5466

Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Air Photo
~~Topographic~~
~~Hydrographic~~ } Sheet No. T-5466

State New York 12

LOCALITY

Staten Island 18

~~Kill Van Kull~~ —
New Brighton and vicinity

1937

CHIEF OF PARTY

J.C.Partington Jr. H.& G.E.

U. S. GOVERNMENT PRINTING OFFICE: 1934

5466

Applied to Chart 285 Dec 14, 1937 Chas. R. Bush Jr.
" " 521 May 1938 [illegible]

Form 537a
Ed. Nov. 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. T-5466 **T5466**

REGISTER NO. T-5466

State New York

General locality Staten Island

Locality ~~West~~ New Brighton ~~and Tompkinsville~~

Scale 1/5000 Date of ~~survey~~ Photographs May 15, 1935 May 22, 1935 June 26, 1935, 19

Vessel Photo Compilation Party # 25

Chief of party J.C.Partington

Surveyed by Field Inspection -- J. Rippstein Compilation -- F.G. Erskine

Inked by E.L. Jones

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

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

Instructions dated March 14, 1934

Remarks:

GPO

STATISTICS

AIR PHOTO COMPILATION, REGISTER NO. T-5466

Photograph No.	date	time	Tide at St. George			
			high		low	
			time	hts.	time	hts.
V 171-172 (870N-8)	5-15-35	9:50a	5:35a	3.8'	11:40p	0.3'
			5:56p	4.9	11:44a	0.3
V 231-240 1.5' "	6-26-35	8:20a	3:47a	4.1	10:01a	0.0
1.2			4:23p	5.2	10552p	0.0
V ~~219~~-220 "	5-22-35	noon	10:47a	4.0	4:44p	-0.2
			10:59p	5.0	4:37	0.3
V 200-205 " 1.5	5-15-35	9:45a	see same date.			

SCALE FACTOR (1.000)---- R.C.Bolstad -------(previously determined)

PROJECTION ---------- Ruling machine -------- no date

PROJECTION CHECKED ------ F.G.Erskine ---------- no date

CONTROL PLOTTED---------- F.B. Kelley ---------- " "

CONTROL CHECKED --------- C.R.Bush ---------- " "

RADIAL LINE PLOT -------- F.B.Kelley ---------- " "
E.L.Jones ---------- May 24-28, 1937

RADIAL PLOT CHECKED ----- F.G.Erskine ---------- no date
E.L.Jones ---------- June 2-4, 1937

DETAIL INKED ---------- E.L.Jones ---------- June 5 to July 13, 1937

PRELIMINARY REVIEW ----- J.C.Partington -------- July 16-17, 1937

J.C. Partington

AREA(land area) ---------- 4.5 square statue miles

AREA (shoals) ---------- 0.0 " " "

LENGTH OF SHORELINE (more than 200m. form opposite shore) -- 18.6 sta. mi.

LENGTH OF SHORELINE (creeks) ---------- 1.8 " "

LENGTH OF STREETS, ROADS, RAILROADS & TRAILS ---------- 107.0 " "

GENERAL LOCATION: New York
LOCALITY; Staten Island
New Brighton

DATUM: North American 1927

STATION: Heart (N.Y.) 1931

Latitude 40° 38' 05.384" 166.1 meters ✓
Longitude 74° 06' 54.740" 1286.4 " ✓

(adjusted) ✓

N.J. Grid { X = 2,153,059.40 FT
Y = 656,681.10 FT.

L.I. Grid { X = 1,968,023.64 FT
Y = 149,141.69 FT

Compiler's Report
for
Air Photo Topographic Sheet, Register No. T-5466

GENERAL INFORMATION.

The field inspection for the area covered by this sheet is part of a special report covering the northern section of Staten Island, submitted by Lt. (j.g.) R.C. Bolstad in 1935. ~~Field inspection report filed with descriptive report of T-5107~~ ~~Field inspection done March 1934~~ Field inspection August 4, 1935 [Filed in Descriptive Report T5107]

This sheet was originally started in the Washington Office. In June 1937 the work on this sheet was resumed by Party # 25 in Baltimore, Maryland.

This sheet has been compiled from single lens photographs listed on page 2 of this report. These photographs were taken by the U.S. Army Corp at Mitchell Field, Long Island, N.Y., with a special camera developed by the Fairchild Camera Corporation, 62-10 Woodside Ave., Woodside, New York City and with the cooperation of the Air Corp. This camera is known as the "K-7C" by the Army and as "K-7A" by the Fairchild Corporation.

The Army plane was piloted by Lieut. Cullen at an altitude very close to 15,000 feet; the photographer was Sergeant Cates. A 24 inch cone (focal length 24") was used which placed the original negatives on a scale of 1:7500. Contact prints were furnished the field party for inspection purposes and the original negatives were used to enlarge a set of office prints to a scale of 1:5000. These office prints were furnished this party and were used to compile this sheet.

CONTROL.

The radial plot was controled by 21 triangulation stations, all of which are from Lieut. R.W.Woodworth's 1930-31 locations. All former Δ were relocated in 1930-31.

Recovery notes for two of Lieut. Woodworth's stations, "SPIRE (ASCENSION CHURCH) 1931 " and "CUPOLA (FERRY BUILDING) 1930", submitted by the field inspection party are included with this report. Additional information concerning these stations are given on the recovery notes. Recovery cards for above Δs were delivered to Div. of Geodesy.

COMPILATION.

(a) General

The radial plot was completed in the Washington Office before the sheet was turned over to this party except for a small portion on the northeast corner of the sheet in the vicinity of St. George and on the western limits along the junction with Air Photo Compilation Sheet No. T-5467.

(b) Method.

The usual radial line method was used in the compilation of this sheet. Radial points located by F.B.Kelley in the Washington Office are shown on the sheet encircled in blue; additional radial points located by this party are shown encircled in green. Radial points in blue and green removed from sheet.

Several radial points on the extreme north-east portion of

* all rocks on this compilation are above low water ~~datum~~ that submerged or partly submerged at M.W. are shown in ~~subdued tints~~ in bushen lines. BGF.

Staten Island were located by slim intersections. A stronger intersection was obtained by radial plotting photograph No. 232, the center of which fell in the water area to the east of the Island. This photograph was controled by triangulation and strong radial points previously located.

The photographs on flight V 168(870N) to V 187(870N) were rejected except for photographs V171(870N) and V172(870N). This flight was later retaken.

Tilted photographs were not used except where they were needed to control the plot and where the isocenter could be found by graphic methods. Radial lines were drawn from the isocenter on photographs No. V232(870N), V235(870N) and V240(870N). Displacement of Plumb Pt very large on these photos as the equivalent f=36 inches Isocenter used as elevations are slight except in cases of tall buildings. BGJ.

The varied relief on the eastern part of the Island and the off-scale enlargement of some of the photographs in this section made the adjustment of detail difficult.

Photographs V202(870N), V204(870N) and V205(870N) fall on the sheet but could not be made to fit in the radial plot and were not used.

Aside from the above no unusual adjustment of the plot was necessary.

(c) Interpretation.

No attempt has been made to show street car tracks on this sheet. Double railroad tracks have been generalized and are shown by a single track with a note "two tracks" on the overlay. Railroad yards have also been generalized and show approximately every third track. This is in accordance with instructions sent to Partington

The double full line has been used to show all first class roads and streets (curb to curb); the single dashed line to show trails; and the double dashed line to show second class roads.

An attempt has been made to show all buildings of any importance along the waterfront and a few of the more important buildings inland. The stereoscope has been used freely in determining the shapes of buildings.

Wrecks are shown in true size and shape with a full line, except where they appear submerged or partly submerged at high water in such case they are shown by a dashed line. Where notes were furnished by the field inspection party concerning these wrecks they were so noted on the overlay. 4 ✕

The overlay has been prepared in accordance with The Director's letter of June 28,1937.

(d) Recoverable Topographic Stations (Card Form 524) 7 Form 524 filed under T5466 " " " " T6126
Recoverable Topographic Stations (not described) 1 " " " " T6125

Recoverable topographic stations were radial plotted on the compilation where they could be identified on the photographs.

Geographic positions of USE stations were computed from coordinates and in general given preferrence over the air photo or plane table position. The following table affords a comparison between the air-photo, plane table and USE coordinate positions. The underlined distances in meters are shown on the sheet.

STATION	LATITUDE				LONGITUDE			
		AIR PHOTO	USE	PLANE TABLE		AIR PHOTO	USE	PLANE TABLE
Survey Sta. Pier #1 USE (d)	40° 38'	812 m	813.6 m		74° 04'	297 m	300.2 m	
Survey Sta. Pier #8 USE (d)	40 38		162.2		74 04		256.6	
Survey Sta. Pier#12 USE (d)	40 37		1464.7		74 04		245.0	
Survey Sta. Cotton #2, USE (d)	40 38	578	579.7		74 04	271	271.4	
Sta. Power Rack, USE (d)	40 38		1349.4	1349	74 06		831.2	837
Sta."New Power" 1923 USE (d)	40 38		1310.5	1311	74 06		964.6	968
City Mon. Snug Harbor, USE (d)	40 38	1332	1332.4	1333	74 06	336	335.9	342
Sta. Snug Harbor,1933 USE (d)	40 38	1372	1372.7	1374	74 06	369	369.6	370
Sta. Snug Harbor '33 Sub, USE (d)	40 38	1371	1372.5	1373	74 06	353	353.9	356
Sta. Peoples Ferry, USE (d)	40 38	1624	1623.2	1626	74 05	435	436.2	437
Sta. St. George Fog Bell, USE (d)	40 38	1301	1297.6		74 04	481	488.0	
Sta. B. & O. #6 Sub. # 1,1933, USE (d)	40 38	1595	1616.1	1590	74 04	787	808.4	789
City Mon.(Richmond Terrace & Van St.) USE (d)	40 38	808	809.0		74 07	331	333.4	
Sta. McWilliams '33, USE (d)	40 38	1045	1046.6		74 07	124	126.0	
Sta. Coaling, 1923, USE (d)	40 38	1727	1728.0	1726	74 04	1046	1048.0	1048
Stack,brick (125 feet high)	40 38	716			74 07	1152		
Sand, USE (d)	40 38	902	901.9	902	74 07	1275	1275.0	1279
Stack, brick	40 38	207			74 05	380		
City Mon. Clinton Ave., USE (d)	40 38	1240	1267.7	1237	74 05	1327	1326.6	1328

T 5465 air photographic survey Scale 1:5000
Planetable Surveys Scale 1:10000

AIR PHOTO LOCATION	REMARKS
4 radials, strong intersection	3m
no radials	
" "	
3 radials, strong intersection	
no radials	5.8 m. dif. in Long.; U.S.E. position noted on Form 524
" "	3.4 m. " " " ; " " " " " " "
3 radials, fair intersection	Plane table 6 meters in error in longitude U.S.E. position noted on Form 524
3 radials, fair intersection	
4 radials, fair intersection	
4 radials, strong intersection	
3 radials, strong intersection	7 m. dif. in Long; Air Photo position given on Form 524
4 radials, fair intersection	5m. dif. in Lat. between Air photo & planetable. Noted on Form 524
3 radials, fair intersection	USE coordinates are in error on Card Form 524 for this station. It is believed these coordinates are for station "B. & O # 6", which was not described by field inspection party. Corrected in description on form 524
4 radials, fair intersection	
4 radials, fair intersection	
3 radials, strong intersection	
3 radials, fair intersection	4m. dif. in Long; U.S.E. position noted on Form 524
3 radials, strong intersection	
3 radials, weak intersection	USE coordinates are 30 meters in error in latitude

		Air Photo	USE	Plane Table		Air Photo	USE	Plane Table
Stack,metal	40° 38'	416 m			74° 04'	534 m		
Flag tower	40 38	877			74 04	640		
S. Dock light	40 38	853			74 04	376		
N. Dock light	40 38	1002			74 04	422		
Stack, brick	40 38	1424			74 05	685		
Stack, brick	40 38	1406			74 05	666		
Stack, brick	40 38	1009			74 06	427		
Dome, Snug Harbor	40 38	884			74 06	285		
City Mon. (Bay & Broad Sts.) USE (d)	40 37		974.5		74 04		870.2	

This station removed from T 5465 and T 5466 upon review of card form 524 discarded because description location differed 120m. from position computed from U.S.E. coordinates.

Checked by J.C.P. June 23, 1937

(d) Recoverable Topographic Station (continued).

There is submitted with this report Card Forms 524 for all of the described topographic stations listed on pages 5 and 7 of this report except for stations "B & O. #6 SUB# 1, 1933, USE " and "Station COALING, 1923, USE . These stations are described - the original description is in the Washington Office.

On page 6 of this report there is listed the number of radials used to determine the radial points and the strength of the intersections. A fair intersection is taken as one where the probable error of position is believed to be not over 1½ meters.

It is to be noted that in the vicinity of St. George Ferry several air-photo positions of recoverable topographic stations have been shown on the sheet in preferrence to either the USE or plane table position. This was necessary since using the USE position would cause a "jump" in the topography and, also, since some of the USE positions may be in error. As an example take station "B. & O.# 6 SUB # 1, 1933, USE" The USE coordinates for this station plot on the opposite side of the dock from where the description places it and are the coordinates of a station called "B. & O. # 6" (see Corp of Engineers blueprint of this locality).

(e) Information from other sources.

(1) Control from sources as stated on page 3 of this report.

(2) Recoverable Topographic Stations as stated on page 5 & 7.

(3) Names from sources as listed on Form M234 in the appendix.

(4) Detail transferred from topographic sheets (so labeled on the overlay). T6381, T6125, T6126.

Except as mentioned above all other information shown on the sheet was taken from field inspection notes and the photographs.

(f) Names.

A list of geographic names shown on the sheet are listed on Form M234 in the appendix.

The names of streets may be obtained from the Map of the City of New York, Board of Estimate and Apportionment. filed in Air Phot. section ~~B.P. 25044, filed in vaults, is a better source for street names on this sheet~~

JUNCTIONS.

This sheet is bounded on the north by Kill Van Kull; on the east by New York Bay and forms a junction along latitude 40 37 30 with compilation T-5465 and T-5108 and along longitude 74 08 00 with compilation T-5467. Junctions: T 5467, checked T 5465, " ~~T 5466~~ T 5108, "

COMPARISON WITH OTHER SURVEYS.

Topographic sheet T-6381 (see review for further comparison)

(a) The dock arrangement between pier No. 13 and 14 at Stapleton does not agree with the compilation. It is believed that it has been changed since the plane table survey in 1934. This section being worked upon at time photos taken. The portion of dock existing at date of photos is outlined with dashed line

(b) A slight discrepancy in the length of a few of the piers was noted. T6381 was correct in most cases. Almost every pier in vicinity of Stapleton was lengthened on T 5466 upon review.

(c) It appears from the bromide enlargement of sheet T-6381 that triangulation station "St. George, Ferry Building Cupola, 1930" may have been plotted in error. If this is the case it would account for discrepancy in the location of the docks on the topographic sheet in this locality, since it was undoubtably used to end the topography in this corner of the sheet. Bromide enlargement badly distorted. Location of station on T 6381 is O.K.

Topographic sheet T-6126

This topographic sheet is in close agreement with the compilation. A few dolphin were transferred from sheet T-6126 to the compilation by adjusting their position to fit the surrounding topography. (see review for further comparison)

Topographic sheet T-6125

No comparison was made with this sheet since it was not available in this field office at this time. (see review for comparison)

COMPARISON WITH CHARTS.

Chart 285 (scale 1/15000)

(see chart section attached at end of this report for further comparison)

Due to the difference in scale between this chart and the compilation only a visual comparison was made. A few of the larger difference are as follows:

(a) The flashing green light on the south Light House Service Depot dock at St. George was not so inspected by the air-photo field inspection party in 1935. A light in about the same location was inspected and labeled "dock light on tower" the air photo position of which is shown on the sheet. Charted light not established at time of field inspection.

(b) A change in the inshore end of the dock between Pier # 13 and # 14 is noted. The wrecks in this slip are not shown on this chart.

(c) The northern-most dock at St. George is shown on the chart as being completely in ruins while on the compilation only the inshore end is in ruins.

(d) Wreckage and piling not shown on the chart in the small boat harbor at St. George Ferry was field inspected and shown on the compilation.

(e) Numerous streets not shown on the chart are shown on the compilation.

(f) There are considerable changes in the shoreline of the several small unnamed ponds or lakes appearing on the chart.

(g) There is no evidence on the photographs that the small creek making off to the south of Sailors Snug Harbor is as indicated on the chart. (revision of T 5466 upon review gives closer agreement to chart)

(h) The wreck shown on the west side of the mouth of Bodine Creek was not field inspected and was not shown on the compilation Added upon review, from photographic appearance.

Chart 541 (scale 1/10000)

A visual comparison with this chart indicates differences similar to thoes listed under Chart 285.

LANDMARKS

The landmarks shown on chart #285 are all in existence and should be shown on future charts. No additional landmarks for this area ~~is~~ are submitted. (See review for further comment on landmarks)

RECOMMENDATION FOR FURTHER SURVEYS.

This sheet is believed to be complete in all detail of importance for charting and no additional surveys are required.

The probable error is not greater than 2½ meters in position of well defined objects along the waterfront and not greater than 5 meters for other detail.

Respectfully submitted,

Edmund L. Jones

Edmund L. Jones
Aid, U.S.C. & G.S.

Approved:

J.C. Partington

J.C.Partington
Chief-of-Party

Notes in red by
T.J. Price
Nov. 1, 1937
upon review.

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5466

Data Record

Triangulation, 1930-31.
Recoverable stations of less than third order accuracy to 1935.
Photographs taken May and June 1935.
Field inspection, August 1935.
Planetable graphic control surveys, 1934.

The field inspection was for the interpretation of the photographs. Except for the piles, and the recoverable hydrographic and topographic stations taken from the 1934 planetable sheets, and the recoverable hydrographic and topographic stations taken from the U.S. Engineers' surveys, the detail of this compilation is of the date of the photographs.

Comparisons with Recent Graphic Control Surveys

T-6381 (1934), 1:10,000

(1) St. George Fog Bell, U.S.E. (d) is 10 m. too far west on T-6381. It is shown correctly on T-5466.

(2) Wrecks between Piers 13 and 14 on Narrows waterfront, and wrecks in the slip north of Lighthouse Service Depot have changed. T-5466 is correct.

T-6125 (1934), 1:10,000

(1) Sand, U.S.E. (d) is 4 m. in error on T-6125. It is correct on T-5466.

(2) Floating dry docks, shown on T-6125, were purposely omitted from T-5466, to agree with present charting practice.

(3) Lat. 40° 38.5', long. 74° 07.1'. Inshore end of slip 30 m. in error. T-5466 is correct.
Lat. 40° 38.4', long. 74° 07.5'. Shoreline 25 m. in error. T-5466 is correct.

T-6126 (1934), 1:10,000

(1) A triangulation station is shown as Borough Hall, 1930. It cannot be told whether this is intended to be station Boro Hall, 1931 or station Boro Hall, Flagpole, 1930. Both of the latter appear on T-5466.

(2) The following stations were located 6 m. in error on T-6126. They appear correctly on T-5466: B. & O. #6, Sub #1, 1933, U.S.E.(d); City Mon., Snug Harbor, U.S.E.(d); Power Rack, U.S.E.(d).

Comparison with Recent Graphic Control Surveys (cont.)

General

(1) The agreement is, in general, good. See descriptive report, T-5466 for additional differences. Differences not exceeding 10 m. in shoreline, docks and wrecks have not been discussed. T-5466 is more recent and is accepted as correct. Areas of wrecks on the planetable sheets were frequently generalized and therefore do not agree in detail with T-5466.

(2) T-5466 is on a scale of 1:5,000 whereas the above planetable sheets are on a scale of 1:10,000.

(3) The above planetable sheets have been carefully compared with the compilation, the photographs and recent hydrographic sheets. In general, the field inspection is adequate and the photographs show the detail clearly. ~~The compilation~~ T-5466 has been corrected against the above sources of information and in case of any differences between the planetable sheets and ~~the compilation~~ T-5466, the latter should now be taken as correct.

(4) All detail on the above planetable sheets within the area of the compilation is now shown on the compilation except:

(a) Detail proved in error or no longer existing,
(b) Magnetic declination,
(c) Temporary topographic stations,
(d) Floating drydocks.

Comparison with Previous Topographic Surveys

Because of the many changes to be expected in an area of this character since the previous topographic surveys were made, only a general comparison was made.

T-5466 is adequate to supersede the portions of former topographic surveys which it covers, except for bluffs and contours.* *See list on opposite page.

Comparison with Recent Hydrographic Surveys

H-5607 (1934), 1:10,000

The shoreline of the above survey was taken from the recent graphic control surveys and therefore differs from T-5466 in the same respects as discussed under the graphic control surveys comparison. The differences are minor and no corrections were made to the hydrographic surveys which have been completed and applied to the charts.

There is no conflict between the soundings on the hydrographic survey and the detail on T-5466.

Comparison with U. S. Engineers' surveys

Blueprint #30294 (1936), 1:5,000

The date of the topography is not given, but the agreement with T-5466 is very good. The differences, which were minor, were checked, and T-5466 found correct.

Comparison with Charts

Chart 541, edition 6/11/37, 1:10,000

(1) Same differences as noted above for T-6381, T-6125 and T-6126.

(2) Landmark at St. George should be called tower rather than cupola.

Chart 369, edition 4/17/37, 1:40,000

This chart was not entirely corrected for T-6381, T-6125, T-6126. It was not compared in detail. General comparison shows:

(1) Lat. 40° 37.6', long. 74° 04.3'. Wrecks and piles should be added.

(2) The south dock of the U. S. Lighthouse Service Depot should be extended.

(3) Lat. 40° 38.5', long. 74° 07.5'. Add wrecks and piles.

(4) Also corrections as noted under chart 285 comparison.

Chart 285, edition 1/21/37, 1:15,000

The important changes are noted on a section of the chart attached to this report.

Remarks

Landmarks and Aids to Navigation

(1) Lighthouse Service Depot Dock Light, WCS established September 27, 1935 on outer end of south dock. This occurred after the field inspection was made, so no field location is obtainable and office information is insufficient for correction location on the scale of T-5466. It is therefore not shown and should not be confused with the previously existing wharf light shown in this vicinity on T-5466. The light is shown in conflicting positions on current charts. Nautical Chart Section advised. (L.H.S. Depot Dock Light)

(2) Landmark, Spire (triangulation station Church of Ascension Spire 1931). Recovery note says spire is gone.

Landmark, Cupola (triangulation station Cupola, Ferry Building 1931). Described as Tower in recovery note. Nautical Chart Section advised, of both cases.

Recoverable Hydrographic & Topographic Stations

7 Form 524 filed under T-5466
9 " " " " T-6126
1 " " " " T-6125

City Mon. (Bay and Broad Sts.) U.S.E.(d) was removed from T-5466 and T-5465, and Form 524 discarded, because the description differed considerably from the position given by the U. S. E. coordinates.

Changes to Sheet upon Review

(1) City Mon. (Bay and Broad Sts.) U.S.E.(d) removed from T-5465 and T-5466.

(2) Most of piers along the Narrows shore were lengthened 5 m.

(3) Lat. 40° 38.9', long. 74° 05.1'. Rocks added.

(4) Minor changes in docks between Long. 74° 06.5' and Long. 74°06.8'.

(5) Wrecks and piles added on waterfront at Long. 74° 07.5' and at Bayonne Ferry, Long. 74° 07.8'.

(6) Warehouse added to Pier 14, Narrows shore.

(7) Between Piers 13 and 14, Narrows shore, piles added from T-6381. Dashed lines added to show outline of dock undergoing change.

(8) Wrecks added west of mouth of Bodine Creek.

(9) Continuation of stream, south of Snug Harbor from Lat. 40° 38.5'.

(10) Miscellaneous piles and buildings added.

Accuracy

The statement of accuracy given in the report appears too high. Three m. and 7 m. respectively, is more nearly correct, from checks obtained.

Additional Work

This survey is complete and adequate for chart compilation, except for the location of submerged pipe lines, cable crossings, and the Lighthouse Service Depot Dock Light.

T. M. Price, Jr.

Nov. 1, 1937. T. M. PRICE, JR.

Chart No. _____

Computation of Geographic Coordinates From Plane Coordinates

Origin of coordinates: Bogart (1885)

Lat. 40 °36 ' (223.9 m.) Coordinate value of origin N. or S. 20350 feet

Long. 74 °06 ' (1367.5 m.) referred to the Zero E. or W. 20250 feet

---

Name of station: City Mon. Snug Harbor, USE

Coordinates: N. or S. 4568.98 feet = 1392.63 m.

E. or W. 16868.46 feet = 5141.52 m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = 4810.1 m.	E. or W.	feet = 1030.7 m.
+ or – seconds in meters	= 223.9 m.	+ or – seconds in meters	= 1366.6 m.
N. or S. of	40 °36 ' = 5034.0 m.	E. or W. of	74°06 ' = 335.9 m.
From table + or –	2 ' = 3701.5 m.	From table + or –	' = m.
Lat. (uncorrected)	40 °38' 1332.5 m.	Longitude	74°06 ' 335.9 m.
Curvature	= 0.1 m.		
★Latitude	40 °38 ' 1332.4 m.		

Name of station: Station "New Power" 1923, USE

Coordinates: N. or S. 4640.99 feet = 1414.58 m.

E. or W 18931.23 feet = 5770.25 m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = 4788.1 m.	E. or W.	feet = 402.0 m.
+ or – seconds in meters	= 223.9 m.	+ or – seconds in meters	= 1366.6 m.
N. or S. of	40 ° 36'= 5012.0 m.	E. or W. of	74 ° 06'= 964.6 m.
From table + or –	2'= 3701.5 m.	From table + or –	'= 0.0 m.
Lat. (uncorrected)	40 ° 38' 1310.5 m.	Longitude	74 ° 06' 964.6 m.
Curvature	= 0.0 m.		
★Latitude	40 °38' 1310.5 m.		

Name of station: Sta. Peoples Ferry, USE

Coordinates: N. or S. 3614.27 feet = 1101.63 m.

E. or W. 12572.59 feet = 3832.13 m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = 5101.1 m.	E. or W.	feet = 2340.1 m.
+ or – seconds in meters	= 223.9 m.	+ or – seconds in meters	= 1366.6 m.
N. or S. of	40°36 ' = 5325.0 m.	E. or W. of	74°06 ' = 973.5 m.
From table + or –	2 ' = 3701.5 m.	From table + or –	1 ' = 1409.7 m.
Lat. (uncorrected)	40°38 ' 1623.5 m.	Longitude	74°05 ' 436.2 m.
Curvature	= 0.3 m.		
★Latitude	40°38 ' 1623.2 m.		

Computed by J.C.Partington Mar.4, 1937

Checked by E.L.Jones June 12, 1937

★Use in taking out longitude values.

File with history slip of largest scale chart covering this area.

(R-325)

Chart No. _____

Computation of Geographic Coordinates From Plane Coordinates

Origin of coordinates: Memorial Church (1885)

Lat. 40 ° 46 ' (1763.2 m.) Coordinate value of origin N. or S. 0.0 feet

Long. 73 ° 57 ' (604.7 m.) referred to the Zero E. or W. 0.0 feet

---

Name of station: Survey Sta. Pier #1 , USE

Coordinates: N. or S. 51,672.43 feet = 15749.8 m.

E. or W. 31,375.15 feet = 9563.16 m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = 15749.8 m.	E. or W.	feet = 9563.2 m.
+ or – seconds in meters	= 1763.2 m.	+ or – seconds in meters	= 606.0 m.
N. or S. of	40 ° 46 ' = 13986.6 m.	E. or W. of	73 ° 57 ' = 10169.2 m.
From table + or –	8 ' = 14806.2 m.	From table + or –	7 ' = 9869.0 m.
Lat. (uncorrected)	40 ° 38 ' 819.6 m.	Longitude	74 ° 04 ' 300.2 m.
Curvature	= 6.0 m.		
★Latitude	40 ° 38 ' 813.6 m.		

Name of station: Survey Sta. Cotton #2, USE

Coordinates: N. or S. 52439.70 feet = 15983.65 m.

E. or W. 31281.71 feet = 9534.7 m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = 15983.7 m.	E. or W.	feet = 9534.7 m.
+ or – seconds in meters	= 1763.2 m.	+ or – seconds in meters	= 606.0 m.
N. or S. of	40 ° 46 ' = 14220.5 m.	E. or W. of	73 57 ° ' = 10140.7 m.
From table + or –	8 ' = 14806.2 m.	From table + or –	7 ' = 9869.3 m.
Lat. (uncorrected)	40 ° 38 ' 585.7 m.	Longitude	74 ° 04 ' 271.4 m.
Curvature	= 6.0 m.		
★Latitude	40 ° 38 ' 579.7 m.		

Name of station: Survey Sta. Pier # 12, USE

Coordinates: N. or S. 55608.00 feet = 16949.35 m.

E. or W. 31199.02 feet = 9509.48 m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = 16949.4 m.	E. or W.	feet = 9509.5 m.
+ or – seconds in meters	= 1763.2 m.	+ or – seconds in meters	= 606.1 m.
N. or S. of	40° 46 ' = 15186.2 m.	E. or W. of	73° 57 ' = 10115.6 m.
From table + or –	9 ' = 16656.9 m.	From table + or –	7 ' = 9870.6 m.
Lat. (uncorrected)	40° 37 ' 1470.7 m.	Longitude	74° 04 ' 245.0 m.
Curvature	= 6.0 m.		
★Latitude	40° 37 ' 1464.7 m.		

Computed by E.L.Jones June 12 1937

Checked by J.C.Partington June 16, 1937

★Use in taking out longitude values.

File with history slip of largest scale chart covering this area.

(R-325)

Chart No. _____

Computation of Geographic Coordinates From Plane Coordinates

Origin of coordinates: Bogart (1885)

Lat. 40 ° 36 ′ (223.9 m.) Coordinate value of origin N. or S. 20350 feet

Long. 74 ° 06 ′ (1367.5 m.) referred to the Zero E. or W. 20250 feet

---

Name of station: Sta McWilliams '33, USE

Coordinates: N. or S. 5506.92 feet = 1678.51 m.

E. or W. 20805.01 feet = 6341.38 m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = 4524.2 m.	E. or W.	feet = 169.2 m.
+ or – seconds in meters	= 223.9 m.	+ or – seconds in meters	= 1366.6 m.
N. or S. of 40 ° 36 ′	= 4748.1 m.	E. or W. of 74 ° 06 ′	= 1535.8 m.
From table + or – 2 ′	= 3701.5 m.	From table + or – 1 ′	= 1409.8 m.
Lat. (uncorrected) 40 ° 38 ′	1046.6 m.	Longitude 74 ° 07 ′	126.0 m.
Curvature	= 0.0 m.		
★Latitude 40 ° 38 ′	1046.6 m.		

Name of station: _____

Coordinates: N. or S. feet = m.

E. or W. feet = m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = m.	E. or W.	feet = m.
+ or – seconds in meters	= _____ m.	+ or – seconds in meters	= _____ m.
N. or S. of ° ′	= m.	E. or W. of ° ′	= m.
From table + or – ′	= _____ m.	From table + or – ′	= _____ m.
Lat. (uncorrected) ° ′	m.	Longitude ° ′	m.
Curvature	= _____ m.		
★Latitude ° ′	m.		

Name of station: _____

Coordinates: N. or S. feet = m.

E. or W. feet = m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = m.	E. or W.	feet = m.
+ or – seconds in meters	= _____ m.	+ or – seconds in meters	= _____ m.
N. or S. of ° ′	= m.	E. or W. of ° ′	= m.
From table + or – ′	= _____ m.	From table + or – ′	= _____ m.
Lat. (uncorrected) ° ′	m.	Longitude ° ′	m.
Curvature	= _____ m.		
★Latitude ° ′	m.		

Computed by E.L.Jones June 12, 1937

J.C.Partington June 16, 1937

★Use in taking out longitude values.

File with history slip of largest scale chart covering this area.

(R-325)

Chart No. _____

Computation of Geographic Coordinates From Plane Coordinates

Origin of coordinates: Memorial Church (1885)

Lat.	40°46′ (1763.2 m.)	Coordinate value of origin	N. or S.	0.0	feet
Long.	73° 57′ (604.7 m.)	referred to the Zero	E. or W.	0.0	feet

Name of station: Survey Sta. Pier # 8, USE

Coordinates: N. or S. 53809.61 feet = 16401.20 m.
E. or W. 31234.74 feet = 9520.37 m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = 16401.2 m.	E. or W.	feet = 9520.4 m.
+ or – seconds in meters	= 1763.2 m.	+ or – seconds in meters	= 606.0 m.
N. or S. of	40° 46′ = 14638.0 m.	E. or W. of	73° 57′ = 10126.4 m.
From table + or –	8′ = 14806.2 m.	From table + or –	7′ = 9869.8 m.
Lat. (uncorrected)	40° 38′ 168.2 m.	Longitude	74° 04′ 256.6 m.
Curvature	= 6.0 m.		
★Latitude	40° 38′ 162.2 m.		

Name of station: _____

Coordinates: N. or S. feet = m.
E. or W. feet = m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = m.	E. or W.	feet = m.
+ or – seconds in meters	= m.	+ or – seconds in meters	= m.
N. or S. of	° ′ = m.	E. or W. of	° ′ = m.
From table + or –	′ = m.	From table + or –	′ = m.
Lat. (uncorrected)	° ′ m.	Longitude	° ′ m.
Curvature	= m.		
★Latitude	° ′ m.		

Name of station: _____

Coordinates: N. or S. feet = m.
E. or W. feet = m.

Latitude N. – S. coordinates		Longitude E. – W. coordinates	
N. or S.	feet = m.	E. or W.	feet = m.
+ or – seconds in meters	= m.	+ or – seconds in meters	= m.
N. or S. of	° ′ = m.	E. or W. of	° ′ = m.
From table + or –	′ = m.	From table + or –	′ = m.
Lat. (uncorrected)	° ′ m.	Longitude	° ′ m.
Curvature	= m.		
★Latitude	° ′ m.		

Computed by E.L.Jones June 14, 1937
Checked by J.C.Partington June 16,1937

★Use in taking out longitude values.

File with history slip of largest scale chart covering this area.

(R-325)

Chart No. ____

Computation of Geographic Coordinates From Plane Coordinates

Origin of coordinates: Bogart (1885)

Lat. 40 ° 36 ′ (223.9 m.) Coordinate value of origin N. or S. 20350 feet

Long. 74 ° 06 ′ (1367.5 m.) referred to the Zero E. or W. 20250 feet

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Name of station: B. & O. #6 Sub #1, 1933, USE

Coordinates: N. or S. 3635.71 feet = 1108.17 m.

E. or W. 9168.45 feet = 2794.55 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet = 5094.5	m.	E. or W.	feet = 3377.7	m.
+ or – seconds in meters	= 223.9	m.	+ or – seconds in meters	= 1366.6	m.
N. or S. of	40° 36′ = 5318.4	m.	E. or W. of	74 ° 06′ = 2011.1	m.
From table + or –	2′ = 3701.5	m.	From table + or –	2′ = 2819.5	m.
Lat. (uncorrected)	40° 38′ 1616.9	m.	Longitude	74 ° 04′ 808.4	m.
Curvature	= 0.8	m.			
★Latitude	40° 38′ 1616.1	m.			

Name of station: Station Coaling, 1923, USE

Coordinates: N. or S. 3268.94 feet = 996.37 m.

E. or W. 9954.51 feet = 3034.14 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet = 5206.3	m.	E. or W.	feet = 3138.1	m.
+ or – seconds in meters	= 223.9	m.	+ or – seconds in meters	= 1366.6	m.
N. or S. of	40 ° 36′ = 5430.2	m.	E. or W. of	74 ° 06′ = 1771.5	m.
From table + or –	2′ = 3701.5	m.	From table + or –	2′ = 2819.5	m.
Lat. (uncorrected)	40 ° 38′ 1728.7	m.	Longitude	74 ° 04′ 1048.0	m.
Curvature	= 0.7	m.			
★Latitude	40 ° 38′ 1728.0	m.			

Name of station: City Mon. (Richmond Terrace & Van St.) USE

Coordinates: N. or S. 6286.27 feet = 191606 m.

E. or W. 21485.54 feet = 6548.81 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet = 4286.6	m.	E. or W.	feet = 376.6	m.
+ or – seconds in meters	= 223.9	m.	+ or – seconds in meters	= 1366.7	m.
N. or S. of	40 ° 36′ = 4510.5	m.	E. or W. of	74 ° 06′ = 1743.3	m.
From table + or –	2′ = 3701.5	m.	From table + or –	1′ = 1409.9	m.
Lat. (uncorrected)	40° 38′ 809.0	m.	Longitude	74 ° 07′ 333.4	m.
Curvature	= 0.0	m.			
★Latitude	40° 38′ 809.0	m.			

Computed by E.L.Jones July 6 1937

J.C.Partington July 6, 1937

★Use in taking out longitude values.

File with history slip of largest scale chart covering this area.

(R - 325)

Chart No. _____

Computation of Geographic Coordinates From Plane Coordinates

Origin of coordinates: Bogart (1885)

Lat. 40 ° 36 ' (223.9 m.) Coordinate value of origin N. or S. 20550 feet

Long. 74 ° 06 ' (1367.5 m.) referred to the Zero E. or W. 20250 feet

---

Name of station: Sta. Snug Harbor, 1933, USE

Coordinates: N. or S. 4436.56 feet = 1352.27 m.

E. or W. 16979.10 feet = 5175.24 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet =	4850.4 m.	E. or W.	feet =	997.0 m.
+ or – seconds in meters	=	223.9 m.	+ or – seconds in meters	=	1366.6 m.
N. or S. of 40 ° 36 '	=	5074.3 m.	E. or W. of 74 ° 06 '	=	369.6 m.
From table + or – 2 '	=	3701.5 m.	From table + or – '	=	m.
Lat. (uncorrected) 40 ° 38 '		1372.8 m.	Longitude 74 ° 06 '		369.6 m.
Curvature	=	0.1 m.			
★Latitude 40 ° 38 '		1372.7 m.			

Name of station: Sta. Snug Harbor '33 Sub, USE

Coordinates: N. or S. 4437.24 feet = 1352.47 m.

E. or W. 16927.35 feet = 5159.47 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet =	4850.2 m.	E. or W.	feet =	1012.7 m.
+ or – seconds in meters	=	223.9 m.	+ or – seconds in meters	=	1366.6 m.
N. or S. of 40 ° 36 '	=	5074.1 m.	E. or W. of 74 ° 06 '	=	353.9 m.
From table + or – 2 '	=	3701.5 m.	From table + or – '	=	m.
Lat. (uncorrected) 40 ° 38 '		1372.6 m.	Longitude 74 ° 06 '		353.9 m.
Curvature	=	0.1 m.			
★Latitude 40 ° 38 '		1372.5 m.			

Name of station: City Mon. (Bay and Broad Sts.) USE

Coordinates: N. or S. 11813.26 feet = 3600.69 m.

E. or W. 9370.57 feet = 2856.16 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet =	2602.0 m.	E. or W.	feet =	3316.0 m.
+ or – seconds in meters	=	223.9 m.	+ or – seconds in meters	=	1366.9 m.
N. or S. of 40 ° 36 '	=	2825.9 m.	E. or W. of 74 ° 06 '	=	1949.2 m.
From table + or – 1 '	=	1850.7 m.	From table + or – 2 '	=	2820.4 m.
Lat. (uncorrected) 40 ° 37		975.2 m.	Longitude 74 ° 04 '		870.2 m.
Curvature	=	0.7 m.			
★Latitude 40 ° 37 '		974.5 m.			

Computed by J.C. Partington Mar. 4 1937

E. L. Jones June 12, 1937

★Use in taking out longitude values.

File with history slip of largest scale chart covering this area.

(R-325)

Chart No. _____

Computation of Geographic Coordinates From Plane Coordinates

Origin of coordinates: Bogart (1885)

Lat. 40 ° 36 ' (223.9 m.) Coordinate value of origin N. or S. 20350 feet

Long. 74 ° 06 ' (1367.5 m.) referred to the Zero E. or W. 20250 feet

---

Name of station: Sand, USE

Coordinates: N. or S. 5981.10 feet = 1823.04 m.

E. or W. 24575.25 feet = 7490.55 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet = 4379.6	m.	E. or W.	feet = 1318.3	m.
+ or – seconds in meters	= 223.9	m.	+ or – seconds in meters	= 43.3	m.
N. or S. of 40 °36 '	= 4603.5	m.	E. or W. of 74 °07 '	= 1275.0	m.
From table + or – 2 '	= 3701.5	m.	From table + or – '	=	m.
Lat. (uncorrected) 40 °38 '	902.0	m.	Longitude 74 ° 07'	1275.0	m.
Curvature	= 0.1	m.			
★Latitude 40 °38 '	901.9	m.			

Name of station: City Mon. Clinton Ave., USE

Coordinates: N. or S. 4780.98 feet = 1457.25 m.

E. or W. 15493.32 feet = 4722.37 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet = 4745.4	m.	E. or W.	feet = 1449.8	m.
+ or – seconds in meters	= 223.9	m.	+ or – seconds in meters	= 1366.6	m.
N. or S. of 40 ° 36 '	= 4969.3	m.	E. or W. of 74 ° 06 '	= 83.2	m.
From table + or – 2 '	= 3701.5	m.	From table + or – 1 '	= 1409.8	m.
Lat. (uncorrected) 40 ° 38 '	1267.8	m.	Longitude 74 ° 05 '	1326.6	m.
Curvature	= 0.1	m.			
★Latitude 40 ° 38 '	1267.7	m.			

Name of station: Sta. Power Rock, USE

Coordinates: N. or S. 4513.52 feet = 1375.72 m.

E. or W. 18493.39 feet = 5636.80 m.

Latitude N. – S. coordinates			Longitude E. – W. coordinates		
N. or S.	feet = 4827.0	m.	E. or W.	feet = 535.4	m.
+ or – seconds in meters	= 223.9	m.	+ or – seconds in meters	= 1366.6	m.
N. or S. of 40 ° 36 '	= 5050.9	m.	E. or W. of 74 °06 '	= 831.2	m.
From table + or – 2 '	= 3701.5	m.	From table + or – '	=	m.
Lat. (uncorrected) 40 ° 38 '	1349.4	m.	Longitude 74 °06 '	831.2	m.
Curvature	= 0.0	m.			
★Latitude 40 ° 38 '	1349.4	m.			

Computed by J.C.Partington Mar. 4 1937

Checked by E.L.Jones June 12, 1937

★Use in taking out longitude values.

File with history slip of largest scale chart covering this area.

(R - 325)

GEOGRAPHIC NAMES

Survey No. T-5466

Name on Survey	A: On Chart No. 285	B: On previous survey No. T-6381	C: On U.S. quadrangle Fieldmaps Inspect	D: From local information Chart 369	E: Board of Estimate & Apportionment On local Maps	F: Chart 541	G: Corp of Engineers Rand McNally Atlas blue print	H: U.S. Light List	K: T-6126	
✓ Staten Island	x	X	x	x			x			1
✓ Kill Van Kull USGB	x		x	x	x	x	x		x	2
✓ Stapleton	x	x	x	x	x	x				3
✓ Tompkinsville	x	x	x	x	x	x				4
✓ St. George	x	x	x	x	x	x				5
✓ New Brighton	x		x	x	x	x	x		x	6
✓ West New Brighton	x		x	x	x		x			7
✓ Sailors Snug Harbor	x		x	x	x		x		x	8
✓ Silver Lake Reservoir	x		✓ USGS							9
✓ Rodine Creek			x				x			10
										11
										12
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Names underlined in red approved by GTE on 10/12/37

M 234

	Remarks	Decisions
1		
2		
3		
4		
5		
6		
7		
8		
9	The Board of Estimates & Apportionment refer to this as Silver Lake Reservoir.	
10	The Board of Estimates & Apportionment refer to a portion of this creek as Bodine Pond. At present only	
11	the creek remains.	
12		
13.		
14		
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M 234

M-350

T-5466
N.J. grid

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by R. E. Ask

Positions checked by R. E. Ask

Grid inked on machine by R. E. Ask

Intersections inked by Frank R. Dollon

Points used for plotting grid:

x 2,150,000 ft y 662,000	x 2,154,000 y 658,000
x 2,166,000 y 662,000	x 2,162,000 y 658,000 } from sheet T-5465
x 2,150,000 y 652,000	x y
x 2,166,000 y 652,000	x y

Triangulation stations used for checking grid:

X=2,153,059.40 Y=656,681.10

1. Heart (N.Y.) 1931 (Ref. Sta)
2. Hospital 1930
3. Snug Harbor Church 1908
4. Boro Hall 1931
5.
6.
7.
8.

T-5466

Form No. 743
DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
Ed. May 1935

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION

x	2,150,000.00	$\log S_g$	5.176087 53
K	2	$\log (1200/3937)$	9.484015 83
x' $(=x-K)$	150,000.00	$\log (1/R)$	1086
$x'^3/(6\rho_o^2)_g$	− 1.29	$\log S_m$	4.660114 22
S_g	149,998.71	cor. arc to sine	− 371
		$\log S_1$	4.660110 51
3 log x'	15.528 27 378	$\log A$	8.509101 94
$\log 1/(6\rho_o^2)_g$	4.558 102 13	$\log \sec \phi$	0.119 92 475
$\log x'^3/(6\rho_o^2)_g$	0.109 29 51	$\log \Delta\lambda_1$	3.289 137 20
		cor. sine to arc	+ 644
$\log S_m^2$	9.320 228 44	$\log \Delta\lambda$	3.289 143 64
$\log C$	1.338 258	$\Delta\lambda$	1946.0036
$\log \Delta\phi$	0.658 486		
y	662,000.00		
ϕ' (by interpolation)	40 35 02.6838	λ (central mer.)	74 46
$\Delta\phi$	− 4.5550	$\Delta\lambda$	32 26.0036
ϕ	40 38 58.1288	λ	74 07 33.9964

173.53 mm 18.78 mm

Explanation of form:

$x' = x - K$

$S_g = x' - \frac{x'^3}{(6\rho_o^2)_g}$

$S_m = \frac{1}{R}\left(\frac{1200}{3937}\right) S_g$

R=scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi = C\, S_m^2$

$\phi = \phi' - \Delta\phi$

$\Delta\lambda_1 = S_1 A \sec \phi$

$\log S_1 = \log S_m$ − cor. arc to sine

$\log \Delta\lambda = \log \Delta\lambda_1$ + cor. arc to sine

$\lambda = \lambda$ (central mer.) $- \Delta\lambda$

U. S. GOVERNMENT PRINTING OFFICE 11—11521

T-5466

Form No. 743
DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
Ed. May 1925

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION

x	2,166,000.00	$\log S_g$	5.2201035 4
K	2	$\log (1200/3937)$	9.4840158 3
x' $(=x-K)$	166,000.00	$\log (1/R)$	1096
$x'^3/(6\rho_o^2)_g$	− 1.74	$\log S_m$	4.7041302 3
S_g	165,998.26	cor. arc to sine	− 454
		$\log S_1$	4.7041256 9
3 log x'	15.6603 2427	$\log A$	8.5091019 5
$\log 1/(6\rho_o^2)_g$	4.5810 213	$\log \sec \phi$	0.1199225 0
$\log x'^3/(6\rho_o^2)_g$	0.2413 456	$\log \Delta\lambda_1$	3.3331505 4
		cor. sine to arc	+ 789
$\log S_m^2$	9.4082 6046	$\log \Delta\lambda$	3.3331584 3
$\log C$	1.3382 58	$\Delta\lambda$	2153.5672
$\log \Delta\phi$	0.7456 18		
y	662 000.00		
ϕ' (by interpolation)	40° 39′ 02.6838″	λ (central mer.)	74° 40′ 00″
$\Delta\phi$	− 5.5785	$\Delta\lambda$	35 53.5672
ϕ	40 38 57.1053	λ	74 04 06.4328

167.22 mm 30.23 mm

Explanation of form:

$x'=x-K$

$S_g=x'-\frac{x'^3}{(6\rho_o^2)_g}$

$S_m=\frac{1}{R}\left(\frac{1200}{3937}\right)S_g$

R=scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi=C\,S_m^2$

$\phi=\phi'-\Delta\phi$

$\Delta\lambda_1=S_1 A \sec\phi$

$\log S_1=\log S_m-$cor. arc to sine

$\log \Delta\lambda=\log \Delta\lambda_1+$cor. arc to sine

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

U. S. GOVERNMENT PRINTING OFFICE 11—11531

Form No. 748
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Ed. May 1935

T-5466

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION

x	2,150,000.00	$\log S_\varphi$	5.176087553
K	2,	log (1200/3937)	9.484015833
x' $(=x-K)$	150,000.00	log $(1/R)$	10856
$x'^3/(6\rho_o^2)_\varphi$	− 1.29	$\log S_m$	4.660114222
S_φ	149,998.71	cor. arc to sine	− 371
		$\log S_1$	4.660113851
3 log x'	15.528273378	log A	8.509102644
log $1/(6\rho_o^2)_\varphi$	4.558102133	log sec ϕ	0.119746621
log $x'^3/(6\rho_o^2)_\varphi$	0.109295511	log $\Delta\lambda_1$	3.288955936
		cor. sine to arc	+ 644
log S_m^2	9.320228444	log $\Delta\lambda$	3.288965580
log C	1.337840	$\Delta\lambda$	1945.26
log $\Delta\phi$	0.654068		
y	652,000.00		
ϕ' (by interpolation)	40° 37′ 23.8672″	λ (central mer.)	74° 40′ ″
$\Delta\phi$	− 4.5506	$\Delta\lambda$	32 25.26
ϕ	40 37 19.3166	λ	74 07 34.74

119.17 mm 22.53 mm

Explanation of form:

$x'=x-K$

$S_\varphi=x'-\frac{x'^3}{(6\rho_o^2)_\varphi}$

$S_m=\frac{1}{R}\left(\frac{1200}{3937}\right)S_\varphi$

R=scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi=C\,S_m^2$

$\phi=\phi'-\Delta\phi$

$\Delta\lambda_1=S_1 A \sec\phi$

$\log S_1=\log S_m-$cor. arc to sine

$\log\Delta\lambda=\log\Delta\lambda_1+$cor. arc to sine

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

U. S. GOVERNMENT PRINTING OFFICE 11-11521

Form No. 743
DEPARTMENT OF COMMERCE
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Ed. May 1965

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GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION

x	2,166,000.00	$\log S_g$	5.22010354
K	2	$\log (1200/3937)$	9.48401583
x' $(=x-K)$	166,000.00	$\log (1/R)$	1.0486
$x'^3/(6\rho_o^2)_g$	− 1.74	$\log S_m$	4.70413023
S_g	165,998.26	cor. arc to sine	− 454
		$\log S_1$	4.70412569
3 log x'	15.66032427	$\log A$	8.50910265
$\log 1/(6\rho_o^2)_g$	4.56100213	$\log \sec \phi$	0.11974436
$\log x'^3/(6\rho_o^2)_g$	0.24134456	$\log \Delta\lambda_1$	3.33297276
		cor. sine to arc	+ 789
$\log S_m^2$	9.40826046	$\log \Delta\lambda$	3.33298059
$\log C$	1.33784 0	$\Delta\lambda$	2152.6855"
$\log \Delta\phi$	0.74610 0		
y	652,000.00		
ϕ' (by interpolation)	40 37 23.8672	λ (central mer.)	74 40
$\Delta\phi$	− 5.5731	$\Delta\lambda$	35 52.6855
ϕ	40 37 18.2941	λ	74 04 07.3145

112.86 mm

34.39 mm

Explanation of form:

$x'=x-K$

$S_g=x'-\frac{x'^3}{(6\rho_o^2)_g}$

$S_m=\frac{1}{R}\left(\frac{1200}{3937}\right)S_g$

R=scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi=C\,S_m^2$

$\phi=\phi'-\Delta\phi$

$\Delta\lambda_1=S_1 A \sec\phi$

$\log S_1=\log S_m-$cor. arc to sine

$\log \Delta\lambda=\log \Delta\lambda_1+$cor. arc to sine

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

U. S. GOVERNMENT PRINTING OFFICE 11—11521

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Form No. 743
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GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION

x	2,154,000.00	$\log S_g$	5.187516 88
K	2,	$\log (1200/3937)$	9.4840 1583
x' $(=x-K)$	154,000.00	$\log (1/R)$	.1086
$x'^3/(6\rho_o^2)_g$	— 1.39	$\log S_m$	5.671543 49
S_g	153,998.61	cor. arc to sine	— 391
		$\log S_1$	4.671539 58
3 log x'	15.562562 16	$\log A$	8.509102 22
$\log 1/(6\rho_o^2)_g$	4.581021 3	$\log \sec \phi$	0.119852 87
$\log x'^3/(6\rho_o^2)_g$	0.143583	$\log \Delta\lambda_1$	3.300499 467
		cor. sine to arc	+ 679
$\log S_m^2$	9.343086 98	$\log \Delta\lambda$	3.300501 46
$\log C$	1.338091	$\Delta\lambda$	1997.5675
$\log \Delta\phi$	0.681178		
y	658 000.00		
ϕ' (by interpolation)	40 38 23.1573	λ (central mer.)	74 40
$\Delta\phi$	— 4.7993	$\Delta\lambda$	33 17.5675
ϕ	40 38 18.3580	λ	74 06 42.4325

113.25 mm

58.43 mm

Explanation of form:

$x'=x-K$

$S_g=x'-\frac{x'^3}{(6\rho_o^2)_g}$

$S_m=\frac{1}{R}\left(\frac{1200}{3937}\right)S_g$

R=scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi=C\,S_m^2$

$\phi=\phi'-\Delta\phi$

$\Delta\lambda_1=S_1 A \sec\phi$

$\log S_1=\log S_m-$cor. arc to sine

$\log \Delta\lambda=\log \Delta\lambda_1+$cor. arc to sine

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

U. S. GOVERNMENT PRINTING OFFICE 11—11621

M-350

T-5466
Long Island grid

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by R.E. Ask

Positions checked by R.E. Ask

Grid inked on machine by R.E. Ask

Intersections inked by Frank R. Gallon

Points used for plotting grid:

x 1,964,000 ft y 154,000	x 1,970,000 y 150,000
x 1,980,000 y 154,000	x 1,976,000 y 150,000 } from sheet T-5465
x 1,964,000 y 146,000	x y
x 1,980,000 y 146,000	x y

Triangulation stations used for checking grid:

to be completed

	x =	y =			
1.	Heart (N.Y.) 1931 (Ref. Sta)		5.		
2.			6.		
3.			7.		
4.			8.		

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Form No. 742
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Ed. May 1935

GEODETIC POSITIONS FROM LAMBERT COORDINATES

STATE UT STATION

x	1,964,000.00	R_b+A	24,462,545.30
C	2,	y	154,000.00
x' $(=x-C)$	36,000.00	R_b+A-y	24,308,545.30
log $(x-C)$	4.5563 0250	$\frac{\theta}{2}$ (in secs.)	2′ 32.73492
log (R_b+A-y)	7.3857 5497	log $\frac{\theta}{2}$	
log tan θ	7.1705 4353	log S	
θ	0° 05′ 05.46985	log sin $\frac{\theta}{2}$	6.8665 1135
	305.46985		
log θ (θ in secs.)	2.4849 6835	log sin$^2\frac{\theta}{2}$	3.7330 2270
log l	4.8156 3226	log 2	0.3010 3000
log $\frac{\theta}{l}$	2.6693 3609	log R*	7.3857 5497
$\Delta\lambda$ $(=\frac{\theta}{l})$	467.0206 56	log y''	1.4258 1167
		y''	~~2.67~~ 26.66
λ (central mer.)	74° ′ ″		
$-\Delta\lambda$	07 47.0207	R_b+A-y	24,308,545.30
λ	74 07 47.0207	y''	+ 26.66
		R	24,308,571.96
	79.98 mm		
		y	154,000.00
		y''	− 26.66
		y'	153,973.34
		ϕ (by interpolation)	40 38 53.3352

143.96 mm

$\tan\theta=\frac{x-C}{R_b+A-y}$

$\Delta\lambda=\frac{\theta}{l}$

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

$y''=2R\sin^2\frac{\theta}{2}$

$y'=y-y''$

C is constant added to x' in computation of coordinates

R_b is map radius of lowest parallel

A is value of y' for R_b; in most cases it is zero

ϕ is interpolated from table of y'

* Use (R_b+A-y) as an approximate value of R and later correct this value when R is obtained below.

U.S. GOVERNMENT PRINTING OFFICE 11—11524

Form No. 742
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U. S. COAST AND GEODETIC SURVEY
Ed. May 1935

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GEODETIC POSITIONS FROM LAMBERT COORDINATES

STATE L. I. STATION

x	1,980,000.00	R_b+A	24,462,545.30
C	2,	y	154,000.00
x' $(=x-C)$	20,000.00	R_b+A-y	24,308,545.30
log $(x-C)$	4.301030000	$\frac{\theta}{2}$ (in secs.)	01′ 24.″85278
log (R_b+A-y)	7.385758497	log $\frac{\theta}{2}$	
log tan θ	6.915271163	log S	
θ	° 02′ 49.″70556	log sin $\frac{\theta}{2}$	6.614237212
	169.70556		
log θ (θ in secs.)	2.229669606	log sin$^2\frac{\theta}{2}$	3.228474424
log l	9.815632266	log 2	0.301030000
log $\frac{\theta}{l}$	2.414036340	log R*	7.385758497
$\Delta\lambda$ $(=\frac{\theta}{l})$	259.4560	log y''	0.915263211
		y''	8.23
λ (central mer.)	74° ′ ″		
$-\Delta\lambda$	04 19.4560	R_b+A-y	24,308,545.30
λ	74 04 19.4560	y''	+ 8.23
		R	24,308,553.53
	91.42 mm		
		y	154,000.00
		y''	− 8.23
		y'	153,991.77
		ϕ (by interpolation)	40 34 53.5173

145.09 mm

$\tan\theta=\frac{x-C}{R_b+A-y}$

$\Delta\lambda=\frac{\theta}{l}$

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

$y''=2R\sin^2\frac{\theta}{2}$

$y'=y-y''$

C is constant added to x' in computation of coordinates

R_b is map radius of lowest parallel

A is value of y' for R_b; in most cases it is zero

ϕ is interpolated from table of y'

* Use (R_b+A-y) as an approximate value of R and later correct this value when R is obtained below.

U. S. GOVERNMENT PRINTING OFFICE 11—11524

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Form No. 742
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Ed. May 1935

GEODETIC POSITIONS FROM LAMBERT COORDINATES

STATE L.I. STATION

x	1,964,000.00	R_b+A	24,462,545.30
C	2	y	146,000.00
x' $(=x-C)$	36,000.00	R_b+A-y	24,316,545.30
log $(x-C)$	4.5563 0250	$\frac{\theta}{2}$ (in secs.)	02′ 32.68467″
log (R_b+A-y)	7.3859 0187	log $\frac{\theta}{2}$	
log tan θ	7.1704 0063	log S	
θ	° 0′ 05.36935″	log sin $\frac{\theta}{2}$	6.8659 3682 5
	305.36935″		
log θ (θ in secs.)	2.4848 2545	log sin$^2\frac{\theta}{2}$	3.7387 3650
log l	5.8156 3226	log 2	0.3010 3000
log $\frac{\theta}{l}$	2.6691 9319	log R*	7.3859 0187
$\Delta\lambda$ $(=\frac{\theta}{l})$	466.86701	log y''	1.4256 6837
		y''	26.65
λ (central mer.)	74° ′ ″		
$-\Delta\lambda$	07 46.8670	R_b+A-y	24,316,545.30
λ	74 07 46.8670	y''	+ 26.65
	79.29 mm	R	24,316,571.95
		y	146,000.00
		y''	− 26.65
		y'	145,973.35
		ϕ (by interpolation)	40 37 34.2841

26.43 mm

$\tan\theta=\frac{x-C}{R_b+A-y}$

$\Delta\lambda=\frac{\theta}{l}$

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

$y''=2R\sin^2\frac{\theta}{2}$

$y'=y-y''$

C is constant added to x' in computation of coordinates

R_b is map radius of lowest parallel

A is value of y' for R_b; in most cases it is zero

ϕ is interpolated from table of y'

* Use (R_b+A-y) as an approximate value of R and later correct this value when R is obtained below.

U. S. GOVERNMENT PRINTING OFFICE 11—11524

K

Form No. 742
DEPARTMENT OF COMMERCE
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Ed. May 1935

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GEODETIC POSITIONS FROM LAMBERT COORDINATES

STATE L. I. STATION

x	1,980,000.00	R_b+A	24,462,545.30
C	2,	y	146,000.00
x' $(=x-C)$	20,000.00	R_b+A-y	24,316,545.30
log $(x-C)$	4.301030000	$\frac{\theta}{2}$ (in secs.)	01' 24.82486"
log (R_b+A-y)	7.385901487	log $\frac{\theta}{2}$	
log tan θ	6.915128813	log S	
θ	° 02' 49.64973"	log sin $\frac{\theta}{2}$	6.614093622
	169.64973"		
log θ (θ in secs.)	2.229553316	log sin^2 $\frac{\theta}{2}$	3.228187224
log l	4.815632266	log 2	0.301030000
log $\frac{\theta}{l}$	2.413920900	log R*	7.385901487
$\Delta\lambda$ $(=\frac{\theta}{l})$	259.3707	log y''	0.915119111
		y''	8.22
λ (central mer.)	74° ' "		
$-\Delta\lambda$	04 19.3707	R_b+A-y	24,316,545.30
λ	74 04 19.3707	y''	+ 8.22
		R	24,316,553.52
	91.06 mm		
		y	146,000.00
		y''	− 8.22
		y'	145,991.78
		ϕ (by interpolation)	40 37 34.4662

27.55 mm

$\tan\theta=\frac{x-C}{R_b+A-y}$

$\Delta\lambda=\frac{\theta}{l}$

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

$y''=2R\sin^2\frac{\theta}{2}$

$y'=y-y''$

C is constant added to x' in computation of coordinates

R_b is map radius of lowest parallel

A is value of y' for R_b; in most cases it is zero

ϕ is interpolated from table of y'

* Use (R_b+A-y) as an approximate value of R and later correct this value when R is obtained below.

U. S. GOVERNMENT PRINTING OFFICE 11—11524

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Form No. 742
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GEODETIC POSITIONS FROM LAMBERT COORDINATES

STATE L. I. STATION

x	1,970,000.00	R_b+A	24,462,545.30
C	2,000,000.00	y	150,000.00
x' $(=x-C)$	30,000.00	R_b+A-y	24,312,545.30
log $(x-C)$	4.4771 2125	$\frac{\theta}{2}$ (in secs.)	02′ 02″.25819
log (R_b+A-y)	7.3858 3043	log $\frac{\theta}{2}$	
log tan θ	7.0912 9082	log S	
θ	0° 04′ 14″.5638	log sin $\frac{\theta}{2}$	6.7902 5802
	254.5′1638		
log θ (θ in secs.)	2.4057 1573	log sin$^2\frac{\theta}{2}$	3.5805 1604
log l	4.8156 3226	log 2	0.3010 3000
log $\frac{\theta}{l}$	2.5900 8347	log R*	7.3858 3043
$\Delta\lambda$ $(=\frac{\theta}{l})$	349.1199	log y''	1.2673 7647
		y''	18.51
λ (central mer.)	74° ′ ″		
$-\Delta\lambda$	06 29.1199	R_b+A-y	24,312,545.30
λ	74 06 29.1199	y''	+ 18.51
		R	24,312,563.81
	136.86 mm		
		y	150,000.00
		y''	− 18.51
		y'	149,981.49
		ϕ (by interpolation)	40 38 13.8902

85.69 mm

$\tan\theta=\frac{x-C}{R_b+A-y}$

$\Delta\lambda=\frac{\theta}{l}$

$\lambda=\lambda$ (central mer.)$-\Delta\lambda$

$y''=2R\sin^2\frac{\theta}{2}$

$y'=y-y''$

C is constant added to x' in computation of coordinates

R_b is map radius of lowest parallel

A is value of y' for R_b; in most cases it is zero

ϕ is interpolated from table of y'

* Use (R_b+A-y) as an approximate value of R and later correct this value when R is obtained below.

U.S. GOVERNMENT PRINTING OFFICE 11—11524

Plane coordinates on Lambert projection

State L Island Station Heart (N.Y.)

ϕ = 40° 38′ 05.384 λ = 74° 06′ 54.740

Tabular difference of R for 1″ of ϕ = 101.20033

R (for min. of ϕ)		24,313,969.50	y′ (for min. of ϕ)			148,575.80
Cor. for sec. of ϕ		− 544.86	Cor. for sec. of ϕ			+ 544.86
R		24,313,424.64	y′			149,120.66
			y″ (=2R sin² $\frac{\theta}{2}$)			+ 21.03
θ (for min. of λ)		− °3′55.″46955	y			149,141.69
Cor. for sec. of λ		− 35.80445				
θ		− 4 31.27400	$\frac{\theta}{2}$			°2′15.″637
θ''	For machine computation	″		For machine computation		
			log θ''			
log θ''			colog 2			9.69897000
S for θ			S for $\frac{\theta}{2}$			
log sin θ	sin θ	.00131 51731	log sin $\frac{\theta}{2}$	sin $\frac{\theta}{2}$		.00065 75867
log R				R sin $\frac{\theta}{2}$		15,988.18
log x′			log sin² $\frac{\theta}{2}$	R sin² $\frac{\theta}{2}$		10.513
x′	R sin θ	− 31,976.36	log R			
		2,000,000.00	log 2			0.30103000
x		1,968,023.64	log y″			

x = 2,000,000.00 + R sin θ

y = y′ + 2R sin² $\frac{\theta}{2}$

y′ = the value of y on the central meridian for the latitude of the station

S = log of ratio for reducing arc expressed in seconds to sine (see log tables)

R, y′, and θ are given in special tables

Geodetic positions from Lambert coordinates used for check.

State Long Island Station Heart (N.Y.)

x	1,968,023.64	$R_b + A$	24,462,545.30
C	2	y	149,141.69
x' (= x − C)	− 31,976.36	$R_b + A - y$	24,313,403.61
tan θ		R	
θ	° ′ ″		
	″	y	149,141.69
$\frac{\theta}{\ell}$ (= Δλ)		y″	− 21.03
		y′	149,120.66
λ (central mer.)	74° 00′ ″		
− Δλ	06 54.740	φ (by interpolation)	40° 38′ 05.384
λ	74 06 54.740		

Station Best (N.J.)

x	1,961,206.79	$R_b + A$	24,462,545.30
C		y	155,288.72
x' (= x − C)	− 38,793.21	$R_b + A - y$	24,307,256.58
tan θ		R	
θ	° ′ ″		
	″	y	155,288.72
$\frac{\theta}{\ell}$ (= Δλ)		y″	− 30.96
		y′	155,257.76
λ (central mer.)	74° 00′ ″		
− Δλ	8 23.283	φ (by interpolation)	40° 39′ 06.027
λ	74 08 23.283		

$\tan\theta = \frac{x - C}{R_b + A - y}$

$\Delta\lambda = \frac{\theta}{\ell}$

$\lambda = \lambda$ (central mer.) $- \Delta\lambda$

$R = (R_b + A - y) \sec\theta$

$y'' = 2R \sin^2 \frac{\theta}{2}$

$y' = y - y''$

C is constant added to x′ in computation of coordinates

R_b is map radius of lowest parallel

A is value of y′ for R_b; in most cases it is zero

φ is interpolated from table of y′

(M-28)

REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: J.C. Partington Compiled by: See Statistics Sheet.

Project: HT-175 Instructions dated: Mar. 14, 1934.

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)

2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)

3. Ground surveys by plane table, ~~sextant,~~ or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)
No ground surveys used to supplement plot.
Dolphins from T6381 T6125 T6126. Recoverable H.T.S. stations located in part by U.S.E, probably by theodolite.

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,i)

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." M-67

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)
No additional landmarks submitted.

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)
No bridges of importance to navigation on this sheet.

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)

Par. 45 not fully complied with on account of obscuring detail.

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

J. C. Partington
Chief of Party

19. Remarks after review in office:

Reviewed in office by: T. M. Price Jr. MJP
Nov. 4, 1937

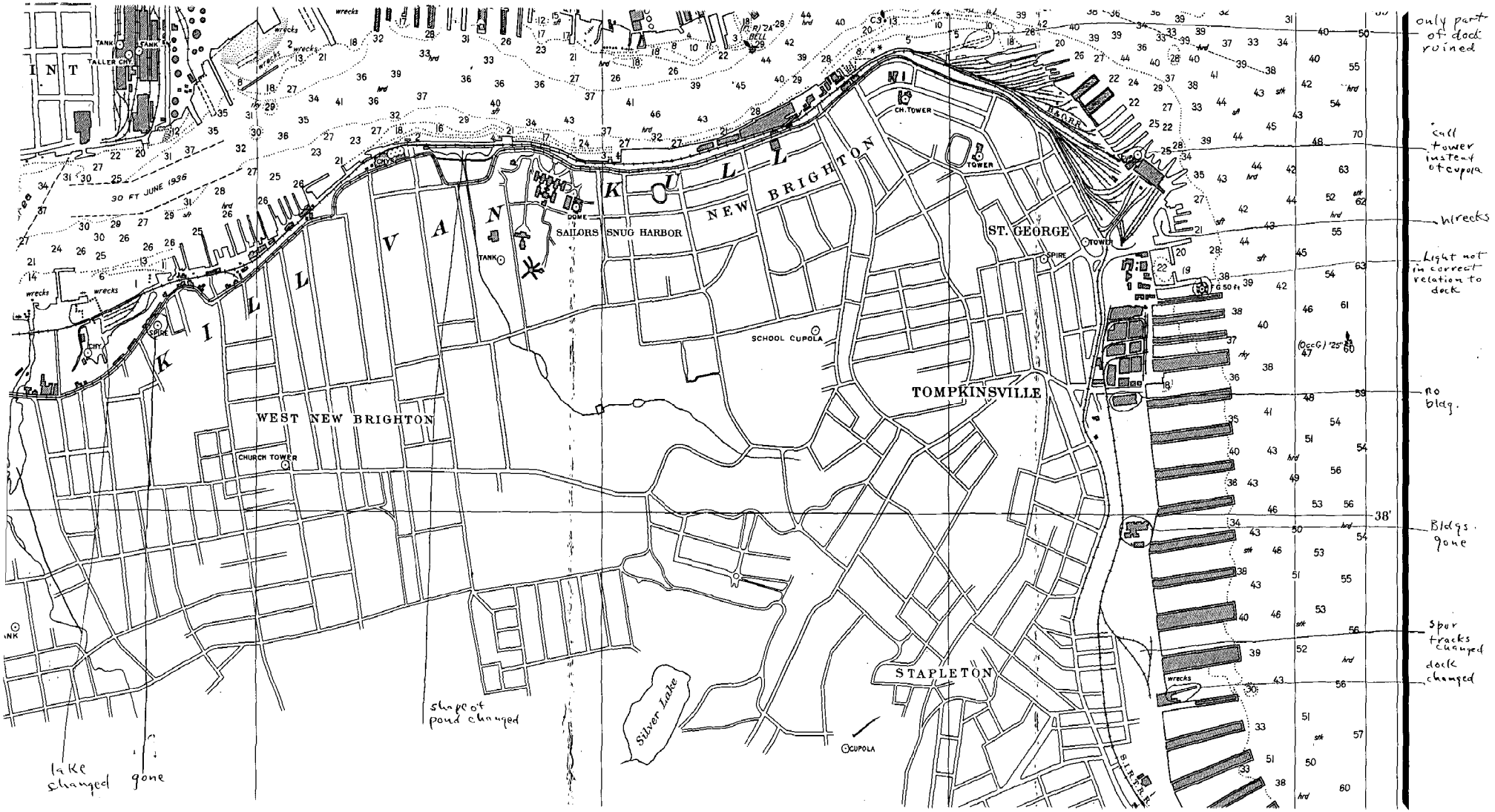
Examined and approved:

E. K. Green
Chief, Section of Field Records

Fred L. Peacock
Chief, Section of Field Work

L. O. Colbert
Chief, Division of Charts

G. Rude
Chief, Division of Hydrography and Topography.


only part of dock ruined
bell tower instead of cupola
wrecks
Light not in correct relation to dock
no bldg.
38'
Bldgs. gone
spur tracks changed
dock changed
lake changed
gone
shape of pond changed
KILLVAN
KILL
NEW BRIGHTON
ST. GEORGE
TOMPKINSVILLE
WEST NEW BRIGHTON
STAPLETON
SAILORS SNUG HARBOR
SCHOOL CUPOLA
CHURCH TOWER
CH. TOWER
TOWER
SPIRE
DOME
TANK
CITY
Silver Lake
CUPOLA
30 FT JUNE 1936