5283

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: New Jersey

DESCRIPTIVE REPORT

Photo
Topographic
~~Hydrographic~~ } Sheet No. T5283

LOCALITY

East Coast of New Jersey

~~Avon to Spring Lake~~

Shark River and Vicinity

Photographs ~~1935~~ Taken 1932 - 1933

CHIEF OF PARTY

R. C. Bolsted, Jr. H. & G. Engr.

U. S. GOVERNMENT PRINTING OFFICE: 1933

5283

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. 69

REGISTER NO. T5283

State New Jersey

General locality East Coast of New Jersey

Locality ~~Avon to Spring Lake~~ Shark River and Vicinity

Scale 1:10,000 Date of ~~survey~~ photographs Apr. 19,1932; May 20,1932 July 24, 19 32
Date of Compilation June 3, 1935

~~Vessel~~ Air Photo Compilation Party No. 12, New York City

Chief of party Roswell C. Roland

Surveyed by See data sheet enclosed in the descriptive report for this sheet.

Inked by W.E.Brown

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

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

Instructions dated November 15, 19 32

Remarks: Compiled on a scale of 1:10,000 and printed by Photo Lithography.

* Blue Print on Scale 1:10 000

- STATISTICS -

on

SHEET, FIELD NO. 69 , REG. NO. T5283

PHOTOS, NOS.	66-11-31 to 66-11-33 incl.	DATE	Apr. 19, 1932
PHOTOS, NOS.	66-32-85	DATE	May 20, 1932
PHOTOS, NOS.	66-33-27 to 66-33-30 incl.	DATE	May 20, 1932
PHOTOS, NOS.	66-51-28 to 66-51-30 incl.	DATE	July 24, 1932
PHOTOS, NOS.	876-14 (M2698 to M2704) incl.	DATE	Jan. 23, 1933

Scale factor of this sheet is 1.000

PROJECTION	J.G.Albert	8-3-34
PROJECTION CHECKED	W.D.Ayers	8-3-34
CONTROL PLOTTED	Wm.Barasch	9-9-34
CONTROL CHECKED	J.V.Batchelder	9-10-34
TOPOGRAPHY TRANSFERRED	J.G.Albert	9-11-34
TOPOGRAPHY CHECKED	J.P.O'Donnell	9-11-34
SMOOTH RADIAL LINE PLOT	W.E.Hackett R.H.Beckworth	12-10-34 to 1-9-35 11-30-34 to 12-9-34
RADIAL LINE PLOT CHECKED	R.C.Bolstad	1-10-35
DETAIL INKED	W.E.Brown	4-5-35 to 6-3-35
PRELIMINARY REVIEW OF SHEET	W.E.Hackett	6-18-35 to 6-20-35

AREA OF DETAIL INKED 19.8 sq. Statute Miles (Land Area)

AREA OF DETAIL INKED 0.5 sq. Statute Miles (Shoals in Water Area)

LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore)
4.6 Statute Miles

LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)
29.0 Statute Miles

LENGTH OF STREETS, ROADS, TRAILS, RAILROADS, etc. 219.0 Statute Miles

GENERAL LOCATION East Coast of New Jersey

LOCATION Avon to Spring Lake

DATUM North American 1927

STATION Wall, 1934 Latitude 40° 10' 24.406" (752.8 m.)
Longitude 74° 02' 16.292" (385.5 m.)

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 69

GENERAL INFORMATION

The Air Photo Field Inspection Report, dated Nov. 19, 1934 for New Jersey attached to the descriptive report for the Air Photo Topographic Sheet No. T5279 furnished the necessary field data for the the compilation of this sheet. Additional information was obtained by R.L.Fisher, Draftsman Party No. 12, who is familiar with the area.

The accompanying STATISTICS sheet details all necessary data used inconnection with the compilation of this sheet.

The sheet was compiled from four flights of photographs which were taken by the Aero Service Corporation of Philadelphia, Pa. using a single lens camera equiped with an orthomesser lens with a focal length of 8 inches. The Photographs were taken at a scale of approximately 1:22,000 and were enlarged to a scale of 1:10,000. The time of day at which they were taken was not available and therefore the tidal condition could not be determined. The ~~U.S.~~ New Jersey U.S. Beach ~~Army Air Corps~~ Erosion ~~Commission~~ Board furnished a supplementary set of photos taken with a single lens camera at a scale somewhat smaller than 1:10,000. The scale difference between the compilation and these photographs rendered them unfit to use in the compilation, however they were used for checking the change in detail ~~between~~ since the time of the Aero Service pictures. ~~and these of the Army Air Corps.~~ ~~Erosion Commission~~

CONTROL

(A) Sources

The following sources of control were used in the compilation of this sheet:-

(a) Triangulation by P.C.Doran, in 1933, North American 1927 datum, ~~field positions~~ adjusted. (Pps 44-45 N.J. State List)

(b) Triangulation by Lieut. E.R.McCarthy, in 1934, North American 1927 datum, ~~field positions~~ adjusted. (Pps. 282-304 N.J. State List)

(c) Aluminum Control Sheet by P.C.Doran, 1933, Reg. No. T4747.

The topographic sheet by P.C. Doran Reg. No. T4747 was used for comparison purposes only. No stations were used from this sheet for the control of this compilation.

(B) Errors

There are no apparent errors in the control positions for this compilation. The control along the shore is , ~~in~~ general, strong and the radial plot gave good intersections.

(C) Discrepancies

No other control stations established by other organizations were used in the compilation~~x~~ of this sheet. However, the track traverse data of the Pennsylvania Railroad

Additional Note: (C) Interpretation

The south shore of the inlet to Wreck Pond, Sea Girt Inlet at Lat. 40° 08.3', Long. 74° 01.6' is detailed with a dashed line to indicate that this point does not remain (constantly changing) as the photographs show; for the high water line is continually changing.

was used as supplementary control.

COMPILATION

(A) Method

The usual radial line method of plotting was used in the compilation of this sheet.

(B) Adjustment of Plot

The photographs of this area are free from excessive tilt and undue scale fluctuation. There are some areas in the westerly and southwesterly parts of the sheet where the photographs are not clear in definition.

(C) Interpretation

The usual graphic symbols were used as approved by the Board of Surveys and Maps, 1932 in the compilation of this sheet.

First order roads are indicated by the double full line private driveways and roads of lesser importance by a double broken line. Exceedingly poor roads and trails are shown by a single broken line. In most cases, unless noted on the field prints, the classification had to be determined by the appearance under the stereoscope

Field Memorandum No. 2 (1935), Location and Drafting of Buildings on Air Photo Compilations, dated April 1, 1935 was followed.

The railroad traverse used as control and plotted hereon consists of a double track line about parallel to the Ocean Beach and about 1 mile inland and a branch line near the southwesterly limit of the sheet (700 meters within the area of detail) both controlled by the Pennsylvania Railroad Co.

Hydraulic fill at Lat. 40° 10' 50", Long. 74° 01' 50", was in progress during the time of the field inspection. The area behind the bulkhead along Shark River is being filled in, and has been labeled on the cover sheet.

(D) Bridges

There are four bridges over navigable waterways, all of which cross Shark River Inlet, The data shown on the cover sheet for these bridges was taken from the U.S. Coast Pilot, Section C, 1933. (It is assumed that Lieut. ~~McCarthy~~ Doran has submitted any revisions necessary to the Coast Pilot.) Other bridges of little or no importance to navigation have been indicated by only the usual graphic symbols.

(E) Information from Other Sources

Pennsylvania Railroad Track Traverse data provided the only other information than sources other than those previously mentioned. This data was used as supplemental information in detailing the main line and sidings.

Bridge data shown on the overlay sheet was obtained from the Coast Pilot.

Additional Note: Landmarks

The following two signals, shown at present on Chart 1215 as Landmarks, are no longer in existence and should be expunged from the chart.

(a) Radio, at Lat. 40°10' 43", Long. 74 04' 24"
(b) Hotel Cupola, at Lat. 40°10' 23", Long. 74 00' 52"

Additional Note

Chart 1215 shows a light on the southern jetty of Shark River Inlet. Verification of this light was missed by the field inspection party. However, it was understood that Lieut. McCarthy was to obtain all information in regard to the landmarks in this area. As no information in regard to landmarks has been received by this party for this area, the light has been omitted from this compilation.

This light was located on Graphic Control Survey T6215 b Aug 1934 and has been transferred to the compilation in this office. B.G.J.

(F) Conflicting Names

There are no names shown on this compilation which conflict with any of the names as shown on the present edition of the U.S.C. & G.S. Chart.

LANDMARKS

It is assumed that a list of landmarks has been previously submitted by Lieut. E.R.McCarthy for this area, although no list has been received by this party.

There are many other objects (such as houses, ends of docks, etc.) which are located within the accuracy specified under the following heading, RECOMMENDATIONS FOR FURTHER SURVEYS and may be used to obtain hydrographic "fixes". Care should be taken in using the houses to use the center as the size shown on the compilation sheet may be expanded somewhat.

COMPARISON WITH OTHER SURVEYS

The junctions with all adjoining sheets are satisfactory.

Lat. 40° 11.8', Long. 74° 00.5' stone jetty appearing on Topographic Sheet T4747 is not of the same shape as the actual construction at the present time. This jetty has been correctly shown on this compilation. There are several new jetties in this area which have also been shown on this compilation.

Lat. 40° 11.2', Long. 74° 00.6' the shoreline beginning at this point and continuing southward on the Topographic Sheet No. T4747 does not agree with the existing conditions and has been changed accordingly.

Near triangulation station Shark River the outlet from the lake to the ocean has not been shown on the compilation as it is a covered culvert but has been labeled on the cover sheet.

Lat. 40° 11.2, Long. 74° 01.5' there are several new docks in this area which have not been shown on the topographic sheet T4747 but have been detailed on the compilation.

The remainder of Topographic Sheet Reg. No. T4747 checks well with the Air Photo Compilation.

RECOMMENDATIONS FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of not over two meters in well defined detail of importance for charting and of four meters for other data. It is understood that the width of roads and similar objects may be slightly expanded in order to keep the detail clear and keep it from photographing as a solid area in the photo Lithographic process.

To the best of my knowledge is complete in all detail of importance for charting purposes, within theaccuracy stated above, and no additional surveys are required.

Submitted by

W. E. Brown
W.E. Brown
Draftsman

Assisted by W.E.Hackett
W.E.Hackett
Surveyor

	Remarks	Decisions
1	On photo compilation only.	
2		
3	On photo compilation only.	
4		
5		
6	P.O. NAME "AVON BY THE SEA"	
7		
8		
9	On Photo Compilation only	
10	On photo Compilation only.	
11	Do.	
12	Do.	
13		
14		
15	SPRINGLAKE ON C.&G.S. CHART 1215. ALL OTHER AUTHORITIES	SPRING LAKE.
16		
17		
18		
19	TWO WORDS SEA GIRT.	
20		
21		
22	D.&N. SEA GIRT. U.S. G.S. QUAD. ONE WORD, ALL OTHER AUTHORITIES	TWO WORDS.
23		
24		
25		
26		
27		

M 234

GEOGRAPHIC NAMES

Survey No. T 5283

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H ~~U. S. Light List~~ Pt. Guide	K	
Glendola			✓				✓			1
Shark River	1215		✓							2
Neptune ~~City~~						Neptune	Neptune			3
Bradley Beach			✓			✓		✓		4
Sylvan Lake				✓	✓					5
Avon	1215		✓			SEE NOTE	✓	✓		6
Silver Lake				✓	✓					7
Belmar	1215		✓			✓	✓	✓		8
South Belmar							✓			9
Rhode Island Pt.										10
Belmar Yacht club										11
New Bedford										12
Lake Como	1215		✓							13
Como	1215						✓			14
Spring Lake			✓			✓	✓	✓		15
Villa Park	1215		✓			✓				16
Black Creek										17
Wreck Pond										18
Sealgirt Inlet	1215									19
~~Sea Girt~~										20
~~Seagirt~~										21
SEA GIRT	1215					✓	✓	✓		22
ATLANTIC OCEAN										23

REVIEW OF AIR PHOTO COMPILATION T 5283
Scale 1:10,000

Comparison with Graphic Control Surveys

T 6215b (1934), 1:10,000

Numerous recoverable topographic stations (~~locations of objects of recoverable nature,~~ mostly flagpoles, house cupolas, etc. located for hydrographic fixes) are shown on T 6215b. Of these, only those described on Form 524 were transferred to the compilation. These stations, together with the triangulation, give a spacing of one control station for approximately every quarter mile on the compilation. Stations plotted by R. M. Berry and checked by L. A. McGann. (L.A.M.)

The shoreline at the entrance to Shark River, shown in pencil on T 6215b and stated in the report for the same to have been furnished by the air photo party, does not agree with the shoreline shown on the compilation. This may be due to faulty transferring or to a subsequent change in the air photo compilation. The compilation is accepted as correct.

The wreck of the "Morro Castle" shown on T 6215b has been removed. (Page 3 of 3, verifier's report, H. 5638.)

Refer to descriptive report, T 6215b for discussion of U.S.E. control in this area; also for discussion of fish traps in this area; and for discussion of relative importance of cities.

Comparison with Recent Topographic Surveys

T 4747 (1933), 1:10,000

T 4747 was made subsequent to the taking of the photographs for T 5283 but prior to their compilation. T 4747 was available to the air photo party and was used for comparisons and is in very good agreement except as noted on page 5 of the descriptive report for the compilation. The following recoverable topographic stations, located

differences with T 4747 which is the source of the shoreline of H 5300. The compilation is accepted as correct. There is no conflict with soundings.

H 5638 (1934), 1:10,000

There are some small differences in position of a few of the docks shown on H 5638. The source of these positions on H 5638 is the planetable survey T 4747 whose differences with the compilation are discussed on page 5 of the preceding report. The compilation is accepted as correct.

Shoreline detail along the coast is not complete on H 5638. H 5638 was apparently surveyed before this compilation was completed. This has been referred to Captain Ellis.

Except as mentioned above there is no conflict between the compilation and H 5638.

Comparison with chart 1215 (Ed. 10/29/35).

The propellor-shaped boat basin on the south side of the neck of Shark River in Belmar is incorrectly shown on chart 1215. The park-like area surrounding the basin has been shown with water tint and the basin proper tinted buff-colored to denote an island.

The north jetty at the entrance to Shark River is approximately the same length as the south jetty.

Numerous docks along the outside coast and in the Shark River, shown on the compilation, are not shown on chart 1215.

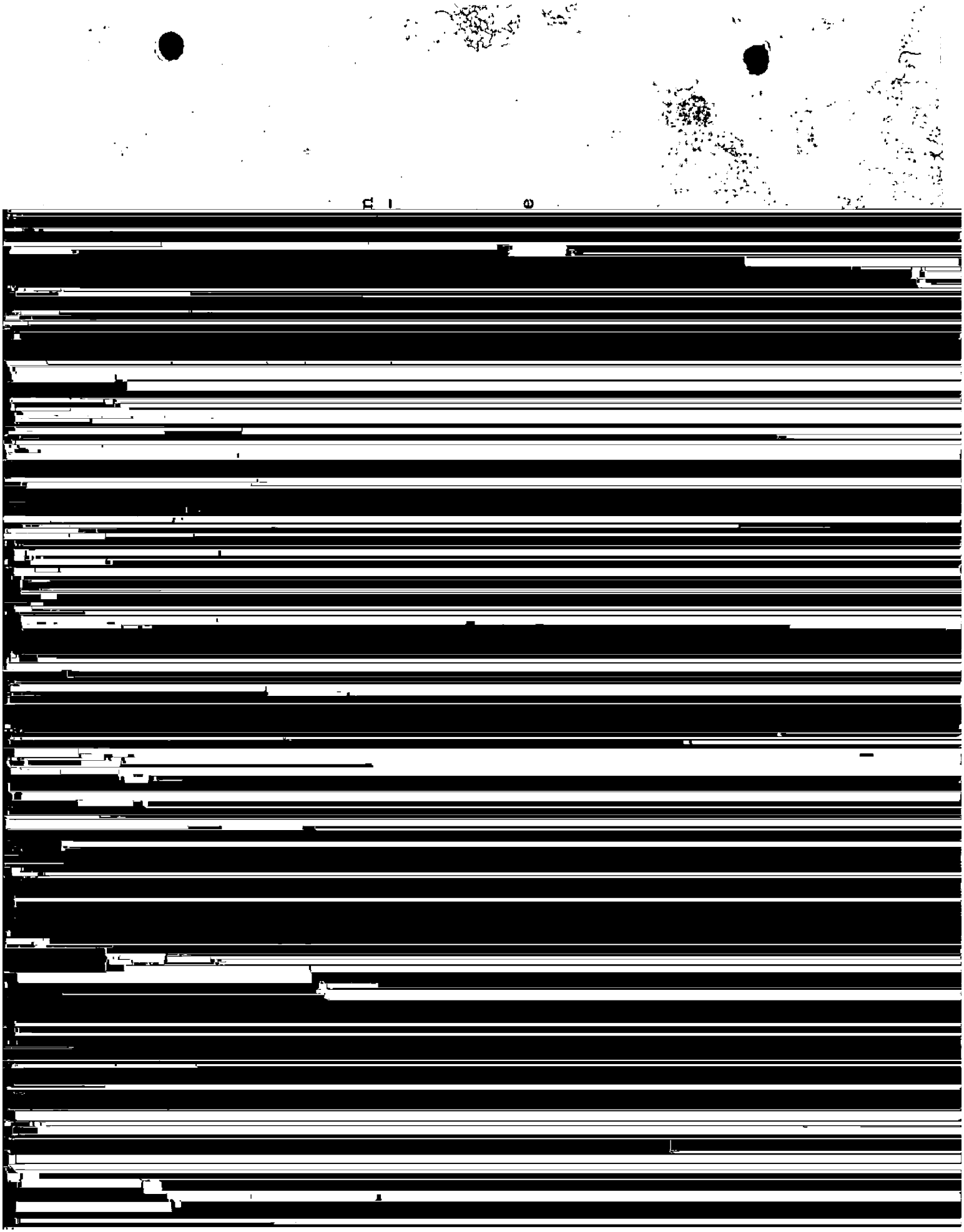
Landmarks and Aids to Navigation

Two radio towers shown just west of Shark River on chart 1215 (40° 11.2', 74° 03.6'; 40° 10.7', 74° 04.5') are positions determined for the end towers of a row of six, the same being station No. 6 of the Marconi Wireless Telegraph Corp. (J.E.McGrath, 1917, triang.). Careful examination of the photographs in connection with a blue print layout of the station discloses the remains of some of the footings and guy-bases. The stereoscope reveals no elevated structure of any kind and analysis of the visible footings, etc. shows that two of the masts would now be in the paved area of a road. These structures are, without doubt, non-existent at this date and should no longer be shown as landmarks. Triangulation station "Radio 3, 1933", described as the "third from the southerly end of a row of 4 radio towers" plots approximately 250 meters from the position of the old easterly tower and may have been mistaken for it and for that reason the old tower was not reported as non-existent.

Topographic positions from T 4747 give the location of the southerly two of the previously-mentioned four radio towers. Triangulation (Doran, 1933) gives position for the third. The fourth tower has been overlooked by both topographic and triangulation parties. It is not

H.W. line

No definite information is given in the descriptive report or on the field photographs as to whether a detailed ground inspection was made of H.W. line along the outer coast. The high water line on the outer coast appears to have been drawn largely from an office interpretation of the photographs of Jan 23, 1933 [illegible] is accepted as of that date. The sand beach is generally [illegible]



visible in the photographs and therefore is not shown on the compilation. The group of four radio towers now standing is a different group from the six towers mentioned above.

No position is available for the Shark River North Breakwater Beacon which is stated in the 1936 Light List "New York and Approaches" to have been built in 1935 (Light No. 1091.5), and this beacon is therefore not shown on the compilation.

With the above exceptions, all landmarks and lights and beacons shown on the present chart, or listed in the 1936 Light List, are shown on the compilation.

Bridges

Vertical clearance of bridges over Shark River are given in various sources as follows:

	USE 1927 list	Coast Pilot	T 6215b	T 4747
(1) Bascule bridge at entrance	10.3 above H.W.	13.5 ~~M~~ ~~datum~~ M.L.W. ~~plane~~ Change per 1935 Supplement	13.5 H.T.	9 ft. No datum plane
(2) Second bridge above entrance	--	Bascule 15.7. No datum plane O.K.	--	Draw bridge No clearance Given

Note: The two bridges at this site listed on page 400 of U.S.E. List, 1927 have been removed and replaced by one Bascule Bridge as stated on page 1, par. 7, report T 4747 and as shown on this compilation.

(3) R.R.Bridge, Fixed span	9.7 above H.W.	8.5ft. H.W. ~~11.2~~. ~~No~~ ~~datum~~ ~~plane~~ Change per 1935 Supplement	--	6.0. No datum plane
(4) 4th Bridge, H.W.Bridge		Bascule 13.5. H.W. ~~No~~ ~~datum~~ ~~plane~~ Datum plane from 1935 Supplement	--	Bascule-draw not operated. No motor. 10.0. No datum plane

Clearances not shown on printed compilation.

General

A better statement of the accuracy of this compilation would be 0.2 mm. to 0.5 mm. for intersected points and 0.2 to 0.8 mm. for traced detail.

Described station cards (Form 524) for this sheet are filed under T 6215b.

See opposite page

R. M. Berry B. G. Jones

March 23, 1936

R. M. Berry

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO.

Title (Par. 56)

Chief of Party Roswell C. Bolstad Compiled by (See page 2 STATISTICS)

Project New York Air Photo Compilation Instructions dated November 15, 1932
Party No. 12

✓1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.)

✓2. The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".

✓3. The control and adjustment of the radial plot were adequate. (Par. 12, 29.)

✓4. There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.)

[redacted]

✓10. The descriptive report covers all details listed in the Manual, so far as they apply to this survey. (Par. 64, 65 and 66.)

✓11. The descriptive report also contains all additional information required in photo topography as prescribed in the instructions and in the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".

✓12. The descriptions of recoverable stations and references to shore line were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.)

✓13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.)

✓14. The geographic datum of the sheet is North American 1927 and the reference station is correctly noted. (Par. 34.)

✓15. Junctions with contemporary surveys are adequate.

✓16. Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.)

✓17. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.)

18. No additional surveying is recommended.

19. Remarks:

Preliminary Review

W.E. Hackett
Surveyor

20. Examined and approved:

Rosswell M. Bolstad
Chief of Party

21. Remarks after review in office:

Reviewed in office by: Ralph M. Berry B.J. Jones

Examined and approved:

C. K. Green
Chief, Section of Field Records

Fred. L. Peacock
Chief, Section of Field Work

L. O. Colbert
Chief, Division of Charts

G. Rude
Chief, Division of Hydrography and Topography.

M-10

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H
No. T 5283

received
registered
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
✓ 25			Page 3 of review
26			
30			
40			
62			
63			
82			
✓ 83		R.T.S.	Page 2 and 3 of review
88			
90			

RETURN TO Jones 1209

82	

Please return promptly