**DEPARTMENT OF COMMERCE**

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

**State** NEW YORK

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Topographic</th>
<th>Sheet No. B and C</th>
<th>4777</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4777</td>
</tr>
</tbody>
</table>

**LOCALITY**

East River.

Bronx River to Westchester Creek.

Port Morris and Lawrence Point.

19.35

**CHIEF OF PARTY**

I. E. Rittenburg.
DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEETS "B" AND "C" EAST RIVER, NEW YORK HARBOR, PROJECT H. & T. #152, 1933.

AUTHORITY

Work on these sheets was done in accordance with orders of Aug. 9, 1933 and written instructions of Sept. 2, 1933.

LOCALITY

The area covered by these sheets is from the Hell Gate bridge, East River, through the north side of Rikers Island to triangulation sta. Old at the East entrance to Westchester Bay, Westchester Creek and Bronx River.

CONTROL AND METHODS

Triangulation stations of Lieut. Woodworth 1932 formed an excellent framework of horizontal control. Almost anywhere on these sheets it was possible to obtain a good strong three point fix. For supplemental control, orthodox plane table methods were used. Sheet C, the western sheet, was controlled exclusively by cuts from triangulation stations, resection and three point fixes. No traverses for control were run on this sheet. The only traverses on this sheet were between adjacent signals for the rodding of shoreline. For the location of the West pier of the Hell Gate Bridge a three point fix was taken nearby and the pier rodded in from this fix. On sheet "B" most stations in the East River, lower Bronx River, and Lower Westchester River, were cut in from triangulation stations with no triangles of error. In Bronx River above station Bronx, 1932, it was necessary to run a traverse from Sta. Bronx to the 174th St. Bridge. A three point fix was taken here which showed an error of 4 meters in azimuth and no error in distance. From this bridge the remainder of the Bronx River shown was entirely controlled by three point fixes. No errors between these fixes and the rodded locations of the signals at which these fixes were taken were found. In Westchester Creek, all the signals to Sta. West, 1932, were cut in by intersecting cuts. North of Sta. West the Gas Holder, 1932 was tied into with no error. At the North end of Westchester Creek a three point fix was taken on top of an apartment house and a rod reading taken to signal Fred U. S. E., which had previously been located by traverse etc., and no error in position was found. These two sheets are on the N. A. 1927 Datum obtained by adding a correction factor to the geographic positions of Lieut. Woodworth's triangulation of minus 11.5 meters to all latitudes and plus 3.8 meter to all the longitudes.

MARKERS OF OTHER AGENCIES

An effort was made to tie in all the markers of other bureaus in this area. All the U. S. Engineers marks were searched for and those found were located by topography. These are shown on the accompanying list of recoverable stations and circled on the accompanying blueprints. Numerous recoverable street monuments of the Borough of the Bronx were also located and shown on the sheet and blue prints. With these locations and other well defined prominent features every blue print of either the U. S. Engineers Borough of the Bronx, Harbor Line Board etc. can be applied directly to this survey, with no other control needed. At least 3 common points are now located on every blueprint which enters into the construction of this area of Chart 226. The several U. S. E. stations located will also serve to apply future soundings of that bureau to the chart. To simplify future chart corrections submitted by the U. S. E., it is recommended that the U. S. Eng. grid be laid down on these sheets with the stations shown as a basis.
GENERAL. Westchester Creek, Bronx River, Puggaloys Creek were carried to the head of tidewater in each case. At the northern limit of these three creeks dams are built as shown on the sheet "B". The limits of the marsh on sheet B were actually rod in all cases except the small marsh at W. side of the mouth of the Bronx River. As the aerial photographs are being reduced for this area every little detail back of the H. W. line was obtained. Several street intersections were obtained to aid in future air photo reductions and compilations. The two piers for the Hell Gate Br- Bridge shown on sheet "C" were also located for this purpose. L. W. is to be obtained from the hydrographic sheet after it shall have been verified. The little bight shown on sheet "C" just N. E. of N. Chimney N.Y. Central R. R. has a large number of piles, dolphins, and log rafts used in connection with an apparently abandoned marine railway.

LANDMARKS PHOTOCONTROL POINTS & LIST OF RECOVERABLE STATIONS.

There is attached to this report a list of landmarks points for the control of air photographs, and a list of recoverable stations. Blue prints showing the U. S. E. stations and the Borough of the Bronx topo and street monuments are attached for reference purposes only.

R. S. Spaulding,
Observer,

I. E. Rittenburg, Lieut.,
Chief of Party.
AIR PHOTO CONTROL POINTS LOCATED BY TOPOGRAPHIC PARTY

The following points will serve as good air photo control points in the future. The objects located by Lieut. Woodworth are not included in this report.
N. End of Westchester Creek showing bridge, dam and street.
Bridges across Westchester Creek and Bronx River.
N. End of Puggsleys Creek
N. End of Bronx River
the 2 Hell Gate Bridge piers.

RECOVERABLE TOPOGRAPHIC STATIONS AND DESCRIPTIONS

The 43 U. S. Engineers stations shown on the sheets for which the descriptions are attached.
Various street monuments of the Borough of the Queens.
Sig. Far W. end of W. Ferry Gate, Classon Pt.
Sig. Bor, Beacon, N. end N. Brother Is.
Chimney on N Brother Id.
Bridge piers Hell Gate Bridge.
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.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>DATUM</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas holder - Hunts Pt.</td>
<td>40 48</td>
<td>959</td>
<td>73 52</td>
<td>Triangulation</td>
<td>226 - 1213</td>
</tr>
<tr>
<td>N. Chy.-Gas Plant</td>
<td>40 48</td>
<td>580</td>
<td>73 52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. Chy.-Gas Plant</td>
<td>40 48</td>
<td>567</td>
<td>73 52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W. Chy.-Gas Plant</td>
<td>40 48</td>
<td>603</td>
<td>73 52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chy. Gates Mfg. Co.</td>
<td>40 48</td>
<td>768</td>
<td>73 53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. Chy.-N.Y.C.R.R.</td>
<td>40 48</td>
<td>560</td>
<td>73 54</td>
<td></td>
<td></td>
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<tr>
<td>S. Chy.-N.Y.C.R.R.</td>
<td>40 48</td>
<td>529</td>
<td>73 54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.W. Stack of S-GME Co.</td>
<td>40 47</td>
<td>1669</td>
<td>73 54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chy.-Lawrence Pt.</td>
<td>40 47</td>
<td>739</td>
<td>73 54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof tank - Oaks Mfg. Co.</td>
<td>40 46</td>
<td>1648</td>
<td>73 55</td>
<td></td>
<td>369</td>
</tr>
<tr>
<td>Tank - Astoria Import</td>
<td>40 46</td>
<td>1539</td>
<td>73 58</td>
<td></td>
<td>369</td>
</tr>
<tr>
<td>Tank - Steinway &amp; Co.</td>
<td>40 46</td>
<td>1481</td>
<td>73 55</td>
<td></td>
<td>369</td>
</tr>
<tr>
<td>Wind indicator-Airport</td>
<td>40 46</td>
<td>1368</td>
<td>73 52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clock tower-W. &amp; J. Sloane</td>
<td>40 45</td>
<td>1180</td>
<td>73 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoulder-Flushing</td>
<td>40 46</td>
<td>133</td>
<td>73 49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A list of objects carefully selected because of their value as landmarks as determined from seaward together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it: for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.


E. S. Rittenberg, Captain Office 1933.
REVIEW OF TOPOGRAPHIC SURVEY NO. 4778

Title (Par. 56) Port Morris - Lawrence Pt. East River, New York

Chief of Party: E. Rittenburg Surveyed by R. S. Spaulding Inked by R. S. S.


1. ✓ The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.)

2. ✓ The character and scope of the survey satisfy the instructions.

3. ✓ The control and closures of traverses were adequate. (Par. 12, 20.)

4. The amount of vertical control that the Manual specifies for contours - formalines - was accomplished. (Par. 18, 19, 20, 21, 22, 23.) There are no contours or vertical control on this sheet.

5. The delineation of contours - formalines - is satisfactory. (Par. 49, 50.)

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) (Name of U.S. Coast Guard) A number of photostats of U.S. charts with descriptions and coordinates were also submitted (these were given to Coast Survey for filing.)

7. ✓ High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)

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.)

(See notes on reverse side.)

9. ✓ Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

10. The span, draw and clearance of bridges are shown. (Par. 16c.)

11. Locations and elevations of minefields are given. (Par. 19, 51.)

12. High water line was shown on mountains. (Par. 16g.)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.
1. Just off shore, about 125 meters south of Sta. "Stack" (G.E.Co.) 1932, there are three dots. (These dots are not clear. It is not clear what these dots represent.) They are possibly pilings.

2. On the chart there is a rocky shore line shown just north west of Sta. Bowley (1932). This survey does not show any rocky area in this vicinity.

3. The mark symbol on this survey is not drawn according to the standard symbol. (See note on 14177) (See page 169, Topo. Manual.)

4. Between Sta. Woodley W.S.E., and Tisdale W.S.E., there is an indelk line from the shore running out between two rocks seaward. It is not clear what this line represents.

5. There are no topographic names shown on this chart.

6. "Pilings" in the place of starlings in dredge channel, northern portion.?
13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.)

14. The descriptive report also contains additional information required in aero-topography relative to type of photographe, method of compilation and type of ground control.

15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DPs and DPs, 68.)

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

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.)

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

19. Junctions with contemporary surveys are adequate. There are no contemporary control surveys in this area.

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) No names are shown on this survey.

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.)

22. No additional surveying is recommended.

23. The Chief of Party inspected and approved the sheet and the descriptive report after review by . There is no definite statement that the chief of party has inspected or approved this sheet.


Reviewed in office by John E. Read

Examined and approved:

Examiners

Chief, Section of Field Records

Chief, Section of Field Work

Chief, Division of Charts

Chief, Division of Hyd. and Top.
REVIEW OF TOPOGRAPHIC SURVEY No. 4777

Title (Par. 56) Bronx River to Westchester Creek, East River, New York.

Chief of Party: L.E. Rittenburg
Surveyed by R.S. Spaulding
Inked by R.S.S.  


1. ✔ The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.)

2. ✔ The character and scope of the survey satisfy the instructions.

3. ✔ The control and closures of traverses were adequate. (Par. 12, 29.)

4. The amount of vertical control that the Manual specifies for contours forms lines was accomplished. (Par. 18, 19, 20, 21, 22, 23.) There is no vertical control and no contours on this sheet.

5. The delineation of contours forms lines is satisfactory. (Par. 49, 50.)

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) U.S. blueprints and a number of photostats of U.S. stations with their descriptions and coordinates were submitted. (These were given to Dept. See Seal Box 95 for filing.)

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)

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.)

(See note on reverse side.)

9. ✔ Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

10. The span, draw and clearance of bridges are shown. (Par. 16c.)

11. Locations and elevations of summits are given. (Par. 19, 51.)

12. The tree line was shown on mountains. (Par. 16g.)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.
1. in the vicinity of the mouth of Emptyeys Creek there are two topographic signs shown. There is no name given for these two signs.

2. West of Clason Point in the vicinity of N.S.E.B.R. 12 this survey shows three rocks awash but none of any sort. The chart shows a reef clean around this point.

3. A small black dot marked "Pie" is shown about 120 meters west of N.S.E. station "Barrello". From the size of this dot it appears that it is a pile rather than a "Pie".

4. A small black square (looks like a float) is shown about 60 meters north of N.S.E. "Standard", in upper Westchester Creek. This feature is lacking in identification.

5. The ward symbol on this sheet is not drawn according to the standard practice. (See page 109 - Topographic Manual).
13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.)

14. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.

15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.)

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

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.)

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

19. Junctions with contemporary surveys are adequate. There are no contemporary Coast Survey surveys in this area.

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 56, 37, 38, 29, 40, 41, 42, 45, 46, 47, 48, 49, 50.)

22. No additional surveying is recommended.

23. The Chief of Party inspected and approved the sheet and the descriptive report after review by the Chief of Party has examined and approved the sheet.

24. Remarks:

Reviewed in office by John L. Reed

Examined and approved:

[Signatures]

Chief, Section of Field Records

Chief, Section of Field Work

Chief, Division of Charts

Chief, Division of Hyd. and Top.
February 27, 1934.

To: Lieutenant Isidor Rittenburg,  
Coast and Geodetic Survey,  
Beaufort, South Carolina.

From: Chief, Division of Hydrography and Topography.

Subject: Review of Topographic Sheets, East River, New York.

Enclosed, for your information, is a copy of several notes prepared in the Field Record section at the time your last season's topographic sheets were reviewed. If the points in question cannot be cleared up without access to the sheets, you will please arrange to inspect the sheets in this office at the time you transfer your party from South Carolina to New York.

Chief, Division of Hydrography and Topography.

Enclosure.
To: Chief, Section of Field Work.

From: Chief, Section of Field Records.

Subject: Notes on topographic surveys, East River, New York.

The following notes are made in the review of topographic sheets 4777 and 4778, executed in the East River, New York by the party under Lieut. I. E. Rittenburg. It is suggested that these be called to his attention in order that any notes may be added to the sheets or descriptive reports to clear up the doubtful points raised.

T. 4778

Just offshore about 125 meters south of station "Stack", 1938, there are three dots. It is not clear what these dots represent.

On the chart there is a rocky shoreline just northwest of triangulation station "Bowery". No rocky area is shown in this vicinity. The question arises whether the topographer has examined this area closely.

Between U.S. E. triangulation stations "Woolsey" and "Tisdale" there is an inked line running out from the shore between two rocks awash. It is not clear what this represents.

There are no geographic names shown on the sheet.

T. 4777

In the vicinity of the mouth of Pugsley Creek there are two topographic signals shown without names.

West of Clason Point in the vicinity of U. S. E. B.R. 18 this survey shows three rocks awash but does not show the reef which is shown on the chart as extending entirely around the point.

A small black dot marked "Pier" is shown about 120 meters west of U.S.E. station "Barretto". From the size of this dot it would appear that it is a pier rather than a pier.
A small black square is shown about 60 meters north of U.S.E. signal "Standard" in Upper Westchester Creek. This feature should be identified by a proper note.

Just east of Hunts Point Light there are shown two piles. Referring to the hydrographic sheet of this vicinity it appears that these dots marked "Piles" are in the exact location of the black and red buoys marking the channel along the east side of Hunts Point. It is a question whether the topographic sheet is not in error in this respect.

Photostats of 43 U.S.E. stations were forwarded. The descriptive report mentions other recoverable stations. Form 524 was not accomplished so that the data desirable on this form can not conveniently be obtained for future revision.

On the two sheets the marsh symbol was not drawn according to the standard symbol.

(Signed) L.O. Colbert
Chief, Section of Field Records

The answers to the above mentioned doubtful points as indicated by Mr. Atkinson in pencil on the original have been applied to the original top sheet.

June 2, 1934
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. 4777

Graphic Control

State: New York

General locality: East River

Locality: Bronx River to Westchester Creek

Scale: 1:10,000

Date of survey: Sept. Oct., 1933

Vessel: Share Party 15

Chief of party: L. E. Rittenburg

Surveyed by: R. S. Spaulding

Inked by: R. S. Spaulding

Heights in feet above ground to tops of trees

Contour, Approximate contour, Form line interval...

Instructions dated: Sept. 2, 1933...

Remarks: ...
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

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. C

REGISTER NO 4778

State. New York

General locality. East River

Locality. Fort Morris and Lawrence Point

Scale 1:10,000 Date of survey Oct. 1933

Vessel Shore Party 15

Chief of party. I. E. Ritchieburg

Surveyed by R. S. Spaulding

Inked by R. S. Spaulding

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated Sept. 24, 1933 19

Remarks: 

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