

SUPPLEMENTAL T

4587  
4587

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

*R. S. Patton*, Director

U. S. COAST & GEODETIC SURVEY  
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State: *New Jersey*

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DESCRIPTIVE REPORT

Photo

Topographic  
~~Hydrographic~~

Sheet No. *T. 4587*

LOCALITY

~~West Bank of Hudson River~~  
*Beach*  
*Alpine to Forest View*

1930..

CHIEF OF PARTY

*O. S. Reading*

U. S. GOVERNMENT PRINTING OFFICE: 1930

4587

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SUPPLEMENTAL T

Descriptive Report to Accompany  
Air Photo-Topographic Sheet No. T-4587.  
West Bank of Hudson River  
From Alpine to Forest View.

COMPILATION.

This sheet is a compilation of two strips of single lens aerial photographs. Photographs Nos. 171 to 182 are included in an inshore strip with the waterline just showing in their margins. They were taken on September 28, 1930, at noon. A shore strip, photographs Nos. 261 to 290, was taken on September 4, 1930, at 11:00 and 11:15 A.M. The shoreline runs approximately through the center of these photographs.

The scale of the negatives is approximately 1:10,000. A scale factor for each flight was determined by a spotting plot of the centers and control and the negatives were enlarged to approximately 1:5000 on Direx air map special paper. A 1:5000 projection was laid down on celluloid and the topography of sheet 4558 traced thereon. All triangulation was plotted on the projection and recovered on the photographs.

A radial line plot was then made adhering to the triangulation. The topography of sheet 4558 was also used as a general guide except where the triangulation and radial plot clearly showed it to be in error.

The overlap of the photographs and the triangulation was ample to control the plot of the shore strip. The inshore strip of photographs had considerably less than fifty per cent overlap and on this account positions in it depend on the intersections of two radials only and are quite weak. Most of the area covered only by the inshore pictures was forest and, therefore, this lack of overlap means only weak positions for the inshore houses and roads in the vicinity of Alpine.

There were so few buildings that all of them which showed on the photographs were traced on the sheet.

The difference of nearly five hundred feet in elevation between the shoreline and the top of the Palisades caused large displacements and differences in scale in the photographs. This difference amounts to nearly ten per cent of the flying height and the radial line method, therefore, commenced to break down in tilted photographs. The plotting of such photographs was adjusted by assuming a point for the origin of the radials about where the general course of the flight and the exposure interval would place the plumb point. Radials drawn from such an origin usually permitted the plot to be carried forward with good intersections and agreement with the control.

CHANGES.

Certain small changes due to faulty sketching were made in the topography of sheet 4558 where the photographs unmistakably indicated the errors.

A rock about a quarter mile north of the Alpine Yacht Basin was shown about 20 meters north of its correct position probably on account of an erroneous rod reading.

Triangulation Station Forest was not correctly plotted on Sheet 4558. This caused a considerable discrepancy in all the topography of that vicinity.

LANDMARKS.

A list of objects recommended to be shown on the projected 1:10,000 anchorage chart was furnished by the Commanding Officer of the NATOMA who also marked the objects on a set of photographs. These photographs should be consulted by the cartographer compiling the chart. The objects are also listed on Form 567 attached hereto. Buildings which have no definite point such as a cupola or spire are shown by their ground plan on the sheets. Positions of such objects are given only to the nearest tenth of a mile in the list.

NAMES.

The names appearing on this sheet are taken from the chart and a blue print from the Palisades Interstate Park Commission.

*J. S. Reading*

APPROVED

*K. T. Adams*  
FIELD RECORDS (C)

*J. S. Borden*  
Chief, Section Field Work

*L. O. Zolbut*  
Chief, Division of Charts

*G. H. Wade*  
Chief, Div. of Hyd'y and Top'y

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Washington, D. C.

June 20, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are **recommended for charting in the proposed 1:10,000**  
~~description of each object, and should be charted~~  
~~anchorage chart by the commanding officer of the NATOMA. See descriptive report of~~  
 sheet T-4559 and marked photographs.

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETER- MINATION	CHARTS AFFECTED		
	LATITUDE		LONGITUDE		DATUM				
	°	'	D. M. METERS	°				'	D. P. METERS
✓ Rock	40	56	575.8	73	55	557.3	NA	Tri.	747 10,000 scale
*Dark brown house green cupola	40	56.8	---	73	55.5	---		Photo 173	747
✓ Square	40	56	699.0	73	55	620.3		Tri.	747
*House green roof	40	56.5	---	73	55.4	----		Photo 173	747
*Dark grey house	40	56.6	---	73	55.3	----		Photo 173	747
*House under construction	40	56.7	---	73	55.3	----		Photo 173	747 748
*Green House, black roof.	40	56.9	---	73	55.4	----		Photo 174	747 748
*Yellow House, grey roof	40	57.2	---	73	55.3	----		Photo 175	748
Tank, Palisade water	40	57	1209.6	73	55	200.6		Tri.	748
*Yellow house, dark roof	40	57.7	---	73	55.0	----		Photo 177	748
*Break in trees	40	58.3	---	73	55.2	----		Photo 179	748
*Two small houses, green roof	40	58.6	---	73	54.6	----		Photo 180	748
*Ferry Building	40	56.7	---	73	55.3	----		Photo 268	747 748
*Pavillion	40	57.6	---	73	54.6	----		Photo 279	748
*Pavillion	40	58.9	---	73	54.4	----		Photo 288	748
*See photo sheet for position and ground plan; marked photographs for identification.									

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4587

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. \_\_\_\_\_

REGISTER NO. T-4587

State New Jersey

General locality West Bank of Hudson River

Locality Beach  
Alpine to Forest View

Scale 1:5,000 Date of survey photographs Sept. 4 1930

Vessel Aerotopograph Corp. Airplane

Chief of Party O. S. Reading

Surveyed by O. S. Reading

Inked by O. S. Reading

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

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

Instructions dated -----, 19---

Remarks: Compilation of aerial photographs Nos. 261 to 290

and 171 to 182. Printed by photo-lithographic process in

printing section.

GPO

## REPORT FOR SUPPLEMENTAL T-4587

Corrections shown in red on T-4587 were plotted in this office in March 1939, and reported to the Nautical Chart Section at that time for correction of Charts 747 and 748

### Photographs

Single lens (K3B), scale 1:10,000, taken by the Photographic Section, Naval Air Station, Washington, D. C., early in February, 1939. Negatives are on file in this office.

### Field Inspection

Field inspection made by the Tender GILBERT, in March-May, 1939. Field inspection notes are on the field photos and on C. S. 156 (Air Photo Unit Files).

*copies of charts 747 and 748 filed as  
blueprints 760. 32855 and 32856*

### Plot

Details in red were transferred from the contact prints (1:10,000) in the projector by holding to adjacent details on T-4587. The location of the topographic station Rock (also a landmark) Lat. 40°56.6' Long. 73°55.2' was accomplished by transfer and checked within ± 6 meters by a rough radial plot with the 1:10,000 contact prints.

### Chart 747

Landmarks Square Tower and Flag Pole, Lat. 40°56', Long. 73°55' recommended by field inspection on C. S. 156, are shown on Chart 747, but have not been located on T-4587. The Flagpole was spotted on the Yacht Club Pier by field inspection and the position of the pier has been checked within about 6 meters by the radial plot mentioned in the preceding paragraph. The square tower was spotted on the building shown on the original T-4587. The tower is visible on the new photos and the identification has been checked. The position has been checked by transfer of details in the projector to within 7 or 8 meters. It has not been radial plotted as it falls directly on the line of centers of the new photos and the old photographs are no longer available.

*B. J. Jones  
6/19/39*