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.)$-\Delta\lambda$

U. S. GOVERNMENT PRINTING OFFICE 11—11521

T5647

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

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N.J. STATION

x	1945000	$\log S_g$	4.74036222
K		$\log (1200/3937)$	9.484015 83
x' $(=x-K)$	-55000	$\log (1/R)$	1086
$x'^3/(6\rho_o^2)_g$	− .06	$\log S_m$	4.22438891
S_g	54999.94	cor. arc to sine	− 50
		$\log S_1$	4.22438841
$3 \log x'$	14.2212	$\log A$	8.50914373
$\log 1/(6\rho_o^2)_g$	4.5810	$\log \sec \phi$	0.10948462
$\log x'^3/(6\rho_o^2)_g$	8.8022	$\log \Delta\lambda_1$	2.84301676
		cor. sine to arc	+ 83
$\log S_m^2$	8.448778	$\log \Delta\lambda$	2.84301759
$\log C$	1.312953	$\Delta\lambda$	696.6547
$\log \Delta\phi$	9.761731		
y	60 000		
ϕ' (by interpolation)	38° 59′ 53.0781″	λ (central mer.)	74° 40′ ″
$\Delta\phi$	− 0.5777	$\Delta\lambda$	-11 36.6547
ϕ	38 59 52.5004	λ	74 51 36.6547

161.89 mm. ✓ 88.22 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.)$-\Delta\lambda$

U. S. GOVERNMENT PRINTING OFFICE 11—11521

T 5647

Form No. 743
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Ed. May 1925

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N.J. STATION

x	1960000	$\log S_g$	
K		$\log (1200/3937)$	9.484015 83
x' $(=x-K)$	-40000	$\log (1/R)$	
$x'^3/(6\rho_o^2)_g$	—	$\log S_m$	
S_g		cor. arc to sine	—
		$\log S_1$	4.08608620
$3 \log x'$		$\log A$	8.50914373
$\log 1/(6\rho_o^2)_g$		$\log \sec \phi$	0.10948508
$\log x'^3/(6\rho_o^2)_g$		$\log \Delta\lambda_1$	2.70471501
		cor. sine to arc	+ 44
$\log S_m^2$	8.172173	$\log \Delta\lambda$	2.70471545
$\log C$	1.312953	$\Delta\lambda$	506.″6586
$\log \Delta\phi$	9.485126		
y	60 000		
ϕ' (by interpolation)	38° 59′ 53.″0781	λ (central mer.)	74° 40′ ″
$\Delta\phi$	— 0.3056	$\Delta\lambda$	- 8 26.6586
ϕ	38 59 52.7725	λ	74 48 26.6586

162.73 mm 64.16 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.)$-\Delta\lambda$

U. S. GOVERNMENT PRINTING OFFICE 11—11521

~~Page F.~~

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 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)

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: None.

18. Examined and approved;

E. H. Kusch
Chief of Party

19. Remarks after review in office:
See sheet 14 for office review.

Reviewed in office by: R. E. Ask B.J. Jones

Examained and approved:

E. K. Green
Chief, Section of Field Records

L. O. Colbert
Chief, ~~Section of Field Work~~ Div. of Charts

Fred L. Peacock
Chief, ~~Division of Charts~~ Section of Field Work

R. W. Cole
Chief, Division of Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION T-5647 Scale 1:10,000.

Comparison with Previous Topographic Surveys.

T-147 (1842), 1:10,000
T-148 (1842), 1:10,000
T-1532 (1881), 1:10,000
T-1483 (1880), 1:10,000
T-2451 (1899), 1:10,000
T-4366 (1928), 1:10,000

There is good general shoreline agreement with numerous changes in detail between most of these old surveys and T-5647, however, the following exceptional changes are noted: Considerable changes have occurred in the low marshy area north of Hereford Inlet. The outer coast high water line of the City of Wildwood has extended Eastward about 1/4 mile. The former Turtle Gut Inlet has been blocked off with bulkheads and filled by dredging material from Sunset Lake. The recent survey T-4366 (1928) agrees in all respects with T-5647 except for the street system of the city of Wildwood in which a difference in places of 1.5 mm. is noted, however in the descriptive report for T-4366 mention is made that the street system was transferred from city plans which probably were in error.

This compilation T-5647 is adequate to supersede the previous topographic surveys ~~in this area~~ over the common area.

Hydrographic and graphic control surveys as ~~requested~~ required for hydrographic control are contemplated for this area in 1937. Corrections and additions to T-5647 as a result of these surveys will be made when the 1937 work is completed.

Comparison with Charts 1217, 1218, and 3243.

This compilation, T-5647, shows numerous minor corrections to shoreline and interior detail on the present charts.

See page 5 descriptive report regarding landmarks.

Supplementary Information.

Auxiliary Photographs.

A strip of outer coast photographs Nos. M(205-226)871 - 14 taken at 12:45 P. M. on January 23, 1933, for the U. S. Beach Erosion Board, were used for examination of the outer coast line, also some of the same photos, Nos. 215-224, were used in the radial plot for the purpose of increasing the strength of the intersected points.

X

T-5647 - 2

Field Inspection.

As mentioned in the descriptive report for T-5647 the outer coast high water line was located by sextant fixes on August 3, 1936 for coast line north of Hereford Inlet, and on September 1, 1936 for coast line south of Hereford Inlet. The low water line on the south shore of the same inlet was also located by sextant fixes on September 1, 1936.

Triangulation.

First order triangulation by C. D. Meaney, 1932.
Second order triangulation " J. A. Bond, 1936.
Third order triangulation " R.F.A.Studds & G. C. Mattison, 1927.
R. L. Schoppe, 1928.

R. E. Ask
2/25/37
Bggoss

Applied to Chart 1217 apr. 29, 1938 - J.T.W.

Applied to chart 1219. May 25, 1937
g. H. S.

Applied to chart 1218. apr. 21, 1937
g. H. S.

X

5 form 524 desc. filed under 5647

Report T 5647 Supplemental
5/9/38

1. Details in red on T 5647 Supplemental were applied by G.A. Ferguson and checked by E.W. Frederick. Sources of information for these changes were:

a. Planetable Survey of July 1937 (Field No. MM) Office No. C.S. 123 M (filed in air photo unit). All details on C.S. 123 were applied to 5647 Supplemental except the following
1. Magnetic meridian
2. Temporary Topo Stations
3. Several recoverable stations located for hydrography but of no value on T5647.
4. Form 524 card descriptions. Several descriptions left in file with C.S. 123M and not transfered to regular files as not needed, objects readily recoverable without descriptions.

b. Planetable Survey of July 1937 (Field No. OO) Office No. C.S. 122 M. Same statements apply as made under (a) above.

c. Planetable Survey of July 1937 (Field No. MM) Office No. C.S. 125 M. Same statement applies as made under par. a. above. The descriptive report for C.S. 125 M containing general statements about landmarks and shoreline changes is filed as the following page of this report.

d. H 6236 1937 – HW. line changes at mouth side of Hereford Inlet, and low water line at both sides of Hereford Inlet corrected to agree with resultant location of these details on H 6236. (HW line changes at North side of Hereford Inlet are from C.S. 125 M)

X

d. H6236 contd.- Removed two islands lat. 39° 00.45' Long. 74°48. added several small islands from positions given in the Sounding Records on for H6236

General - The cable crossings at lat. 38°59.5' Long 74°50' and at lat. 39°01.2' long 74°48' were located on C.S. 123 and C.S. 125 1937. No note was furnished regarding whether these are overhead ~~clearance~~ cables or regarding the amount of clearance. They are quite evidently overhead and have been labelled as such on T.5647 Supplemental.

B.G. Jones
5/10/38

X X

DESCRIPTIVE REPORT

To Accompany Topographic Sheet Field No. MM

INSTRUCTIONS - May 16, 1935 Project HT-205

PREPARATION OF SHEET

This sheet was prepared in the Washington Office, in advance of the field season. It is a blue line print of the topographic map No. T5647, compiled by Lieutenant E. H. Kirsch in 1936. Receiving this detailed sheet at the start of the field season speeded up the field work to a very marked extent.

GENERAL DESCRIPTION OF THE AREA

This sheet includes Hereford Inlet and an area about one and one quarter miles on each side of the inlet from the outer coast to the tree line about 3 miles inland.

The small streams within the limits of this sheet are typical of the streams appearing along the New Jersey coast. The marsh land is typical of New Jersey marshes. The marsh grass is short, growing about one foot high or less, which gives an unobstructed view across the marshes except to very small boats at low tide. The tree line is about three miles inland.

The outer coast line is very low, being only a few feet above high water. A few sand dunes are found on the north side of the inlet. On the south side of the inlet the sand dunes have been leveled and this area is built up with summer homes.

The town of North Wildwood makes an excellent landfall on the south side of Hereford Inlet. The best landmarks here being the two standpipes near the inlet, one being black, 10 feet in diameter and 117 feet above high water, the other being aluminum, 30 feet in diameter, and 120 feet above high water. These standpipes are only a few feet apart.

LANDMARKS

No additional landmarks were noted for this area, all of them being shown on the blue line print. See separate report on landmarks.

CHARACTER OF CONTROL USED

All triangulation stations were recovered and no additional triangulation was necessary.

CLOSING ERRORS

No traversing was necessary.

SURVEY METHODS

Signals were built, then located on the sheet by cuts from triangulation stations, good intersections being obtained. No auxiliary surveying methods were used.

The usual changes were found in the high water line bordering Hereford Inlet. The changes are slight, however, and no severe property damages have been caused by storms of recent years. On the north side of the inlet the shoreline was rodded as shown on the sheet with black waterproof ink. Each rod reading is shown as required by the regulations. On the south side of the inlet the high water line was determined by the hydrographic party when the tide was low and they could not sound. For the correct shoreline here see the boat and smooth sheet. For the rest of this sheet the shoreline was found correct as shown on the blue line print and no rodding was necessary.

FORM LINES

This sheet consists of flat land and no additional work is recommended.

GEOGRAPHIC NAMES

The names as compiled by Lieutenant E. H. Kirsch in 1936 are considered complete and no new names are recommended.

RECOVERABLE TOPOGRAPHIC STATIONS

Seven recoverable topo stations are submitted on form 524

NON-FLOATING AIDS TO NAVIGATION

The only non-floating aids to navigation on this sheet were temporary stake markers maintained by the state. Because these markers are not permanent no positions were determined. The position of Hereford Inlet Light, located by triangulation in 1928 is submitted on form 567.

INCOMPLETE WORK

There is no incomplete work and no additional work is recommended.

Submitted by,

George E. Varnadoe

George E. Varnadoe
Hand, C. & G. S.

Approved and forwarded

L. D. Graham

L. D. Graham
H. & G. Engineer
Chief of Party

Applied to chart 234. Jan 14, 1938. R.L.J

Supplemental (May 10, 1938) applied to Chart 1217 May 17, 1938 - J.W.
applied to new chart 827, July 1939 G.