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SUPPLEMENTAL I

Form 504  
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON  
*Director*

U. S. COAST & GEODETIC SURVEY  
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JUL 27 1931

State: New York

Acc. No.

DESCRIPTIVE REPORT

Air Photo  
Topographic  
~~0000000000~~

Sheet No. 4586

LOCALITY

New York

Hudson River

Hastings on Hudson

to Irvington

1930

CHIEF OF PARTY

O. S. Reading

U. S. GOVERNMENT PRINTING OFFICE: 1923

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SUPPLEMENTAL I

Descriptive Report to Accompany  
Air Photo Topographic Sheet No. 4586  
Hastings on Hudson to Irvington.

This sheet is a compilation of two overlapping strips of single lens photographs. The line of flight for the shore strip of pictures follows closely along the shoreline. This strip consists of pictures Nos. 102 to 112 with the direction of flight northward, and of pictures Nos. 590 to 596 with the direction of flight southward. The inshore strip consists of pictures Nos. 133 to 143 with the direction of flight northward.

Pictures Nos. 102 to 112 taken Sept. 28, 1930	1:20 to 1:30 P.M.
Pictures Nos. 133 to 143 taken Sept. 28, 1930	1:30 to 1:40 P.M.
Pictures Nos. 590 to 596 taken Sept. 4, 1930	12:45 to 12:50 P.M.

Control.

The plot on this sheet was controlled by triangulation established in 1930 and by triangulation station "S. Hastings Chimney" established in 1898. Triangulation Station "Rail 1930" plotted on this sheet could not be definitely identified on the photographs and was not used as a control point. Shore line and topographic stations were transferred from topographic sheet No. 4559, surveyed 1930, to this sheet. This shoreline was used in a general way to maintain the azimuth of the preliminary plot. Topographic stations were not used as precise control points.

Compilation.

The single lens negatives of this area were of an approximate scale of 1:10,000. Prints were made from these negatives to a scale of 1:5000. The ratio of enlargement was determined by a radial plot of control points for each photographic strip flight.

A projection was made on celluloid on a scale of 1:5000 and all triangulation stations plotted. Shoreline and topographic stations were transferred from topographic sheet 4559 to this sheet.

A radial line traverse was next plotted with the 1:5000 scale prints. This plot was controlled by triangulation. Points of detail were located from the radial plot at short intervals over the sheet.

The difference in elevation of several hundred feet between the shoreline and the tops of the hills adjacent to the shoreline caused large displacements in the photographs and the radial plot showed a tendency to break down on certain tilted pictures. Such pictures

were adjusted by selecting the most probable position of the plumb point and using that point as the origin of the radial lines. The plumb point was fixed along the general line of flight at a position indicated by the exposure interval and by evidence of any fore and aft tilt.

The overlap of pictures along the shore strips was ample and the distances between triangulation stations reasonably short. These strips of pictures were plotted with little difficulty except for pictures 109 and 110 in the vicinity of triangulation station Rail, and picture 596 in the vicinity of triangulation station Book, which were tilted. The tilted pictures were adjusted as stated in the preceding paragraph and the plot carried through to close on the triangulation.

The overlap of pictures on the inshore strip was only about fifty per cent and in some places less than fifty per cent. Therefore, a large part of the detail inside the limit of the shore strip was controlled by points located with only two intersecting radials. Picture No. 134 in this strip was evidently substituted from the shore strip and was of no use in making the plot. Picture No. 138 is tilted and was adjusted as explained in a preceding paragraph.

The location of detail on this sheet was obtained by adjustment between points located by the radial plot. A large number of such points were located in order to eliminate any considerable errors of adjustment.

Sheet compiled in two sections.

An error in the plotted position of triangulation station S. Hastings Chimney 1898 was found after the plot and inking of detail was apparently completed. It was necessary to replot the sheet from parallel of latitude  $40^{\circ} 59' 00''$  up to parallel of latitude  $41^{\circ} 00' 30''$  and a new projection was made for that purpose. This sheet is, therefore, on two projections, the southern section on a projection made in June and the northern section on a projection made in March. The projection made in March has expanded somewhat and is slightly larger than the projection on which the southern section of the sheet is plotted.

Names.

Names on this sheet were taken from topographic sheet No. 4559 and from Sanborn Maps furnished by the Library of Congress.

Widths of Roads and Streets.

The widths of streets shown on this sheet are the widths between curb lines. Widths of roads are the actual width of clear surface apparent on the photographs.

Comparison with Topographic Sheet 4559.

a. Shoreline at South End of Docks, Latitude 40° 59' 30" The difference in shoreline in this locality is probably due to the fact that a "fill" was being made at the time of the topographic survey as evidenced by a note on the topographic sheet. The pictures were taken at a later date when the filling operations had progressed to the line shown on this sheet.

b. Detail from the Vicinity of Triangulation Station "S. Hastings Chimney" 1898 to Triangulation Station "Brass" 1930. All detail in this locality is shown northward of the locations given on the topographic sheet. This difference is due to the fact that triangulation station S. Hastings Chimney 1898 as plotted on the topographic sheet is in error about 5 meters to the southward. All topographic stations in this area are relocated on this sheet except stations "Top" and "Flag" which were not identified on the photographs. The center of the front of the roof on which station "Top", a flag pole, was located has been located on this sheet at the following position and is marked by a small hole in the celluloid sheet.

Center of front of building  
American Brass Company

Latitude 40° 59' 30" (Sec. in M = 440  
(486))

Approximate location of Sta. "Top"

Longitude 73° 53' 00" (Sec. in M = 290)

c. Position of Overpass of Station "Boy" (Topographic sheet)  
and Position of Signal Bridge at Station "Yel" (Topographic Sheet).

Both positions on this sheet are considerably south of positions shown for for same objects on the topographic sheet. It seems probably that the positions of stations "Boy" and "Yel" are in error on the topographic sheet in about same amount as are the overpass and signal bridge. The location of these objects on the air photographic sheet depend in part on pictures which had to be adjusted for tilt. However, a study of the photographic plot seems to indicate a probable error of not more than three meters in a north south direction.

d. Detail in the Vicinity of Dobbs Ferry. Considerable difference exists between the two sheets in this locality. Positions for Station Pow and Station Tin (names used on topographic sheet) are given in list of recoverable stations submitted with this report.

e. Small Brick Power House 1/4 mi. North of Triangulation Station Book 1930. This is station Kin on the topographic sheet. The positions are not the same. Position from this sheet is given in the list of recoverable stations.

d. Section of Dock at Station "Ale" (Topographic Sheet). Station Ale was a small flagpole on the dock. The pole was not identified on the photographs, but the corner of the dock on which the flagpole was located was identified. It was located on this sheet in the following position which is somewhat southwest of the planetable position.

Latitude 41° 01' 30 (Sec. in M = 452)  
Longitude 73° 52' 30 (Sec. in M = 249)

Land Marks for Charts and Recoverable Stations.

A list of objects located and recoverable for future surveys and a list of objects recommended as land marks for charts are attached to this report.

Respectfully submitted,

*B. G. Jones*  
*J. H. and G. E.*

*Approved & forwarded*  
*J. Reading*

APPROVED

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

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

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

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

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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Washington, D. C.June 23, 1931

193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted, and were recommended for charting on the proposed 1:10,000 Anchorage Chart by the Commanding Officer of the NATOMA. See Descriptive Report of Sheet 4559 and Field Photographs.

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED		
	LATITUDE		LONGITUDE		DATUM				
	°	'	D. M. METERS	°				'	D. P. METERS
Gray shingled conical						N.A.	Triang.	748	
spire on Presbyterian	41	00	1634.2 219.5	73	52	454.9 (907.0)			
church $\Delta$ Dobb 1920									
Cupola on Municipal									
Building Dobbs Ferry.	41	00 30	663 (862)	73	52 30	143 (586)	N.A.	Photo	748
Red Cupola	41	00 30	728 (803)	73	52 30	136 (508)	N.A.	Photo	748
* Large Brown Brick									
House	41	00.5		73	52.6		N.A.	Photo 111	748
* Large Red Brick House	41	00.7		73	52.7		N.A.	Photo 110	748
* Large Gray House 2									
chimneys, slate roof	41	00.5		73	52.9		N.A.	Photo 109	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, flagstaves and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Washington, D. C.June 28, 1931., 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

See Notes Page 56

Chief of Party.

DESCRIPTION	POSITION						METHOD OF DETER- MINATION	CHARTS AFFECTED			
	LATITUDE			LONGITUDE		DATUM					
	°	'	D. M. METERS	°	'				D. P. METERS		
Cupola - Ardsley railroad station	41	01	30	259	73	52	30	159	N.A.	Photo	748
Red Brick stack of power plant at Ardsley on Hudson	41	01	30	136	73	52	30	157	N.A.	Photo	748
Green tipped cupola on Ardsley Inn.	41	01	30	195	73	52	30	95	N.A.	Photo	748
Tall white concrete stack $\Delta$ Book 1930	41	01	30.5 (1824.6)	73	52	1033.2 (338.8)	N.A.	Triang.			748
Pyramidal top of open cupola on summerhill											
Methodist Church $\Delta$ Met 1930	41	00	1521.9 (322.1)	73	52	899.1 (702.8)		Triang.			748

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, flagstaves and like objects are not sufficiently permanent to chart.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Washington, D. C.June 25, 1931.

193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

See Notes Page 6

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM		
	°	'	D. M. METERS	°			
*Red and white building City Hall	40	59.7		73	53.0	N.A.	Photo 106 748
*Red brick power house							
white trim	40	59.9		73	55.1	N.A.	Photo 107 748
*Large yellow building	40	59.6		73	52.7	N.A.	Photo 106 748
Black and white cupola on large gray building	41	00 30 (879)	40	73	52 30 (259)	N.A.	Photo 748
Prominent steel tank on American Brass Co.							
Dock Δ Brass 1930	40	59	1219.0 (631.7)	73	53	233.6 (1116.0)	N.A. Triang. 748
100 ft. flagpole in front of Longvue Golf Club							
Club Δ Club 1930	40	59	52.9 1797.7	73	52	1225.6 (197.0)	N.A. Triang. 748

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

## LANDMARKS FOR CHARTS

Washington, D. C.

June 28, 1931, 193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

see Notes Page 6.

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED	
	LATITUDE		LONGITUDE		DATUM			
	°	'	D. M. METERS	°				'
Black steel standpipe	41-00		78.8 (1772.0)	73-52		422.1 (980.2)	N.A. Triang.	not charted
Note: Position given is that of $\Delta$ Black 1930 and is a position on the rim of the tank. Center position not known.								
Yellow brick stack in Hastings Pavement Co. yard	40 59 30		251 (674)	75 53 00		241	N.A. Photo	748
Yellow brick stack	40 59 00		775 (182)	75 53 00		244	N.A. Photo	748
Black tank	40 59 00		879 (247)	75 53 00		175	N.A. Photo	748
Prominent silver colored standpipe Silver 1930	40 59		104.9 (2746.1)	73 52		570.6 (521.8)	N.A. Triang.	748
Square brick chimney $\Delta$ S. Hastings Chim. 1898	40 59		647.5	73 53		187.9	N.A. Triang.	748

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, flagstaves and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Washington, D. C.,June 28, 1951.

193

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

see Notes Page 6

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETER- MINATION	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM		
	°	'	°	'			
			D. M. METERS		D. P. METERS		
Yellow brick stack	40	59 00	586 (340)	73	53 00	259	N.A. Photo 748
Square tower on red house	40	59 00	563 (570)	73	53 50	656 (145)	N.A. Photo 748
<sup>Tank</sup> <del>Low steel reservoir on</del>							
American Brass Co. dock	40	59 00	523 (102)	73	53 00	278	N.A. Photo 748
*Large prom. building with red roof	41	01.2		73	52.4		N.A. Photo 748

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, flagstaves and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4586

TOPOGRAPHIC TITLE SHEET

Air Photo

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. 4586

REGISTER NO.

State New York

General locality Hudson River

Locality Hastings on Hudson to Irvington

Photos taken

Scale 1/5000 Date of survey Sept. 4 & Sept. 28, 1930

Airplane

Vessel Aerotopograph Corporation of America.

Chief of Party O. S. Reading

Plotted  
Surveyed by B. G. Jones

Inked by B. G. J.

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

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

Instructions dated (Control and compilation July 22, 1930)

Remarks: This sheet is a compilation of single lens air  
photographs. Nos. 102 to 112, Nos. 133 to 143, and Nos. 590 to  
596 and was printed by photo lithographic process.

G P O

## REPORT FOR T-4586 SUPPLEMENTAL

The corrections in red were plotted from single lens Air Photographs without the aid of field inspection. No field inspection is contemplated at this time.

### PHOTOGRAPHS

Single lens 7 x 9, Scale 1:10,000.

The negatives are on file in this office. The photographs were taken in February, 1939, by the Photographic Unit of the Naval Air Station, Washington, D. C.

### PLOT

Corrections shown in red were plotted in this office from contact prints by L. C. Lande. *and were referred to standards for correction of chart 748 in March 1939*  
The recent hydrographic surveys of the Hudson River do not extend as far north as this compilation.

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