

5661

Form 504  
Rev. April 1935  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Topographic Photo Compilation  
~~Hydrographic~~ Sheet No. T-5661

State Delaware

### LOCALITY

~~Entrance Delaware Bay~~

Atlantic Coast

Cape Henlopen to Rehoboth Bay

193  
Date of Photographs Dec. 7, 1933.

### CHIEF OF PARTY

J. C. Partington Jr. H. & G. E.

U. S. GOVERNMENT PRINTING OFFICE

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

AIR PHOTO  
TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. T-5661

REGISTER NO.

**T5661**

State Delaware

General locality Atlantic Coast

Locality Cape Henlopen to Rehoboth Bay

Date of Photographs December 7, 1933  
Compilation  
Scale 1 : 20,000 Date of ~~Survey~~ January 31, 1936

~~Passed~~ Photo Compilation Party # 25

Reviewed and recommended for approval Feb. 11, 1936  
Chief of party J.C. Parrington

~~Surveyed by~~ Photographs plotted by R.D. Cross July 24, 1935

Inked by John F. Burns Dec. 15, 1935  
J.K. Batchelor Jan. 31, 1936

Heights in feet above        to ground to tops of trees

Contour, Approximate contour, Form line interval        feet

Instructions dated March 11, 1934, 19      

Remarks: Compilation of aerial photographs Nos. M-71-22 to 35

M-70- 1 to 14

# STATISTICS

on

SHEET, FIELD NO. 5661; REGISTER NO. \_\_\_\_\_

Photos No. M-71- 22 to 35 (Five lens)  
Photos No. M-70- 1 to 14 (Single lens)

Date of Photographs December 7, 1933; Time 10:50 A.M. to 12:15 P.M.

Director's Instructions dated March 14, 1934.

	BY	FROM	DATE TO
ROUGH RADIAL PLOT	W.V.Sulkowski	5-15-35	6-10-35
SCALE FACTOR (1.000)	W.V.Sulkowski	5-15-35	6-10-35
SCALE FACTOR CHECKED	R.D.Cross	6-11-35	
PROJECTION	R.D.Cross	6-11-35	6-12-35
PROJECTION CHECKED	R.H.Young	6-13-35	6-13-35
CONTROL PLOTTED	R.D.Cross	6-13-35	6-13-35
CONTROL CHECKED	R.H.Young	6-14-35	6-14-35
TOPOGRAPHY TRANSFERRED	none available		
TOPOGRAPHY CHECKED	-b-----		
SMOOTH RADIAL LINE PLOT	R.D.Cross	7-17-35	7-24-35
RADIAL LINE PLOT CHECKED	R.H.Young	8-13-35	8-15-35
DETAIL INKED	John F.Burns J.K.Batchellor	11-25-35 1-6 -36	12-15-35 1-31-36
AREA OF DETAIL INKED (Land area)		48.76	Sq. Stat. Miles
AREA OF DETAIL INKED (shoals in water area)		0.00	Sq. Stat. Miles
LENGTH OF SHORELINE (more than 200 m. from opposite shore)		27.4	Stat. Miles
LENGTH OF SHORELINE (rivers & sloughs less than 200 m.wide)		38.0	Stat. Miles
LENGTH OF STREETS, ROADS, TRAILS, R.R., etc.		184.7	Stat. Miles
GENERAL LOCATION	ATLANTIC COAST, DELAWARE		
LOCATION	Cape Henlopen to Rehoboth Bay		
DATUM	North American 1927		
STATION	RADIO 1932	Latitude	38° 47' 24.892" = 767.6 m.
		Longitude	75 05 28.820 = 695.6 m.
		(Adjusted computations)	

## SHEET NO. 5661

## SCALE FACTOR COMPUTATIONS

Photos M70 1-M70 19

- - - - -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Measured Distance</u>	<u>Computed Distance</u>	<u>Scale Factor Meas./Comp.</u>
Quillins Point Flagpole 1934		Rehobeth Standpipe 1932 *	14285	14280	1.000
Rehobeth Stand- pipe 1932 *		Thompson 1909 r'29*	3072	3086	0.996
Thompson 1909 r'29* (Pt. A)		Quillins Point Flagpole 1934	11468	11444	1.022
Thompson 1909 r'29* (Pt. A)		Chimney, center E'ly House, Burton's Island 1934	8638	8622	1.002
Rehobeth Stand- pipe 1932 *		Chimney, center E'ly House, Burton's Island 1934	11532	11532	1.000
Indian River Life- Saving Station, tower 1909 r'34		Chimney, center E'ly House, Burton's Island 1934	2833	2833	1.000
Average Scale Factor =					1.003

This average scale factor computed for entire flight  
but only a portion of this flight ((1-14) falls on  
the tracing area of this sheet.

Triangulation stations marked (\*) fall on this sheet.

Computed by W.V.S. 5/15/35  
Checked by R.D.C.

## SHEET NO. 5661

## SCALE FACTOR COMPUTATIONS

Photos M/1 13 to M/1 35

- - - -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Measured Distance</u>	<u>Computed Distance</u>	<u>Scale Factor Meas./Comp.</u>
Lewes Standpipe 1932*		Rehoboth Standpipe 1932*	7665	7690	0.997
Lewes Life Sav- ing Station, to- wer 1909 r'29 *		Dodd's (Ella) house, chimney 1909 *	9557	9592	0.996
Hart 1909*		Arnold's Barn, cupola 1909 *	3205	3219	0.996
Hart 1909 *		Dodd's (Ella) house, chimney 1909 *	4310	4327	<u>0.996</u>
			Average Scale Factor =		
			0.996		

This average scale factor is computed for the entire flight but only part of this flight (23-35) falls on the tracing area of this sheet.

Triangulation stations marked (\*) (all of above) fall on this sheet.

Computed by R.D.C. 6/10/35  
Checked by R.H.Y.

## SHEET NO. 5661

## CONTROL DATA

- - -

	U.S. Standard Datum				N.A. 1927 Datum	
	°	'	"	m.	"	m.
Arnold's Barn, cupola 1909	38	41	28.696	(965.3) 884.8	28.335	(976.4) 873.8
	75	07	55.916	(98.7) 1351.3	56.121	(93.8) 1356.3
Dodd's (Ella) house, chimney 1909	38	41	41.397	(573.6) 1276.5	41.036	(584.7) 1265.5
	75	06	53.643	(153.6) 1296.3	53.848	(148.7) 1301.3
Green Hill Light (Del. Breakwater Rear Range Lt.) 1903	38	47	23.16	(1136.0) 714.2	22.799	(1147.1) 703.1
	75	10	09.82	(1211.1) 237.0	10.025	(1206.2) 242.0
Hart 1909	38	42	34.331	(791.5) 1058.6	33.970	(802.6) 1047.6
	75	09	39.491	(495.5) 954.2	39.096	(490.6) 959.2
Lewes Life Saving Station, tower 1909 r'29	38	46	52.062	(244.8) 1605.3	51.701	(255.9) 1594.3
	75	07	14.682	(1093.8) 354.4	14.887	(1089.1) 359.4
Lewes Standpipe 1932	38	46			14.28	(1409.8) 440.3
	75	08			17.37	(1029.2) 419.3
Mustard 1909	38	40	23.166	(1135.8) 714.3	22.805	(1146.9) 703.3
	75	08	07.924	(1258.9) 191.5	08.129	(1254.0) 196.5
Radio 1932	38	47			24.892	(1082.6) 767.6
	75	05			28.820	(752.6) 695.6
Rehobeth 1932	38	43			00.413	(1837.4) 12.7
	75	04			57.764	(54.0) 1395.5

## SHEET NO. 5061

## CONTROL DATA (Cont'd)

<u>Station</u>	U.S. Standard Datum				N.A. 1927 Datum	
	<u>°</u>	<u>'</u>	<u>"</u>	<u>m.</u>	<u>"</u>	<u>m.</u>
Rehobeth Standpipe 1932	38	43			00.32	(1840.3)
	75	04			57.22	9.9 (67.2) 1382.4
Thompson 1909 r '29	38	41	24.650	(1090.0) 760.1	24.284	(1101.3) 748.8
	75	05	37.137	(552.6) 897.5	37.333	(547.9) 902.3
DeVries 1933	38	47	<del>10.401</del>	<del>320.7</del>	10.401	320.7
	75	09			32.108	775.0
W 1900 1903	38	48	05.16	(1691.0) 159.1		(1702.0) 148.1
	75	06	45.40	( 352.3) 1095.5		( 363.3) 1084.5
E 1900 1903	38	47	53.06	( 214.0) 1636.2		( 225.0) 1625.2
	75	06	14.17	(1106.0) 342.0		(1117.0) 331.0

## Remarks

## Decisions

1	<i>Not on T5661 Bgg</i>	
2		
3		
4		
5	<i>On LEWES CREEK up to sewer, then the continuation is a dredged waterway, and called "LEWES &amp; Rehoboth Canal"</i>	
6	<i>see line 14, next page</i>	<i>4/5/41 decision: Ream Mill Pond to Broadkill Cr near 48-21/11'45"</i>
7	<i>This creek called "Lewes and Rehoboth Canal" on U.S. Geological Survey, Cape Henlopen Quadrangle.</i>	<i>is R.R. north of LEWES</i>
8	<i>Probably Maryland + Delaware Seacoast R.R. This railroad called "M. &amp; V.R.R." on chart 379</i>	<i>is no more tracks gone.</i>
9	<i>probably Delaware, Maryland + Virginia Branch, DE &amp; M. &amp; V. R. R.</i>	<i>SEE E. R. 6.</i>
10	<i>But see note on next "remarks" page, lines 15 et seq.</i>	
11		
12		
13		
14	<i>Called "Canal" on chart 1219</i>	
15	<i>This name somewhat wrong in position on chart 1219</i>	
16	<i>Called "Coast Guard Sta." on U.S.G.S. Quadrangle</i>	
17	<i>in reality Hollands Glade, after John Holland, who owned property there (circa 1882 - 1903)</i>	
18	<i>but the comparative unimportance of the name &amp; place hardly warrants referring "Holland" as "Hollands" to the USBSG</i>	
19		
20		
21		
22		
23		
24		
25	<i>This locality called "Dewey Beach" on U.S.G.S. Rehoboth Quadrangle.</i>	
26		
27	<i>Called "Whiteoak Creek" on U.S.G.S. Rehoboth Quadrangle</i>	



# GEOGRAPHIC NAMES

Survey No. T-5661

GEOGRAPHIC NAMES											
Survey No. T-5661											
Name on Survey	On Chart No. 379 & 1219										T5661
	A	B	C	D	E	F	G	H	K		
<del>Harbor of Refuge</del>	X	X	X							1	
<del>Breakwater Harbor</del>	X	X	X							2	
<del>Cape Henlopen</del>	X	✓	X							3	
<del>Lewes</del>	X	✓	X							4	
<del>Canary Creek</del>	X	X	X							5	
<del>Red Mill Creek</del>	X	X	X							6	
<del>Lewes Creek</del> O.H.	X	✓								7	
<del>Maryland, Delaware, &amp; Virginia R.R.</del>	X		X							8	
<del>Philadelphia, Baltimore &amp; Washington R.R.</del>	X		X							9	
<del>Nassau</del>			X							* 10	
<del>Belltown</del>			X							11	
<del>Westcoat Corners</del>			X							* 12	
<del>Murray Corners</del>			X							* 13	
<del>Lewes and Rehoboth Canal</del>			X							* 14	
<del>Gordon Pond</del>	X	✓	X							15	
<del>Cape Henlopen C.G.</del>	X									16	
<del>Newlands Glade</del>			X							* 17	
<del>Midway</del>			X							18	
<del>Cedar Grove School</del>			X							* 19	
<del>Jimtown</del>			X							* 20	
<del>Gosling Creek</del>			X							* 21	
<del>Bundicks Branch</del>			X							* 22	
<del>Rehoboth</del>	X	✓	X							23	
<del>Silver Lake</del>	X	✓	X							24	
<del>Rehoboth Beach C.G.</del>	X									25	
<del>Thompson Island</del>	X		X							26	
<del>White Oak Creek</del>			X							* 27	

Names underlined in red approved by [Signature] on 6/23/36

M 234

Names underlined in red approved  
by *[Signature]* on 6/23/36

## Remarks

## Decisions

1	This name spelled "Whiteoak Pt." on U.S.G.S. Rehoboth Quadrangle. ✓	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12	small tower on hotel roof.	
13	no 8 on chart; 579, and (no 8 on map). Should be 1 (for 100, which is 100 ft. from a 100 ft. from chart 1219 11/11/36)	
14	6/27/36	
15	Present charts and maps (incl. U.S.G.S.) are wrong in matter of railroads about Lewes, Del.	
16	(charts 379, 1218, 1219) Local information, corroborated by communication from Sta. Agt. Penna. R.R. at Lewes, Del., show that the so-called Md. & Va. R.R. (actually the Md. & Del. Seacoast R.R.) is no more - tracks torn up about a year ago. This was the road that came in from due west, going around north side of Lewes.	
17	And the railroad that comes in to south side of Lewes from WSW, and then makes a sharp turn down to Rehoboth, is the Penna. R.R. (Del. Md. & Va. Branch) No other name, or variant to this name as on line 15, is correct. See E.R.H.G.	
18	"PENNA." is officially accepted abbrevi- ation, as given by the R.R. Co.	
19		
20		
21		
22		
23		
24		
25		
26		
27		



# GEOGRAPHIC NAMES

Survey No. T-5661

GEOGRAPHIC NAMES											
Survey No. T-5661											
Name on Survey	On Chart No. 379 & 1219										T5661
	A	B	C	D	E	F	G	H	K		
White Oak Pt.	1219 X		X							1	
Arnold Creek			X	✓						* 2	
Love Creek	1219 X		X				✓			3	
Burton Pond			X	✓	✓					* 4	
Angola			X	✓		✓	✓			* 5	
Eldorado School			X	✓						* 6	
Angola Neck	1219 X		X	✓						7	
Marsh Island	1219 X		X	✓						8	
Rehoboth Bay	1219 X		X	✓			✓			9	
<del>stump pipe (Rehoboth)</del>	1219 X				✓					10	
<del>stump pipe (Lewes)</del>	379 1219				✓					11	
<del>tower (Rehoboth)</del>	1219				✓					12	
<del>spire (Lewes)</del>	1219									13	
<del>Lewes &amp; Rehoboth Canal</del>										* 14	
Penna. R.R. (Del. Md. & Va. Br.)					✓	See E.R.H.G.				15	
Howlands Glade	Letter being written to Postmaster at Rehoboth regarding this feature									16	
										17	
										18	
✓ DELAWARE BAY										19	
										20	
										21	
										22	
										23	
										24	
										25	
										26	
										27	
M 234											

⊕ awaiting approval  
also note for line 13  
and spelling  
on APC T4668

Names underlined in red approved  
by C.P.T. on 6/23/36

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

TO BE CHARTED }  
~~TO BE DELETED~~ } STRIKE OUT ONE

Baltimore, Md. Feb. 11, 1936

I recommend that the following objects which ~~have~~ (have not) been inspected from seaward to determine their value as landmarks, be charted on (~~deleted from~~) the charts indicated.

The positions given have been checked after listing.

\* Now charted - continuance recommended.

# New location

J.C. Partington												Chief of Party.	
GENERAL LOCALITY	NAME AND DESCRIPTION	POSITION				METHOD OF LOCATION	DATE OF LOCATION	CHARTS AFFECTED					
		LATITUDE		LONGITUDE				HARBOR CHART	INSHORE CHART	OFFSHORE CHART			
		°	'	°	'								
	△ STANDPIPE (Lewes Standpipe 1932)	38	46	440.3	75	03	Triang.	1932	x	x	x	379 1219-1218	
	△ (Lewes Life Saving Sta- tion, tower 1909 F. 29)	38	46	1594.3	75	07	"	"	1909	x	x	379 1219-1218	
	TANK	38	47	94 11-2	75	07	"	Radial Plot	1933	x	x	379	
	STACK	38	47	422	75	06	"	Radial plot	1933	x	x	379	
	Delaware Breakwater west end LIGHT (Almer Light Del. Breakwater)	38	46	40.3	75	07	"	Triang	1918	x	x	379 1219-1218	
	LIGHT Delaware Breakwater	38	47	?	75	06		Triang	1920	x	x	379 1219	
	OLD TOWER	38	47	1746	75	06	"	Radial Plot	1933	x	x	379 1219-1218	
	N.R.C. (△ Radio Compass)	38	47		75	05		Triang	1920	x	x	379 1219	
	CAPE HENLOPEN C.G.	38	45	1574	75	04	"	Radial Plot	1933	x	x	379	
	STANDPIPE (△ Rehoboth Standpipe)	38	43	09.9	75	04	"	Triang	1932	x	x	1219	
	REHOBOTH BEACH C.G.	38	42	1215	75	04	"	Radial Plot	1933	x	x	1219	
	SPIRE (△ Lewes Episcopal Ch. Sp.)	38	46	959.6	75	08		Triang	1896	x	x	379 1219	
	TOWER small, on hotel roof	38	43	539	75	04	"	Radial Plot	1933	x	x	1219	

J. C. Partington Chief of Party.

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.



## DESCRIPTIVE REPORT

to accompany

PHOTO COMPILATION SHEET NO. T-5661

Atlantic Coast, Cape Henlopen to Rehoboth Bay, Delaware.

Director's instructions dated March 14, 1934.

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## 1. GENERAL INFORMATION

## / (a) Title.

Refer to Title sheet.

## / (b) Statistics.

Refer to Statistics Sheet.

## / (c) General Report.

This sheet was compiled from photographs taken on Dec. 7, 1933. Two sets of photographs were taken, a single lens strip of the outer coast taken with Camera No. (not known), and a five lens strip about three miles inland taken with Camera No. 3180.

The field inspection of this area was accomplished by the party of Ensign J.C. Tison in 1934. The photographs were then transferred to Party # 25 for compilation.

No general report covering this area is available. The compilation covers an area about six and one-half miles wide extending along the Atlantic Coast from Breakwater Harbor to Rehoboth Bay, Delaware, as far south as latitude  $38^{\circ} 40'$ .

This section is in general low and flat and is covered by cultivated fields, wooded areas, and marsh.

## / (d) Photographs.

The following photographs were used in plotting this sheet:

Photo Nos.	Flight strip location	Date	Time	Stage of Tide
✓ M-71 (22 to 35) (5 lens)	North and south along Atlantic Coast between Angola Neck and Breakwater Harbor.	12-7-33	10:50 to 11:05 A.M.	Low 5:03 A.M. High 11:37 A.M.
✓ M-70 (1 to 14) (single lens)	North and south along Atlantic Coast between Cape Henlopen and Rehoboth Bay.	12-7-33	11:15 to 12:15 P.M.	Low 5:03 A.M. High 11:37 A.M.

## 2. CONTROL

## (a) Sources.

The following stations were obtained from the triangulation of C.D. Meaney in 1932. (Adjusted Computations.)

✓ Radio Lewes Standpipe  
Rehoboth Rehoboth Standpipe  
The above stations are on North American 1927 datum.

The following stations were obtained from the triangulation of E. Smith in 1909. These stations are on U.S. Standard Datum. The positions of these stations were changed from U.S. Standard Datum to North American 1927 Datum by subtracting 11.0 meters from the forward latitude position and adding 5.0 meters to the forward longitude position. The values of 11.0 and 5.0 meters are based on a comparison of the positions of triangulation stations MASSEY 1909 and COTTON PATCH 1909 as determined by C.D. Meaney in 1932 and E. Smith in 1909.

Lewes L.S.S. Thompson Midway  
Hart Mustard  
Dodd's (Mila) house chy. Arnold's Barn Cupola

✓ The following stations were obtained from the triangulation of H.L. Marindin in 1903. These stations are on U.S. Standard Datum. The positions of these stations were changed from U.S. Standard Datum to North American 1927 Datum by subtracting 11.0 meters from the forward latitude position and adding 5.0 meters to the forward longitude position. These values are from information given in the above paragraph.

Green Hill Lt. (Del. Breakwater Rear Range Lt.)  
W. 1900  
E. 1900

✓ The position of the following station was obtained from "GEOGRAPHIC POSITIONS of TRIANGULATION STATIONS - DELAWARE; page 12. It's position is on North American 1927 Datum (Adjusted Computations.)

## DeVries 1933

✓ The position of the following station was obtained from the triangulation of J.J. Gilbert in 1918. This station is on North American Datum as given on Form 28 b (Geographic Positions). Since no data is on hand in this party for changing from North American Datum to North American 1927 Datum, this station was not plotted.

It should also be noted that the LIGHT LIST, Cape May to Cape Lookout states that this light was rebuilt in 1930 and it's position at the time the photographs were taken may be different from the triangulation position.

Inner Light Delaware Breakwater 1918. *This station*

*is not shown on T 5661. The position of the light has been checked by the radial plot and no change in position was found. However since the light may have been moved slightly when rebuilt in 1930 it is shown by a circle on T 5661.*



2. CONTROL (continued)

(a) Sources.

The following triangulation stations were recovered by J.C. Tison in 1934 and spotted on the photographs. Since no geographic positions were furnished the compilation party the positions of these stations were not plotted on the sheet.

*Plotted on T5661 in the office*

Lewes Methodist Church 1896  
Lewes Episcopal Church Spire 1896 (also located by O.W. Ferguson in 1920.)  
Lewes Presbyterian Church 1896 (also located by H.L. Marindin in 1903.)

*Plotted on T5661 in the office  
see preceding page - note in use.*

The existence of the following stations is evident from an examination of the photographs. Since no geographic positions of them are on hand in this party, they were not plotted. The existence of these stations are supported by Tison's Recovery Notes Nos. 83 and 84  
Delaware Breakwater Light  
Inner Light Delaware Breakwater.

The following stations have been lost as reported by the field inspection party.

Cape Henlopen Light House *shoreline has eroded*  
North Range West  
Quarantine F.P.  
Rehoboth Beach Life Saving Station 1909

The following stations appearing on the Progress Sketch of O.W. Ferguson in 1920 were not plotted since their existence is doubtful. They were not found by the field inspection party.

P.O. Flag Staff      Trial Course Range Mark West  
Maritime Exchange      Radio Compass  
Mast      New  
Peak of Roof Quarantine

The following stations appearing on the Progress Sketch of H.L. Marindin in 1903 were not plotted since their existence is doubtful. They were not found by the field inspection party.

Wireless Tel. Mast      West Oil Chy.  
East Oil Chy.      Signal Service Flagstaff  
Marine Hosp. Flg. Stf.      Old Fog Chy.

The following stations appearing on the Progress Sketch of I. Winston in 1910 were not plotted since their existence is doubtful. They were not found by the field inspection party.

S. Range W.      Br. Light F  
Br. Light B (probably Green Hill Light)

No Geographic Positions were furnished this party for the triangulation done by Marindin in 1903, Ferguson in 1920, or Winston in 1910. Any of these stations which are known to exist should be plotted on the celluloid sheet from data in the Washington office. *None plotted on T5661 in the office*



## 2. CONTROL

## (b) Errors.

✓ No error in the position of any control station was found by the radial plot.

## (c) Discrepancies.

✓ No control established by other organizations was used in making the radial plot, and none is known to exist in this area.

## 3. COMPILATION.

## (a) Method.

✓ The usual radial line plot was used to determine the positions of all radial points. The plot was run with the five lens photos and the positions of all radial points were determined from the five lens plot. There was not sufficient control to run an independent plot with the single lens pictures. The single lens pictures were traced by orienting on the radial points as determined by the five lens plot.

The following stations were used to control the plot:

✓ Green Hill Light ✓	Lewes L.S.S. ✓
✓ Radio ✓	Lewes Standpipe ✓
✓ Hart ✓	Rehoboth Standpipe ✓
Arnold's Barn Cupola	Dodd's (Ella) House Chimney
Thompson ✓	Mustard ✓

The following stations are shown on the celluloid sheet but were not used in running the plot.

✓ Midway	Not recovered by field party
Rehoboth	Rehoboth Standpipe used instead
E 1900	Not recovered by field party
W 1900	Not recovered by field party
DeVries	Not recovered by field party

The following stations which have been located by triangulation and are known to exist. The positions are not shown on the celluloid sheet because we do not have this data on hand.

✓ Inner Light Delaware Breakwater	Delaware Breakwater Light
Lewes Methodist Church	Lewes Presbyterian Church
Lewes Episcopal Church Spire	

✓ The station Radio Compass, located by Ferguson in 1920 by triangulation, probably exists although it was not recovered by the field inspection party. This is shown on chart No. 379 as "N.R.C.". The position is not shown on the celluloid sheet due to lack of Geographic Positions. *The 1920 notation is*

*lost. See note in review regarding*  
 (b) *position of the present Radio Compass Sta.*

## (b) Adjustment of Plot.

The five lens photos of this area were taken with camera No. 3180 on Dec. 7, 1933. The photos were mounted in accordance with information given on the mounting diagram of June 18, 1932. Considerable difficulty was experienced by other compilation parties in using pictures taken by this camera due to the fact that the camera had been rebuilt, and no new mounting diagram had been obtained. No difficulty of this nature was experienced with the photographs on this sheet and it is believed that on Dec. 7, 1933 camera No. 3180 still conformed to the mounting diagram of June 18, 1932.

No unusual adjustment of the plot was necessary. Little tilt was encountered and the photographs in general were very close to scale. The radial plot gave good intersections.

## (c) Interpretation.

With few exceptions no great difficulty in the interpretation of the photographs was encountered. The single lens photos were used to trace detail along the ocean coast and the five lens were used for the remaining area. In the wing prints of the five lens photographs the buildings became somewhat blurred and difficult to locate, especially on account of the scale of the photographs.

In the towns of Lewes and Rehoboth the buildings have been omitted in the well defined street areas, except that the buildings along the waterfront in Rehoboth have been shown. An attempt has been made to show all buildings in outlying districts, although some may have been omitted on account of being indistinct. A boardwalk along the beach at Rehoboth has been labeled on the overlay sheet but has been omitted from the celluloid sheet on account of obscuring more important detail.

The high water line has been traced from the photographs as sketched by the field inspection party. No measurements from objects spotted on the photos to the high water line were taken.

Just north of Angola (near Lat.  $38^{\circ} 40'$ , Long.  $75^{\circ} 11'$ ) there is a small dam, apparently formed by the highway embankment, which holds back the water of Burton Pond. The usual symbol has not been used because it could not be shown satisfactorily on this scale. It has been labeled on the overlay sheet.

Love Creek (near Lat.  $38^{\circ} 43'$ , Long.  $75^{\circ} 11'$ ) has been shown as a broken line since its course is obscured by the trees and cannot be positively traced.

## (d) Information from Other Sources.

The position of the telephone cable from the breakwater to Cape Henlopen has been taken from Chart No. 379. The cable area from Cape Henlopen to Cape May is also taken from Chart No. 379.

State Highway numbers are indicated on the overlay sheet from information given on the Highway Map of Delaware, Maryland, Virginia, and W. Virginia.

and bridges

All other information except names was obtained from the photographs.

*High. line is  
essentially  
of date of  
the single lens  
photos 12/7/33*

*not shown  
on T 5661*

(e) Names.

A special report of names has been filled out on form M 234 and is included in this report.

(f) Bridges.

The following information has been obtained from the publication "List of Bridges over navigable Waters of the U.S." 1927.  
*with list of Bridges for 1935 and corrected in red.*

Location	Type	Span	Clearance at high water	Completion reported	Use
✓ Lewes	Bascule	46 ft.	<del>7.0</del> 6.3 ft.	<del>1929</del> 1911	Highway
Lewes	Swing	46.5 "	<del>10.0</del> 4.1 "	<del>Jan 16, 1917</del> Jan 16, 1917	Railroad
Rehobeth	Swing	40 "	<del>11.4</del> "	May 8, 1917	Railroad
Rehobeth	Bascule	49.5 "	<del>13.0</del> 16.95 "	Nov. 22, 1926	Highway

The swing highway bridge in Rehobeth 0.3 mile south of the bascule highway bridge as given in "List of Bridges over Navigable Waters of the U.S." 1927, does not appear on the photographs, and has not been shown on the celluloid sheet.  
*Not in 1935 list of Bridges*

4. COMPARISON WITH OTHER SURVEYS.

- (a) No photo compilations adjoining this sheet have been compiled.
- ✓ (b) There are no copies of topographic sheets of this area on hand in this party and no comparison with other surveys has been made. It is believed that some topography was done in this vicinity in 1929 and this compilation should be compared with that topography.

This compilation has been compared with Chart No. 379 (same scale). The shoreline along the ocean front indicates that some erosion has taken place since 1929, especially in the vicinity of Cape Henlopen. In the more protected area back of the breakwater no great amount of erosion is evident.

Other minor discrepancies in the position of docks, buildings, roads, etc. may be seen by laying this compilation over chart No. 379.

*See also survey at back.*

5. LANDMARKS.

No report of landmarks was made by the field inspection party.

The following landmarks were recovered apparently in place by the field inspection party in 1934:

- STANDPIPE (Δ Lewes Standpipe 1932) LEWES C.G. (Δ Lewes L.S.S. tower 1909, r' 29.)
- TANK STACK
- LIGHT (Δ Inner Light Del. Brkwater) LIGHT (Δ Delaware Breakwater)
- OLD TOWER STANDPIPE (Δ Rehoboth Standpipe)
- SPIRE (Δ Lewes Episcopal Ch. Spire)

#  
Δ Radio 1932 on T 5661 is not the  
radio compass station. The Radio  
compass station was not recovered  
by the Gold expedition and a recovery  
note for Δ Radio Compass 1920

states the station is lost. The position  
of the Radio Compass has evidently been moved  
since 1920.

However, the description of Δ Radio 1932  
states that the Radio Compass station  
is 150 meters north of Δ Radio 1932.

This information was used to plot  
the position of the Radio Compass  
shown on the present chart 379.

Bgg.

x

x

5. LANDMARKS. (continued)

Other landmarks located by topography in 1929 and relocated by radial plot on this compilation are as follows:

CAPE HENLOPEN C.G.

REHOBOTH BEACH C.G.

*See map on opposite page*

The landmark "N.R.C." shown on charts 379 and 1219 was not verified by the field inspection party. This was located by triangulation in 1920 and is called "Radio Compass". Since this landmark is believed to exist it is recommended for charting.

*front of this report*

All of these landmarks are listed on form 567. *at front of this report*

Landmarks to be deleted are listed on a separate form of 567. *at front of this report*

Landmarks which have not been recovered by the field party and cannot be verified under the stereoscope although they are shown on charts 379 and 1219 are:

RANGE MARK

SIGNAL STA.

Both of these are located on the breakwater. They have not been recommended for charting on account of doubt as to their existence.

6. RECOVERABLE OBJECTS.

The following stations located by topography in 1929 have been located by radial plot on this compilation:

✓

Hydro. Signal 1929	<i>Removed from celluloid</i>	Rehobeth Beach C.G. cupola
Topo. Station "Mid" (chim. E. end of Ho)		Small Tower on hotel roof.
Cape Henlopen C.G. cupola		Stack
Tank		

These stations have been shown with a small black circle but no descriptions are available.

7. RECOMMENDATIONS FOR FURTHER SURVEYS.

This compilation is believed to have a probable error of ~~3 to 5~~ <sup>5 to 10</sup> meters in position of well defined detail of importance for charting and of 5 to ~~8~~ meters for other data. Along the western edge of the sheet this error may be exceeded since it falls on the wing prints where detail is indistinct.

The width of roads has been exaggerated where necessary to procure well defined lines when the sheet is reproduced.

Except to verify the existence of landmarks no further surveys are recommended.

*more probable accuracy noted in recd. Bgg.*

Respectfully submitted,

*J.C. Partington*  
J.C. Partington  
Chief of Party

## REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: J.C. Partington

J.F. Burns  
Compiled by: J.K. Batchellor

Project: HT-175

Instructions dated: March 14, 1934

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)  
*No ground surveys.*
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)  
*No blue-prints or other maps transmitted.*
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.  
*This comparison has not been made.*  
No topographic or hydrographic sheets of this area are on hand in this party.
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)  
*No form 524 transmitted.*
- ✓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)  
*This data given in descriptive report.*
- ✓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)  
*No junctions.*
- ✓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: This sheet requires plotting of additional triangulation stations. (See paragraph No. 2 CONTROL). It should also be compared with topographic sheets of this area.

✓ 18. Examined and approved;

*J. C. Partington*  
Chief of Party

✓ 19. Remarks after review in office:

✓ Reviewed in office by:

*B. G. Jones*

Examained and approved:

Chief, Section of Field Records

Chief, Section of Field Work

Chief, Division of Charts

Chief, Division of Hydrography and Topography.

*Last page  
office review.*



## REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5661

### Data Record:

Five lens photographs taken December 7, 1933.

Single lens photographs taken December 7, 1933. Refer to page 9 of the descriptive report for the stage of the tide.

Control: Triangulation from 1903 to 1933. Refer to pages 10 to 12 of the descriptive report for detailed statement.

Field Inspection: 1934. Field inspection noted no important changes between 1933 and 1934 and details on this map are essentially of the date of the photographs, December 7, 1933. Field inspection notes on the outer coast are shown on the single lens photographs.

### Contemporary Surveys.

There were no contemporary hydrographic or plane table surveys.

### Comparison with previous plane table surveys.

T-151 (1842) 1:20,000.

T-226 (1845) 1:20,000. No detailed comparison made because of numerous changes.

T-5661 supersedes the sections of these surveys which it covers.

T-1503 (1882) 1:20,000. T-1503 is a detailed survey of the shore line and interior areas.

Comparison of the two surveys shows rather large differences in position of roads and interior details. The control on T-5661 is adequate and these differences are apparently due to insufficient control on the old survey.

T-5661 supersedes T-1503 except for the following details <sup>which are not on</sup> ~~on~~ T-5661:

1. Contours on the sand ridge at Cape Henlopen.
2. Fence lines and names of private land owners.

T-2633 (1903) 1:10,000. T-2633 covers only the northern section of T-5661. There have been many changes in cultural features at Inner Harbor and in natural features at Cape Henlopen. T-5661 supersedes the section of T-2633 which it covers except for contours on the sand ridge at Cape Henlopen.

T-4468, (1929) 1:20,000 (shoreline survey only).

The outer coast line at Cape Henlopen has receded about 100 meters since 1929.

Triangulation Station Rehoboth Episcopal Church Spire on T-4468 is not visible on the photographs, was not recovered by field inspection and is not shown on T-5661.

A number of Recoverable Topographic Stations on T-4468 have been relocated by the photo plot on T-5661 and agree within 1 millimeter (20 meters) with T-4468. Differences are probably largely due to the fact that T-4468 was surveyed on Whatman's paper.

T-5661 is adequate to supersede the sections of T-4468 which it covers.

Comparison with Charts 379 (1:20,000) and 1219 (1:80,000).

Refer to pages 9, 14 and 15 of the descriptive report for Landmarks.

T-5661 has been applied to Chart 379 and Chart 1219 prior to this review, but the following corrections were not made:

1. Buildings at lat.  $38^{\circ} 47'$ , long.  $75^{\circ} 06'$  no longer exist.
2. The piers at lat.  $38^{\circ} 47'$ , long.  $75^{\circ} 06'$  to  $08'$ , except for the east most pier, appear to be in good condition as seen on the photographs and are so shown on T-5661. Blueprint 29014 (1936) is later than T-5661 but does not show the piers, ~~except for the one mentioned above, as in ruins.~~ *See Bp 29691 for later information 5/14/37 J.K.S.*
3. The photographs show the railroad spur at lat.  $38^{\circ} 47'$  long.  $75^{\circ} 08'$  as running onto the pier.
4. Three church spires at Lewes have been added to T-5661 during this review. These are not on Chart 379. One spire is recommended in the List of Landmarks - page 9 of the descriptive report.
5. Buildings at Lewes Coast Guard station are somewhat different on T-5661 than on Chart 379.
6. The beacon at lat.  $38^{\circ} 41.5'$  long.  $75^{\circ} 06'$ , Rehoboth Bay has been plotted on T-5661 in this office during the review.

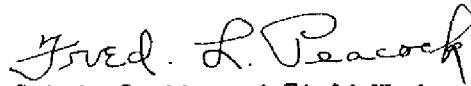
The above remarks apply to Chart 1219 in so far as the scale of Chart 1219 permits the details to be shown.

*July 1938* Reviewed in the office  
by H. D. Reed  
✓ B. G. Jones




T. B. Reed,  
Chief, Section of Field Records.

K.T. Adams  
Chief, Division of Charts.



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



G. H. de  
Chief, Division of H. & T.

affixed to 1218

May 11, 1939 g.H.S.

affixed to 1219

July 21, 1939 g.H.S.

affixed to chart 379

Feb. 24, 1940 g.H.S.