

# 5111

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Ed. June, 1928

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton Director

State: New Jersey

**DESCRIPTIVE REPORT**

Topographic } Sheet No. T 5111  
Hydrographic }

LOCALITY

Newark Bay  
Newark  
~~Newark, Newark Bay, Passaic River,~~  
Hillside

1935

CHIEF OF PARTY

Roswell C. Bolstad, Jr. H. & G. E.

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. 61 S

REGISTER NO. T 5111

State New Jersey

General locality Newark **NEWARK BAY**

Locality Newark, Newark Bay, Passaic River, Hillside **NEWARK**

Scale 1:10,000 Date of Photographs May 18, July 3,  
survey and July 31, 1932

Vessel Air Photo Compilation Party No. 12, New York City.

Chief of party Roswell C. Bolstad

Surveyed by See Statistics Sheet, page 2 of this report.

Inked by W.E. Hackett

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

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

Instructions dated November 15, 1932

Remarks: Compiled on the scale of 1:10,000 and

printed by photo-lithography.

*Applied in part (shore line & adjacent Topog.) to Chart 285  
Sept. 15, 1936 - H.B.*

*Partially applied to drawing of Chart 287 - Apr. 5, 1937 - J.W.*

*Applied to Chart 285 Jan 13 - 1938 Chas R. Bush Jr.  
Applied to Chrt 369 - 3/24/41 (Supp) P.B.C.*

- STATISTICS -

on

SHEET -FIELD NO. 618, REG. NO. T 5111

<u>PHOTOGRAPHS NO.</u>	<u>DATE TAKEN</u>
66-21-72 to 66-21-74	May 18, 1932
66-21-100 to 66-21-102	May 18, 1932
66-47-63 to 66-47-67	July 3, 1932
66-53-31 to 66-53-32	July 31, 1932

	<u>BY</u>	<u>DATE</u>	<u>From</u>	<u>To</u>
ROUGH RADIAL PLOT	<u>None needed, photos to scale 1:10,000</u>			
PROJECTION MADE ***	<u>H.L. Haskins</u>	<u>6/14/34</u>	<u>6/14/34</u>	
PROJECTION CHECKED	<u>W.D. Ayres</u>	<u>6/14/34</u>	<u>6/14/34</u>	
CONTROL PLOTTED	<u>D.B. Bennett - D.B. Bogart</u>	<u>7/2/34</u>	<u>and 7/9/34</u>	
CONTROL CHECKED	<u>W.D. Ayres</u>	<u>7/11/34</u>	<u>7/12/34</u>	
TOPOGRAPHY TRANSFERRED	<u>none</u>			
SMOOTH RADIAL LINE PLOT	<u>W.D. Ayres</u>	<u>7/14/34</u>	<u>7/20/34</u>	
RADIAL LINE PLOT CHECKED	<u>J.G. Albert</u>	<u>8/16/34</u>	<u>6/17/34</u>	
DETAIL INKED	<u>W.E. Hackett</u>	<u>10/6/34</u>	<u>12/4/34</u>	
PRELIMINARY REVIEW	<u>W.F. von Buehnen</u>	<u>4/15/35</u>	<u>4/22/35</u>	

AREA OF DETAIL INKED 12.0 Sq. Statute Miles (Land Area)

AREA OF DETAIL INKED 0.2 Sq. Statute Miles (Shoals in water area)

LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore) 10.1 Statute Miles

LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide) 55.2 Statute Miles

LENGTH OF ROADS, STREETS, TRAILS, RAILROADS etc. 321.4 Statute Miles

GENERAL LOCATION Newark, N.J.

LOCATION Newark, Newark Bay, Passaic River, Hillside.

DATUM North American, 1927.

STATION Alcohol 1931 Latitude 40° 43' 08.503" (262.3 m.)

Longitude 74° 07' 29.813" (699.7 m.)

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET, FIELD NO. 61 S.

GENERAL INFORMATION

The necessary field data for the compilation of this sheet is furnished in the Air Photo Field Inspection Report for Northern New Jersey, attached to the descriptive report for Air Photo Topographic Sheet, Reg. No. T 5112. Additional information was furnished by R.L.Fisher, W.E.Hackett and Lieut. R.C.Bolstad who are familiar with the topography of this area.

The accompanying STATISTICS SHEET (page 2) details all data in connection with the compilation of this sheet.

This sheet was compiled from single lens photographs taken by the Aero Service Corporation, 1612 Chancellor Street, Phila. Pa. The photographic prints are on the scale of 1:10,000 and are enlargements from the original negatives which were on the scale of approximately 1:21,850. The photographs were taken on May 18, July 3, and July 31, 1932. Since no record of the time these photos were taken is available, the tide could not be determined.

The topography of this area is constantly being changed, roads are being relocated, buildings razed, bridges being built, marshes filled etc. There will therefore be many places where the compilation will not agree with the photographs, as plans of these changes have been obtained from the various engineers of these projects and the changes have been shown on the compilation as they now appear or as they will appear in the very near future. This will all be discussed in the paragraph on INTERPRETATION further along in this report.

CONTROL

(A) Sources

The following sources of control were used in the compilation of this sheet:

(a) Triangulation by Lieut. R.W.Woodworth, 1930-1933, field positions unadjusted.

All control was placed on the North American 1927 datum before beginning this compilation. Although the adjustment was approximate, any difference between these positions and the final office computations would be so small as to be unnoticable on the scale of this compilation, (1:10,000).

The Aluminum Control Sheet Reg. No. 6124 executed by Lieut. I.E.Rittenburg in 1934, was finished after this compilation and so was not used in the control of the plot. (see comparison with other surveys)

(B) Errors

No errors in the control were discovered in making the radial line plot of this sheet.

Only triangulation was used to control this plot.



(C) Discrepancies

No control established by any other organizations was used in the compilation of this sheet.

(D) Changes

Aero Beacon (Newark Airport) 1931- The beacon has been moved from it's original position on the traffic tower. ~~to~~ *and has been relocated by triangulation (Bolsstad 1935).*

The present position is about 125' west of the southwest corner of the west National Guard Air Corps hangar. The new position

Latitude  $40^{\circ} 42.13'$

Longitude  $74^{\circ} 09.5'$

is recorded on form #~~524~~ 525

The building on which the beacon was ~~once~~ mounted remains in it's original position, only the beacon light has been moved.

COMPILATION

(A) Method

The usual radial line method of plotting was used in the compilation of this sheet.

(B) Adjustments of Plot

The photographs used in the compilation of this sheet are single lens. They appear to be within the maximum amount of tilt allowable. Photo No. 66-47-66 however has a great deal too much tilt.. This photo was only used where no overlapping photograph covered the area.

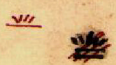
The radial plot is in general, strong and the photographs are nearly to scale. No excessive proportioning, to the extent of causing any appreciable error in the compilation was necessary. Differences in elevation of the ground near Lat.  $40^{\circ} 44'$ , - Long.  $74^{\circ} 11'$  at the westerly edge of this sheet caused a little more proportioning than is customary, but by adding a few points to the plot, this was kept within reasonable limits.


A number of radial points had to be picked at the intersection of only two radial lines as the pictures had insufficient overlap.

(C) Interpretation

Only the usual graphic symbols as approved by the Board of Surveys and Maps (1932) with the following exceptions:

The following symbols were used and adequately labeled on this compilation:-

 denotes a recent hydraulic fill which has not as yet reached it's final elevation. These hydraulic fills are generally placed over marshy areas and often settle considerably. It was therefore deemed necessary to denote these areas by some other symbol than the customary dots representing sand.

 denotes a cinder fill ~~None shown on this compilation~~ *See*

The double full line was used to denote first order roads, the double broken line to denote private driveways and roads of lesser importance. An exceedingly poor road or trail

Additional Note to the paragraph on Pennsylvania Railroad-  
Highway 21-

The newspaper clipping appears to show a small street diagonally across this block. This is a private roadway and has been blocked off at each end so that no passageway is available.

ADDITIONAL NOTE

Pennsylvania Railroad

Lat.  $40^{\circ} 44' 00''$

Long.  $74^{\circ} 10' 00''$

The point of switch just south of the C.R.R.N.J. overhead crossing has been omitted, as well as the six (6) tracks that are to be located within the limits that are shown on the compilation, as the exact location has not been determined by the Penn.R.R.

has been shown by a single broken line. In most cases, unless marked by the field inspection party, the classification of these roads had to be made under the stereoscope by comparing them with roads already marked.

The railroad trackage inside the limits of plants of private industries have not all been shown. As many as possible have been placed on the compilation and all connections to the main line tracks have been shown.

In the larger railroad yards it is impractical to show all the trackage. The limits of the yards have been shown, and at intervals, the correct number of tracks have been inserted between the limiting tracks so that the size of the yard may be determined. All main line tracks have been shown.

The broken lines between the limits of the bridges on Highways No. 29 and No. 21 at approx. Lat.  $40^{\circ} 42.5'$  Long.  $74^{\circ} 11'$  indicate that these highways are elevated on piers over the railroad yards.

Highway No. 25 at Lat.  $40^{\circ} 42.5'$  Long.  $74^{\circ} 09.7'$  to Lat.  $40^{\circ} 43.9'$  Long.  $74^{\circ} 07.9'$  is on a filled embankment.

In the vicinity of Triangulation Station "Old Tower" the marsh symbol has been shown in the water. This was done to approximate the actual condition as it appears in the field.

At Lat.  $40^{\circ} 40.5'$  Long.  $74^{\circ} 09.2'$  hatchures have been shown to indicate a dyke.

Dump limits have been indicated by dashed lines and labeled.

Pennsylvania Railroad - Highway 21 - Lat.  $40^{\circ} 43'$  Long.  $74^{\circ} 11'$  to Lat.  $40^{\circ} 44'$  Long.  $74^{\circ} 10'$  --

Highway No. 21 which runs parallel to the Penn. Railroad is under construction, but the exact course is not at the present time due to legal difficulties occurring in connection with condemnation proceedings. It is shown on this sheet in its present condition. It is believed that the highway runs thru the buildings at Lat.  $40^{\circ} 43.4'$  Long.  $74^{\circ} 10.8'$ , but this new location has not been shown on this compilation. This is illustrated by newspaper clipping No. 1 which is included in this report.

New location of the Pennsylvania Railroad Station at Newark and relocation of tracks. Lat.  $40^{\circ} 42.9'$  Long.  $74^{\circ} 10.1'$  -

The Pennsylvania Railroad Co. has made considerable improvements in their layout in this area. These improvements include a new station building with an allowance for eight (8) tracks at the station and realignment of various tracks to the southwest of the station and extensive rearrangement of various streets in this area. The sheet in this area shows the outside limits of the new arrangement of the tracks approaching the new station, rearrangement of the streets and the old tracks in use at the present time. This data was plotted on the photographs from a plan furnished by the Chief Engineer of the Newark Improvement Co. Penn. Station, Newark, N.J. A newspaper clipping of this area is included in this report as No. 2. It is expected that this project will be completed in the Spring of 1936. Even with the available information plotted on this sheet, this area is not complete as continual changes in the layout are being made. If the importance of this area seems to warrant, a small survey may be made or the final layout may be plotted on the sheet when the rearrangement of this area is completed. The Newark Improvement Co. will doubtless have record drawings upon completion of construction.



**Additional Note, Interpretation:-**

<sup>Lyons</sup> The street car lines having trackage on Broad St., Market St., Elizabeth Ave., Clinton Ave., Frelinghaysen Ave., Bergen St., Hawthorne Ave., Belmont Ave., Washington St., Wilson Ave., and East Terry St. have been omitted from this compilation due to the intricacy of the detail and these aforementioned streets have been labeled on the overlay sheet. A map of the City of Newark bearing the street names and covering this sheet and sheet No. T 5332 will be attached to this compilation.

The West Newark Branch of the Pennsylvania Railroad paralleling West Peddie St. has not been shown in complete detail. The main track has been shown but the sidings into the buildings have been left off. This track has been relocated several times in the last few years and may be relocated again soon.

The photographs of the Port of Newark Terminal show a Gantry Crane on the pier. Since the photographs were taken, this crane and the tracks on the pier on which it operated have been removed.

**Additional Note. - Newark Airport**

Since the pictures of this area have been taken, the runways of the Airport have changed considerably, as can be seen by referring to the newspaper clipping included with this report. These changes have not been recorded as the landing field is now being enlarged and the exact lines are not known.

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Highway 21:-

The routing of Highway No. 21 thru the business area of Newark, Lat.  $40^{\circ} 44'$  Long.  $74^{\circ} 10.1'$  has not been definitely located, but the Newark Municipal Market Bldg, shown on this sheet, has been partly removed to permit the construction of the new highway. This building is shown in its final position.

Weequahic Park:-Lat.  $40^{\circ} 41.98'$  Long.  $74^{\circ} 12.8'$ :-

A three way crossing is located in the Northwest corner of Weequahic Park. The lowest level is occupied by State Highway No. 29, the middle level by the Lehigh Valley R.R., and the uppermost level carries the road thru the park. This crossing is illustrated by newspaper clipping No. 3 & 4.

Marsh Area, Lat.  $40^{\circ} 41.3'$  Long.  $74^{\circ} 11.6'$  :-

Along Highway No. 25, and south toward Newark Bay, the marshy area is continually being filled in by means of hydraulic fill and city dumping. This sheet shows the limits of the fill at the time of the field inspection.

Seaplane Base, Lat.  $40^{\circ} 41.8'$  Long.  $74^{\circ} 07.9'$ :-

A seaplane base is now under construction at the Port of Newark for which the record drawings are not available at the present time. The area has been so labeled.

Junction, Highways, 21, 25, 29, Lat.  $40^{\circ} 42.5'$  Long.  $74^{\circ} 10.9'$ :-

This junction was partially under construction at the time the photographs were taken. The junction as shown on this compilation was obtained by field inspection and measurements.

A new administration building has been constructed at the Newark Airport. This was referenced in to nearby buildings that appeared on the photographs. This building is shown by newspaper clipping No. 5.

(D) Bridges

There are three bridges of importance to navigation on this sheet. The data on these bridges has been placed on the overlay tracing. The data was taken from the Atlantic Coast Pilot, Section B, 1933. Vertical clearances to Mean High Water.

(E) Information from other Sources

Blueprints of all railroads in this area were obtained direct from the engineering offices of the following railroad companies listed below.

Pennsylvania Railroad Co.

Lehigh Valley Railroad Co.

Central Railroad of New Jersey.

Blueprints of the highways, highway junctions, and Routes Nos. 21, 25 and 29 were obtained from the New Jersey State Highway Dept. Trenton, N.J.

Blueprints of the Newark Airport and Port of Newark were obtained from the Engineering Dept., City of Newark, N.J.

(F) Conflicting Names

There are no names shown on this compilation that conflict with any names shown on the present U.S.Coast & Geodetic Charts of this area.

COMPARISON WITH OTHER SURVEYS

The junctions with all adjoining sheets are satisfactory.

There are numerous differences between this compilation and the previous topographic sheets in this area, Sheet T 6124 by Lieut. Rittenburg, in 1934 and Sheet T 3431 g by Mr. J.H.Hawley.

Lieut. Rittenburg has shown the Port of Newark Terminal not shown by Mr. Hawley, but has not shown any of the detail in the interior as shown on Mr. Hawley's sheet.

The differences discussed here are mostly along the shoreline of Newark Bay and the Passaic River and occur between this compilation and Lieut. Rittenburg's Topographic Sheet, Reg. No. T 6124.

T6124 is on the North American 1927 Datum as is this compilation and a direct comparison could be made without adjusting for datum.

Near Lat.  $40^{\circ} 42.4'$  Long.  $74^{\circ} 07.3'$  there is a difference of approximately 8 m. in the high water lines as obtained by Lieut. Rittenburg and this compilation. The shoreline in this area is formed by a wooden bulkhead in poor condition having a line of piling about three or four meters offshore from it. This compilation shows the high water line at this bulkhead with a dashed line offshore to represent the piling. The bulkhead projects about one foot above normal high water. It is possible that Lieut. Rittenburg has shown the storm high water mark which is several meters higher up the beach.

In the above location the field inspection party did not see anything corresponding to the projection on the bulkhead shown on the topo sheet. Some piling was spotted in the same location and it is possible that the projection is meant to indicate this piling.

The dock at the Gross Co. is a platform built from the bulkhead out to the continuous line of piling alongshore. This is correctly shown on the compilation.

At Lat.  $40^{\circ} 42.8'$ , Long.  $74^{\circ} 07.4'$  is the Wilson Ave. Landing, a public landing. The wreck in the southeast corner of this basin is as shown on the Topo Sheet but the high water line is as shown on the compilation. A barge aground forms the northerly side of this basin.

At Lat.  $40^{\circ} 42.9'$  Long.  $74^{\circ} 07.4'$  a section of the bulkhead is in ruins and the highwater line falls behind the bulkhead line. There are a few piles remaining on the bulkhead line and these are indicated by a broken line. This same condition exists about 50 m. to the northward.

At Lat.  $40^{\circ} 43'$ , Long.  $74^{\circ} 07.4'$  the high water line appears further inland than is shown on the topo sheet. A building showing on the photos of this area has been destroyed by fire and has been omitted from this sheet. The catwalk continuing the bulkhead line has also been partly destroyed and is shown broken on this compilation.

At Lat.  $40^{\circ} 43.2'$  Long.  $74^{\circ} 07.4'$  the pier differs slightly in shape from the one shown on the topo sheet. It exists as shown on the compilation.

At Lat.  $40^{\circ} 43.3'$ , Long.  $74^{\circ} 07.4'$  the bulkhead line runs north from the northeast corner of the small building shown on the compilation and not from some point on the ~~west~~ side of the building as the topo sheet shows.

At Lat.  $40^{\circ} 43.9'$ , Long.  $74^{\circ} 07.2'$  a steel wire rope is stretched across the entrance to the small basin at the mouth of the creek. This rope sags in the water and is not readily seen. A dock tender nearby stated that a year or two ago, the Public Service Corp. had a ferryboat in this basin that they were dismantling and that it may have sunk. No depths were taken to verify this as a sounding line was not available. The marine railway at this basin is operated by the Public Service Corp. only for their own boats, and this cable may be placed across this basin to insure privacy.

At Lat.  $40^{\circ} 41.5'$ , Long.  $74^{\circ} 08.0'$  there are several discrepancies between this compilation and the previous surveys in this area, and a few changes that are not shown on the photographs. The shoreline north of the pier on the north side of the Port of Newark Terminal is being cleared for the construction of a seaplane base. The wrecks in this area are being removed. Therefore the wrecks shown on the photographs and on Topographic Sheet T 6124 are not shown on this compilation. The foreman in charge of this work stated that the wrecks will probably be removed completely by the end of the summer. He also stated that he had no orders to remove the sunken wreck at the easterly end of the pier. Therefore this wreck has been shown on this compilation.

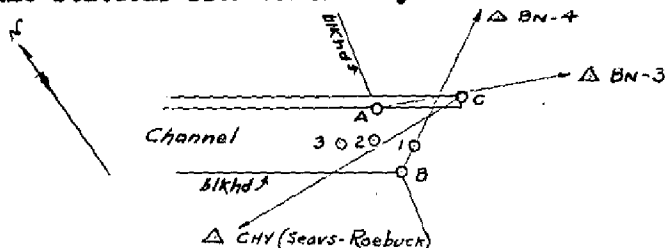
The shoreline outside of the bulkhead in the area north of this pier is made up of the remains of the marine railways of the Submarine Boat Co. A field inspection was made in this area to determine whether these railways were located as shown on the sheet T 6124 or as on the photographs. The photographs were checked by direct measurements and the ways are shown on this compilation as indicated by the photographs and not as indicated on the topographic sheet.

At Lat.  $40^{\circ} 41.5'$ , Long.  $74^{\circ} 08.3'$  there is a section of the bulkhead on the south side of the Port of Newark basin. The high water line is as shown on the compilation and no evidence of any continuation of the bulkhead line as shown by a dashed line on sheet T 6124 is visible in the field.

Topographic Sheet 6124 shows a jog in the bulkhead line on the north side of the Port of Newark basin about one fourth of the distance from the west end. A careful inspection in the field determined that this bulkhead line is straight from the west end to the angle about two thirds of the distance from the west. There is very definitely no jog or break in the line as shown on the topo sheet.

All of the buildings and railroad trackage of the Submarine Boat Co. plant shown on Chart No. 287 have been removed.

Topographic Sheet No. 6124 shows two piles in the entrance to Port Newark Terminal. Field inspection shows that there are three piles in this entrance and the location of these piles was determined in the field by sextant angles, as they could not be spotted on the photographs. The sketch below shows the location of the points at which the angles were taken and the tabulation lists the angles and the stations from which they were taken.



Point "A" is on the face of the bulkhead on the line of the bulkheads to the north and south.

Point "B" is on the intersection of the bulkheads on the south and east sides of the Port of Newark Terminal.

Point "C" is on the northeast corner of the pier and is also marked by four copper nails in the form of a triangle, presumably a station of some other organization.

At point "A"				0	1	"
Beacon No. 3 to pile No. 1	54	53	40			
Beacon No. 3 to pile No. 2	101	01	00			
Pile No. 1 to pile No. 3	83	10	00			
At point "B"						
Beacon No. 4 to pile No. 1	01	47	50			these angles
" " 4 to " " 2	55	51	00			:-were taken
" " 4 to " " 3	76	45	40			counter-clockwise.

At point "C"						
Pile No 1 to Chy Sears&Roebuck	16	25	00			
Chy, Sears&Roebuck to pile No.2	07	38	40			
" " " to pile No.3	15	10	40			

The angles at Point "B" were taken counterclockwise, the remainder are listed in clockwise order.

At the same time angles were taken to Signal "TUG" and which, when plotted on this compilation were found to check the location of this signal as given on sheet T 6124. These angles have not been listed.

\* At lat.  $40^{\circ}11.2'$  long  $74^{\circ}08.4'$  there is a difference of 8 mm. in the alignment of the bulkhead not mentioned previously. The photographs are not in the office, but the compilation is accepted as correct as it is known that Lieut. Bolstad made a personal investigation and checked the photo plot.

Additional Note

The new Control Station on the top of the new Administration Building at Newark Airport

Latitude  $40^{\circ} 42.38'$

Longitude  $74^{\circ} 09.5'$

is recorded on form #524 525

Additional Note:

Lieut. Rittenberg's Topographic Sheet No. 6124 was received after the completion of the compilation of this sheet. All described stations were picked on the pictures and checked by the radial line plot. Station Clear (d) is not shown on the compilation as it is impossible to identify the gage on the pictures! Has been added in office

D.H.B.

At Triangulation Station "Old Tower" a field inspection was made and it was found that the interpretation of the High Water line on Topographic Sheet 6124 does not agree with the interpretation of the high waterline on this compilation. This is a low, marshy area with no distinct change in elevation. There is, however, a very distinct change in the type of marsh grass found growing on this area. The high water line as shown on this compilation is the line of the change in the vegetation. Above this line the grass grows tall and reedy and is similar to the grass found growing on the adjoining upland, below this line the grass is short and is typical of the grass found growing on areas that are flooded at every high water. It is possible that the area between the high water line shown on sheet T 6124 and the high waterline shown on this compilation is flooded occasionally by spring tides. All this area is flooded by storm tides as the storm high water line is definitely back on the dike to the westward.

At Lat.  $40^{\circ} 41.9'$  Long.  $74^{\circ} 07.4'$  Sheet T 6124 shows some piling. This piling is visible on the photographs but does not agree with the topographic location of these piles. They have been shown on this compilation from the photographs.

At the mouth of Bound Cr. there is a little difference in the high water line. The high water line on sheet T 6124 has been accepted as correct. The numerous differences between this compilation and the present charts are due mostly to reclamation projects.

\*

#### LANDMARKS

The list of landmarks for this area, including those to be removed from the charts, has been previously submitted by Lieut. R.W.Woodworth in March, 1933.

There is, however, one landmark shown on Chart No. 287 and appearing on this sheet for which no accurately scaled position was available. This was located on the sheet by the radial line plot. The geographic position has been scaled to the nearest meter.

Chy. Lat.  $40^{\circ} 43'$  1841 (10) meters.  
Long.  $74^{\circ} 09'$  703 (705) "

Four other recoverable objects have been shown on this sheet by the small black circle. These will be listed on a separate sheet in this report under the heading "Recoverable Topographic Stations, Class "C" Landmarks".

~~U.S.E.D. Sta. N.Y. 22A has been located by the radial line plot and described on Form 524 which will be included shipped with the sheet.~~

Mention has been made under CONTROL (D) Changes to the fact that the Aero Beacon at Newark Airport has been moved.



RECOMMENDATIONS FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of not over ~~two~~<sup>4</sup> (2) meters in well defined detail of importance for charting purposes and of not over ~~four~~ <sup>10 meters</sup> (4) meters in other data. The widths of roads and similar objects may be slightly expanded in order to keep the detail clear and to keep it from photographing as a solid area in the photolithographic process.

To the best of my knowledge this sheet is complete in all detail of importance for charting purposes, within the accuracy stated above, and additional surveys are not required.

Submitted by,

Assisted by,

*H. L. Hawkins*  
H. L. Hawkins

Draftsman.

*W. E. Hackett*  
W. E. Hackett  
Surveyor.

LIST OF RECOVERABLE TOPOGRAPHIC

STATIONS

This list includes all recoverable objects, sufficiently prominent for use as hydrographic "fixes", and recoverable topographic signals shown on this sheet by small black circles.

<u>Name and</u> <u>Description</u>	<u>Latitude</u> ° ' "	<u>Longitude</u> ° ' "	<u>Method of</u> <u>Determination</u>
* N B 22A (U.S.E.D.)	40° 41' 13.50".5m.	74° 08' 52.0".1m.	A.P.T.
**Til (d) Water Tank	40° 42.6'	74° 07.45'	A.P.T.
**Ra t (d) Brick Stack	40° 43.27'	74° 07.43'	A.P.T.
Chy.	40° 43' 18.41 (10)m.	74° 09' 703(705)m.	A.P.T.
Tug (Stack on wrecked tug)	40° 41' 50.8m.	74° 07' 727m.	A.C.S.

A.C.S. denoted aluminum control sheet.

Note: A.P.T. denotes air photo topography.

\* Described on Form 524 by this party  
description included with report.

\*\* Described by previous field party.

Survey No. T 5111

Chart No. 369  
287

Under investigation. Q

Names underlined in red approved  
by K.T.A on 1/24/36

REVIEW OF AIR PHOTO COMPILATION T 5111

Scale 1:10,000

Photographs taken 1932; compiled 1935

The projection on T 5111 is not very good. Only one line is exactly straight, the others all being bowed about 2 meters in the center, so that the diagonal measurements will not check. No error greater than 3 1/2 meters was found, and that occurred on the end meridian 74° 13' at latitude 40° 42'. No other errors were found greater than 2 1/2 meters. The northern edge of the sheet was cut along parallel 40° 44' and is not quite straight.

Comparison with graphic control survey T 6124 (Oct. 1934, 1:10,000)

In checking the projection of T 6124 in this office it was found that the spaces between the meridians are all too great by 2 meters, the parallels being correctly spaced. As the triangulation stations were plotted from this projection a slight error is introduced so that the control points on T 6124 do not match exactly with similar stations on this compilation.

T 6124 was compared with the compilation very carefully in the New York office and a complete discussion of differences is included in the descriptive report, T 5111, on pages 7 to 10 inclusive. These differences were all investigated in the field and the compilation is accepted as correct.

There was a small discrepancy between the position of topographic signal RAT (d) as radial plotted on T 5111 and as shown on T 6124. There was some difficulty experienced in picking the point on the photographs so the plane table position is accepted as correct and has been transferred to the compilation.

Two other recoverable topographic stations were plotted on the compilation in this office:

<u>Station name</u>	<u>Filed under</u>
N. B.20 USED (d)	T 6124
Clear (d)	T 6124

Plotted by D. H. Benson; checked by V. R. Sobieralski.

This compilation shows all detail shown on T 6124 within the limits of the compilation except the following:

- (a) Temporary topographic stations.
- (b) The magnetic meridian.
- (c) A sunken drydock and a hulk at lat. 40° 41.4', long. 74° 08.1' discussed on page 8, paragraph 6, of the preceding descriptive report T 5111.

Comparison with hydrographic survey H 5608 (Oct. 1934., 1:10,000)

No discrepancies were noted between H 5608 and the compilation, except that H 5608 used the shoreline from graphic control survey T 6124 discussed above. No conflicts with soundings exist.

Comparison with previous surveys:

T 10 (1836, 1:10,000)

The topography has changed so much since 1836 due to development of cities and industries that no useful comparison can be made. The compilation is adequate to supersede ~~T 10~~. *The section of T 10 which it covers*

T 533 (1855, 1:10,000)

In the areas of manufacturing and shipping facility developments the waterfront has been shifted east from 200 to 500 meters. At lat. 40° 40.5', long. 74° 09.1' where no development has taken place the shore of the marsh is substantially the same as in 1855.

The compilation is adequate to supersede ~~T 533~~. *The section of T 533 which it covers*

T 729 (1858, 1:10,000)

Same as for T 533.

T 1719 (1887, 1:10,000)

T 1719 shows a jetty at lat. 40° 41', long. 74° 08.6'. The marsh has built up to within 200 meters of the end. There is a rock crib on T 5111 near the end of the jetty position which may be the remains of the old jetty. From the jetty north to lat. 40° 12.8', long. 74° 07.4' the marsh has been filled in extending the shoreline east up to 900 meters. South of the jetty the shoreline is the same as formerly and north of 40° 42.8' the shoreline is substantially in the same location as formerly except for the development of piers along the waterfront.

*The compilation is adequate to supersede the section of T 1719 which it covers*

T 3431 (1913, 1:10,000)

The development of main importance since 1913 was the area at lat. 40° 41.5', long. 74° 08.5' where the Port Newark Terminal has been developed, a dock 1250 meters long by 210 meters wide with 30 feet of water having been dredged out and the dredging used to build out the marsh about 600 meters in the immediate vicinity. Otherwise there has been little change in the shoreline. There has been some relocation of railroad tracks and some development of the waterfront.

The compilation is complete and adequate to supersede ~~T 3431~~. *The section of T 3431 which it covers*

T 3431b and c (1915, 1:10,000)

Topographic surveys T 3431b and c were made to keep pace with work



of reclaiming the marsh areas at Newark.

The compilation is complete and adequate to supersede ~~T 3431 b and c~~. The sections of T 3431 b and c which it covers.

Comparison with charts

Changes to be made in the charts are discussed under comparisons with previous surveys.

All landmarks shown on the present chart 369 within the area of this compilation are shown on this compilation ~~except for "Clock Tower" Lat 40° 43.9', Long 74° 08.8'.~~ \* See below

All new landmarks recommended by Lieutenant Rittenburg in 1934 (see list in report, T 6124) within the area of this compilation are shown on the compilation. See preceding page 10, for LANDMARKS. Newark Airport Bn has been moved and new position is shown on this compilation.

D. H. Benson  
"Bg Jones"

\* The compilation as submitted by the field party did not show the clock tower on chart 287 at Lat. 40° 43.9', Long 74° 08.8'. The photographs show a tower at this position and it has been plotted in this office. Only two photographs were available for plotting the tower and the radial plot does not have a check cut but the position checks with the position on chart 287 and both photos are well controlled. There are numerous intakes and towers in this area and the ~~value~~ prominence of this tower ~~cannot~~ as a landmark cannot be determined from the photos.

Bg Jones



## REVIEW OF AIR PHOTO COMPILATION NO. T 5111

Chief of Party: Roswell C. Bolstad

Compiled by: See page 2  
of this report.Project: New York Air Photo Compilation Instructions dated: Nov. 15, 1932  
Party No. 12

- ✓ 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)
- ✓ 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 ~~marshy~~ 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)  
All bridge data has been placed on the overlay tracing.
- ✓ 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 North American and the reference station is correctly noted. 1927
- ✓ 14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
- ✓ 15. The drafting is <sup>fair</sup> 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.  
See last paragraph on page 5 of this report.

✓ 17. Remarks:

18. Examined and approved;

Preliminary Review,

W.F. von Buehren

*W.F. von Buehren*

*Roswell C. Bolstad*

Roswell C. Bolstad

Chief of Party

19. Remarks after review in office:

Reviewed in office by: *B.G. Jones*

Examined and approved:

*C.K. Green*

Chief, Section of Field Records

*L.O. Lobnitz*

Chief, Division of Charts

*F.B. Borden*

Chief, Section of Field Work

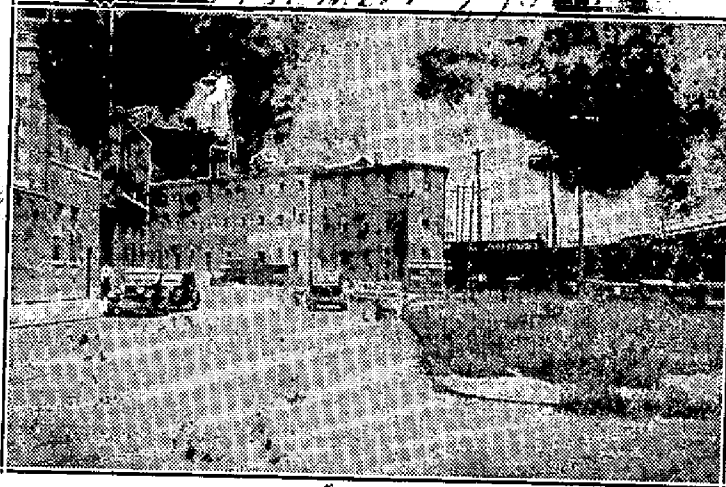
*G. H. Hilde*

Chief, Division of Hydrography  
and Topography.

DESCRIPTIVE REPORT FOR SUPPLEMENTAL T-5111

1. Details in red on T-5111 Supplemental were applied to the Supplemental November 19, 1940. These additions and corrections were plotted in the office by ~~E. E. Elkins~~ *LV Evans*, without field inspection from 9 lens photographs taken July 5, 1940. *H. J. Jones*

## BARRIER TO COMPLETING ROUTE 21



Route 21, recently named the McCarter highway, cannot be completed through Newark until the building in the center background is removed. The structure is part of the Wilkinson-Gaddis plant at New Jersey Railroad avenue. The city and the State Highway Commission have been unable as yet to agree on any plan for sharing the cost of acquiring the property.

Condemnation proceedings probably will be resorted to, and Chief Engineer Costello of Newark says it is up to the state to ask the courts to appoint a commission for that purpose. On the other hand, it is understood that the highway board is loath to sink any more money in the Route 21 project until some settlement is reached on the state's bill of \$2,300,000 against Newark for extra land purchased elsewhere along Route 21 to provide a wider roadway.

Costello's comment on this argument is that if it is up to the state to go ahead with the construction work and allow the matter of finances to be adjusted by negotiations with the city later on.

*Sunday Oct 7, 1934*

## Philadelphia Party Ready to Lead Nation to Prosperity

al to Newark News.  
PHILADELPHIA—The Republican stands ready to lead the nation from "bewilderment into prosperity and security" because it has "rededicated to the principles of liberty under law and social justice." Governor Hoffman of New Jersey declared today.  
Governor Hoffman came here to address the Young Republicans of Philadelphia County at a luncheon at the Bellevue-Stratford Hotel. He 1,200 the time had arrived for a younger element to rally to a reorganization of their party.  
"The place in the history of the nation," Governor Hoffman said, "the party has been chosen to serve as a 'respite' to a people distressed and bereaved."

### "Renewed Militancy."

on we shall see a great resurgence to the principles of Republicanism," said Governor Hoffman. "The Republican party has touched into renewed militancy since its defeat in 1932. As a result of that defeat youth has stepped forward to share in a leadership which has been held too jealously in aging hands. Young Republicans have rededicated the party to the principles of liberty under law and social justice."

viewing the history of the Republican party, Governor Hoffman said it was first called a national party in 1860 when it was the first. Again in 1896, he said, it stepped forward to restore democracy. The third time, he declared, the party came forward to "serve as a rallying point for unity and orderly social progress."

discussing today's problems, Governor Hoffman said:

"The present we are faced with the necessity of producing a sound recovery for the nation, a recovery which extends beyond the material gains of life. We need to clarify only the conditions surrounding production and distribution of goods; we need also a revival of pride, of self-sacrifice in the defense of our rights of citizenship in a great republic."

### Not Hopeless.

at the moment our normal process of distribution is out of gear. It is not, however, hopelessly out of repair. We don't need an entirely new and strange system. Remove the rank uncertainties of governmental policy now obstructing its functioning, and we shall soon have an American institution in flourishing condition again."

Governor Hoffman reviewed the campaign in New Jersey which resulted in the election of a Republican Governor, Legislature and Congressional delegation.

Young Republicans had no party organization, no

## Conditions Within My Own Time

PITTSBURGH (AP)—To Andrew W. Mellon, active and optimistic, America's financial upheaval of the last few years is just "a bad quarter of an hour." The former Secretary of the Treasury and builder of one of the great industrial empires will be 80 tomorrow.

"America is going through a bad quarter of an hour, but present conditions, however distressing, especially in terms of human suffering, reflect only a passing phase in our history," he said.

"Even at 80 one does not acquire the gift of prophecy, but I look forward to seeing a return of normal conditions again within my own time. New generations are coming on and science and new inventions and the advance in human intelligence will solve many problems that now seem insurmountable."

His observations were made just before Mellon left for New York to visit with his daughter Alisa and her husband, David K. E. Bruce, son of the late senator from Maryland.

Except for a cough that has troubled him several weeks, Mellon appears in excellent health. He arises about 7:30 A. M. and gets to his downtown bank at 9. Usually he eats a good breakfast and lunch but a light dinner. He leaves his office in the Mellon National Bank at 5. He retires about 10 P. M. He reads considerably, principally histories, biographies and an occasional novel.

Close friends do not expect him ever to return to an active business career. His chief interest, they say, is his projected national art museum to be established in Washington. The statutory limit for his returning to business since quitting the Treasury Department passed recently, but he has made no move to become a director in any of the many vast enterprises in which he and his family have interests.

At his income tax hearing, now under way, it was disclosed that Mellon's personal wealth was estimated at about \$205,000,000 before he gave huge blocks of securities to his children or their holding companies.

On his seventy-fifth birthday he said he found life "full and interesting" and that if he had his choice of living another seventy-five years he would select the next three-quarters of a century and "would live it in America."

Does he still feel that way despite his income tax difficulties and reports some wealthy Americans are contemplating the transfer of their homes to Europe?

"Certainly, I do!" was his quick reply.

## Crime Conference Held in Cape May

Special to Newark News.  
CAPE MAY COURT HOUSE—Cape May County authorities met yesterday in the first county crime



ANDREW W. MELLON.

## Trio Held in Theft Of House Fixtures

Special to Newark News.

PLAINFIELD—Jay A. Griggs, 32, of 201 Rock avenue and George O'Keefe, 25, of 1348 West Front street, Plainfield, and George Quest, 35, of Newark were each held in \$1,000 bail yesterday by City Judge William G. De Meza until Monday pending investigation of theft of plumbing fixtures from several unoccupied dwellings. Griggs and Quest were arrested by Detective Sergeant John V. Denny as they allegedly were attempting to remove from a field in Myrtle avenue a sink which allegedly had been taken from a house at 1532 Myrtle avenue.

O'Keefe, who is said to have escaped when his companions were arrested, was apprehended an hour later at Clinton avenue and West Front street by Sergeant Denny and Patrolmen Leo Wilson and Leonard Young. All three are charged with the larceny of plumbing fixtures from the house at 1532 Myrtle avenue.

Fixtures have been stolen from unoccupied dwellings at Nos. 1526, 1528 and 1532 Myrtle avenue, all of which are owned by the Tenth Ward Building and Loan Association, Newark. The value of the fixtures and damage caused by their removal is said to be approximately \$600. Sinks, toilet bowls, lead pipes, furnace fittings, gas heaters and numerous faucets have been ripped out of their places in the dwellings, police say.

The trio was apprehended Thursday night as they allegedly returned for a basin which is said to have been taken from the dwelling earlier in the afternoon. Fixtures also have been stolen from houses in other sections of the city, according to police.

## Plans Long Sessions Each Day Next Week in Economy Drive

Trenton Bureau.

TRENTON—The Assembly economy committee has laid out an act program for next week. It contemplates five days of work, starting 1:30 each afternoon and continuing until 10 or 11 o'clock each night.

The following week, when Legislature will again be in session, will be devoted to conferences and preparation of a report which the committee assured Speaker Clee yesterday would be ready for presentation to the Assembly by April 15. It will, then remain to be determined what, if any, additional taxes are necessary. Clee expressed satisfaction with the progress the committee has made and approved its plans.

As a result of its two sessions yesterday the committee decided to recommend that approximately \$1,000,000 of the construction program of the Department of Institutions and Agencies be deferred and that old pensions be continued as a charge against emergency relief funds rather than being met from the general treasury.

### 5 Per Cent Reduction.

A flat 5 per cent cut in all budget items of the department, except savings which might be covered by separate bill, and expansion of probation system to reduce the number of state wards were suggestions which will be given further consideration. The 5 per cent cut was estimated to effect a saving of \$155,000 year. It was estimated from \$250,000 to \$300,000 might be saved by extending the parole and probation system.

Another proposed economy contemplated creation of a central department to handle all engineering problems of state departments having engineering divisions.

Emmett T. Drew, secretary to Public Utilities Commission, one of the witnesses at the afternoon session, foresaw difficulties that might be encountered in bringing together activities of specialized engineers but agreed they might not be insurmountable.

### Calls State Groups.

The committee estimated the effect of continuing old age pensions emergency disbursements would be to make available about \$1,800,000 general funds which otherwise would have to be devoted to payment of pensions.

Budgets of the State Police, Department of Agriculture and Board of Commerce and Navigation will be considered Monday. The remaining schedule for the week follows:

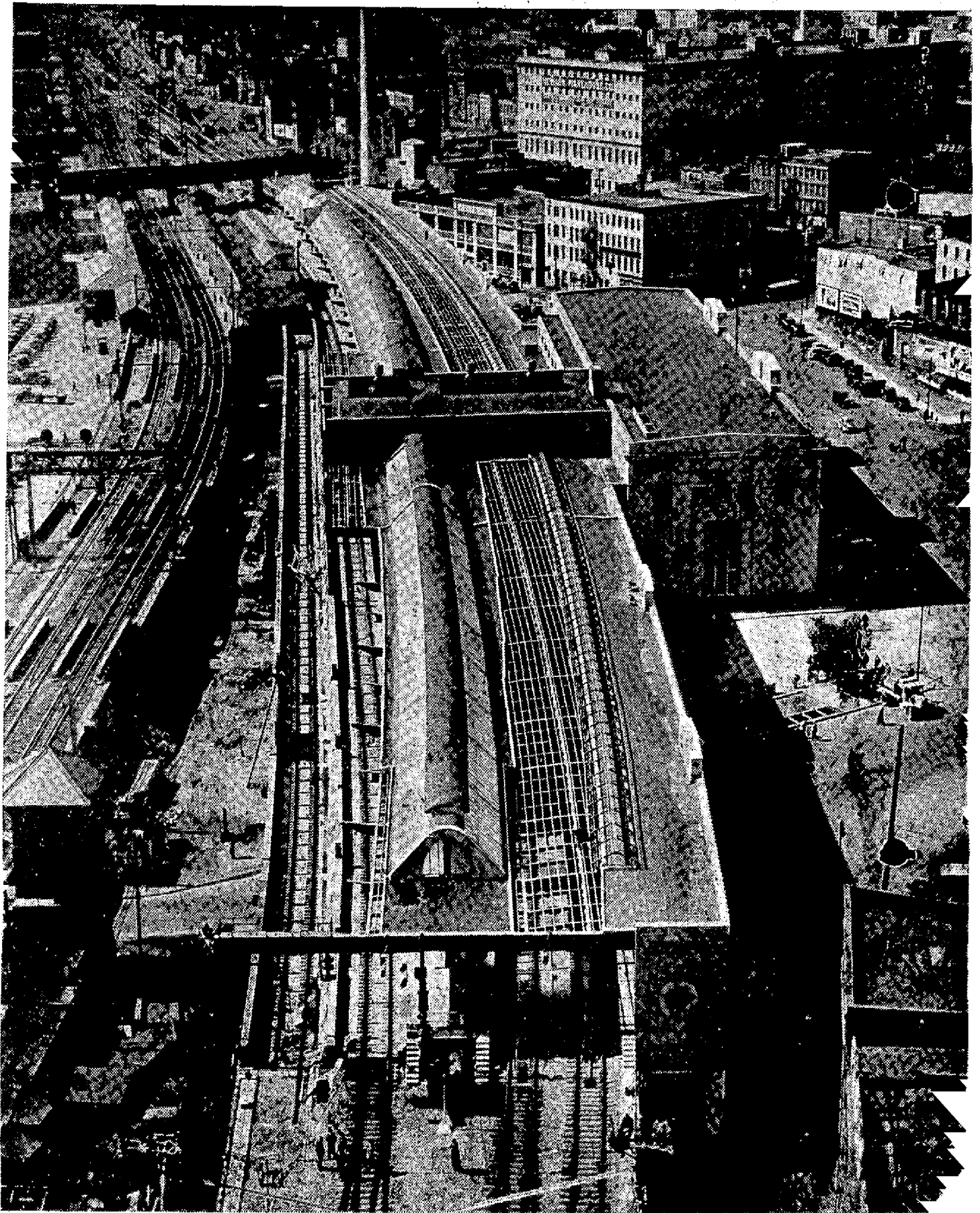
Tuesday—Board of Regents, Department of Labor and Fish and Game Commission.

Wednesday—Banking and Insurance, Department of Health, Conservation and Development, Supreme Court and Court of Chancery.

Thursday—Weights and measurement, house supervision, tax appeals and aviation.

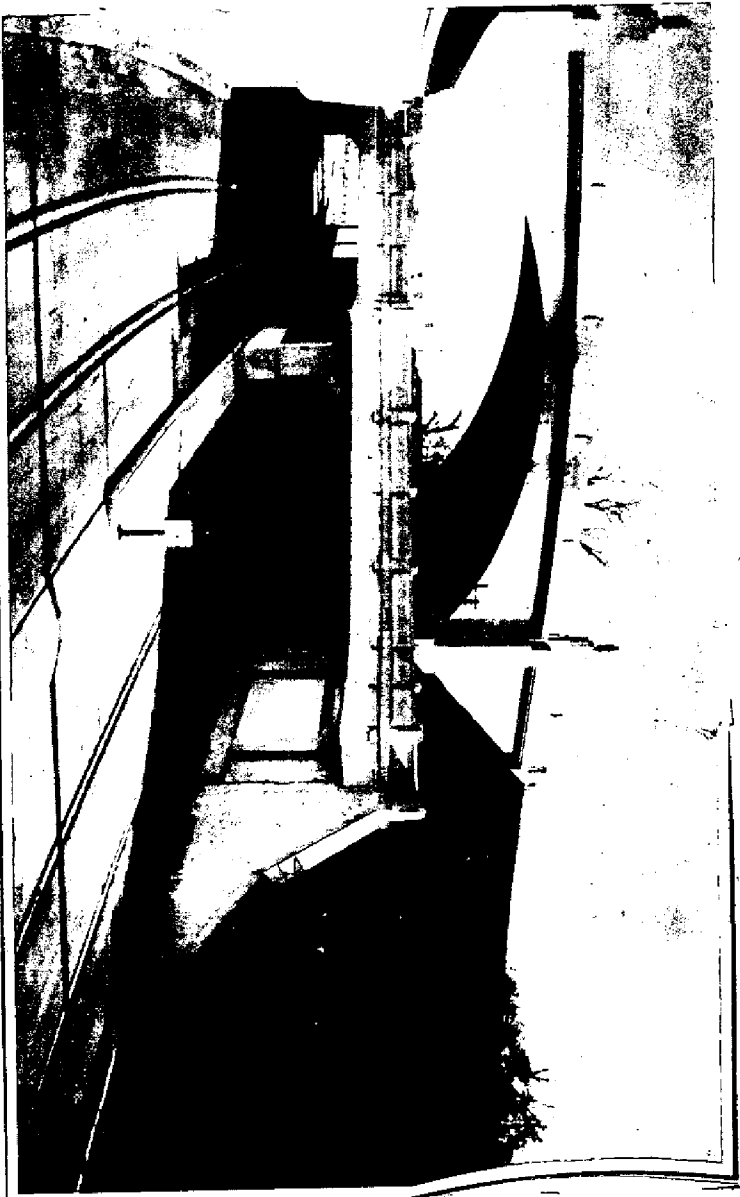
Friday—Alcoholic Beverage



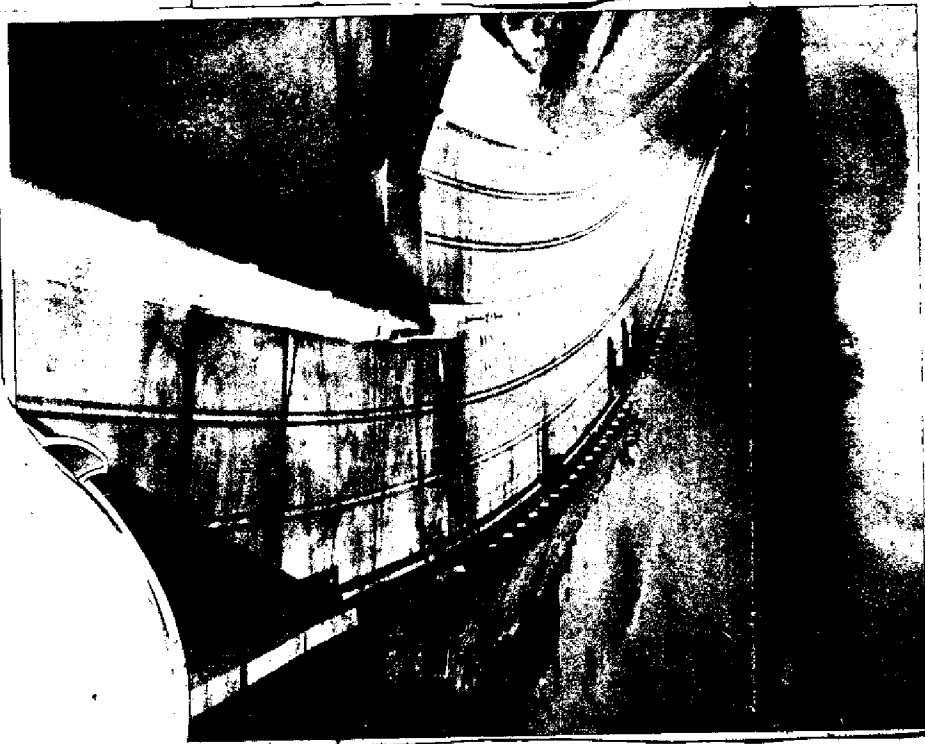


P. R. R. STATION FROM TOP OF NEW PASSAIC RIVER BRIDGE

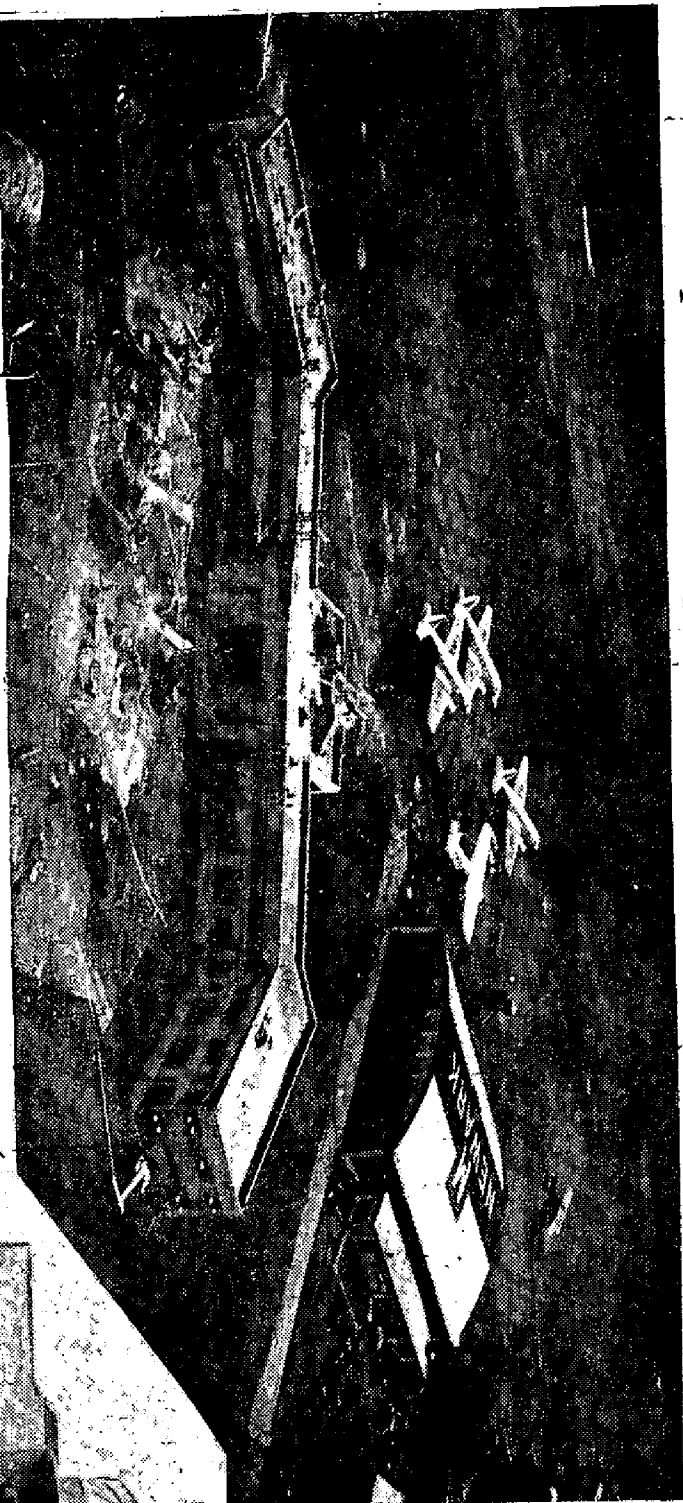
Newark Sunday Call  
Jan. 21, 1937



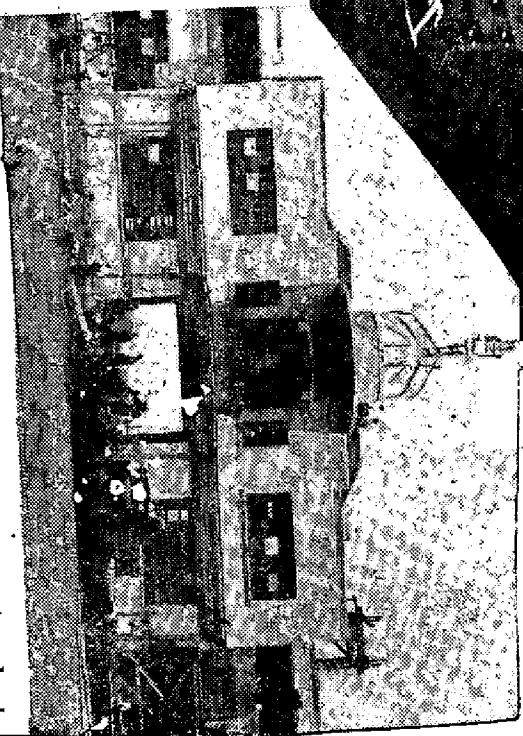
ROBERT C. NUFFORT, 15 years old, sends these two interesting views of new bridge construction and Route 29 at Weequahic Park. Upper picture is from top bridge. The other is taken from the highway. A folding Kodak No. 1 was used. Amateur photographers with prints of excellence are invited to send them to the Artgrave Editor, and the best will be reproduced in this section.



# Newark Airport Building That May Become Union Terminal



General view of building that may be used as a central terminal at Newark and three of T. W. A.'s new Douglas monoplanes and one old Ford transports



Front of structure which was originally intended as an Army headquarters. It is being erected by relief workers. The city is seeking it as a central headquarters for all passenger lines operating at the field

New York Herald Tribune  
Aug 26, 1934

The Sunday Call, Newark, N. J., May 12, 1935.



REMARKABLY CLEAR STUDY of Newark Airport, showing its complete layout except for one other hangar at left. In left center is new \$500,000 administration building which will be dedicated Wednesday, National Air Transport Day. Building contains offices, waiting rooms, accommodations, restaurants and other features of transportation terminal.

T-5111 - applied to new compilation  
chart 257, June 1938 J.B.H.