

5281

Applied to Chart 543 August 17, 1936 - H.E. MacEwen

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. 67 T5281

REGISTER NO. T5281

State.....New Jersey.....
General locality.....
Locality.....Long Branch.....Long Branch and vicinity
Scale.....1:10,000.....Date of survey.....April 19, 1932; May 20, 1932
Date of compilation June 10, 1935
Vessel.....Air Photo Compilation Party No. 12, New York City
Chief of party.....Rogers C. Bolstad
Surveyed by.....See data sheet enclosed in Descriptive Report for this sheet.
Inked by.....J. K. Hatchellor
Heights in feet above.....to ground to tops of trees
Contour, Approximate contour, Form line interval.....feet
Instructions dated.....November 15, 1932
Remarks:.....Compiled on scale of 1:10,000 and printed by
.....Photo Lithography.....

...

-STATISTICS-

on

SHEET, FIELD NO. 67 REG. NO. T5281

PHOTOS. NOS. <u>66-11-39 to 66-11-43</u>	incl.	DATE <u>Apr. 19, 1932</u>
PHOTOS. NOS. <u>66-33-16 to 66-33-20</u>	incl.	DATE <u>May 20, 1932</u>
PHOTOS. NOS. <u>66-51-14 to 66-51-16</u>	incl.	DATE <u>July 24, 1932</u>
PHOTOS. NOS. <u>66-51-45 to 66-51-48</u>	incl.	DATE <u>July 24, 1932</u>
PHOTOS. NOS. <u>876-14-(M54 to M63)</u>	incl.	DATE <u>Jan. 23, 1933</u>

Scale factor of this sheet is 1.000.

W. B. R. 11/10

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 67

GENERAL INFORMATION

The 1934 Air Photo Field Inspection Report, attached to the descriptive report for Air Photo Topographic Sheet, Reg. No. T5279, furnished the necessary field data for ~~the~~ ^{Compilation} compilation of this ~~sheet~~. Additional information was obtained from the notes on the field prints and from a special field inspection by the compiler while the ~~sheet~~ was in progress.

The accompanying STATISTICS sheet details all data in connection with this compilation of this ~~sheet~~.

Progress ~~on this sheet~~ was considerably retarded because the geographic positions of all triangulation stations were not furnished this party until ~~progress on the sheet~~ ^{the work} was well advanced. Geographic positions were submitted at intervals while the ~~sheet~~ ^{Compilation} was in progress and it was understood that all of them had been received when Lieut. McCarthy had finished his operations in this area. However, this was found to be contrary to fact and a revision of the plot was ^{necessary} ~~necessitated~~ when additional positions were received.

Topo sheet, Reg. No. T2471, by O.B. French in 1900 covers a small area in the extreme northeast part of the compilation, however, and inspection revealed that changes since the time of ~~its~~ ^{Survey} survey compilation were so drastic as to render it useless as a check on the present shoreline.

This ~~sheet~~ ^{Compilation} was compiled from four ~~sets~~ of photographs taken by the Aero Service Corporation of Philadelphia, Pa. The prints are enlarged to a 1:10,000 scale from 1:22,000 scale negatives. (A) Photo numbers 876-14 (M54 to M63) inclusive are under scale but were used for supplementary information since they are more recent and far more clear than the other prints.

Since the time at which the photographs covering this ~~sheet~~ ^{Compilation} were taken was not recorded, the stage of the tide could not be determined. However, measurements were taken to the high-water line and the high-water line was drawn in by the field inspection party.

CONTROL

(A) Sources

The following source of control was used in this ~~compilation~~ ^{Compilation} of this ~~sheet~~:-

- (a) Triangulation by Lieut. E.R. McCarthy, in 1934, field positions unadjusted, North American 1927 datum.

A geographic position for triangulation station Fort Monmouth flagpole, 1934, was not received until after the ~~sheet~~ ^{Compilation} was completed when it was forwarded with the adjusted field positions from the Washington Office. Consequently the adjusted position has been plotted on the

(B) Errors - Additional Note.

The new adjusted position of triangulation station "Long Branch School No. 3, flagpole, 1934" is in error. (See opposite page under (A) Sources). It appears that an incorrect direction from triangulation station "#11, U.S.E., 1934" was used in the computations. The azimuth from triangulation station "Nevius, 1934" is apparently correct.

compilation and the point has been pricked on the photos with the aid of the stereoscope. There are two stations in the immediate vicinity so that the locality is well controlled and the new station does not effect the smooth plot.

No geographic position is available for triangulation station "West End, Eco." which was pricked on photos Nos. 66-11-41 and 66-11-42 by the field inspection party, so that it does not appear on the compilation.

Triangulation station "Takanasee, 1934" which was submitted with Lieut. McCarthy's unadjusted field positions is missing from the adjusted positions and was not pricked on the field prints. Since there is no description available, it has been plotted on the ~~sheet~~ ^{compilation} but could not be used to control the smooth plot.

St. James Church has been pricked on the photos by the field inspection party at about Lat. $40^{\circ} 18.25'$, Long $73^{\circ} 59.5'$, however since no geographic position was available it has been omitted from this compilation.

The geographic position for "Long Branch, School No. 3, flagpole, 1934" was submitted (field position unadjusted) by Lieut. McCarthy as being Lat. $40^{\circ} 19' 523.3$ m. and long. $73^{\circ} 58' 1146.4$ m. which position checked the radial plot as pricked on the field prints by the field inspection party. The adjusted position, received from the Washington Office after completion of the ~~sheet~~ ^{compilation}, located the station at Lat. $40^{\circ} 19' 554.0$ m. and Long. $73^{\circ} 58' 1099.2$ m.

(B) Errors

There are no apparent errors in the control positions for this compilation. The control along the coast is, in general, and the radial plot gave good intersections. In the west and south central portions of the sheet the control is weak, however, extreme care was taken and it is believed that the ~~detail~~ ^{detail} is within the allowable limits.

(C) Discrepancies

No control stations established by other organizations were used in this ~~compilation of this sheet~~ ^{compilation}.

COMPILATION

(A) Method

The usual radial line method of plotting was used in this ~~compilation of this sheet~~ ^{compilation}.

(B) Adjustment of Plot

There is very little scale fluctuation between the photographs and the compilation. Some tilt has been noted especially on photo Nos. 66-33-19, 66-51-(47 & 48) and 66-11-(42 & 43).

There is very little overlap between the shore flights and the first inland flight (approximately along the $74^{\circ} 01'$ meridian) especially near Lat. $40^{\circ} 17'$ and south so that ex-

ADDITIONAL NOTE: (C) Interpretation

The boardwalk extending along the ocean front from about Lat. $40^{\circ} 17.1'$ to about $40^{\circ} 18.7'$ has been shown by a dashed line on this compilation.

Horseneck Pt
Mn

ADDITIONAL NOTE: (E) Conflicting Names

At approximately $40^{\circ} 19.3'$, Long. $74^{\circ} 01.4'$, the point of land projecting toward the east from Ft. Monmouth, U.S. Signal Corps has for the past few years been called Bailey's Point. It had previously been called Horseneck Point. The name was apparently changed as the point became an exclusive residential section. This information was submitted by the field inspection party as verified by natives of the locality. No name appears on the present charts, for this point.

treme edges of the photos had to be used which were not as sharp and clear as desirable.

(C) Interpretation

The usual graphic symbols were used as approved by the Board of Surveys and Maps, 1932, and no great difficulty was experienced in interpreting the photographic detail except as noted below.

A double full line was used to indicate first order roads, a double broken line for private driveways and roads of lesser importance, etc. A single broken line was used to indicate exceedingly poor roads, trails and paths. In most cases, unless noted on the field prints, the classification had to be determined by the appearance under the stereoscope.

The boundary symbol has been used to indicate rights of way cleared for streets or roads when the roads have not been constructed.

The 66-51-(45 - 48) flight was taken at a slightly later date than the 66-33-(16 - 21) flight and consequently was given preference where any variation was evident.

There are numerous nurseries ^{in this area} ~~on this sheet~~ which have been ~~left blank and labeled~~ ^{noted} on the cover sheet.

An attempt has been made to show all buildings in sparsely populated areas and along the shoreline, however, it is possible that a few of these may have been omitted because they were lost in the trees or the prints were too indistinct and they could not be picked up under the stereoscope. Also some small buildings of temporary construction, as chicken houses, may be omitted.

In the vicinity of Lat. $40^{\circ} 19'$ between Long. $74^{\circ} 63'$ and $04'$ there are three streams which are lost in the marshy soil and could not be picked up under the stereoscope. Since there was insufficient time for a final field inspection, these streams have not been shown through this area.

At Lat. $40^{\circ} 17.8'$ and Long. $74^{\circ} 01'$ the golf course is drained through a pipe under the polo field and into Franklin Park Lake. *(This pipe line not shown on compilation)*

The single track line of the Central Railroad of New Jersey from Long Branch to Eatontown has been marked on the field prints as abandoned from about Lat. $40^{\circ} 18.3'$ Long. $74^{\circ} 00.2'$ to about Lat. $40^{\circ} 18.3'$, Long. $74^{\circ} 03.8'$. This is not strictly true. Although there are no regularly scheduled ^{trains} over this route, the line is in fairly good condition and an occasional train is sent over this line.

(D) Information from Other Sources

No information was available from other sources. No shoreline had been run in by field parties before this compilation was completed.

(E) Conflicting Names

The names on the cover sheet in blue have been taken from the U.S.C. & G.S. Charts, those in green from the U.S. Geological Survey maps and those in red appear on U.S.

* A better estimate of the probable accuracy of location would be from 0.3 to 0.5 mm for intersected points and from 0.5 to 0.8 for points between intersections.

L.A.M.
7/22/36.

Geological Maps and on the New Jersey Highway Commission Maps.

(F) Bridges

There are several small bridges, ^{shown} on this ~~sheet~~ ^{compilation}, however, the streams are shallow and only small boats can float on them. The bridges over the navigable parts of the streams are drawbridges. No clearances have been shown on the cover sheet. This data was obtained by Lieut. McCarthy while operating in this area in 1934 and may be added by the Washington Office if desired.

COMPARISON WITH OTHER SURVEYS

This ~~sheet~~ ^{compilation} joins with ~~Sheet~~ Reg. No. T5279 on the north and No. T5282 on the south. Junctions with these ~~sheets~~ ^{compilations} have been compared and found satisfactory.

LANDMARKS

It is assumed that a list of landmarks for this area has been previously submitted by Lieut. McCarthy, who was operating in this area in the summer and fall of 1934, although no list has been submitted to this party.

There are many 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 useful to obtain hydrographic "fixes". Care should be taken in using the houses to use the center as the size shown may be somewhat expanded.

RECOMMENDATIONS FOR FURTHER SURVEYS * *See opposite page.*

This ~~is~~ ^{compilation} ~~of this sheet~~ is believed to have a probable error of not over 2 meters in well defined detail of importance for charting and of 4 meters for other data. It is understood that the widths of roads and similar objects may be slightly expanded in order to keep the detail clear and to avoid the closing up of the lines and photographing as a solid area in the photo-lithographic process.

To the best of my knowledge this ~~sheet~~ ^{compilation} is complete in all detail of importance for charting purposes, within the accuracy stated above, and no additional surveys are required.

Submitted by

H. Batchelor
H. Batchelor
Draftsman.

Assisted by

F.C. Bolstad
F.C. Bolstad
Chief of Party

High Water Line on the Outer Coast

High water line on this compilation is of the date of the field inspection, July-October 1934. Field inspection report for the project is filed under T-5279.

See page 3, first section of report, T 5279 regarding ground inspection on this project for changes during the interval between the date of the photographs, April-July 1932 and the field inspection, July-October 1934. ~~this report covers pages 1-4~~

Changes in high water line were marked on the photographs by reference distances and sketching.

This method lends itself more readily to delineation of large changes than to small detail. In this area there is in general an abundance of permanent objects to which reference measurements can be made. ~~the field~~

*On this compilation no large changes
have been marked on the field photos and
the H.W. line is about
the same as when
the photos were taken
in 1932.*

B.G.J.

July 23, 1936.

B.G.J.

Date August 5, 1935 **GEOGRAPHIC NAMES**
NEW JERSEY

Survey No. T-5281

Chart No. 1215 & 543

Diagram No. _____

Approved by the Division of Geographic Names, Department of Interior. *

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
✓	<u>Red Bank Airport</u>				
✓	<u>Shrewsbury</u>				
✓	<u>Parker Creek</u>				
✓	<u>Shrewsbury River</u>				
✓	<u>Blackberry Creek</u>				
✓	<u>Sands Point</u>				
✓	<u>Pleasure Bay</u>				
✓	<u>Pleasure Bay (city)</u>				
✓	<u>North Long Branch</u>				
✓	<u>Monmouth Beach</u>				
✓	<u>Tinton Falls</u>				
✓	<u>Eatontown</u>				
✓	<u>Fort Monmouth</u>				
✓	<u>Oceanport</u>				
✓	<u>Branchport</u>				
✓	<u>Locust Grove</u>				
✓	<u>West Long Branch</u>				
✓	<u>Norwood Park</u>				
✓	<u>West End</u>				
✓	<u>Pine Brook</u>				
✓	<u>Hollywood</u>				
	<u>Horseneck Pt</u>				

(GN 17, 1937) added 11/6/37
 HFE

Names underlined in red are approved.

W. J. Woods
 W. J. Woods

Survey No. T- 5281

Chart No. 1215 & 543

Diagram No. _____

Under investigation. Q

(M-136)

REVIEW OF AIR PHOTO COMPILATION T-5281 (1932)
Scale 1:10,000

Comparison with Graphic Control Surveys

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

Surveys T-6215a, T-6215b were made for control of hydrography and were not available for use in making or comparing with this compilation in the field. Surveys T-6215a, T-6215b show the locations of numerous topographic stations but do not locate shoreline. Comparison in this office showed good agreement between the plane table locations of recoverable objects and the detail shown on this compilation.

Of the numerous undescribed recoverable topographic stations, such as cupolas, spires, flagpoles, etc. shown on T-6215a, T-6215b only one, namely "C.G.Flagpole" has been transferred to the compilation. The others were not transferred for there are a sufficient number of described stations to give a close distribution along the shoreline.

All described recoverable topographic and all U.S.E. stations have been transferred to the compilation in this office by L. A. McGann and checked by F. G. Erskine, July 20, 1936. Descriptions are filed under surveys Nos. T-6215a, T-6215b.

The following undescribed station on T-6215a plots offshore and probably is the location of a pile or stake but since no evidence of such appears on the photos it has not been transferred to the compilation: PUG, lat. $40^{\circ} 18.9'$, long. $74^{\circ} 01.4'$.

All detail on T-6215a, T-6215b within this area is now shown on this compilation except buoys, non-recoverable plane table positions and the undescribed recoverable topographic stations, such as cupolas, spires, etc. mentioned in the second paragraph above.

Comparison with Previous Topographic Surveys)

T- 114 (1839), 1:10,000 (Navesink and Shrewsbury Rivers)
T-1005 (1864), " " " " "
T-1022 (1866) 1/10,000 (Long Branch and vicinity) Except for contours.

Comparison with surveys T-114 and T-1005 shows that this compilation is detailed and adequate in order to supersede those portions of T-114 and T-1105 which it covers. *T-1022 is also superseded by this compilation over the common area except for contours.*

T-2471 (1899), 1:10,000

Survey T-2471 covers the coast from Highland Beach to North Long Beach. Over the common area there have been coastline changes as large as 60 meters. Changes have also occurred in the street layout and the shoreline of the interior. T-2471 is superseded by this compilation over the common area.

T-2472 (1899), 1:10,000

Survey T-2472 covers the coast from Long Branch to Asbury Park. At Long Branch there has been a 90 meter recession of the coastline since the time of T-2472. There are many disagreements of street lines and railroad lines. This compilation has been verified for locations of streets and railroads. Smaller street differences may changes on account of realignment but the larger differences in the streets and the difference in railroad location at West End can be accounted for only as plane table errors.

T-2472 shows many buildings in the city of Long Beach which do not appear on this compilation. Except for these buildings, T-2472 is superseded by this compilation over the common area.

COMPARISON WITH NEW HYDROGRAPHIC SURVEYSH-5616 (1934), 1:10,000

Conflicts between the soundings of H-5616 and the shoreline of this compilation have been rectified in this office and there is now good agreement between H-5616 and this compilation.

Comparison with the Charts, Nos. 543, 1215

The section of railroad shown on chart 543 lying between lat. $40^{\circ} 18.6'$, long. $74^{\circ} 02.7'$ and lat. $40^{\circ} 19.3'$, long. $74^{\circ} 01.7'$ has been removed, as well as the short section of highway whose center is at lat. $40^{\circ} 19.01'$, long. $74^{\circ} 02.3'$.

The three piers shown on chart 543 on the east side of Shrewsbury River on Gooseneck Point are gone.

The following piers shown on chart 543 in Pleasure Bay and Manhasset Creek are no longer in existence as they do not appear on the photos:

Lat. $40^{\circ} 19.1'$, long. $73^{\circ} 59.7'$	
40 19.2	73 59.9
40 19.4	73 59.9
40 19.6	73 59.4
40 19.0	73 59.8
40 19.4	73 59.7
40 19.5	73 59.9

The small rectangular object shown on chart 543 at lat. $40^{\circ} 18.9'$, long. $73^{\circ} 59.9'$ cannot be identified on the photographs and is not shown on the compilation.

All current landmarks shown on charts 543 and 1215 in this area have been recovered and are shown on this compilation. Landmarks recommended in this area are listed in the descriptive reports for T-6215a, T-6215b.

Projection

The projection of this compilation is in error, the $40^{\circ} 20'$ parallel of latitude being too far south by about 4 meters. The transfer of stations between $40^{\circ} 19'$ and $40^{\circ} 20'$ from T-6215a to this compilation was made by proportional adjustment of the projection error.

Buildings

The buildings shown on this compilation have been somewhat exaggerated. No attempt has been made in this office to reduce them to their correct size as the exaggerated or large sizes would register in the photo-lithographic process even after the reductions were made. — *Because of stations left on the celluloid.*

July 29, 1936.

Leonard A. McNamee
B.G. Jones

REVIEW OF AIR PHOTO COMPILATION NO. T5281

Chief of Party: Roswell C. Bolstad

Compiled by: See page 2
of this reportProject: New York Air Photo Compilation Instructions dated: Nov. 15, 1932
Party No. 12

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)

Lieut. ER. McCarthy operated a combined operations party in this area in the summer of 1934. *Graphic control surveys T-6215a, T-6215b.*

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)~~

None 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.

Lieut. McCarthy was furnished with shoreline from this compilation; no reply has been received by this party contrary to the information furnished.

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 ^{coast} ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

High water line on sand beach obtained from ground ties made by field inspection party. See preceding page.
P. am.

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)
None shown.
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)
Described by Lieut. McCarthy. *and filed under survey no. T-6215a, T-6215b.*
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)
Submitted by Lieut. McCarthy to Washington Office but no copy furnished this party. *See list attached to report for surveys T-6215a, T-6215b.*
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)
Information has been secured by Lieut. McCarthy during his 1934 surveys in this locality.
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 North American and the reference station is correctly noted. 1927
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.

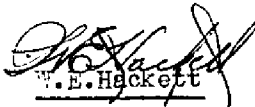

3. All station points are exactly marked by fine black dots. ✓
4. Closely spaced lines are drawn sharp and clear for printing. ✓
5. Topographic symbols for similar features are of uniform weight. ✓
6. All drawing has been retouched where partially rubbed off. ✓
7. Buildings are drawn with clear straight 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:** Any additional notes and requirements effecting this area are referred to the reports of Lieut. E.R. McCarthy submitted for his 1934 surveys of this area.


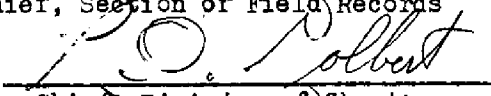
18. Examined and approved;
Preliminary review


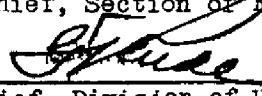

W.E. Hackett
Surveyor

Roswell C. Bolstad
Chief of Party

19. Remarks after review in office:

Reviewed in office by: *Lemard A. McKinnis* July 29, 1936.
v B.G. Jones

Examined and approved:


Chief, Section of Field Records

Chief, Division of Charts


Chief, Section of Field Work

Chief, Division of Hydrography
and Topography.