

5264

Oct. 17, 1935

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

DESCRIPTIVE REPORT

*Topographic*  
~~XXXXXXXXXXXX~~ Sheet No. T-5264

U. S. COAST & GEODETIC SURVEY  
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AUG 22 1938

State New York

LOCALITY

Long Island Sound

City Island

1934

CHIEF OF PARTY

G. C. Mattison, H. & G. Eng'r

5264

chart 223 - reexamined June 1949 - RDC

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

AIR PHOTO  
TOPOGRAPHIC TITLE SHEET

REG. NO. 5264

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. 12

REGISTER NO. 5264

State New York

General locality Bronx Long Island Sound

City Island

Locality Pelham Bay to Cherry Tree Point

Scale 1:10,000 Date of Photographs May 17 1933  
Date of Survey  
Date of Compilation December 21 1934

Vessel Army Air Corp Airplane

Reviewed and recommended for approval:

Chief of party Lieut. Comdr. G. C. Mattison

Photographs plotted by L. E. Marsh November 14, 1934

Surveyed by

Inked by L. E. Marsh November 14, 1934

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated August 10th and September 9th, 1933.

Remarks: Compilation of aerial photographs Nos. M-410 to M-397

on scale of 1:11,905 and enlarged to scale 1:10,000 and printed

by photo-lithographic process.

## DESCRIPTIVE REPORT

To accompany

PHOTO TOPOGRAPHIC SHEET NO. 5264

FIELD NO. 12

NEW YORK

BOROUGH of BRONX NEW YORK

### GENERAL INFORMATION

Sheet No. 5264 covers, in general, the north east portion of the Borough of Bronx, City of New York, which includes the area from Bronx River to East Chester Creek and extends along the coast line from Pelham Bay to Cherry Tree Point. It also includes City Island and Hart Island together with the several smaller islands off their shore.

The photographs were received from the party of Lieut. R. C. Bolstad, in December, 1933. Lieut. Bolstad's party had trimmed the photographs, spotted the control points and mounted the photographs. The mounting of the photographs was checked by Mr. Charles More, and he remounted approximately one third of the prints. The field inspection was done by Mr. Charles More and the compilation by Mr. L. E. Marsh.

The work was done in accordance with instructions from the Director dated August 10, 1933 and all circulars issued to and including November 19, 1934.

A general report covering sheets in this area has not been made and all information is contained in this report.

### PHOTOGRAPHS

#### Five Lens

The photographs used were taken by the Air Corps Model T3A Camera AC31-78. The flight was designated 876-14 and the pictures numbered M410 to M397 inclusive, the numbering decreasing in the direction of flight, which was from east to west.

Data on the photographs and index sheet indicate this camera to have a focal length of six (6) inches and the pictures taken at a height of five thousand (5000) feet. They were taken May 17, 1933, the last exposure, M397 being made about 11:25 A. M. The stage of the tide was computed from the Tide Tables as being 1.0 feet.

#### Single Lens

No single lens photographs were made for this area.

### GENERAL DESCRIPTION OF TOPOGRAPHY

The sheet is comprised largely of territory in the county of

Bronx, New York, together with a small portion of the county of Westchester, New York, that lies north of Latitude 40-53' and west of Longitude 73-49'.

The County of Bronx is a political subdivision of the City of New York as well as of the State of New York and is known as the Borough of Bronx, but most generally referred to as "The Bronx". The small section of the County of Westchester within the limits of this sheet is further subdivided politically by a meandering line generally following the canal at the head of East Chester Creek. The subdivision to the east is the south west corner of the Town of Pelham and the subdivision to the west is the south east corner of the City of Mount Vernon. The boundaries referred to above are shown in detail on the white prints of the City of Mount Vernon and the Town of Pelham, that accompany the adjacent sheet (#5257) on the north east.

That portion of the Bronx shown on this sheet includes Hart Island, City Island, Rodman Neck, Pelham Bay Park and the indefinite neighborhood areas known as East Chester, Bay Chester, Westchester, Wakefield, Bronxdale and West Farms. The political subdivisions and neighborhood areas are all shown on the New York - New Jersey Harlem Quadrangle map of the U. S. Geological Survey.

There are two railroads and two rapid transit railway lines within the limits of this sheet running in a generally north easterly and south westerly direction. The most easterly railway is a rapid transit line on an elevated structure running over Westchester Avenue and terminating at Pelham Bay Park. South of Bronx Park the two railroads diverge from adjoining road beds. To the east, the Harlem Branch of the New York, New Haven & Hartford Railroad crosses the Bronx then follows the general shore line. The westerly road, the New York, Westchester & Boston Railroad crosses this entire area and parallels the western limits of this sheet. The second rapid transit railway skirts the eastern edge of Bronx Park on an elevated structure and runs over White Plains Road. Stations appear at frequent intervals on both the railroads and rapid transit lines as this is generally a commuting area. These stations are all shown on the sheet, but are not designated by name. East and west of the westerly railroad yard of the New York, New Haven & Hartford Railroad there are several foot bridges crossing the tracks. Both of the railroads are electrified overhead and therefore should be considered as high tension lines.

Three water courses are within the limits of this sheet. The most westerly is the Bronx River that forms a lake in the naturally wooded area known as Bronx Park. In the south central portion of the sheet is Westchester Creek that is navigable as far north as Westchester Avenue. Above Westchester Avenue it meanders through a marsh area and terminates just south of the New York, New Haven & Hartford Railroad. To the extreme east, East Chester Creek forms a long marsh area between the New York, New Haven & Hartford Railroad and the Boston Post Road. North of the Boston Post Road the creek has been dredged to form a canal.

Between Bronx Park and Pelham Bay Park is the Pelham Parkway consisting of several roadways separated by grass plots and bordered with trees.

The entire area west of East Chester Creek and East Chester Bay except the marsh and park areas is laid out in streets. In general, the territory rises from sea level to an elevation of about 120 feet in the central portion of the sheet. It is highly developed with some industry centered around the water courses.

The area east of East Chester Creek together with Rodman Neck is the central portion of Pelham Bay Park owned by the City of New York. This area rises to an elevation of about 40 feet on the northerly portion of Rodman Neck. North of the New York, New Haven & Hartford Railroad, the upland is partially wooded and the marsh area adjacent to the creek is being filled in by the City of New York. South of the railroad, the area is open and undergoing radical changes, which are discussed under the heading "Comparison With Other Surveys".

North of Rodman Neck there is a marsh area back of the high water line. Between high and low water lines, mud flats appear. The entire shore of Rodman Neck is irregular with a sandy foreshore. Ledge rock projects off the north shore. On the south end, there is a marsh area back of the high water line.

In the vicinity of Turtle Cove there is a marsh area adjacent to the high water line with mud flats between the high and low water lines. From this point, proceeding in a north westerly direction up to Pelham Road there is a sandy foreshore strewn with boulders.

Marsh areas predominate both banks of East Chester Creek with the exception of that portion north of the Boston Post Road which is highly developed by industry.

The west shore of East Chester Bay is generally sandy except for two marsh areas one of which is about 700 meters north of station "Chester" and the other 500 meters south of station "Chester". The terrain just back of Cherry Tree Point rises to an elevation of about 40 feet. There are a number of rocks off the northern portion of this shore.

#### City Island

City Island sheltering the outer portion of East Chester Bay is about 1-1/4 miles long and at its northern end is connected to the mainland by a draw bridge. The terrain rises to about 20 feet elevation and the entire area is laid out in streets and is well developed with small dwellings, small commercial enterprises and some boat yards, which are concentrated on the south east shore. City Island Avenue, extending the entire length of the island, is the only thoroughfare on the island. The northern portion of the east shore and the shore of High Island is open and sandy with some stone. The southern portion of the east shore is practically solid with docks and boat yards. On the west shore the conditions are reversed with piers on the northern portion while the southern portion is open and sandy. High Island is used mainly by summer colonists as a beach resort.

#### Hart Island

To the east of City Island is Hart Island owned by the City of New York. It is generally level except for a bluff at the north end that rises to an elevation of about 40 feet and a smaller bluff on the southern end rising to about 15 feet. In the central portion of the

island is a group of buildings housing a city penitentiary. On the north east portion of the island is a city burial ground, while the rest of the island is cultivated by the inmates of the penitentiary. Connection with the mainland is by a municipal ferry. Between high and low water lines, the beach is generally sandy and strewn with boulders. Off the east shore there are a number of rocks.

### CONTROL

#### Sources

|                          |      |                     |
|--------------------------|------|---------------------|
| 1st Order Triangulation  | 1932 | by C. D. Meaney.    |
| 2nd Order Triangulation  | 1932 | by R. W. Woodworth. |
| 3rd Order Triangulation  | 1933 | by H. A. Cotton.    |
| Theodolite 3 point fixes | 1934 | by G. C. Mattison   |

All were adjusted to the North American Datum Plane of 1927. <sup>(Unadjusted)</sup>  
computation

#### Errors

No errors in control were found by the radial plot.

#### Other Sources of Control

No other sources of control were used.

### COMPILATION

#### Method

The photographs were adjusted by means of the radial plot method. The scale of the sheet as drawn is 1:11,905. Although the scale factor as computed was 0.812, the value 0.84 was used, because the easterly end of this flight had already been plotted using the computed scale factor of 0.84. The true distances used in the scale factor computations were calculated as the square root of the sum of the squares of the latitude and longitude differences. Although these are not the exact true distances, they are within the necessary accuracy for these computations.

#### Adjustments of Plot

It was necessary to supply additional control in order to satisfy the requirements for orienting certain photographs. Two points were located, one by theodolite 3 point fix and the other out in from two theodolite 3 point fixes as the station could not be occupied. The theodolite 3 point fix "Lot" is not marked on the ground and does not appear on the sheet, but is designated on a sketch that is attached to this report. "Westchester Stack" which was out in from the theodolite fixes appears on the sheet as a topographic station. As there was considerable distortion on the wing prints of the one flight covering this area, marked adjustment was necessary in order to trace the detail of City Island, Hart Island and along the westerly edge of the sheet. This was accomplished by interpolation of the topography between radial plot control points, from two pictures whose radials for the same area were approximately at right angles to each other.

## Interpretation

No great difficulty was encountered in deciding the character of photographic details.

The field inspection was made by Mr. Charles More who walked the entire length of the shoreline and is assisting in writing this report.

High water lines on beaches were drawn in on a line which appeared to be the mean of the debris lines together with an approximation from daily curves computed from the Tide Tables. Exception to this apply to the north and south ends of Rodman Neck and the inlet south of station "Chester" on the west shore of the East Chester Bay. These places were inspected during the period of high water.

In East Chester Creek the high water line was drawn in by following the line of demarkation between dark and light areas on the photographs, which is the berm line, and it is believed reliable for charting. This line in general, agrees with the line shown on the blue prints of East Chester Creek, that were furnished by the office of the U. S. Engineer, 1st District, New York City.

Electric street railways are not visible on the photographs and field inspection was not made for them. Therefore no street railways are shown on this sheet.

## Conventional Signs

Only the usual graphic symbols were used as approved by the Board of Surveys and Maps.

A full double line indicates first class roads and a broken double line indicates roads of lesser importance and privately owned roads. A very poor road or trail is indicated by a single dashed line.

Railroads and rapid transit railways together with their yard and siding tracks are shown in outline form.

This is a highly populated district with practically every street being occupied on both sides with commercial buildings and residences. It was therefore deemed practical to show only the outstanding buildings on the interior of the mainland. Along the coast, all buildings were shown, except on City and Hart Islands. In this instance, only the larger buildings were shown because the photographs covering this area were considerably distorted and blurred.

Comment is directed to the great number of mosquito and drainage ditches in the marsh area and their interference with the conventional sign for marsh land.

The boundaries of shoal water areas were shown by a single dashed line. This was drawn in from inspection of the photographs only and may depart somewhat from true conditions.

## Character of Marshes

The marshes are covered by salt grass and are as a rule, barely covered at an extreme high or flood tide. The high water line adjacent to these areas is generally defined by a berm line. In the three marsh



areas on the mainland between Cherry Tree Point and the New York, New Haven & Hartford Railroad, the high water line is drawn at the back of the long grass. There is no definite berm in these places.

#### Information From Other Sources

The high water lines were drawn on the photographs from actual field inspection. These were further supplemented with sextant fixes taken at critical and questionable points along the shore line. These fixes appear on the field photographs *See Review*

Seven sextant fixes were taken along the high water line of both Hart Island and City Island. These were used for checking the positions of these islands because the wing prints covering these areas were blurred and distorted.

Low water lines were taken from photostats of the aluminum sheets Nos. F-6026 and F-6027 made by Lieut. Comdr. H. A. Cotton in November, 1933. The low water line was only used after carefully comparing them with the photographs that were taken at one (1) foot of tide, and noting in the memorandum of Lieut. Comdr. H. A. Cotton, "It was necessary to visit the entire low water area during the periods of low water and to locate the low water line with due regard to existing tidal conditions."

Following the same careful comparison, as noted just above, all the offshore rocks were put in from the same photostats.

The recovered U. S. E. stations were picked on the photographs by Mr. Joseph Andrews 3d and a photo radial plot made of these stations.

All bridges in this area are as listed in the 1927 edition of "List of Bridges Over the Navigable Waters of the United States", compiled by the U. S. Engineers Office. They also check with the descriptions in the 1933 edition of the Coast Pilot.

On Rodman Neck, the location of several roads are being changed, and east of City Island Avenue, the area has been cleared entirely of the bath houses and pavilions which appear on the photographs. Piers, yacht clubs, and boat yards along the entire shoreline of this area are being vacated and demolished by the City of New York as an improvement to the park.

Off the north east shore, which is known as Orchard Beach, the Park Department of the City of New York is constructing a retaining wall that will connect Rodman Neck with Hunter Island (shown on sheet No. F-5257). The plans also call for construction of a smaller retaining wall to the west that will also connect Rodman Neck to Hunter Island — and the area between these two walls is to be hydraulically filled for park area. The east shore of this area is to be filled for a bathing beach. Detailed white prints of the easterly retaining wall and typical beach section were furnished by the office of the Park Department of the City of New York, and accompany this sheet. The geographical positions of two common points on the southerly portion of the plans for the east retaining wall were scaled from this sheet and noted on the white print. Final plans for the west retaining wall were not available at this time, but a sketch of the preliminary plan was furnished by the same office and accompanies this sheet. The coordinates noted in this plan are based on the same origin as that used for the east retaining wall.

*The Blue Prints mentioned above have been turned over to the cartographic section.*

*B.G. Jones*

The pier on the east shore of East Chester Bay opposite station No. 6 (U.S.E.) has been demolished.

The bed of the Hutchison River at the head of East Chester Creek has been changed by dredging since the photographs were taken and its new position as determined by field inspection is shown on this sheet.

Geographic Names

Except as noted below, there were no changes of names on the U. S. C. & G. S. charts for this area.

New Names

The beach along the east shore of Rodman Neck is known as "Orchard Beach". This name is in general use in the immediate locality and it is also used by the Park Department of the City of New York as will be seen on the white print referred to in the fourth preceding paragraph. Not a new name. Appears on Chart No. 223

COMPARISON WITH OTHER SURVEYS

Junctions

This sheet matches the adjoining sheet to the north and south with no differences. All junctions are satisfactory.

The position and shape of both Hart Island and City Island check very well with the photostat copies of the aluminum sheets Nos. F-6026 and F-6027 of this area, made by Lieut. Comdr. H. A. Cotton in November, 1933.

Changes

Only previous charts and photostats of the aluminum sheets Nos. F-6026 and F-6027 were available for comparison.

The Datum Plane is changed from that of North American Datum to North American Datum 1927.

The north end of Hart Island has been cleared of the buildings shown on chart #223 and is now used as a burial ground by the City of New York.

On the west shore of Hart Island there are only the remains of the old seawall shown on chart #223 and the shore back of it has been eroded.

The entire character of City Island's east shore line has been changed from a more or less natural condition to that of almost complete development.

On the northerly portion of the east shore of City Island, the photostat of aluminum sheet No. F-6026 shows a sharp inlet that could not be verified on the photographs or in the field. Therefore it is not shown on this sheet.

The high water line along the northerly portion of the west shore of City Island is shown back of the piers and docks on aluminum sheet No. F-6026. On this sheet it has been broken at all piers and docks. ✓

The dock about 60 meters south of station "P. S. #17" was completed in November, 1933 and does not appear on the aerial photographs. The position of this dock was determined by sextant fix and field measurements. ?

A foot bridge now connects High Island to City Island and just north of it there is now a sand bar connecting these two islands. ✓

The northerly beach of High Island is shown on chart #223 as marsh, but at present, it is a sand and rock beach. Immediately in back of the high water line on the south shore of this island, there is a small marsh area. It is believed that the high water line, as shown on chart #223 and aluminum sheet #6026, is in error as this marsh area is covered with short grass, which is only under water at extreme high tide. Mr. More visited this area a second time and verified the original field inspection. ✓

The entire shore of Rodman Neck between the north end and station "Creek" is shown on chart #223 as marsh, but it is now a sand and stone beach. ✓

On the southerly portion of Rodman Neck the high water line is defined by a definite berm line and is shown further offshore than as shown on chart #223 or aluminum sheet #6026. This area was visited at high tide and checked with three sextant fixes taken at critical points, after noting that there was a disagreement between the two surveys. ✓

Immediately in back of the high water line at the most northerly point of Rodman Neck, there is a marsh area covered with short grass which is only under water at extreme high tides. Therefore it is believed that the high water line as shown on aluminum sheet #6026 is in error. ✓

The narrow neck at the south west entrance to Turtle Cove is defined by a definite berm line and its width as shown was measured in the field at approximately high tide. The high water line for this area on aluminum sheet #6026 is believed in error. ✓

About 700 meters south of station "Chester" on the mainland shore, the high water line is shown with a change. This marsh area was visited at high tide and is believed correct as shown. The high water line as shown on aluminum sheet #6026 for this area is believed to be for extreme high tide only as the area is covered with short grass. ✓

The marsh areas adjacent to East Chester Creek are gradually being filled in by the City of New York. ✓

At the approximate positions listed below, shoal areas are shown on the present chart, #223, but inspection of the photographs does not reveal these shoals definitely, so they have been omitted from this sheet. ✓

| Latitude               |    |      | Longitude              |    |      |
|------------------------|----|------|------------------------|----|------|
| Degrees-Minutes-Meters |    |      | Degrees-Minutes-Meters |    |      |
| 40                     | 51 | 1640 | 73                     | 47 | 610  |
| 40                     | 51 | 670  | 73                     | 48 | 760  |
| 40                     | 50 | 620  | 73                     | 48 | 1280 |
| 40                     | 50 | 00   | 73                     | 48 | 1350 |
| 40                     | 50 | 180  | 73                     | 47 | 612  |

Development on the mainland has greatly increased the number of streets in this area so that the upland is almost entirely subdivided.

The location of the New York, Westchester & Boston Railroad on Chart #223 does not check with the location as shown on this sheet which is known to be correct. *100 meters*

Field inspection of the cable areas as designated on Chart #223, was made for cable crossing signs. Their location was picked on the photographs and radial plotted. The plotted positions are pricked on the sheet and are further designated on the overlay by a black dot in a red square. The wording on the sign is also noted on the overlay. ✓

U. S. E. Survey of East Chester Creek

The grid on this sheet is the same as that on the U. S. Engineers blue prints of East Chester Creek which uses U. S. E. #19 as the origin and is shown at 2000 foot intervals.

| U. S. E. Station | Coordinates U. S. E.            | Coordinates Radial Plot | Comparison in meters | Remarks                                |
|------------------|---------------------------------|-------------------------|----------------------|--|
| 1                | S-7608.1<br>W-32.8              |                         |                      | No description                         |
| 2                | S-9198.8<br>W-720.3             |                         |                      | No description                         |
| 4                | S-9377.2<br>E-449.9             |                         |                      | No description                         |
| 7                | S-10111.4<br>E-2812.4           |                         |                      | No description                         |
| 8                | S-6839.7<br>W-767.4             |                         |                      | No description                         |
| 9                | S-5948.9<br>W-1049.3            |                         |                      | No description                         |
| 10               | S-6895.0<br>W-1691.2            |                         |                      | No description                         |
| 15               | S-1760.44<br>E-199.88           | S-1765.3<br>E-199.2     | + 1.4<br>- 0.2       | Recovered                              |
| 15A              | S-1769.6<br>E-214.9             |                         |                      | Lost                                   |
| ✓18              | S-2350.5<br>W-1057.98           | S-2351.1<br>W-1019.4    | - 0.2<br>-11.8       | Recovered                              |
| 19               | 0.0<br>0.0                      |                         |                      | Lost. Could not locate in limited time |
| R                | S-1300.6<br>(Stonewall) E-251.5 |                         |                      | Not looked for.                        |
| ✓Standard        | N-1701.16<br>W-1992.53          | N-1675.5<br>W-1988.2    | - 7.8<br>- 1.3       | Recovered                              |

| U. S. E. Station | Coordinates U. S. E.   | Coordinates Radial Plot | Comparison in meters | Remarks        |
|------------------|------------------------|-------------------------|----------------------|----------------|
| Bridge           | N-490.31<br>W-1466.99  | N-488.2<br>W-1436.9     | - 0.6<br>- 9.1       | Recovered      |
| Boston           | N-748.97<br>W-1038.3   |                         |                      | Lost           |
| Hollers          | N-193.6<br>W-460.64    |                         |                      | No description |
| Island           | S-263.3<br>W-765.2     |                         |                      | Boat Job       |
| Sinclair         | N-1694.47<br>W-1412.77 |                         |                      | Lost           |

| U. S. E. Station | Coordinates U. S. E.  | Coordinates Triangulation | Comparison in meters | Remarks        |
|------------------|-----------------------|---------------------------|----------------------|----------------|
| 3                |                       | S-8132.9<br>E-1135.2      |                      | No description |
| 6                | S-10018.7<br>E-1157.4 | S-10017.0<br>E-1156.2     | - 0.5<br>- 0.4       | No description |

In the two comparison tables above, the stations check with three exceptions. The intersection of station "Standard" is flat and it is difficult to pick the true intersection. Station "No. 18" was difficult to pick on the photographs and it is believed that it is picked wrong. It is also believed that station "Bridge" is not picked correctly on the photographs. *See review of book.*

#### Changes in Navigational Features

There is no important detail now shown on the chart that should be removed.

#### RECOMMENDATIONS FOR FUTURE SURVEYS

##### Error of Compilation

The compilation is believed to have a probable error of three (3) meters in position of well defined detail of importance for charting. At points adjacent to the northwest edge of the sheet, the probable error is six (6) meters, as this area falls beyond the 2/3 point of the wing prints. Although City Island and Hart Island also fall beyond the 2/3 point of the wing prints, several sextant fixes were taken at critical points along the high water line to verify their position.

##### Work Incomplete

Due to the changes that are being made over the entire area and shore line of Rodman Neck, it is recommended that a re-survey be made at some future date when all changes are complete. These changes are discussed under the heading "Comparison With Other Surveys".

To the best of my knowledge and belief, this sheet is complete in all detail of importance for charting purposes within the accuracy stated above and that no additional surveys are required except as noted in the paragraph entitled "Work Incomplete" under the heading "Recommendations for Future Surveys".

Respectfully submitted,

Assisted by:

*Charles More*

Charles More,  
Surveyor, U. S. C. & G. S.

*Lloyd E. Marsh*

Lloyd E. Marsh,  
Draftsman, U. S. C. & G. S.

12

SCALE FACTOR COMPUTATIONS

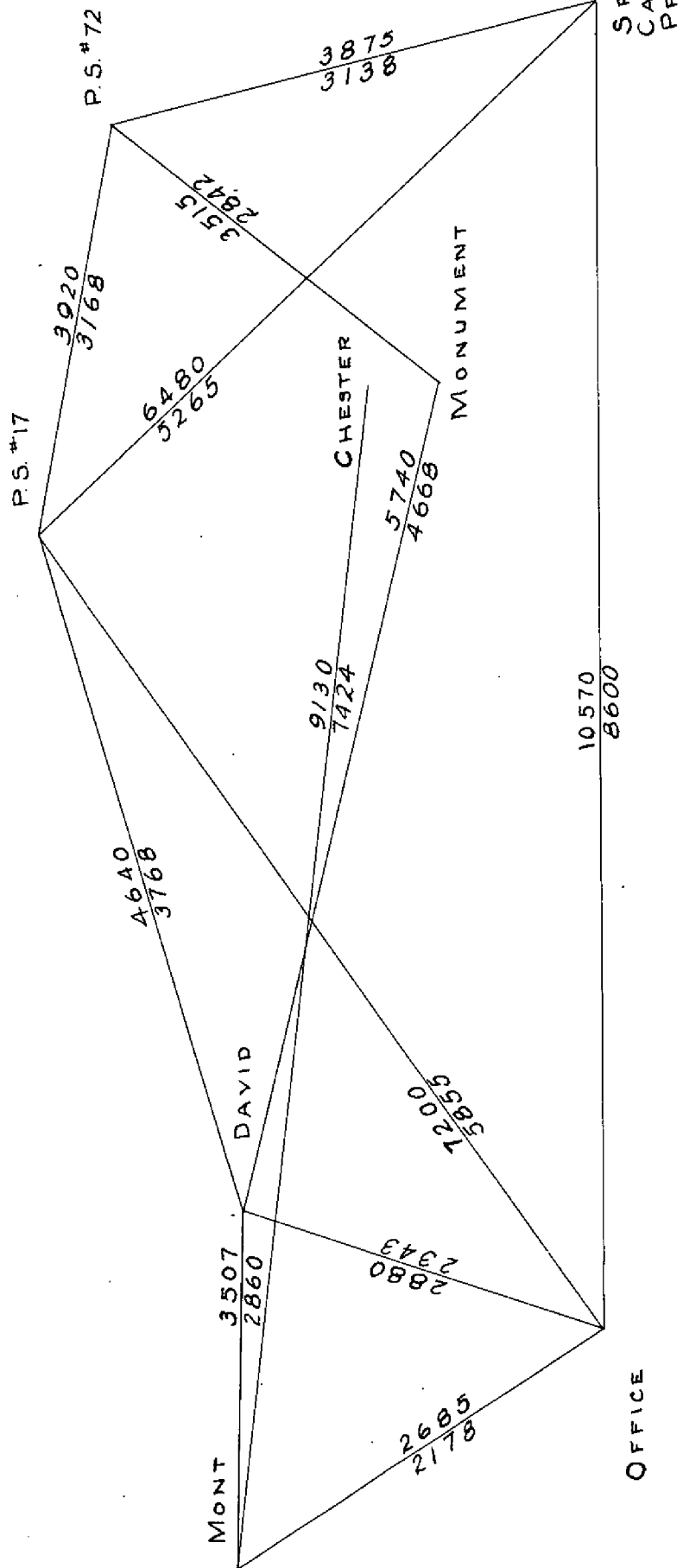
Photographs M-397 to M-423

|                                    | <u>Measured</u> | <u>Computed</u> | <u>Factor</u> |
|------------------------------------|-----------------|-----------------|---------------|
| Spire (Cath. Protective) to Office | 8600            | 10570           | 0.813         |
| P. S. #17                          | 5265            | 6480            | 0.812         |
| P. S. #72                          | 3138            | 3875            | 0.809         |
| P. S. #72 to Monument              | 2842            | 3515            | 0.808         |
| P. S. #17                          | 3168            | 3920            | 0.809         |
| P. S. #17 to Office                | 5855            | 7200            | 0.813         |
| David                              | 3768            | 4640            | 0.812         |
| David to Mont                      | 2860            | 3507            | 0.815         |
| Office                             | 2343            | 2880            | 0.813         |
| Monument to David                  | 4668            | 5740            | 0.813         |
| Chester to Mont                    | 7424            | 9130            | 0.813         |
| Office to Mont                     | 2178            | 2685            | 0.813         |
|                                    |                 | Average Factor  | 0.812         |
|                                    |                 | Factor Used     | 0.84          |

Computed by: Charles More

Ckecked by: H. W. Jennings

DIAGRAM FOR SCALE  
FACTOR COMPUTATIONS

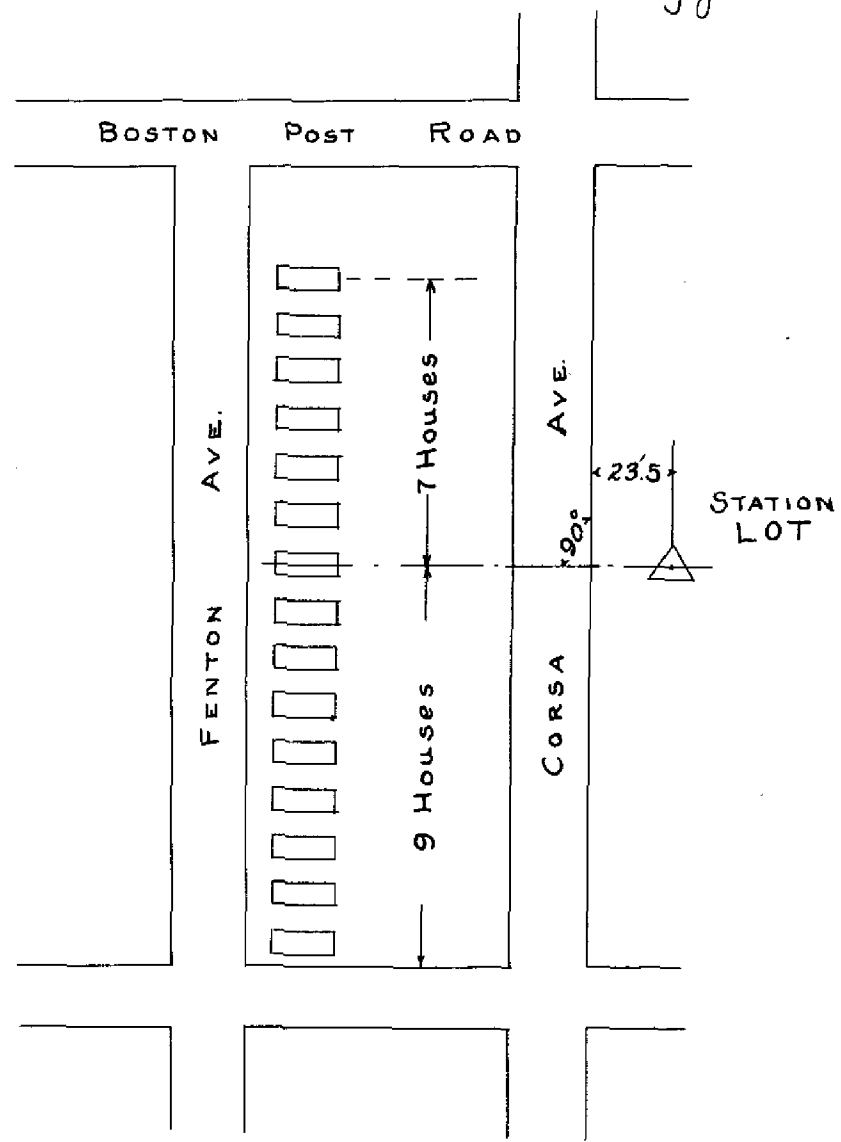




SKETCH OF STATION "LOT"

Theodolite 3 Point Fix  
Not Shown on The Sheet

This station is marked on the celluloid  
by a hole and is identified on the  
photographs and will be available  
for future control of photographs.  
B.G.J.



## STATISTICS

|  |                              |
|--|------------------------------|
| 1. Area of land detail inked   | 13.4 Square Statute<br>Miles |
| 2. Length of shoreline (more than 200<br>m. from nearest opposite shore) | 13.8 Statute Miles           |
| 3. Length of shoreline (rivers and<br>sloughs less than 200 m. wide)     | 18.8 Statute Miles           |

Scaled by: Lloyd E. Marsh

Checked by: S. Lebowsky

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Bridgesport, Conn.

January 3, 1935

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.

G. C. Mattison

Chief of Party.

| DESCRIPTION  | POSITION |    |              |           |    | METHOD OF DETERMINATION | CHARTS AFFECTED             |           |
|--|----------|----|--------------|-----------|----|-------------------------|-----------------------------|-----------|
|  | LATITUDE |    |              | LONGITUDE |    |                         |                             | DATUM     |
|  | °        | '  | D. M. METERS | °         | '  |                         |                             |           |
| FLAGPOLE   | 40       | 51 | 923.0        | 73        | 48 | 83.0                    | N. A. 1927<br>Sounded       | 223, 1213 |
| MONUMENT (Gilded Top)  | 40       | 51 | 474.6        | 73        | 49 | 580.5                   | N. A. 1927<br>Triangulation | 223, 1213 |
| STACK (Power Plant, Hart Island)   | 40       | 51 | 103.0        | 73        | 48 | 250.4                   | N. A. 1927<br>Triangulation | 223, 1213 |
| NOTE: Monument and stack are already shown on the present charts.  |          |    |              |           |    |                         |                             |           |
| A list of landmarks for charts on form 567 for the area covered by this sheet was submitted by Lt. Cdr. H. A. Cotton in 1933. In addition, the objects listed above are prominent and therefore recommended as landmarks. These objects were observed only from opposite shores, and not from the water. |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |
|  |          |    |              |           |    |                         |                             |           |

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.

JOB SHEET NO. 12

|   |   | Date     |
|---|---|----------|
| Photographs Trimmed by:                     | Lieut. R. C. Bolstad's New York<br>Compilation Party                |          |
| Field Inspection by:                        | Charles More  |          |
| Intersection & Control<br>Points Marked by: | Lieut. R. C. Bolstad's New York<br>Compilation Party                |          |
| Photographs Mounted by:                     | Lieut. R. C. Bolstad's New York<br>Compilation Party & Charles More |          |
| Radial Lines Drawn by:                      | Lieut. R. C. Bolstad's New York<br>Compilation Party & H.W.Jennings |          |
| Preliminary Radial Plot<br>by:              | Charles More  | 4/9/34   |
| Scale Factor Computation<br>by:             | Charles More  | 4/10/34  |
| Scale Factor Computation<br>Verified by:    | H. W. Jennings  | 4/10/34  |
| Polyconic Projection by:                    | H. W. Jennings  | 4/17/34  |
| Polyconic Projection<br>Verified by:        | Charles More  | 4/17/34  |
| Triangulation Stations<br>Plotted by:       | H. W. Jennings  | 4/18/34  |
| Triangulation Stations<br>Verified by:      | Charles More  | 4/19/34  |
| Smooth Radial Plot by:                      | Lloyd E. Marsh  | 7/5/34   |
| Tracing of Photographic<br>Detail by:       | Lloyd E. Marsh  | 8/1/34   |
| Preliminary Inspection<br>of Sheet by:      | Charles More  | 12/13/34 |
| Final Inspection of<br>Sheet by:            | G. C. Mattison, Chief of Party                                      | 12/21/34 |
| Forwarded to Office:                        | January 3, 1935   |          |

18

REVIEW OF PHOTO COMPILATION T-5264 (1935)

The compilation has been reviewed and compared with previous surveys in the same locality with the following results.

Comparison with T-6027 (1933)

This is a plane table survey on a scale of 1:10,000. It covers the area of Hart Island on the compilation.

All the rocks shown on the compilation had been transferred in the field from a bromide of T-6027 that apparently was distorted for the comparison with T-6027 did not check positions by various small amounts. These rocks were all replotted in the office and the elevations and descriptive notes added. *Elevations have been added to the compilation for only the more important rocks. Not all elevations of rocks given on T6027 are shown on this compilation.*

Except for magnetic declination and temporary plane table stations the compilation now includes all information on T-6027.

Comparison with T-6026 (1933)

This is a plane table survey on a scale of 1:10,000. It covers the major part of the compilation. See the discussion on pages 7 and 8 of the descriptive report for a comparison of differences. In addition thereto the shoreline about the point at lat.  $40^{\circ}51.9'$ , long.  $73^{\circ}47.8'$  shows as a ledge on the compilation and boulder strewn on T-6026. The point at lat.  $40^{\circ}50.7'$ , long.  $73^{\circ}48.9'$  shows as boulder strewn on the compilation and as ledge on T-6026. The length, shape and azimuth of several piers show minor differences. An examination of the field photographs shows the area to have been adequately inspected by the field party and the compilation is accepted except for differences discussed in the following paragraph in comparison with T-6111 which supersedes T-6026 in part.

All rocks shown on T-6026 that were not shown on the compilation were added in the office, there were seventy one such rocks most of which were in Pelham Bay. All rocks that were transferred to the compilation in the field had to be replotted in the office as they did not check T-6026 by small amounts. ~~All~~ elevations of rocks and explanatory notes were added in the office. \* A pier on the west side of the southerly tip of Rodman Neck and the sunken breakwater about 300 meters north of Cherry Tree Point was transferred to the compilation. *\* Elevations have been shown on this compilation for only the more important rocks. Not all elevations of rocks as given on T6026 are shown on the compilation.*

Except for temporary plane table stations, magnetic declination and items as noted above the compilation includes all information on T-6026.

Comparison with T-6111 (1934)

This is a plane table survey on a scale of 1:10,000. The following recoverable stations were marked (d) on T-6111. Form 524 had not been submitted but they were transferred to the compilation pending

Descriptions were submitted on Form 524 for the stations on page 19 subsequent to the completion of this review. All checked satisfactorily except "Post" which plotted 30 meters southwest of its described position and is obviously in error. It is rejected and a note made in green ink on T-6111 that its position is doubtful. J<sup>3</sup><sub>10-3-35</sub>

receipt. CLUB, TOM, POST, BAR, CHY, POLE, FLAG, WHITE, EAST, WEST.  
(Plotted by J.A.<sup>3</sup>; checked by Bgg). See opposite page.

The offshore detail at head of Eastchester Bay north of Middle Rock to the Pelham Road highway bridge does not agree with the compilation or T-6026. T-6111 is a resurvey of parts of T-6026 to verify differences and is of more recent date than the photographs so the compilation was changed to agree therewith.

The shape of the pier just east of "CITY, 1933" at Beldens Point on T-6111 did not agree with T-6026 but did agree with the compilation. The length of this pier on T-6111 did agree with T-6026 but did not agree with the compilation. The length therefore has been changed to agree with T-6111 and T-6026 and the shape is retained.

There is considerable discrepancy in the H. W. line between the railroad bridge and the Pelham Road highway bridge on both sides of the East Chester River, and these bridges are displaced about 10 meters southerly on T-6111. A careful inspection of the photographs indicates adequate field inspection was made, the H. W. line was carefully drawn, there is ample control for proper orientation and the compilation is accepted. The topography on T-6111 for the areas where it differs from T-6026 at Belden Point; the vicinity of "FLAG" and the vicinity of "Chester, 1932" is accepted and the compilation now agrees with T-6111 except as noted above for the area it covers.

Comparison with T-4777 (1933)

This is a plane table survey on a scale of 1:10,000. The following U. S. E. stations were transferred to the compilation from T-4777: STANDARD, HEFFERN, LATTING ST. SEWER, FRED M., END, NO.18. (Plotted by J.A.<sup>3</sup>; Checked by Bgg).

Attention is called to the fact that there are two U. S. E. stations on the compilation with the same name "STANDARD", one at lat. 40°50.2', long. 73°50.3' and the other at lat. 40°53.5', long. 73°49.5'.

There was considerable discrepancy in the location of the Bronx River north of lat. 40°50.0' to E. Tremont Ave., being displaced as much as 30 meters. An examination of the photographs revealed that an insufficient number of supplemental control points had been plotted to adequately delineate the river. Several more points were added and a new radial plot made for this area. It developed that these new points relocated the river to substantially agree with T-4777 and the compilation has been revised accordingly. Reference to the descriptive report of T-4777, page 1, discloses that this river lies within an area particularly noted as being determined from a traverse that closed without error and is therefore accepted.

Three wharves and a wreck shown on T-4777 on the west bank of the Bronx River were transferred to the compilation.

Differences up to 20 meters was noted in the H. W. line of Westchester Creek and a marked variance of detail. Examination of the photographs shows that the field inspection was not adequate, the detail on T-4777 compares more favorably with the photographs and is a better authority. T-4777 is accepted for the area of West Chester Creek and the compilation has been changed to agree therewith.

Comparison with T-1515a - bis (1886)

This is a plane table survey on a scale of 1:10,000. All rocks on T-1515a - bis are located on the compilation or covered by the latest hydrographic surveys.

Comparison with H-5547 (1934)

This is a hydrographic survey on a scale of 1:10,000. All rocks shown on the compilation agree with H-5547 and H-5407 which overlaps at Hart Island. There are several minor differences in H. W. line and shore front detail about City Island, High Island and the southerly end of Rodman Neck. Comparison with the field photographs which shows a very complete inspection of detail and in view of the statement in the descriptive report on pages 6, 7, and 8 the compilation is accepted.

There are several small differences in low water line. At Chimney Sweeps a 16 foot sounding falls inside the low water line. No change was made in the compilation pending review of H-5547.

U. S. E. Grid

Only 5 out of 20 U. S. E. stations were recovered on the photographs and of these only 3 intersected radially with sufficient accuracy desired for plotting; see page 9 of the descriptive report for results obtained.

With such a doubtful margin of control the grid has been omitted entirely from the compilation as any print of the U. S. Engineers can be applied directly to the compilation and ~~topographic~~ <sup>plane table</sup> surveys without additional control.

Comparison with Chart 223.

This chart is on a scale of 1:20,000 and the information thereon has been taken in part from the surveys discussed above. See pages 7, 8, and 9 of the descriptive report for comparison made by the field party.



\* In completing the review of T5264 it was found that the landmarks listed at the bottom of the opposite page were situated on plane table survey T6026 and have been added to the compilation 8/18/38 with one exception. Landmark Pergola at lat.  $40^{\circ} 51.2'$  long  $73^{\circ} 49.1'$  was located on both plane table surveys T6026 and T6111 and they differ by 1.0 mm. This landmark could not be recovered on the photograph is consequently could not be checked and has been omitted from the compilation. However it is recommended that the landmark be carried on ~~the~~ chart<sup>223</sup> as the chart is on a scale of 1:20,000 and the difference in location would be only 0.5 mm.

All described stations that are shown on T6026 and T6027 and covered by the compilation have been added to the compilation 8/18/38.

L. C. Landy

In addition thereto the compiler's attention is called to the following:

The authority for street names is an official map of New York City published by the Board of Estimate and Apportionment, Office of the Chief Engineer, dated May 15, 1933 filed with the Cartographic Section.

The name Jack Rock appears as Jacks Rock on the compilation.

The cable areas discussed on page 9 of the descriptive report plot within the present restrictive limits shown on the chart. They are not shown on the compilation.

The alignment of the N. Y., Westchester and Boston R.R., discussed on page 9 of descriptive report varies as much as 100 meters from the position on the chart. The compilation is accepted and the chart should be revised.

The pier at Lat. 40° 52.1', Long. 73° 47.8' and the H. W. line just west at Long. 73° 48.0' is changed.

A group of buildings and pier at Lat. 40° 52.7', Long. 73° 49.4' should be removed.

The azimuth of shore front detail at Lat. 40° 50.8', Long. 73° 47.0' is changed.

There is considerable change in H. W. line south of Givan Creek at Lat. 40° 51.7', Long. 73° 49.3'.

There is no evidence of a wreck as shown on the chart at south end of Hart Island, or a semicircular group of piles at the north end of City Island.

An island on the chart just south of High Island is now a sand bar.

There is considerable change in the shape of the Chimney Sweeps.

The following landmarks do not appear on the compilation or on the 1933 and 1934 plane table surveys.

|                                 |                |                 |
|---------------------------------|----------------|-----------------|
| - 1. E. Gable Boat House.....   | Lat. 40° 50.2' | Long. 73° 46.9' |
| 2. Cupola .....                 | 50.8           | 47.1            |
| 3. Spire .....                  | 50.9           | 47.3            |
| - 4. Pergola on Yellow Ho. .... | 50.8           | 47.5            |
| - 5. W. Gable.....              | 51.4           | 46.9            |
| 6. Steeple.....                 | 51.3           | 47.5            |
| - 7. E. Gable.....              | 51.4           | 47.9            |
| 8. Flagstaff.....               | 51.9           | 47.8            |
| - 9. Flagstaff.....             | 51.5           | 48.2            |
| 10. Stone Ho. N. E. Chy. ....   | 50.4           | 48.9            |
| - 11. Pergola .....             | 51.2           | 49.1            |
| - 12. N. Chy. ....              | 51.5           | 47.5            |

\* See opposite page

No authority was found for the omission of these landmarks. These landmarks could not be identified as such on the photographs in the office. They are not disproved. See page 16 of descriptive report for list of landmarks submitted on Form 567.

General

The projection is satisfactory and instructions for the project have been complied with. The celluloid was received from the field drawn on a skew projection, this was altered in the office so it is now normal.

The compilation is adequately controlled and well made although the inking is quite heavy and considerable negative work will be required to clear up lines that have run together in lithographing. The descriptive report is exhaustive and shows careful and painstaking work by the field party.

Blue prints of changes now in progress by the City of New York mentioned on page 6 of the descriptive report have been turned over to the Cartographic Section. In this connection reference is made to the statement in paragraph 16 on page 20 of the descriptive report.

A better description of the accuracy as stated on page 10 of the descriptive report would be 3 to 6 meters for intersected points and 5 to 10 meters for other detail.

Respectfully submitted,

*Joseph Andrews* 33  
Joseph Andrews 3rd  
Reviewer.

June 6, 1935.

Inspected by: *B.G. Jones*

~~Chief, Air Photo Section~~

*Advance chart paper print of T 5264 registered 10/16/35 pending retouching of drawing and printing of whatman's copy of Division of Charts. Refer to page 4 of the review for additional notes made 8/18/38 when T 5264 was completed and published*

*L.C. Hardy*

Date. 1-14-35

## GEOGRAPHIC NAMES

1/2 Survey No. T-5264Chart No. 223

Diagram No. \_\_\_\_\_

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

C, Not Approved by the Division of Geographic Names, Department of Interior.

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

| Status | Name on Survey           | Name on Chart                 | New Names in local use   | Names assigned by Field | Location |
|--------|--------------------------|-------------------------------|--|-------------------------|----------|
|        | <u>South Nonations</u>   | <u>same</u>                   |  |                         |          |
|        | <u>The Blauzes</u>       | <u>same</u>                   |  |                         |          |
|        | <u>Hart Island</u>       | <u>same</u>                   |  |                         |          |
|        | <u>Rat Island</u>        | "                             |  |                         |          |
|        | <u>Green Flats</u>       | "                             |  |                         |          |
|        | <u>High Island</u>       | <u>same</u>                   |  |                         |          |
|        | <u>Chimney Sweeps</u>    | "                             |  |                         |          |
|        | <u>Jacks Rock</u> ?      | <u>Jack Rock</u>              |  |                         |          |
|        | <u>Orchard Beach</u>     | <u>same</u>                   |  |                         |          |
|        | <u>Pelham Bay</u>        | <u>same</u>                   |  |                         |          |
|        | <u>Rodman Neck</u>       | "                             |  |                         |          |
|        | <u>City Island</u>       | "                             |  |                         |          |
|        | <u>Middle Rock</u>       | "                             |  |                         |          |
|        | <u>Aide Island</u> out   | "                             | There is a discrepancy in this name. This appears to be no longer an island. | Delete.                 |          |
|        | <u>Turtle Cove</u>       | "                             |  |                         |          |
|        | <u>Eastchester Bay</u> ? | "                             |  | move on T 5264          |          |
|        | <u>Medix Verhob</u>      |                               |  | not on T 5264           |          |
|        | <u>Pelham Manor</u>      |                               |  | not on T 5264           |          |
|        | <u>East Chester</u>      | <u>Eastchester (one word)</u> |  |                         |          |
|        | <u>Eastchester Creek</u> | <u>East Chester Creek</u>     |  |                         |          |
|        | <u>Goose Island</u>      | <u>same</u>                   |  |                         |          |
|        | <u>Bay Chester</u>       | <u>Baychester (one word)</u>  |  |                         |          |



## REVIEW OF AIR PHOTO COMPILATION NO. 5264.

Chief of Party:

*J. C. Mattisen*

Compiled by:

*L. E. Marsh*

Project:

*H. I. - 150*

Instructions dated:

*Aug. 10, 1933*

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, 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)
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)
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.
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, X)
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)
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)  
*See U.S.E. Report and Coast Pilot*
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)
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.  
*after completion of contemplated improvements in Parks, it will be advisable to obtain completed maps of the projects, and have them verified and oriented in the field.*

17. Remarks:  
*The large errors found in three U.S.E. stations are probably due to the difficulty in picking them on the photographs.*

✓ 18. Examined and approved; *Jan. 3, 1935*

*G. Mattison*  
 Chief of Party

✓ 19. Remarks after review in office:

Reviewed in office by: *Joseph Andrews* & *B.G. Jones*

Examined and approved:

*C. K. Green*  
 Chief, Section of Field Records

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

*B. Borden*  
 Chief, Section of Field Work

*Glade*  
 Chief, Division of Hydrography and Topography.