

THE PORT OF NEW YORK AUTHORITY

PORT AUTHORITY LIBRARY

Commissioners—New Jersey

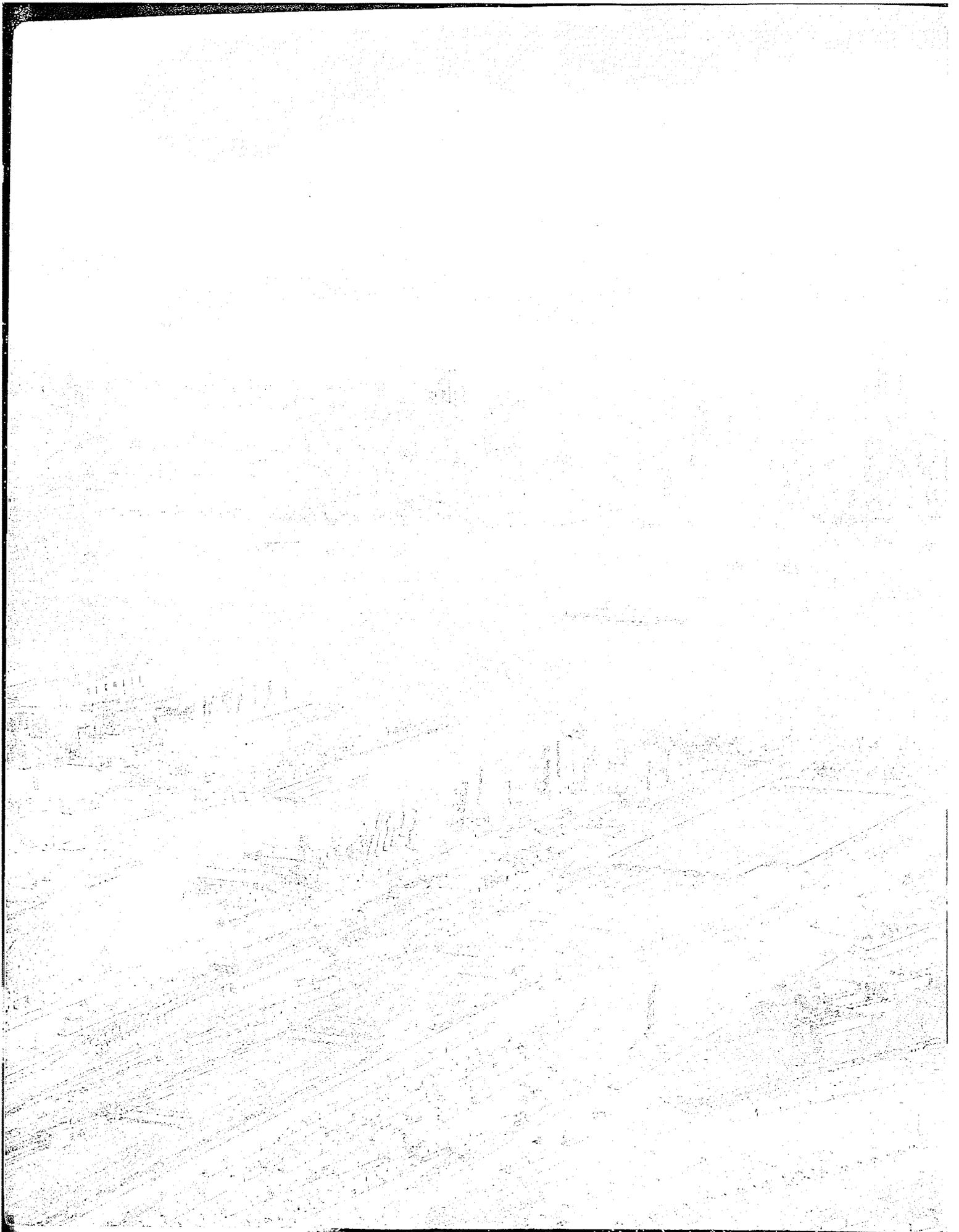
JOSEPH M. BYRNE JR., *Vice Chairman*
FRANK D. ABELL
DONALD V. LOWE
F. PALMER ARMSTRONG
HORACE K. CORBIN
JOHN BORG

Commissioners—New York

HOWARD S. CULLMAN, *Chairman*
EUGENE F. MORAN
BAYARD F. POPE
S. SLOAN COLT
CHARLES S. HAMILTON JR.
CHAS. H. SELLS

Thirtieth Annual Report **19**

387.1
P83A
1950
cop 1







Commissioners—New Jersey

Joseph M. Byrne Jr.
Vice Chairman

Frank D. Abell

Donald V. Lowe

F. Palmer Armstrong

Horace K. Corbin

John Borg

Commissioners—New York

Howard S. Cullman
Chairman

Eugene F. Moran

Bayard F. Pope

S. Sloan Colt

Charles S. Hamilton Jr.

Chas. H. Sells

THE PORT OF NEW YORK AUTHORITY

30th

Annual Report

For the Year Ended December 31, 1950



Honorable Alfred E. Driscoll
Governor of the State of New Jersey

"The answer to 'big government' in Washington is interstate cooperation and the agency providing that cooperation in this area is the Port of New York Authority."



Honorable Thomas E. Dewey
Governor of the State of New York

"The Port Authority's enviable record could only be achieved by commissioners and a staff who work together to give the best possible service to their community. . . . I know that the states of New York and New Jersey can depend upon their joint agency for a continuation of the forward-looking program of regional development."

COMMISSIONERS—NEW JERSEY
JOSEPH M. BYRNE JR., Vice Chairman
FRANK D. ABELL
DONALD V. LOWE
F. PALMER ARMSTRONG
HORACE K. CORBIN
JOHN BORG

COMMISSIONERS—NEW YORK
HOWARD S. CULLMAN, Chairman
EUGENE F. MORAN
BAYARD F. POPE
S. SLOAN COLT
CHARLES S. HAMILTON JR.
CHAS. H. SELLS

THE PORT OF NEW YORK AUTHORITY

111 Eighth Avenue—at 15th Street New York 11 NY

*To the Honorable Alfred E. Driscoll, Governor, and the
Legislature of the State of New Jersey:*

*To the Honorable Thomas E. Dewey, Governor, and the
Legislature of the State of New York:*

ON the thirtieth anniversary of the signing of the Port Treaty under which your agency, The Port of New York Authority, was created, we have the honor and privilege to report to Your Excellencies and to the honorable members of the two Legislatures that during the past year we have been able to carry forward our program under the directives of the Treaty and the Comprehensive Plan of port development in the unified metropolitan area of New Jersey and New York.

Since 1921 we have issued bonds for new projects or refunding purposes having a total face value of \$690,000,000. In our thirty years of progress we have, as you know, made available to the people of the Port community essential transportation and terminal facilities for the handling of land, sea and air transport. We have done so on a self-supporting basis, without burden to the general taxpayers. We have expended over \$371,000,000 for the construction of bridges, tunnels, water-front facilities, airports and consolidated terminals for railroads, trucks and buses.

The direction of the two Legislatures that the revenues of these public terminal and transportation facilities should be pooled and pledged in support of the bonds issued for their construction has assured, and can assure, the continued development of the whole Port area without burden to the general taxpayer.

Just as important as our physical properties are to the welfare of the people of the Port region, is our work of Port commerce promotion and protection against discriminatory freight rates that would handicap the New Jersey-New York Port District in meeting the competition of other American ports. Throughout the past thirty years this phase of our service to the two States has been vigorously pursued. Since World War II we have been particularly active in the work of port

promotion. Our three port promotion offices in Chicago, Cleveland and Washington have been most effective. These offices encourage the movement of commerce through the Port of New York by furnishing information on the facilities and services available here, as well as through actual aid in routing shipments and obtaining special services.

Our job of port promotion and protection has been of especial benefit to the Port District through our appearances before committees of Congress, the Interstate Commerce Commission, the Maritime Board, the Civil Aeronautics Board, the United States Army Engineers and similar agencies.

The dynamic concept of the Port Treaty and Comprehensive Plan requires a progressive program of planning for the development of transportation and terminal facilities in the metropolitan area. Such planning is a part of our regular work and is responsible for the fact that the Port Authority is in position to anticipate the requirements of port traffic. These are the vital requirements that this Port District must continue to meet if Northern New Jersey and New York are to maintain their position as the transportation and industrial leaders of the world.

As we review our progress in furthering the interests of the Port District, the two States and the nation over the past thirty years, it is obvious that we owe to the Governors and the members of the Legislatures of the States of New Jersey and New York our deepest gratitude for their guidance, support and cooperative efforts. We are also grateful for the unfailing support of state and municipal officials, civic groups, the general public and the press. Their support is a prerequisite to our ability to carry forward the whole Port program.

We have been fortunate too, in that we have enjoyed the confidence of those who have invested the vast amounts of private capital required to carry out the directives of the two Legislatures. We appreciate their essential contribution to our efforts over the years.

We should like to take this opportunity, in reviewing our thirty years of progress, to pay tribute to the Staff of the Port Authority for the important part they have played in our work. Under the able direction of our Executive Director, Austin J. Tobin, and our hard-working department heads and other supervising personnel, we have been able, in the words of one of our former chairmen, to attract and develop over the years "the best equipped staff of any public agency in any part of the United States."

The Annual Report of the Port Authority for 1950 is a detailed review of our work and accomplishments over the past year.

At our annual Board meeting on January 12, 1950 we authorized the establishment of commutation rates for passenger cars on our Hudson River crossings, and these were put into effect on June 15. Thus, a commuter traveling a minimum of five round trips a week, pays only 25 cents

a trip. By the end of the year, 31 per cent, or almost a third, of the weekday passenger car trips at the George Washington Bridge, the Holland Tunnel and the Lincoln Tunnel were being made with commutation tickets at the reduced rates. Commutation rates have been in effect on the Staten Island Bridges for more than twenty years.

The Port Authority Bus Terminal, largest and most modern bus terminal in the world, was opened for business on December 15, 1950, and immediately began to serve most of the New Jersey commuters and long distance bus travelers who previously were handled at inadequate facilities.

During a year of record traffic at all of our facilities we put into effect several measures to help move that traffic faster and more efficiently. On May 16, 1950 we authorized an immediate engineering study of a new two-lane tube at the Lincoln Tunnel. And on March 8, 1951 we released plans for the construction of such a tube. At the same time we authorized the Staff to review these plans, which include new connections with state and municipal highways, with the responsible representatives of the states and municipalities on either side of the Hudson. The third tube, which will cost some \$85,000,000, or about the same amount as the two existing tubes, will permit four-lane operation in the direction of heavier traffic during peak hours, thus doubling the capacity of the Lincoln Tunnel during the peak travel periods.

This facility, to be completed in 1957, is expected to be self-supporting, an important factor when it is realized that a new two-tube tunnel, probably costing over \$200,000,000, could not in the foreseeable future pay for itself.

We made progress as planned in the development and rehabilitation of our marine and air terminals, both in New Jersey and in New York. A record volume of business at Port Newark and the Port Authority Grain Terminal and Columbia Street Pier resulted, to a large extent, from aggressive promotion of these facilities.

There were no new developments during the year regarding our New York and New Jersey water-front programs previously submitted to the various municipalities.

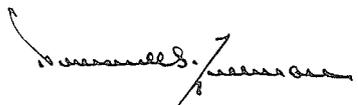
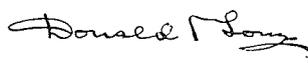
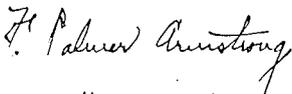
It is gratifying to report once more that the Port Authority financial situation is sound in spite of increasing obligations and rising operating costs. It is this fact which makes it possible for us, at the end of thirty years of progress, to renew our pledge as the agency of the great States of New Jersey and New York, to carry out the directives of the Port Treaty of 1921 and the Comprehensive Plan which is a part of that Treaty. We shall continue to do so, with the encouragement of Your Excellencies and the continued support of the two Legislatures, in the spirit of the Treaty, under which in 1921 the States of New Jersey and New York agreed that: "*A better coordination of the terminal, transportation and other facilities of commerce in, about and through the Port of*

New York, will result in great economies, benefiting the nation, as well as the States of New York and New Jersey."

The two States agreed in the Treaty that: "The future development of such terminal, transportation and other facilities of commerce will require the expenditure of large sums of money and the cordial cooperation of the States of New York and New Jersey in the encouragement of the investment of capital, and in the formulation and execution of the necessary physical plans."

They decided too, in the Treaty that: "Such result can best be accomplished through the cooperation of the two States by and through a joint or common agency." New Jersey and New York therefore pledged "each to the other, faithful cooperation in the future planning and development of the Port of New York, holding in high trust for the benefit of the nation the special blessings and natural advantages thereof."

Respectfully submitted:

	
James L. Ables	Eugene J. Moran
	
Donald T. Long	Robert F. Pope
	
F. Palmer Armstrong	Howland
	
Horace Clarke	Charles S. Hamilton, Jr.
	
John B. Bony	Chas. H. Allen

THE PORT OF NEW YORK AUTHORITY



ANNUAL REPORT

Contents

30 Years of Progress	10
Bridges and Tunnels	26
Airports	42
Marine Terminals	84
Bus, Truck and Rail Terminals	98
Port Promotion and Protection	120
Administration	151
Financial	164
Index	195



Signing the Port Treaty—April 30, 1921

GREAT HALL, OLD CHAMBER OF COMMERCE BUILDING
65 LIBERTY STREET, NEW YORK CITY

Seated around table in foreground: J. Spencer Smith, DeWitt Van Buskirk, Frank R. Ford, Thomas F. McCran, Julius Henry Cohen and Eugenius H. Outerbridge. Standing, left to right: Nathan L. Miller, Walter E. Edge, William R. Willcox. Seated facing, left to right: Irving T. Bush, Charles S. Whitman, William M. Calder, Darwin P. Kingsley, Charles T. Gwynne, Alfred E. Smith and Lewis H. Pounds.

YEARS OF PROGRESS

under the

PORT TREATY OF 1921

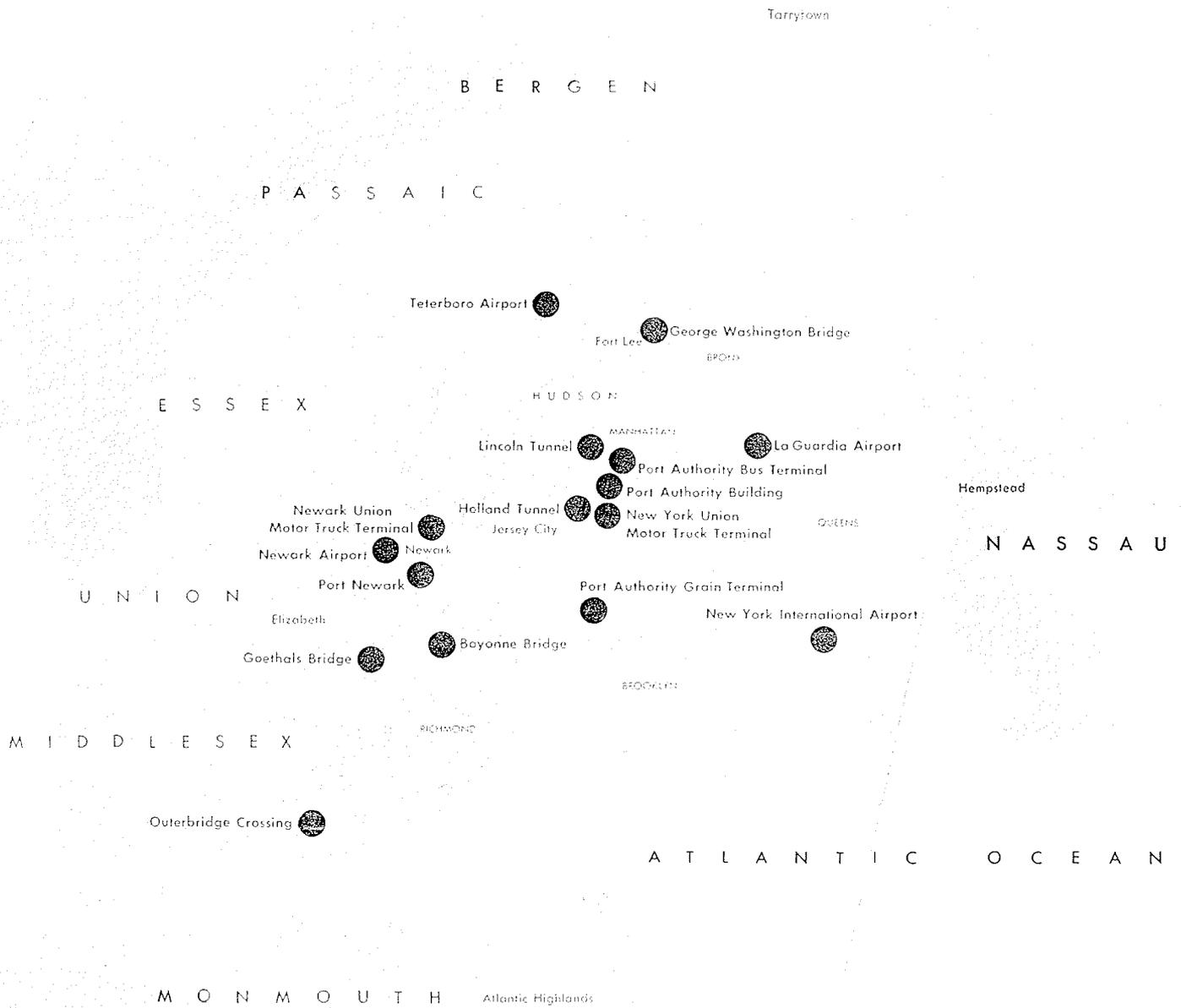
and the

COMPREHENSIVE PLAN

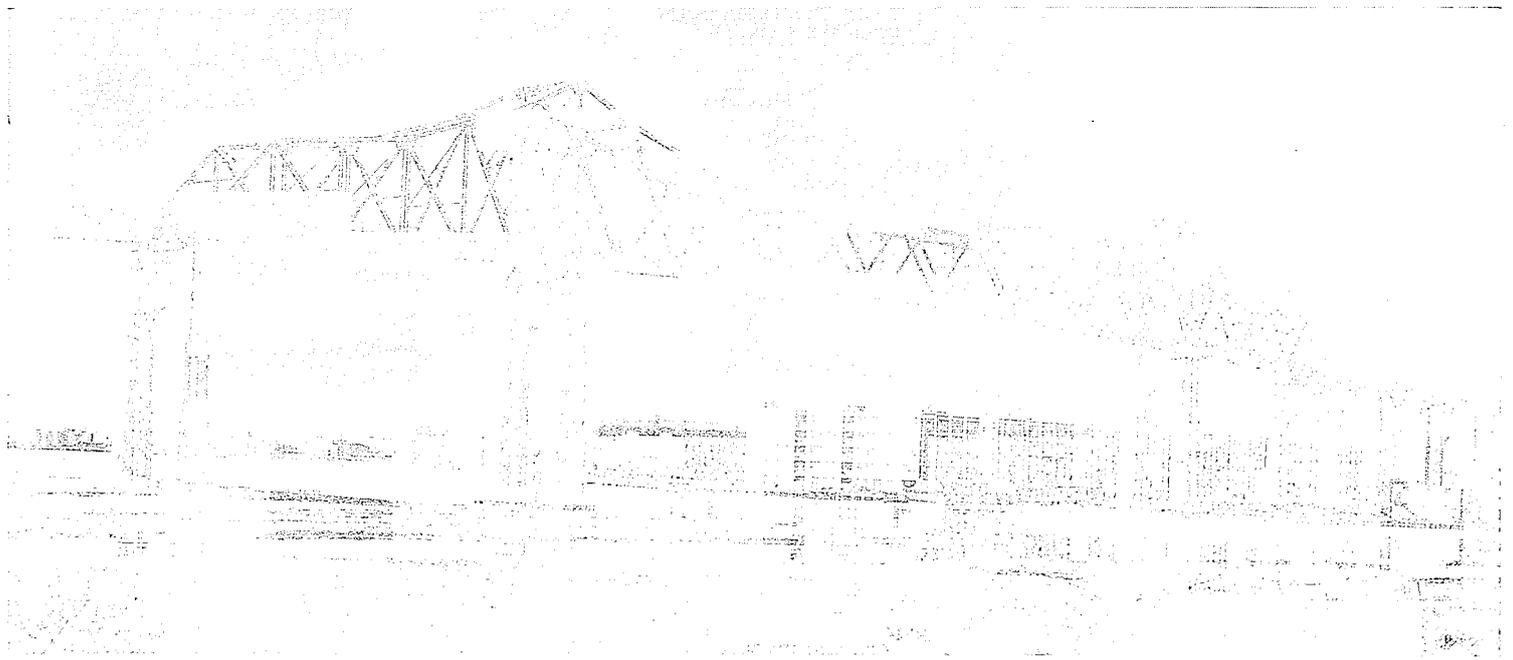
"We can sit here and talk engineering figures for a year. We can draw plans for five years, but if there isn't a healthy, vigorous determination on the part of localities and organizations and people generally in the Port District to make some change in the old-fashioned, worn out, dilapidated ways of doing business in this port, the figures would amount to nothing."

... Alfred E. Smith.

THE PORT OF NEW YORK AUTHORITY FACILITIES



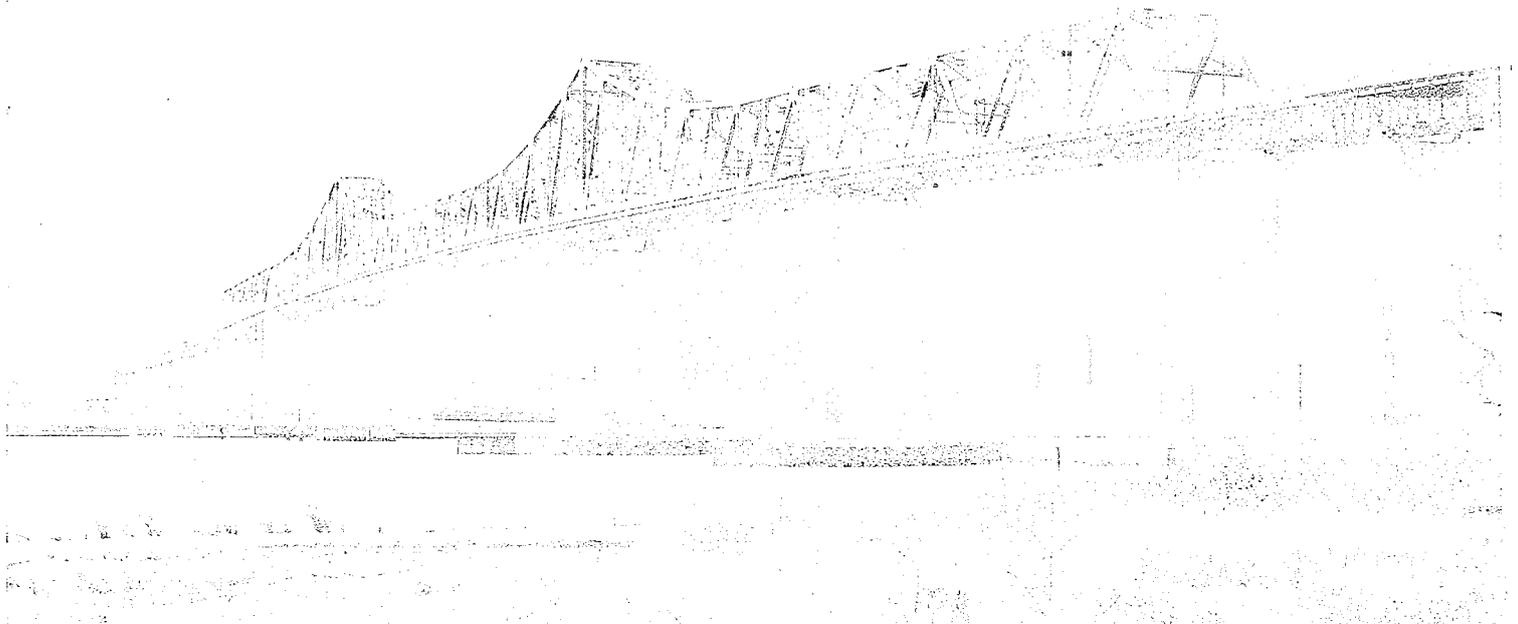
THE NEW JERSEY—NEW YORK PORT DISTRICT



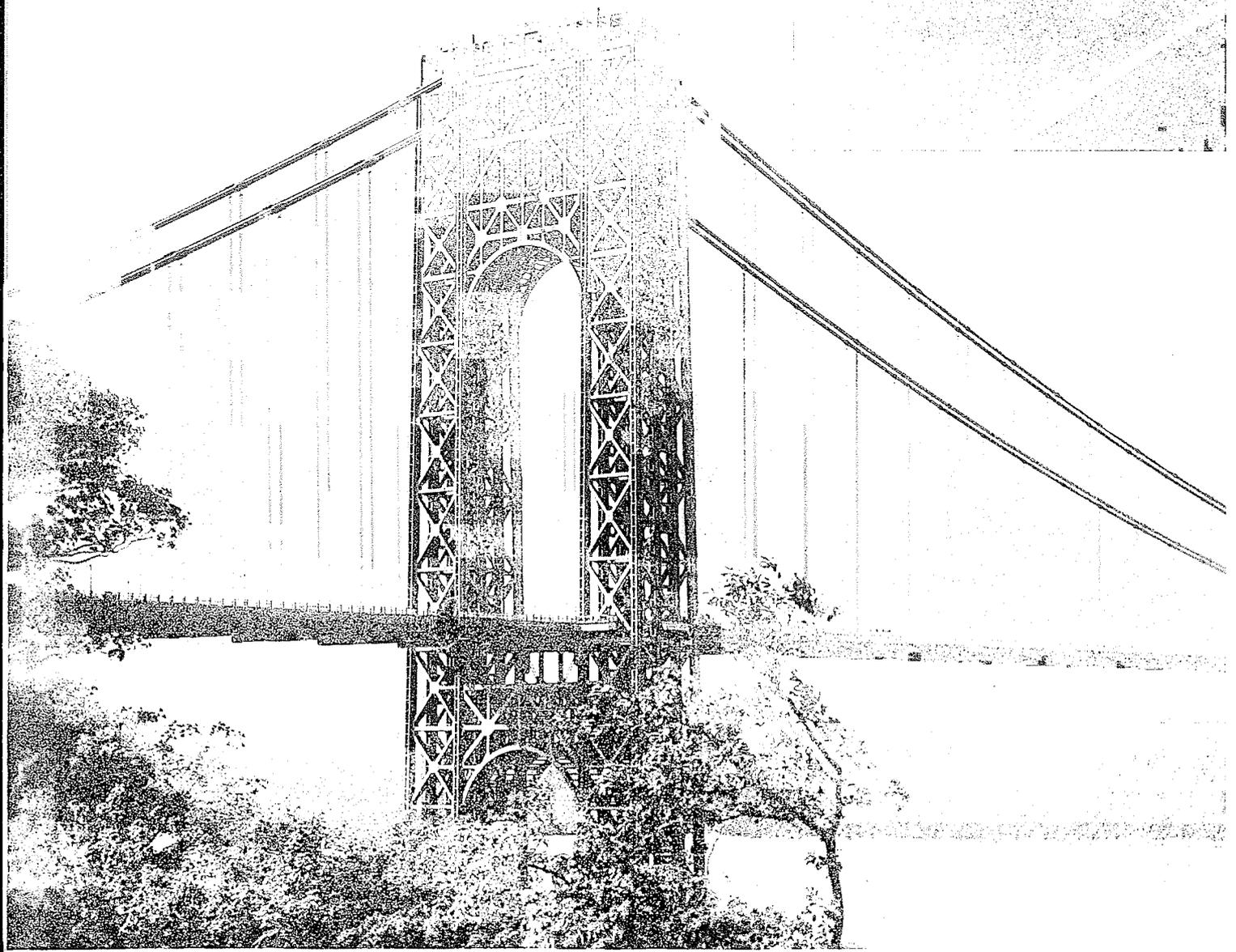
1928—GOETHALS BRIDGE (above) and OUTERBRIDGE CROSSING (below). These great cantilever bridges over the Arthur Kill join Staten Island with Elizabeth and Perth Amboy, New Jersey. The first two of the Port Authority's sixteen transportation and terminal facilities were built at a cost of \$17,000,000. They were named for General George W. Goethals of Panama Canal fame, the Authority's first consulting engineer, and for Eugenius H. Outerbridge, its first chairman.

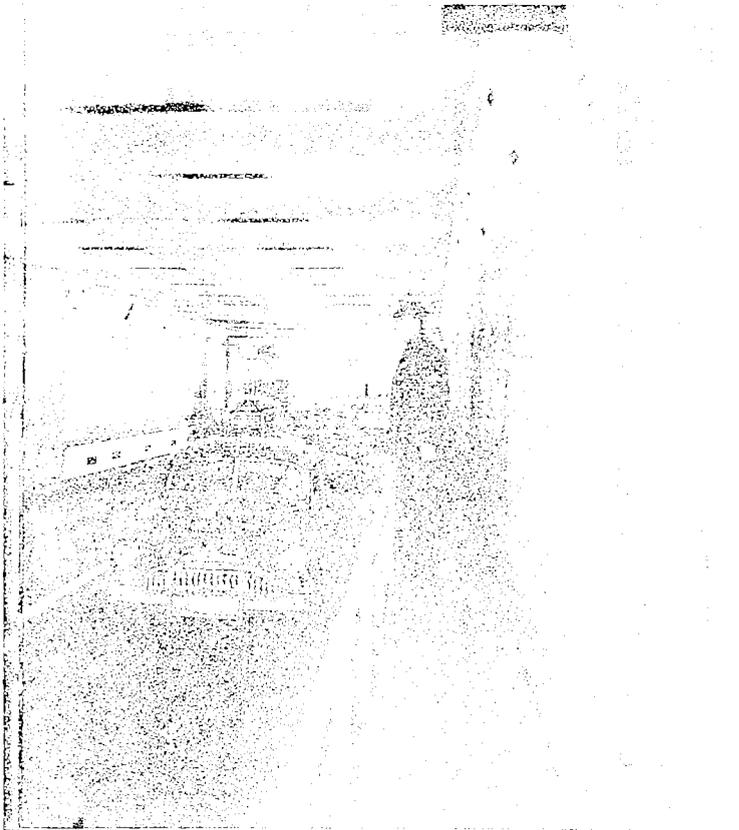


The late Governor Alfred E. Smith of New York and former Governor A. Harry Moore of New Jersey officiate at the joint dedication of the two Staten Island bridges.



1930—HOLLAND TUNNEL. First long under-water tunnel for motor traffic. Transferred to the Authority in 1930, the mile-and-a-half long tunnel between Canal Street, Manhattan, and Twelfth Street, Jersey City, was named in honor of its chief engineer, the late Clifford M. Holland.

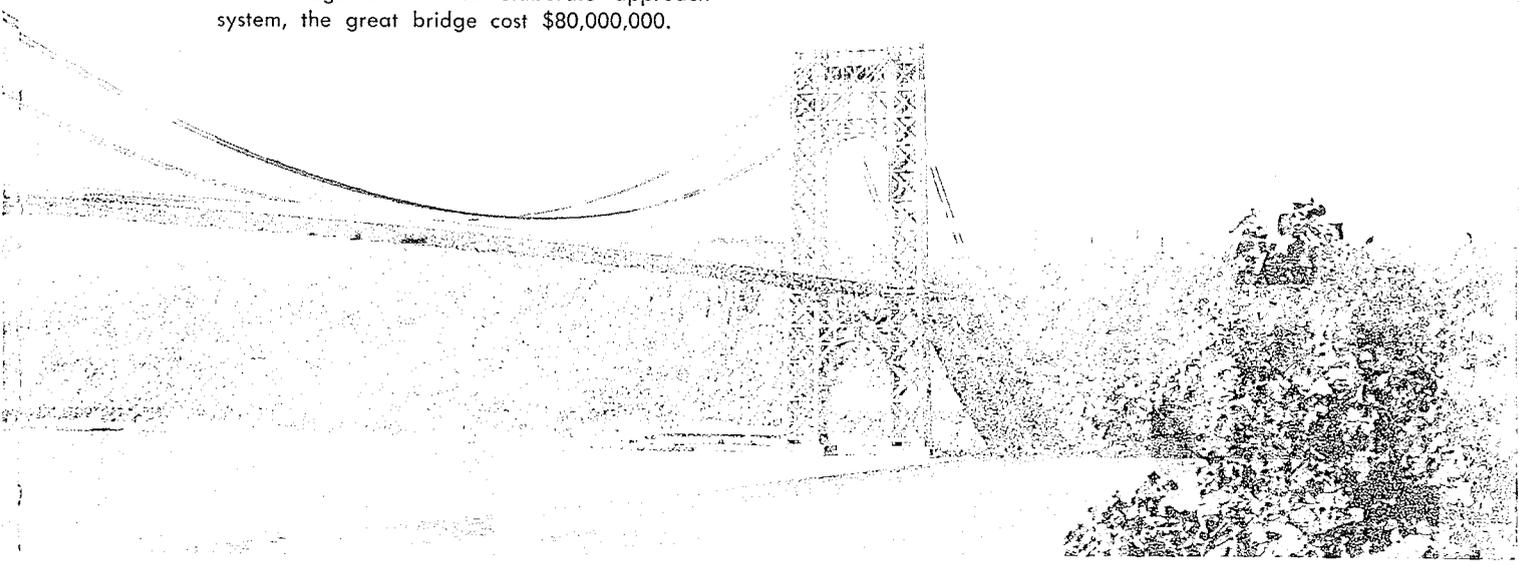




Franklin Delano Roosevelt, then Governor of New York State, speaks at the historic opening of the George Washington Bridge.



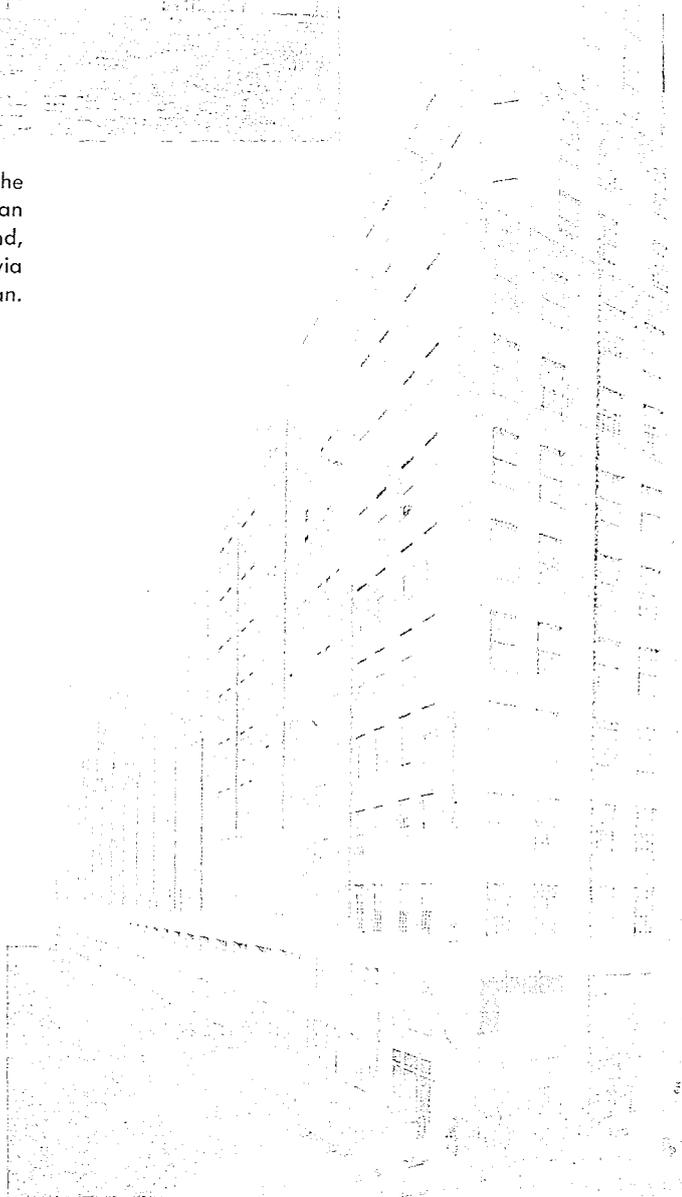
1931—GEORGE WASHINGTON BRIDGE. Known as one of the wonders of the world. Joins Fort Lee, New Jersey, and 178th Street, Manhattan. The magnificent suspended span, second largest of its type in existence, carries eight lanes of traffic. Together with its elaborate approach system, the great bridge cost \$80,000,000.





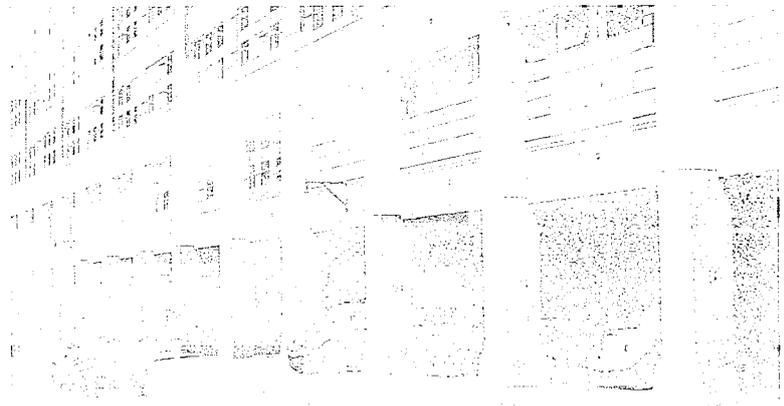
1931—BAYONNE BRIDGE. Longest steel arch bridge in the world and strikingly beautiful in design. The \$13,000,000 span crosses the Kill Van Kull to connect Port Richmond, Staten Island, with Bayonne, New Jersey, and furnishes a continuous route via the Holland Tunnel between Staten Island and Manhattan.

1932 — PORT AUTHORITY BUILDING. This sixteen-story structure, costing \$16,500,000, covers the block between 15th and 16th Streets and 8th and 9th Avenues in Manhattan. The Union Railroad Freight Terminal, commercial tenants and the Port Authority's main offices are located in the building.





1937—LINCOLN TUNNEL. The south tube of this great \$85,000,000 underwater roadway was opened in 1937 and the north tube in 1945. Joining Manhattan, at 38th Street, and Weehawken, New Jersey, the two tubes of the Lincoln Tunnel are expected to be augmented by a third tube to help serve the ever-increasing New Jersey-New York traffic.



Close-up of off-the-street truck bays on the 15th Street side of the Union Railroad Freight Terminal, in Port Authority Building, for consolidation of less-carload rail freight.



1944—PORT AUTHORITY GRAIN TERMINAL. On Gowanus Bay, Brooklyn. Transferred by the State of New York to the Authority in May 1944. The terminal includes a grain elevator, a new grain pier and gallery built by the Port Authority, the Columbia Street Pier and a public open storage area. The Port Authority is completely rehabilitating the elevator, piers and upland area.

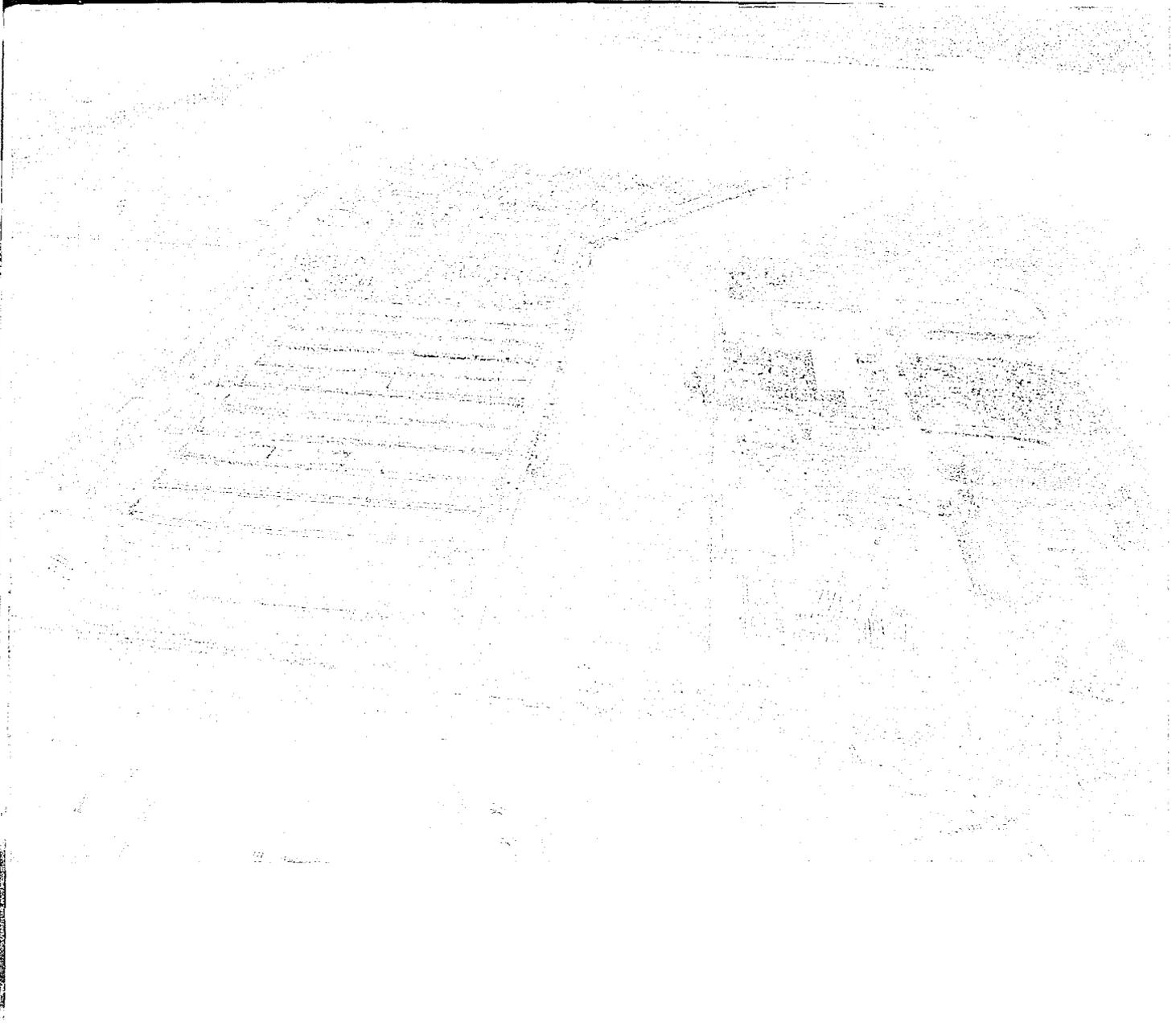


1948—NEWARK AIRPORT. One of the major air terminals in the regional system serving New Jersey-New York Port District, it is being developed and operated by the Authority under a fifty-year lease with the City of Newark. The airport which now leads in handling air cargo, is being expanded almost 900 acres and will be developed to handle much of the long haul and short haul traffic in the Port District.



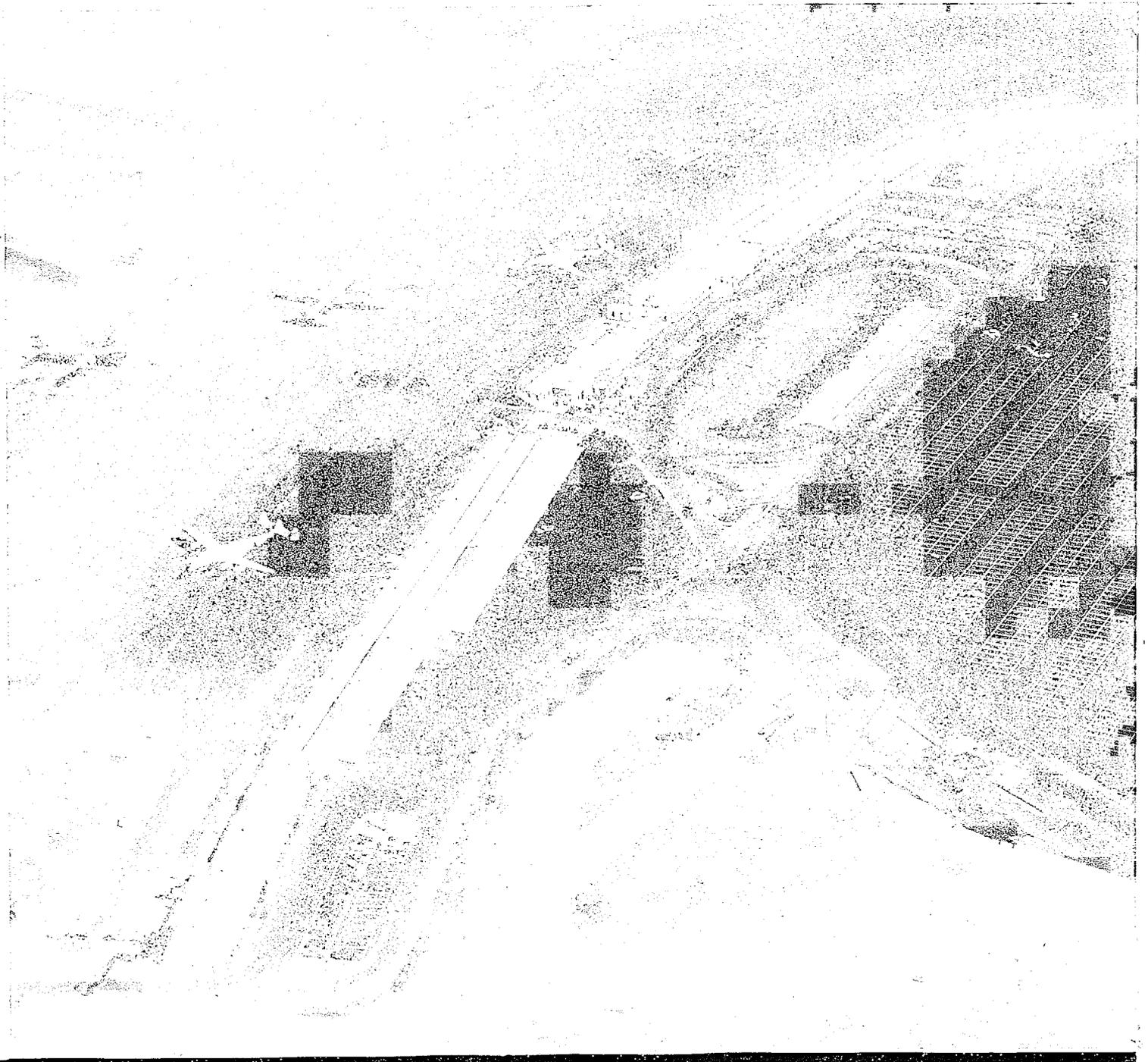
1947—LA GUARDIA AIRPORT. One of the busiest terminals in the world, it is being rehabilitated and operated by the Port Authority under a fifty-year lease with the City of New York. The airport handles an average of one aircraft every three minutes and is especially well qualified to fill its future role as the principal terminal for flights within a five hundred mile radius of New York.



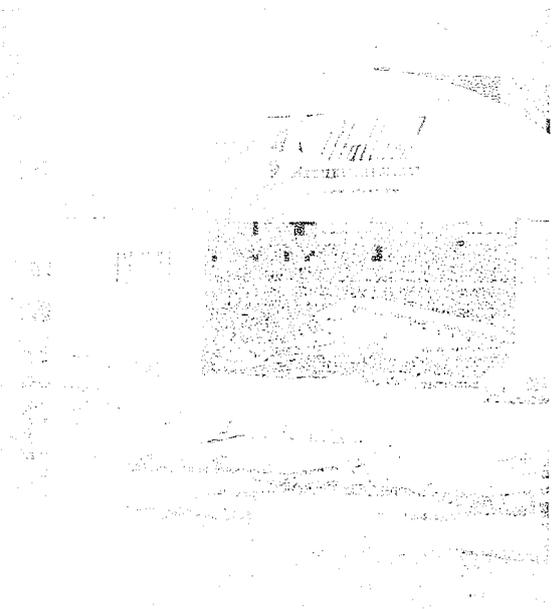


1948—PORT NEWARK. The Port Authority is operating, developing and rehabilitating Port Newark under a fifty-year lease agreement with the City of Newark. Vigorous promotion by the Authority already has greatly increased commerce in this vital sector of the New Jersey-New York Harbor. It is expected that Port Newark will be one of the most modern marine terminals in the Port, and it has been provided with new cargo terminals, a deepened channel and other improvements.

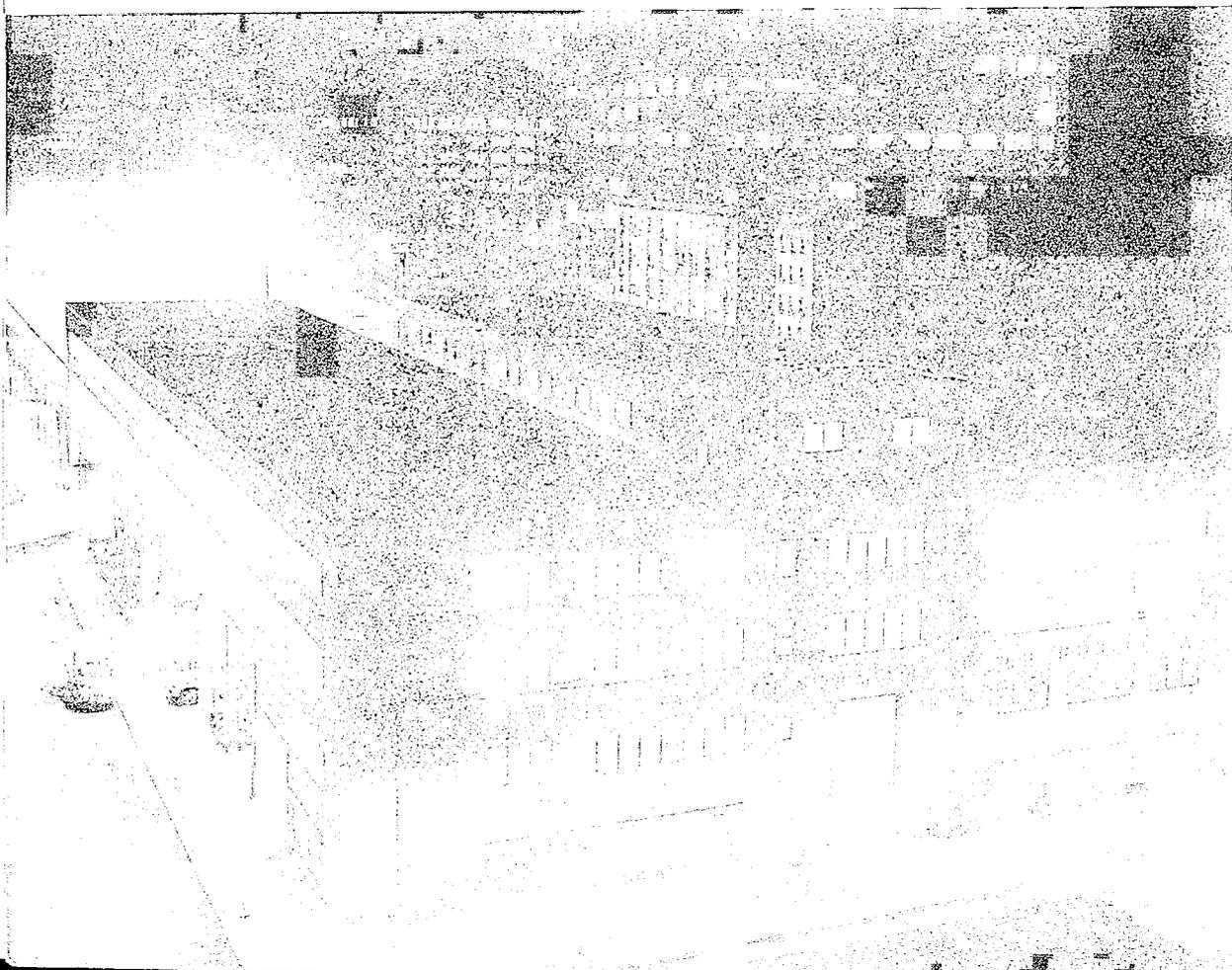
1948—NEW YORK INTERNATIONAL AIRPORT. Largest commercial airport in the world, it is the newest in the regional system of commercial air terminals serving the New York-New Jersey Port District. As large as all of Manhattan Island from 42nd Street to the Battery, this 4,900-acre airport has runways totaling over ten miles in length, and can accommodate the largest transport aircraft in use or in prospect. It is devoted to the services of international and long haul air traffic.



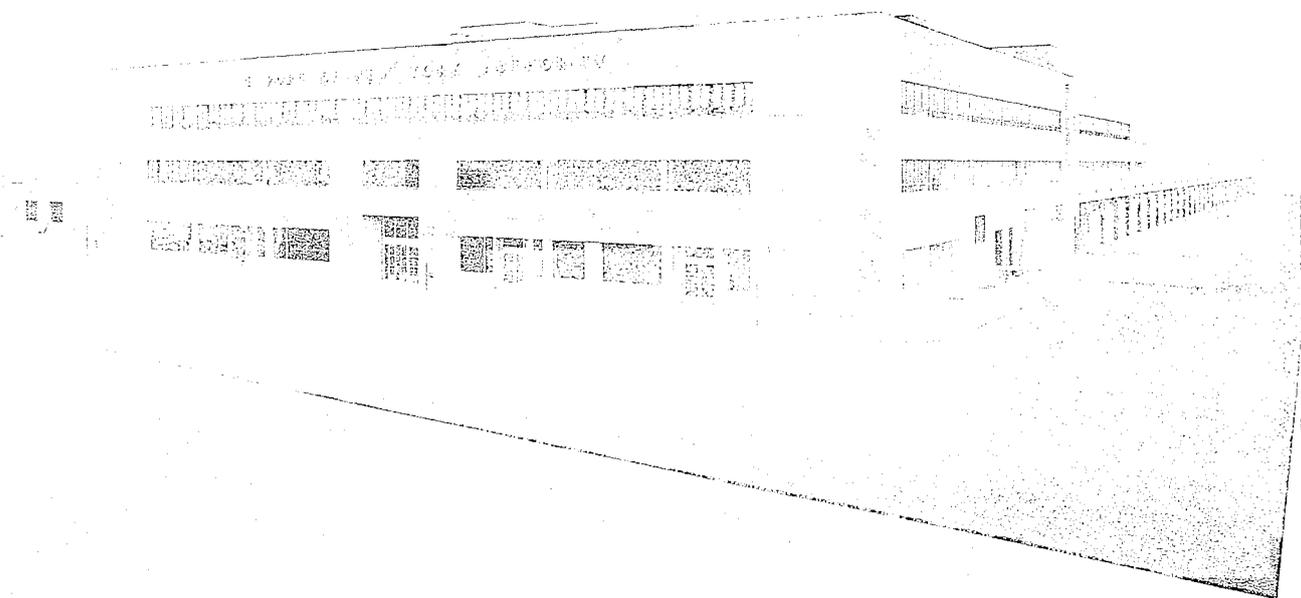
1949—TETERBORO AIRPORT. One of the busiest air cargo and corporate and private type aircraft terminals in the Port District, Teterboro Airport was purchased by the Port Authority to complete its regional system for handling all types of commercial and private air traffic. The bi-state agency is acquiring property for the future expansion of this important air terminal facility.

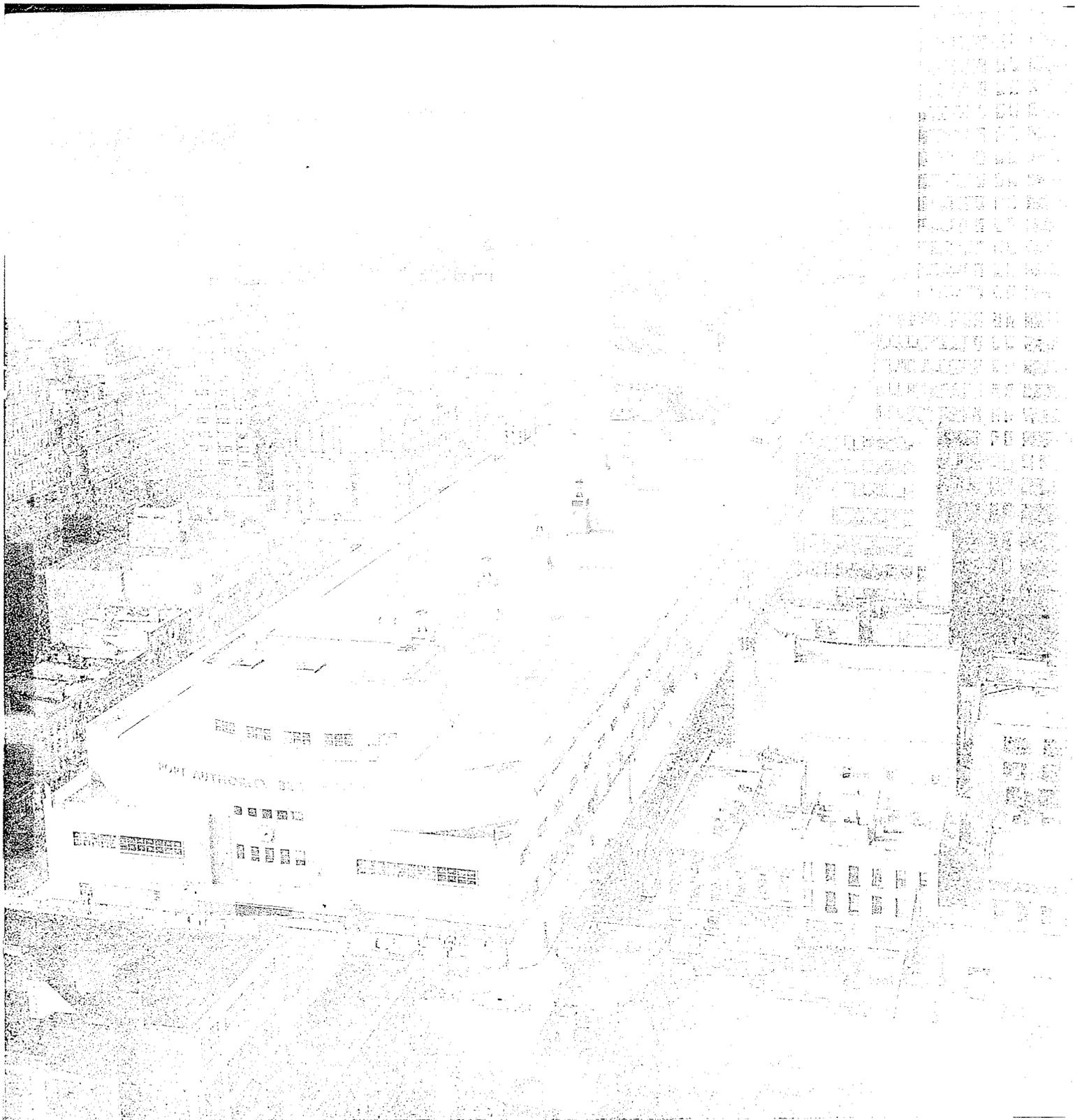


1949—NEW YORK UNION MOTOR TRUCK TERMINAL. The first of two such terminals built by the Port Authority in the New Jersey-New York Port District, it occupies four blocks in lower Manhattan near the Holland Tunnel and the Hudson River steamship piers. The \$10,000,000 terminal is designed to reduce street congestion and handling costs and to provide modern facilities and equipment for the transfer of truck freight. All trucks park in bays off street.



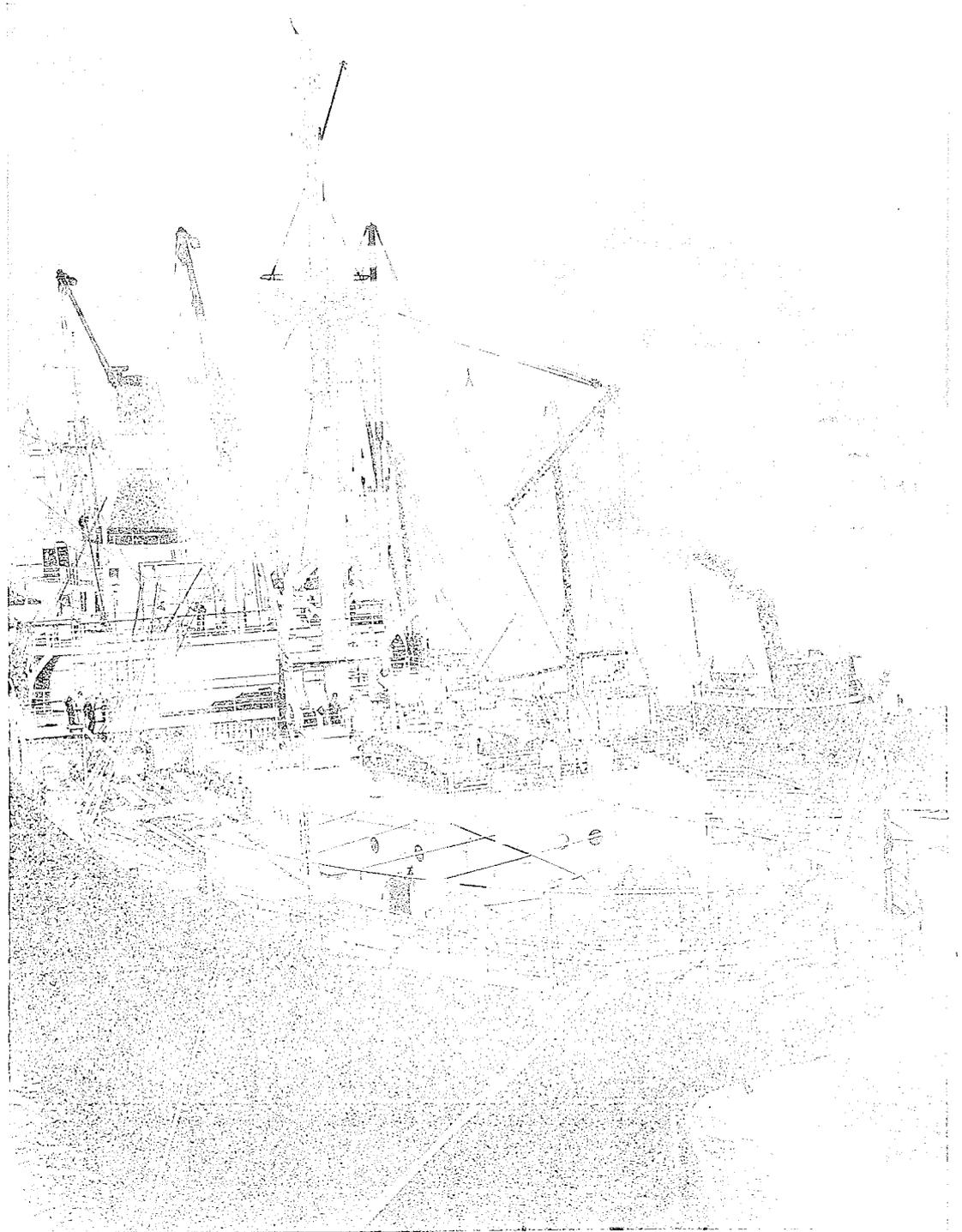
1950—NEWARK UNION MOTOR TRUCK TERMINAL. Largest in the world, it occupies a 29-acre site in Newark. This great \$8,000,000 structure is similar in design and purpose to the New York Union Motor Truck Terminal.

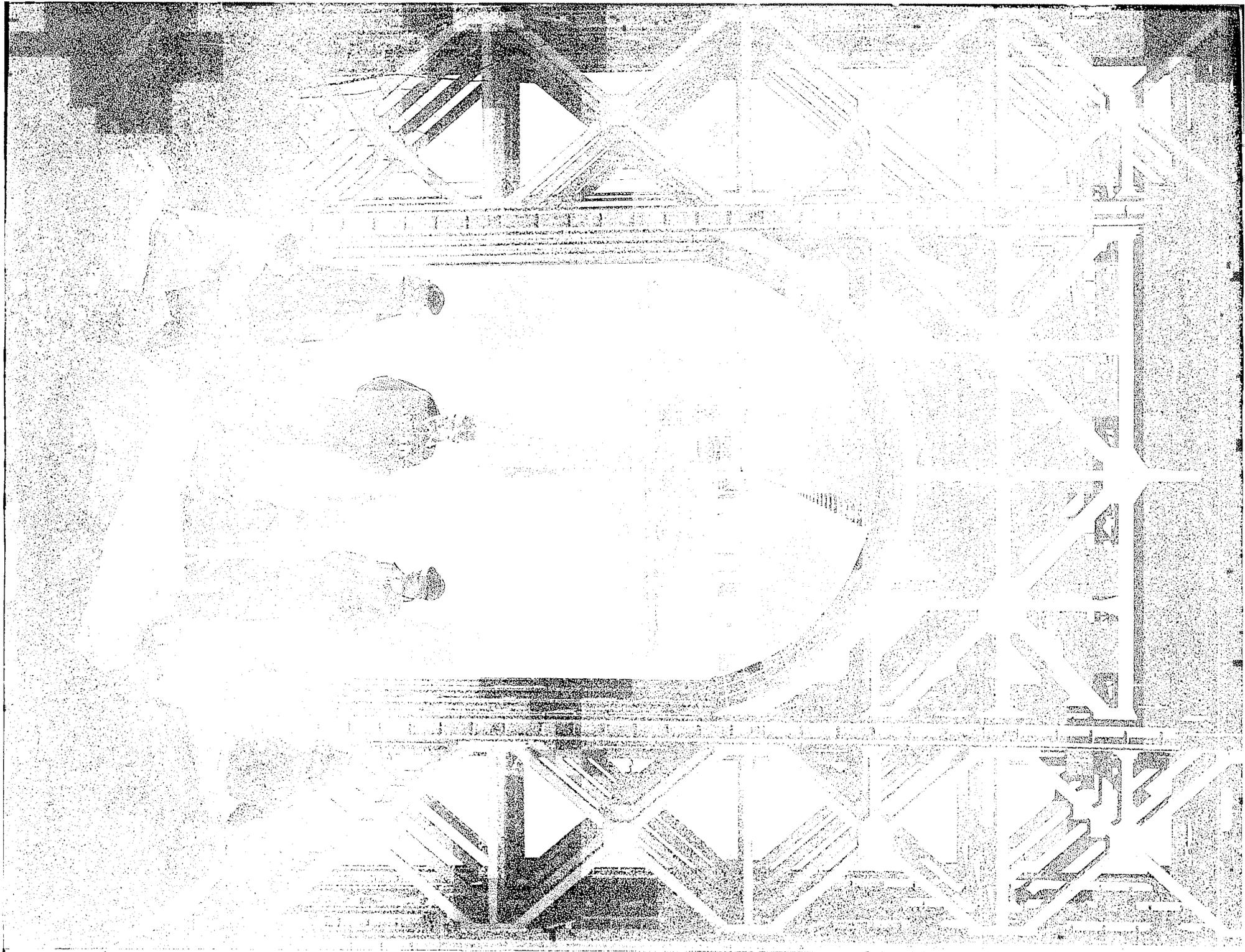




1950—PORT AUTHORITY BUS TERMINAL. One block from Times Square, this huge terminal, largest in the world, serves more than 130,000 long distance and commuter bus passengers. At the same time, by means of direct ramp connections with the Lincoln Tunnel, the \$24,000,000 structure relieves the crowded Manhattan streets of about 85 per cent of the 2,500 interstate buses which enter midtown daily.

The famous New York skyline as viewed across the New Jersey-New York Harbor from Pier D, Jersey City. As directed by the Port Treaty, the Port Authority promotes and protects commerce in New Jersey-New York Port and protects that commerce from discriminatory rates.





1 Bridges and Tunnels

Several factors contributed to the increased volume of traffic handled at our bridges and tunnels which resulted in a record of 59,525,274 vehicles in 1950 as compared with 52,766,278 in 1949. Increased business and employment, year-round good weather, improved New Jersey tunnel connections, as well as increased automobile ownership, influenced the use of our four bridges and two tunnels for travel between the two States.

The largest gain was contributed by the Lincoln Tunnel, with an increase of 2,569,719 vehicles, or 19.8 per cent over 1949. This increased use of the Lincoln Tunnel was occasioned in large part by the improved New Jersey connections with Route S-3.

	1950	1949	Increase	% Inc.
	(000 omitted)			
Holland Tunnel	18,126	16,484	1,642	10.0
Lincoln Tunnel	15,533	12,963	2,570	19.8
George Washington Bridge	19,869	17,980	1,889	10.5
Bayonne Bridge	2,321	2,100	221	10.5
Goethals Bridge	1,904	1,694	210	12.4
Outerbridge Crossing	1,772	1,545	227	14.7
Total	59,525	52,766	6,759	12.8

For the second time the George Washington Bridge, with a total of 19,869,512 vehicles, an increase of 1,889,482 over the 1949 volume, was the most heavily traveled of our crossings, with traffic exceeding that of the Holland Tunnel by 1,743,725 vehicles.

Commutation Rates Are Put into Effect at Our Hudson River Crossings

At the Port Authority's annual Board meeting on January 12, 1950 the Commissioners approved the establishment of commutation rates for passenger cars on our Hudson River crossings, and these were put into effect on June 15. A forty-trip ticket, good for thirty days, costs regular users of these facilities \$10. Thus, a commuter

traveling a minimum of five round trips a week, pays only 25 cents a trip. By the end of the year, 31 per cent, or almost a third, of the weekday passenger car trips at the George Washington Bridge, the Holland Tunnel and the Lincoln Tunnel were being made with commutation tickets at the reduced rates.

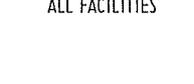
Traffic

		Passenger Cars Number	Buses Number	Trucks Number	Total Vehicles Number
HOLLAND TUNNEL 	1950	13,794,854	259,070	4,071,863	18,125,787
	1949	12,548,052	251,171	3,684,791	16,484,014
	1948	11,684,588	259,583	3,655,953	15,600,124
LINCOLN TUNNEL 	1950	11,175,042	1,555,544	2,801,975	15,532,561
	1949	8,972,333	1,530,151	2,460,358	12,962,842
	1948	7,425,658	1,523,302	2,172,147	11,121,107
GEORGE WASHINGTON BRIDGE 	1950	17,566,795	622,681	1,680,036	19,869,512
	1949	15,878,816	605,055	1,496,159	17,980,030
	1948	13,540,263	565,544	1,378,557	15,484,364
STATEN ISLAND BRIDGES 	1950	5,170,362	80,542	746,510	5,997,414
	1949	4,571,158	94,111	674,123	5,339,392
	1948	4,100,720	94,610	641,050	4,836,380
ALL FACILITIES 	1950	47,707,053	2,517,837	9,300,384	59,525,274
	1949	41,970,359	2,480,488	8,315,431	52,766,278
	1948	36,751,229	2,443,039	7,847,707	47,041,975

Helen Hayes, stage and screen star, en route to her home in Nyack, hands Port Authority Officer George Skidgell one of first Hudson River commutation tickets at George Washington Bridge.



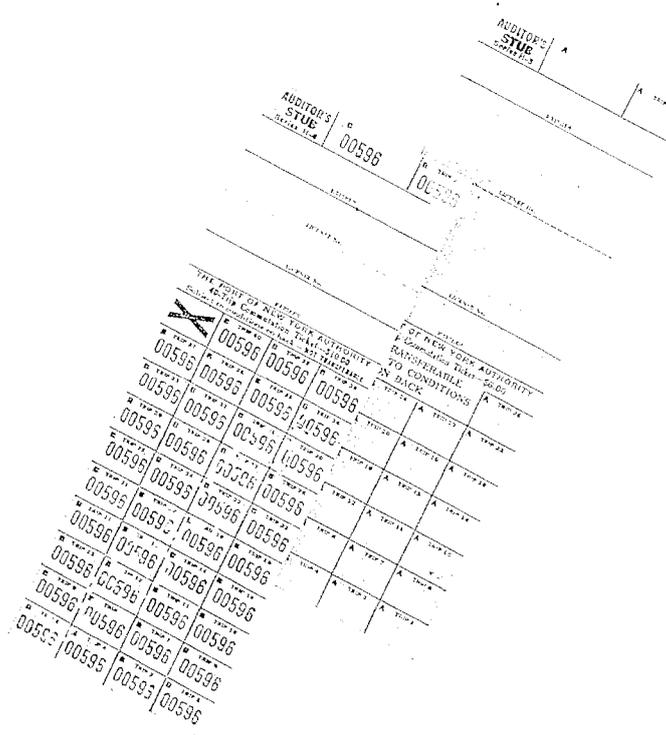
Toll Revenue

		Passenger Cars Revenue	Buses Revenue	Trucks Revenue	Total Vehicles Revenue
	HOLLAND TUNNEL				
	1950	\$ 6,671,553	\$ 249,659	\$3,568,651	\$10,489,863
	1949	6,261,169	241,187	3,148,799	9,651,155
	1948	5,826,803	249,174	3,092,307	9,168,284
	LINCOLN TUNNEL				
	1950	5,323,874	1,558,792	2,340,955	9,223,621
	1949	4,477,475	1,523,756	2,026,728	8,027,959
	1948	3,703,441	1,517,082	1,771,218	6,991,741
	GEORGE WASHINGTON BRIDGE				
	1950	8,334,198	626,946	1,487,951	10,449,095
	1949	7,937,318	605,005	1,295,016	9,837,339
	1948	6,762,974	565,498	1,181,175	8,509,647
	STATEN ISLAND BRIDGES				
	1950	2,006,289	51,559	497,031	2,554,879
	1949	1,805,792	65,299	449,029	2,320,120
	1948	1,589,330	65,405	430,425	2,085,160
	ALL FACILITIES				
	1950	22,335,914	2,486,956	7,894,588	32,717,458
	1949	20,481,754	2,435,247	6,919,572	29,836,573
	1948	17,882,548	2,397,159	6,475,125	26,754,832

Commutation rates have been in effect on the Port Authority's three Staten Island Bridges for more than twenty years. Commuters using these facilities have been able to purchase twenty-six-trip tickets for \$6, and thus have been traveling over the Staten Island Bridges to Bayonne, Elizabeth and Perth Amboy at the reduced rate of 23 cents a trip. During the past year 31.6 per cent of the passenger cars that crossed these bridges connecting Staten Island with New Jersey took advantage of the commutation rates.

There has also been in effect for many years a combination rate for the crossing of two of the Staten Island Bridges or a combined Staten Island Bridge and Hudson River crossing for 75 cents a through trip. Twenty per cent of the passenger cars used the Staten Island Bridges during 1950 at this special rate.

In making his announcement on January 11, 1950 of the establishment of the Hudson River



commutation rate, Chairman Howard S. Cullman stated:

"The ability of the Port Authority to carry forward the provisions of the Treaty of 1921 and the Comprehensive Port Plan for the continuing development of the public terminal and transportation facilities of the metropolitan area of Northern New Jersey and New York is solely dependent upon the sound and prudent financing and management of our affairs.

"For many years past, however, in conformance with our duty to the two States and the public, the Commissioners and Staff of the Port Authority have kept under constant study the general problem of serving the traveling public using our bridges and tunnels at the least possible cost commensurate with the preservation of that sound credit structure.

"In 1945 we appointed a staff committee to study, and to keep under continuous study, the financial and operational problems involved in the establishment of a commutation rate on our Hudson River crossings. Subsequent to the original study and report of 1946 the figures have been revised periodically to conform to changing traffic patterns. These figures have been regularly taken under advisement and considered in the light of our current obligations and commitments, and of the necessity of maintaining a credit structure that could meet the continuing requirements of the two States for a self-sustaining port development program.

"On considering the establishment of this commutation rate over the past few months, the Port Authority had placed in the first order of importance the question of whether or not such a step would impair in any way either the present financial position and commitments of the Authority or its ability to carry forward a continuing port development program.

"We have determined that we have now reached the point where it will be possible for us to put into effect the commutation rate, and at the same time to maintain a sound financial standing; to meet the public commitments of the Port Authority;





Phillip H. Edwards, General Superintendent of Tunnels and Bridges, (second from right) and Thomas Byrnes, Sign Foreman, (right) place final bolt on first commutation ticket sign at Holland Tunnel. Interested associates are (left to right) Ernest Black, Assistant Superintendent, Holland Tunnel; John A. Lee, Superintendent, Lincoln Tunnel; and George E. Stickle, Superintendent, George Washington Bridge.



Press photographers (at left) record practice handling of commutation tickets as Port Authority Officer John Singleton punches sample ticket at Holland Tunnel Plaza.

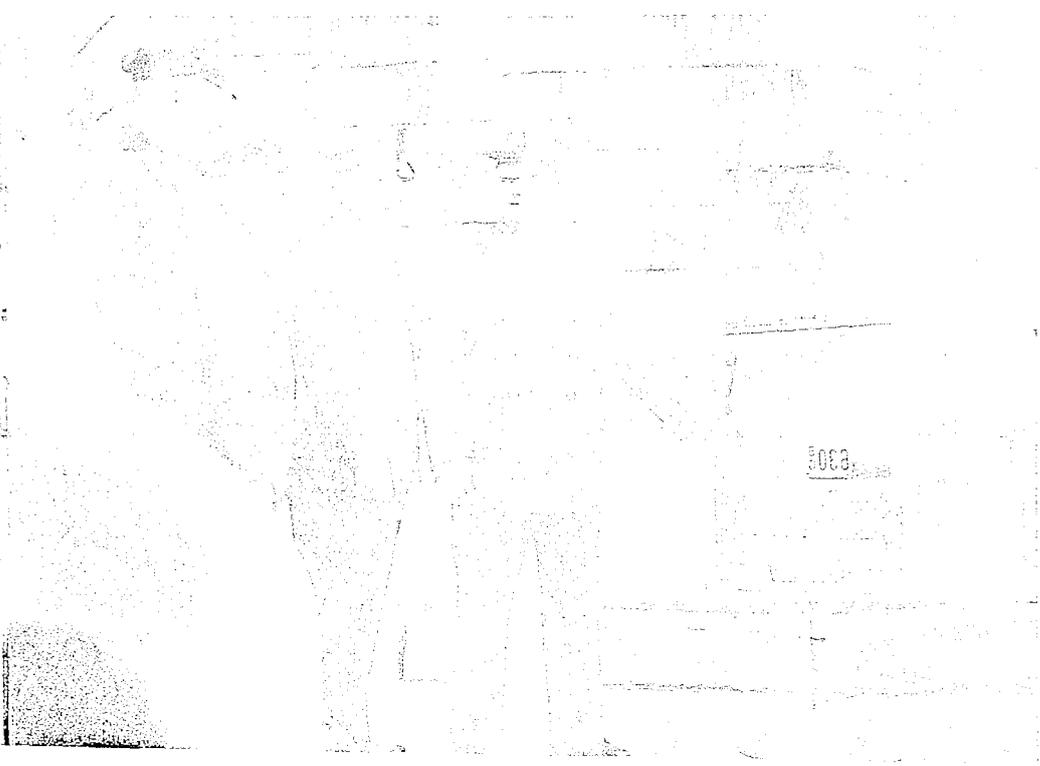
Staten Island Bridges Superintendent Henry A. Brady (standing) and Chief Clerk Irving J. Palmer, check supply of Staten Island Bridge commutation tickets and combination bridge and tunnel tickets.

to carry deficits during the development period of the airport, bus terminal and motor truck terminal projects; and to finance a continuing program of port development under the provisions of the Port Compact.

"We have, of course, taken into consideration the fact that our airports, truck terminals and bus terminal will suffer considerable operating deficits during their early years. In their very nature the public terminal and transportation facilities of the Port Authority are marginal. The Port Authority has been called upon to undertake them in large measure because they are projects that involve heavy development losses. This has been the case with our Staten Island Bridges which did not go into the black column until 1948, twenty years after they were built. The Lincoln Tunnel was in the red for the first eight years after its construction. We anticipate that the airports will have heavy annual deficits for some time to come.

"The question of whether or not it was prudent for us to establish a commutation rate has had to be weighed also against the necessity for carrying out a heavy program of additions and betterments to the bridges and tunnels that we know we must face in the years immediately ahead of us. Thus, we are committed to carry the Lincoln Tunnel approaches out over the Meadows to a connection with the New Jersey Turnpike, and to add to and improve both the New York and New Jersey plazas and approaches of the George Washington Bridge to meet increasing traffic requirements. We may be called upon to reconstruct the New York plazas of the Holland Tunnel and to provide connections with both the West Side Highway and the recommended Cross-Manhattan Expressway. Most important of all, as we announced during the past year, it has become necessary to undertake studies looking to the construction of an additional vehicular crossing of the Hudson.

"It is particularly gratifying to be able to cut these tolls at a time when all costs of construction, operation and maintenance are mounting, and when the value of the dollar is greatly reduced. Naturally, the Commissioners are proud of the business management that has made it possible for us to take this step at a time when we are going forward with the development of the greatly needed land, sea and air terminals."



It's done with mirrors. Sergeant Earl Schafer instructs Traffic Officers Vincent Mahoney, Edward Sullivan and Franklin Baker on checking of commuters' license plates.

All Possible Means Are Adopted to Expedite Our Increasing Traffic

With the continued increase in our traffic volume, we put into effect several measures to help move that traffic faster and more efficiently. At the George Washington Bridge, as in previous years, the Borough of Fort Lee permitted the re-routing of buses over a so-called marginal road alongside Route No. 4, and through the Hudson Terrace toll lanes to the bridge, to help expedite Sunday and holiday traffic during the period of heavy seasonal travel. The new forty miles per hour speed limit authorized by the Board of Commissioners last spring also helped to get traffic across the bridge faster.

Two new center traffic lanes which were constructed in 1947 have helped in handling the ever-increasing volume of traffic over the great bridge. Five of the total of eight lanes are put in service in the direction of the heavy traffic load, eastbound in the morning and westbound in the evening. Further improvement in the handling of the increasing volume of traffic will result from the completion of new approaches to the bridge.

To improve and speed up our control over traffic at the entrance plazas of the Holland Tunnel and the Lincoln Tunnel, we established observation posts with public address radio sys-

Lieutenant George A. White directs traffic over public address system beamed to traffic officers at New Jersey entrance of Lincoln Tunnel, and (below) at New York entrance. This effort has expedited flow of traffic by almost 10 per cent.

Third tube of Lincoln Tunnel will relieve New Jersey and New York streets of "stored" traffic.



tems that enable traffic officers to direct and coordinate traffic on the plaza road level.

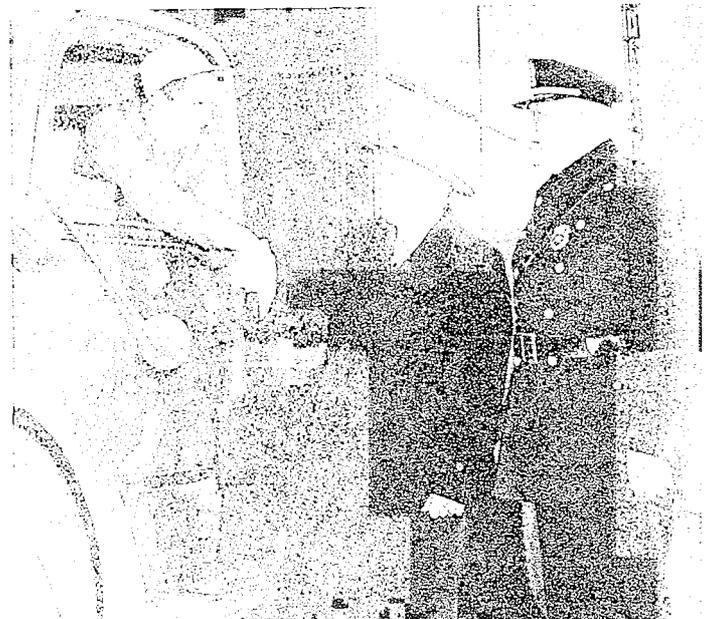
We also installed an intercommunication system between the toll booths and the offices of the sergeant and captain at the Lincoln Tunnel to expedite calls for the sergeant, as well as delivery of instructions to toll collectors. Similar installations are planned for the Holland Tunnel and the George Washington Bridge.

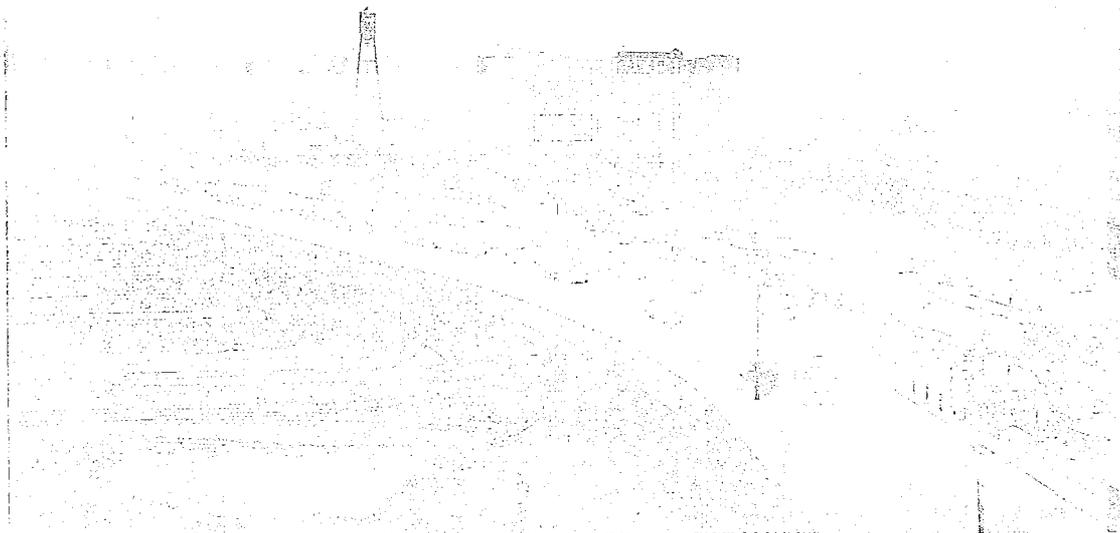
In May we put into effect at the Lincoln Tunnel a hold-back procedure for trucks during rush hours which sends them through the tunnel in convoys at regular intervals. This permits us to accommodate a maximum amount of rush-hour traffic. Such an arrangement is not feasible at the Holland Tunnel because of the greater proportion of trucks using that facility, and because of the converging local street traffic.

Holland Tunnel Exit Viaduct Nears Completion

By December the Port Authority had completed, except for the lighting system, the new Holland Tunnel Exit Viaduct, an elevated extension of Fourteenth Street from the Jersey City Tunnel exit plaza at Jersey Avenue. This \$3,250,000 viaduct, which crosses the Erie Railroad to connect with the underpass leading to the Pulaski Skyway, will be transferred to the New Jersey State Highway Department when the lighting system installation is completed.

George Klenk of New Hyde Park, L. I., driver of first truck to use the new Holland Tunnel exit viaduct, is greeted by Raymond C. Cruthers, Superintendent of the tunnel, and James J. McNamara, Police Chief, Jersey City.





The Fourteenth Street Holland Tunnel Viaduct built by The Port of New York Authority at Jersey Avenue, in Jersey City, in operation.

The Fourteenth Street Viaduct, which will double the capacity of the present Twelfth Street Viaduct connecting the tunnel with the Pulaski Skyway and Hudson Boulevard, will eliminate a traffic bottleneck at that point. It will greatly relieve the present Twelfth Street Viaduct by handling the heavy flow of westbound traffic from the tunnel while permitting the Twelfth Street structure to carry eastbound traffic only. The new

roadway eliminates the two sharp right-angle turns that caused so much of the congestion on the original viaduct. It will be used not only for Holland Tunnel exit traffic, but also local Jersey City, Hoboken and Hudson County traffic.*

*The Fourteenth Street Viaduct was opened to traffic on February 13, 1951.

Excavation Completed for 179th Street Tunnel

Under West 179th Street in Manhattan, the Port Authority has completed excavation of a tunnel to cost about \$8,400,000, paralleling the half-mile West 178th Street Tunnel which we built and opened in 1940 to carry traffic between the George Washington Bridge and the Harlem River Drive and east side of Manhattan.

When the new tunnel is completed we will have available two lanes for eastbound traffic

and two lanes for westbound traffic across Manhattan, permitting motorists to move directly between the George Washington Bridge and the east side of Manhattan and the Bronx, without touching the streets of Manhattan. The tunnels will help expedite traffic to the Cross-Bronx Expressway, now under construction by the State of New York to serve Westchester and New England parkways and arterial highways.



General view of progress of excavation and decking of West 179th Street Tunnel between Broadway and Fort Washington Avenue.

The \$8,400,000 West 179th Street Tunnel approach to the George Washington Bridge goes into the final phase of its construction.



We Continue Our Program of Improving Other Approaches to Port Authority Facilities

The Port Authority has agreed to share with the Triborough Bridge and Tunnel Authority the cost of a new ramp at the Manhattan approaches of the George Washington Bridge. Estimated to cost about \$1,069,000, the ramp will permit motorists to go south on the Henry Hudson Parkway directly from the bridge. It will permit the elimination of the present traffic signal stop at the bottom of the existing ramp and the circuitous route which now cause long delays and great inconvenience to motorists traveling south from the bridge.

In addition, the Port Authority and the Triborough Bridge and Tunnel Authority are giving continued consideration to plans for altering the entire Manhattan plaza and approach system for the George Washington Bridge.

On the New Jersey side of the George Wash-

ington Bridge, we have agreed to build a direct connection between the bridge and the Palisades Interstate Parkway. This would be made available when construction of the southern part of the parkway through New Jersey and New York has been completed by the State of New Jersey.

Whenever materials are available we expect to go forward with the steel decking and paving of a new approach above the tracks of the New York Central Railroad System between Fortieth and Forty-first Streets, to provide additional access to the Manhattan entrance plaza of the Lincoln Tunnel.

The new ramp approaches connecting the Port Authority Bus Terminal with the Lincoln Tunnel plazas have greatly improved traffic conditions in the area by removing almost 5,000 bus movements from the local Manhattan streets daily.

We Build a Connection Between the Lincoln Tunnel and the New Jersey Turnpike

The great New Jersey Turnpike, on which construction has moved rapidly forward, will provide a 118-mile expressway across the State of New Jersey from Deepwater, on the Delaware River, to the vicinity of the George Washington Bridge. The turnpike will connect with the new Delaware River Memorial Bridge to cross the river to Wilmington. This high speed artery will materially reduce travel time for both passenger cars and motor trucks traveling through New Jersey.

In order to increase the effectiveness of the turnpike for traffic moving to and from the Lincoln Tunnel, the Port Authority is financing a \$3,700,000 connection between the New Jersey artery at Secaucus, and the existing two-mile Lincoln Tunnel underpass through Weehawken, Union City and North Bergen. This express underpass was built by the Port Authority at a cost of \$13,000,000 as a part of the Lincoln Tunnel. Motorists using the three-quarter-mile connection to the two-mile expressway, will be able to reach the Times Square area of Manhattan from the turnpike in ten minutes. The New Jersey Turnpike will make Newark Airport about twenty-five minutes distant by car from Times Square.

Holland Tunnel Repavement and Other Improvements Are Completed

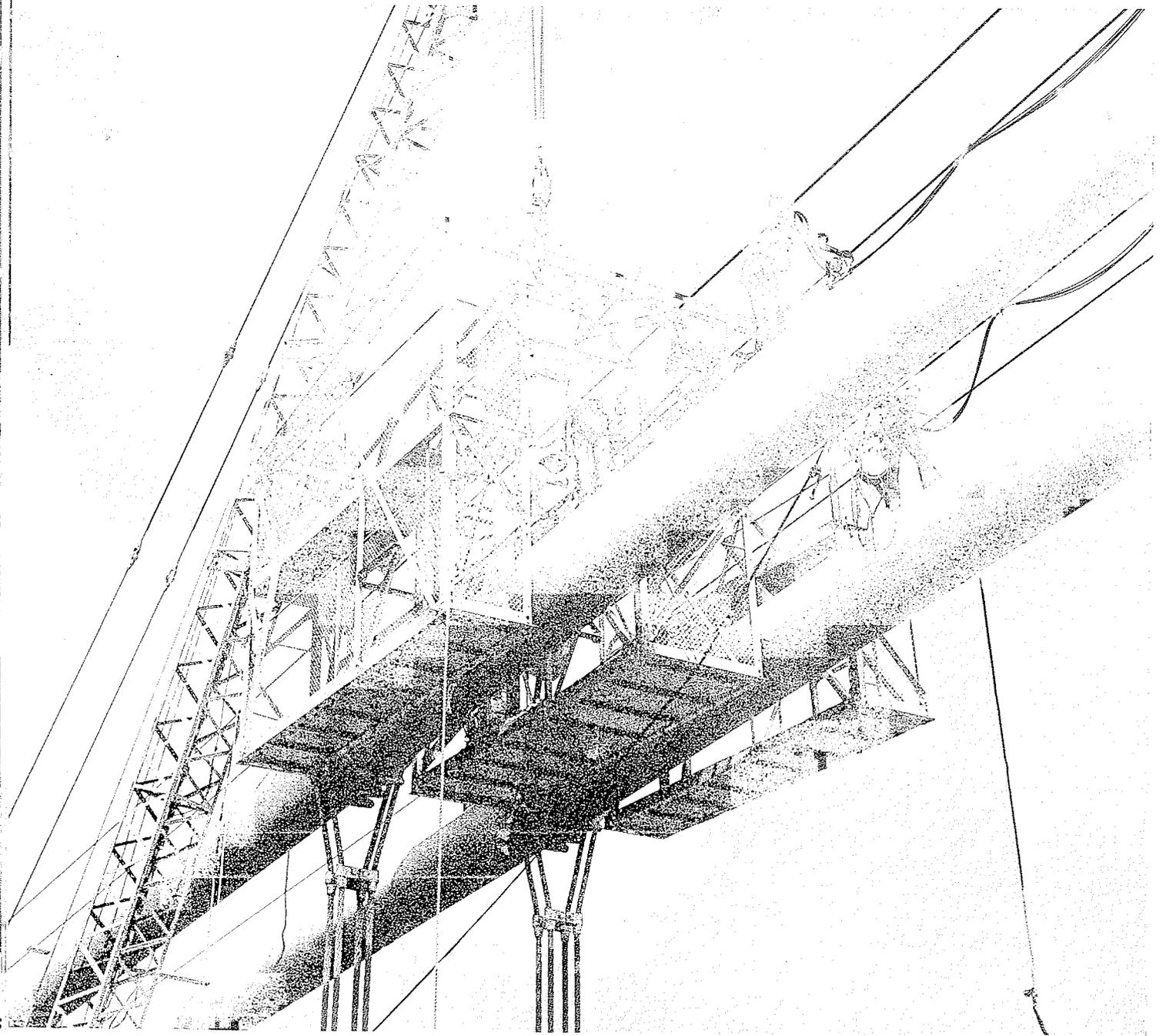
During the year the repaving of 9,000 feet of Holland Tunnel roadway with asphaltic concrete was completed, and repairs were made to the brick entrance ramps at a total cost of about \$160,000. Our maintenance crews also completed the replacement of the six banks of twenty-year-old air-blast transformers at the Holland Tunnel. They also designed and installed a system of fog sprinkler nozzles at the Holland and Lincoln Tunnels and George Washington Bridge, for cooling exhaust fans in emergencies.

We Participate in Highway Planning in the Two States

As traffic in the two States mounts, the obligation of the Port Authority, under the Port Treaty of 1921, to maintain close liaison with Federal, state, county and local highway agencies becomes increasingly important. During the past year we were in continuing contact with the New Jersey State Highway Department regarding the program for connections between Port Authority facilities and the state highways of Northern New Jersey. One of the principal results of this contact was the decision on the part of the Port Authority to build the vital connection between the New Jersey Turnpike and the Lincoln Tunnel, previously mentioned in this report.

We have met with the superintendent, staff and engineering consultants of the New York State Department of Public Works and the office of the City Construction Coordinator on such matters as the alignment of the Nassau Expressway along the northern boundary of New York International Airport; the connection through Highbridge Park, between the 178th and 179th Street Tunnels serving the George Washington Bridge, and the new Cross-Bronx Expressway; and the airport connection of the Van Wyck Expressway, completed in October 1950. The Van Wyck Expressway serves as a direct route to New York International Airport, reducing travel time between the air terminal and midtown Manhattan to about thirty-five minutes.

We have kept in close touch with local highway and traffic officials in New York, including the New York City Construction Coordinator, the Long Island State Park Commission, the Triborough Bridge and Tunnel Authority, the New York City Department of Traffic, and the engineering offices of the Borough Presidents of Manhattan and Queens, as well as the county and city highway agencies in Northern New Jersey.



**Tightening of Bolts
on George Washington Bridge**

THE TALK OF THE TOWN

NOVEMBER 11, 1950

Adjustments

THE bolts that hold the vertical cables of the George Washington Bridge in place are being tightened, and to learn something about this delicate operation we journeyed up to the bridge one warm, bright, windless day last week, stopping off first at the office of Byron M. Gruver, resident engineer of the Port of New York Authority, who is responsible for the work being done on the bridge, as well as, among other things, the construction of the vehicular tunnel now being built across Manhattan Island under 179th Street. Gruver's office is in the ventilating building of the tunnel, with an entrance on 178th Street, and we found the method of admittance to the structure odd and romantic. We rang a bell beside the door, and a moment later a man in shirt-sleeves leaned out of a fourth-floor window above our head and called down to us to state our business; when we had done so, he dropped a key onto the sidewalk beside us. We unlocked the door and made our way upstairs in a self-service elevator. Gruver welcomed us (the man in shirtsleeves proved to be one of his aides) and at once launched into a brisk, elementary briefing on the bridge. "The deck of the bridge is supported by a total of three hundred and four vertical suspension cables," he said. "These cables are attached to the four main cables, which run the length of the whole structure, from their anchorages in New York to their anchorages in New Jersey, a distance of four thousand seven hundred and sixty feet. At intervals of sixty feet along each of the main cables are what we call panel points, each of which is a cast-steel band, about eleven feet six inches in outside circumference, encircling the cable. The verticle cables are looped, in grooves, over the bands, which are in halves, clamped together top and bottom by bolts. These bolts are what we're busy tightening, and they're no toys—twenty-eight inches long and two and three-eighths inches in diameter, with a nut at each end. They're what keep the panel points from slipping down the main cables."

Mr. Gruver went on to say that the number of bolts in a band varies according to the position of the band on its main cable. At the low points of the cables, where they take off gradually from their anchorages, and in the middle of the bridge, where they run along close to the deck at an easy angle, the panel points require only six bolts each; near the towers, where the cables are most sharply inclined, the panel points require twenty bolts. "We've got a total of thirty-three hundred and sixty-eight bolts to look over," Gruver said. "When the bolts were put in place, nineteen years ago, each one carried a stress of twenty-nine thousand pounds per square inch. Tests by our engineers some time ago showed that quite a few of the bolts were carrying more than that and others were carrying less. This is partly because the movement of traffic on a suspension bridge is bound to cause a shift of stresses and partly because we added considerable dead weight to the bridge when we repaved sections of the roadway a couple of years ago. We called in R. J. Tobin and Company, a structural-ironworking firm, and after negotiation, gave them the contract. We also designed a couple of cages for the men to work in. They couldn't get at the bolts without the cages."

Leaving Mr. Gruver in his eyrie, we proceeded out on the bridge to the tower on the New York side, where three wooden shanties have been set up as field headquarters for the Tobin company. We introduced ourselves to W. G. Ellis, superintendent of the job, who told us that he has twenty-five men at work, that they'll go on working until winter weather makes outdoor work impracticable or the New York side of the bridge is finished, which should be by December 1st, weather

permitting, and that the men, who are used to walking about on the open steelwork of skyscrapers, find working in the cages literally and figuratively a breeze. Ellis pointed to one of the two cages, which was slung on the pair of cables on the downstream side of the bridge, between the anchorage and the tower; it was so many hundreds of feet above us that it looked like a cricket clinging to a stout blade of grass. The other cage was working its way up to the tower from the middle of the river, also on the downstream side. Ellis told us that the cages are made of aluminum, so that they will be light, and that they run along the cables on wheels with a concave rubber surface. Inside, they have platforms on two levels, so the men can work simultaneously on the bolts at the top and the bottom of the panel points. A block-and-tackle arrangement attaches them to the bridge tower, and by turning winches on top of the cages the men roll them from panel point to panel point. "Mighty fine view of the river from up in those cages," said Ellis.

Under each cage is a net, to catch any workman, tool, nut, or bolt that may fall from a cage. (No workman has fallen.) Various types of wrenches are required to loosen and tighten the nuts; a regular-size one is four feet long. The degree to which a nut has been tightened is tested by an instrument known as an extensometer. Two laboratory men representing the Port Authority accompany each cage crew and regulate the work with these instruments. Each cage has a crew of nine—an assistant foreman and eight wrench men. It is assumed that the present bolt-tightening will do for the next twenty years, and that goes even if a second deck, which the bridge was designed for, should be added.

Closing of 125th Street-Edgewater Ferry

In September 1950 the Electric Ferries, Inc. announced that they would close the 125th Street-Edgewater Ferry about the middle of December 1950 because of deficit operations for several years. On October 4 the Board of Chosen Freeholders of Bergen County requested the Port Authority to assure continuance of this ferry service.

The Port Authority invited representatives of the Board of Chosen Freeholders and other interested parties to a conference on November 15. The local representatives noted that many of the large Edgewater industries employed persons living in Manhattan who used the ferry. While they admitted that the ferry could be operated only at a loss, they urged its public necessity as a service to the community and business of Edgewater, as a stand-by route in an emergency and as relief to tunnel and bridge congestion.

The Port Authority stated that no regulatory body of the Federal or state government had the power to require the continuance of the ferry. We also emphasized that the Port Authority's proper field of economic practicability is to operate marginal public projects which in the long run will, however, be self-supporting. It was pointed out that the maximum capacity of the ferry was negligible compared with the traffic handled in peak hours at the George Washington Bridge and Lincoln Tunnel. Test travel runs indicated that the route via the tunnel and the bridge was quicker in most instances than travel via the ferry route. The total fare on an average bus route by way of the bridge and tunnel would be about the same as the ferry rate.

We therefore advised the Bergen County Freeholders that we could not operate the 125th Street-Edgewater Ferry. Counsel for the Board of Chosen Freeholders in response said: "While we regret that your decision was adverse, we fully appreciate that it was not made until all of the

circumstances involved had been thoroughly considered."

The ferry ceased operation on December 16, 1950.

We Study the Engineering and Economic Feasibility of a Third Tube for the Lincoln Tunnel

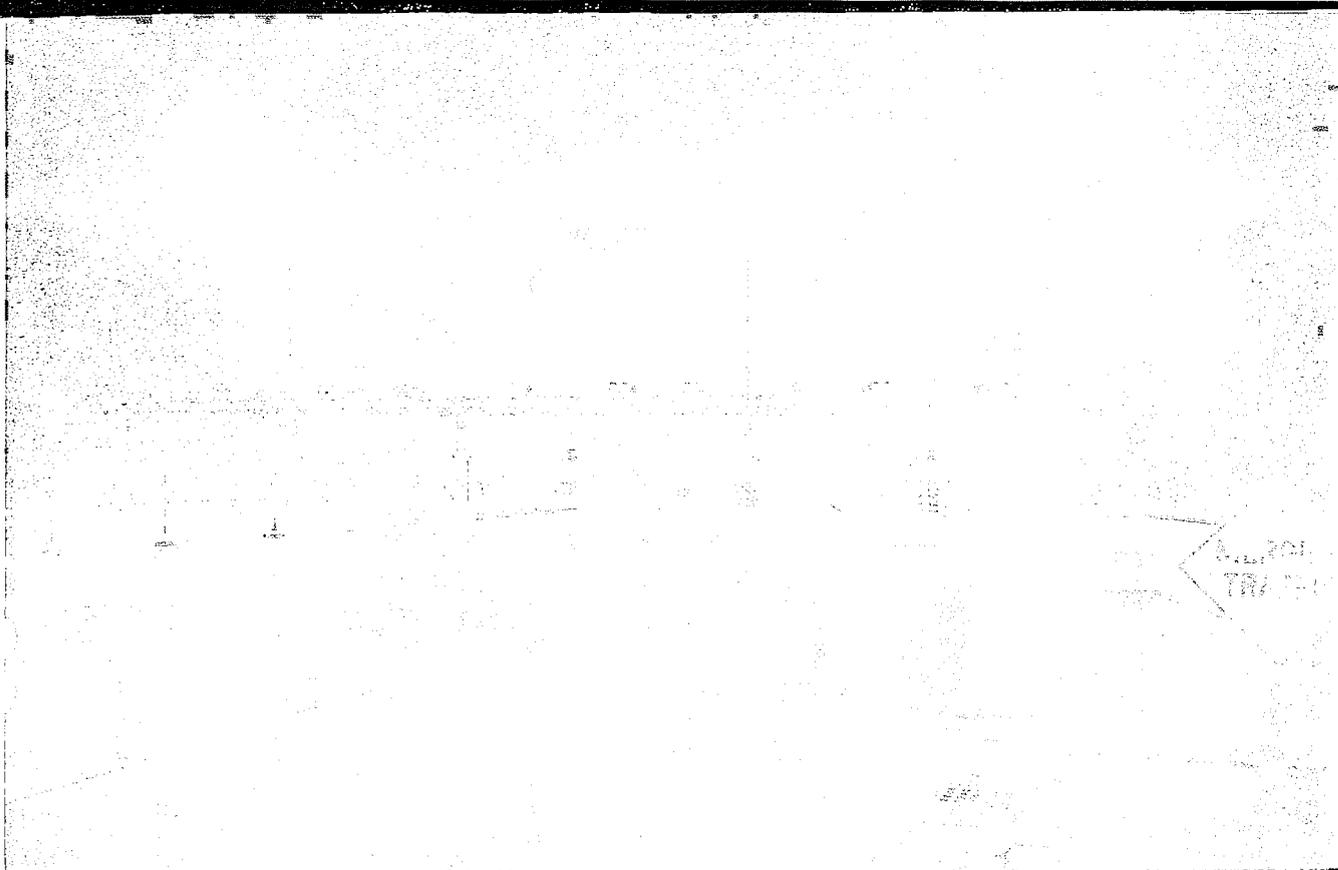
The Port Authority Commissioners on May 16 authorized an immediate \$120,000 engineering study for a new two-lane tube at the Lincoln Tunnel to augment the two existing tubes so that the increasing load of trans-Hudson traffic might be more efficiently handled. We already had available results of our continuing studies of traffic volumes and crossing capacities as well as the results of interviews held with 135,000 interstate motorists in October 1949.

It was apparent that the heavy traffic of the Holland and Lincoln Tunnels and the George Washington Bridge would be further increased upon the completion of the New Jersey Turnpike. An added traffic burden on the Lincoln Tunnel would crowd the tunnel itself beyond capacity; it would also increase street congestion on both the New Jersey and New York sides of the river by backing up traffic, unless added lanes under the river were available to take it away.

The construction of a third tube for the Lincoln Tunnel would permit the operation of four lanes of traffic in the direction of peak hour travel, thus doubling the capacity of the tunnel.*

* On March 8, 1951, the Commissioners released plans for an \$85,000,000 third tube of the Lincoln Tunnel to provide added capacity for 8,500,000 vehicles at the facility. To be completed in 1957, it will increase the annual capacity of the Lincoln Tunnel by 50 per cent and will double the peak-hour capacity. At the same time, the Commission authorized the staff to review the plans, which include new connections with state and municipal highways, with the responsible representatives of the states and the municipalities on either side of the Hudson. Invitations were promptly extended to such representatives.

The two-lane third tube, when completed, will be operated in an eastbound direction, and the north tube westbound; the middle or present south tube will carry traffic eastbound in the morning and westbound in the evening, or may operate one lane in each direction. This permits the use of four lanes in the peak direction with two lanes in the opposite direction.

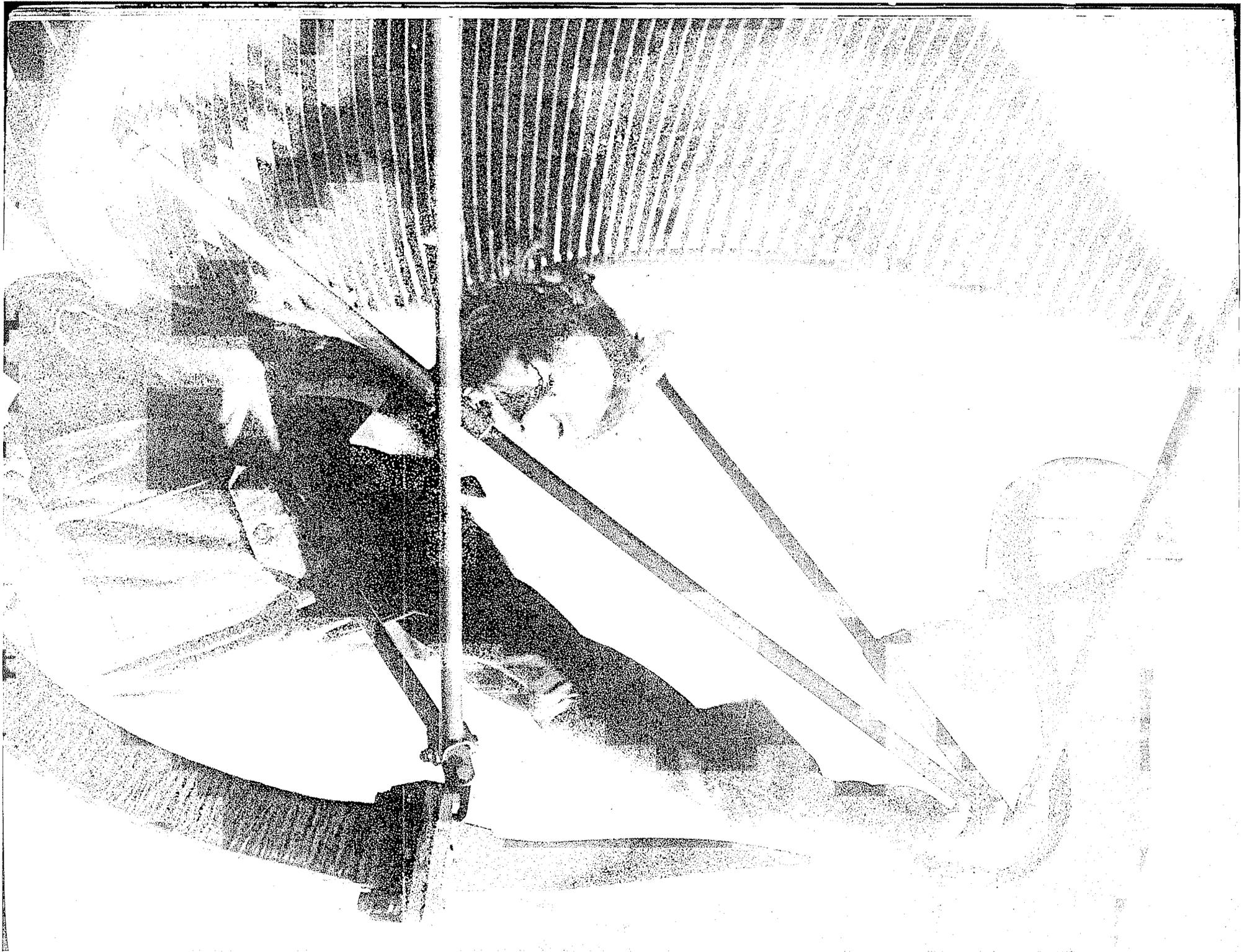


New Jersey Plaza of the Lincoln Tunnel on a rainy night.

Port Authority studies of interstate traffic indicate that solutions must also be found for the handling of interstate traffic that can by-pass the crowded island of Manhattan north and south, or where that is not possible, to move directly over the island or under it.

We are coordinating and pooling traffic information with the New York State Thruway Authority and the New Jersey Turnpike Authority in order that we may move forward together in the face of the increasingly critical problem of the flow of traffic from the south and southwest into and around the City of New York toward Westchester and New England.





2 Airports

We continued throughout the year to carry forward the vast program of airport construction and development to which we were directed by the two States in 1946 and which was outlined in the agreements of 1947 with the City of Newark and the City of New York. The scope and complexity of an airport program for the financing, construction, promotion and operation of a regional system of air terminals in the largest metropolitan district in the world—affording also the world's richest air transport market—will be indicated by the following report.

Newark, La Guardia and New York International Airports in 1950 handled 5,081,025 passengers, which is 1,474,589 more people than there are in the City of Chicago, the nation's second largest city. This represented an increase of 17 per cent over the 4,341,750 air passengers at the three airports in 1949.

Scheduled domestic air passenger traffic accounted for 84.6 per cent of the total; scheduled overseas, 10.1 per cent; and nonscheduled, 5.3 per cent.

Air cargo handled at the three Port Authority airports increased sharply to 205,939,000 pounds in 1950, as compared with 162,428,000 pounds in the previous year, an increase of 26.8 per cent.

Scheduled domestic cargo totaled 182,724,000 pounds in 1950, as compared with 134,233,000 pounds in 1949, an increase of 36.1 per cent; this was 88.7 per cent of all cargo handled.

Overseas scheduled cargo totaled 19,219,000 pounds as compared with 15,708,000 pounds in 1949, an increase of 22.4 per cent.

Nonscheduled cargo, both domestic and overseas, amounted to 3,996,000 pounds, as compared with 12,489,000 pounds in the previous year, a decline of 68 per cent. This downward trend resulted principally from the fact that in the summer of 1949 three domestic all-cargo carriers were certificated by the C.A.B. as scheduled cargo carriers. Nonscheduled cargo movements at the three airports now amount to only 2 per cent of the total air cargo business.

Airmail, including parcel post, added up to 41,580,000 pounds in 1950, as compared with 37,252,000 pounds in 1949, an increase of 11.6 per cent. Of this amount, domestic mail accounted for 32,651,000 pounds in 1950 as compared with 29,179,000 pounds in 1949, an increase of 11.9 per cent, while overseas mail totaled 8,929,000 pounds in 1950, as compared with 8,073,000 pounds in 1949, an increase of 10.6 per cent.

A decrease of more than 12,000 military air-

Technician making adjustments to airport surveillance radar equipment which indicates location of aircraft within a range of 30 miles of La Guardia Airport.

craft movements at Newark Airport was the major factor in reducing the total number of flights in the region to show a decline of 2.3 per cent as compared with the previous year. A total of 264,916 aircraft was handled at the three airports in 1950, as compared with 271,043 in 1949. Of these, 228,401 or 86.2 per cent, were commercial air carrier movements, as compared with 224,489 in 1949, an increase of 1.7 per cent.

Scheduled domestic airline movements totaled 196,903 as compared with 187,624 in 1949, an increase of 4.9 per cent. However, a general increase in the use of larger equipment by all the airlines occurred during the past year. The employment of 50-to-70-passenger DC-6's and 50-80-passenger Constellations as well as 40-passenger Convairs and 36-passenger Martins was reflected by a 14.7 per cent domestic scheduled passenger increase at our airports as compared with the 4.9 per cent increase in plane movements of the scheduled airlines in this area.

Scheduled overseas movements were 19,710 as compared with 24,203 in 1949, off 18.6 per cent. The merger of American Overseas Airlines and Pan American Airways services during the year, including their use of larger equipment such as the Stratocruiser and the consolidation to some extent of revenue schedules as well as the integration of maintenance, test and training flights, was largely responsible for the reduction in overseas aircraft arrivals and departures.

Nonscheduled air carrier movements, both domestic and overseas, amounted to 11,788 as compared with 12,662 in the previous year, a decrease of 6.9 per cent. This class of carrier also intensified its use of larger equipment during 1950, resulting in fewer flights. About half of this type of traffic was centered at Newark.

Movement of corporate type aircraft at New York International, La Guardia and Newark Airports totaled 19,899 as compared with 18,313 in

the previous year, an increase of 8.7 per cent with all three airports sharing in the gain. Personal aircraft activity at these airports was represented by 3,959 arrivals and departures, a reduction of 3 per cent from the preceding year, although Newark showed a slight gain in this type of flying.

In addition, Teterboro Airport accounted for a total of 183,841 aircraft movements, a decrease of 13.3 per cent from 1949; 5,276 or 2.8 per cent were nonscheduled air carriers, 35,591 or 19.4 per cent were civil cross-country movements, 877 or 0.5 per cent were military or governmental aircraft. Civil local plane movements amounted to 142,097, or 77.3 per cent of the total.

We Go Forward With Our Airport Development Program

The Port Authority investment, already spent or committed, in the four regional airports of the Port District at the end of the year, totaled \$63,691,552. Grants from the Federal Government totaled \$2,383,519, or less than 4 per cent of our capital expenditures.

Of the total expenditures, \$39,936,597 was invested at New York International, \$13,549,302 at Newark, \$4,877,189 at La Guardia and \$5,328,464 at Teterboro. We estimate that by the end of 1951, our total expenditures and commitments at the four airports will approximate \$78,738,000, as follows: New York International, \$45,411,000; La Guardia, \$6,234,000; Newark, \$20,274,000; Teterboro, \$6,819,000. These budget estimates reflecting our airport construction program for 1951 will, however, be modified by the limitations and restrictions of the national defense program.

Gross operating revenues at the four airports in 1950 amounted to \$5,283,030, as compared with \$4,045,864 in 1949.



Executive Director Austin J. Tobin (center) and Director of Operations Billings Wilson (at his left) meet the press at Schipol Airport with Mr. Dellaert, Director of the airport (at Mr. Tobin's right) and Mr. Mijksenaar, Director of Public Relations, City of Amsterdam (at Mr. Wilson's left).

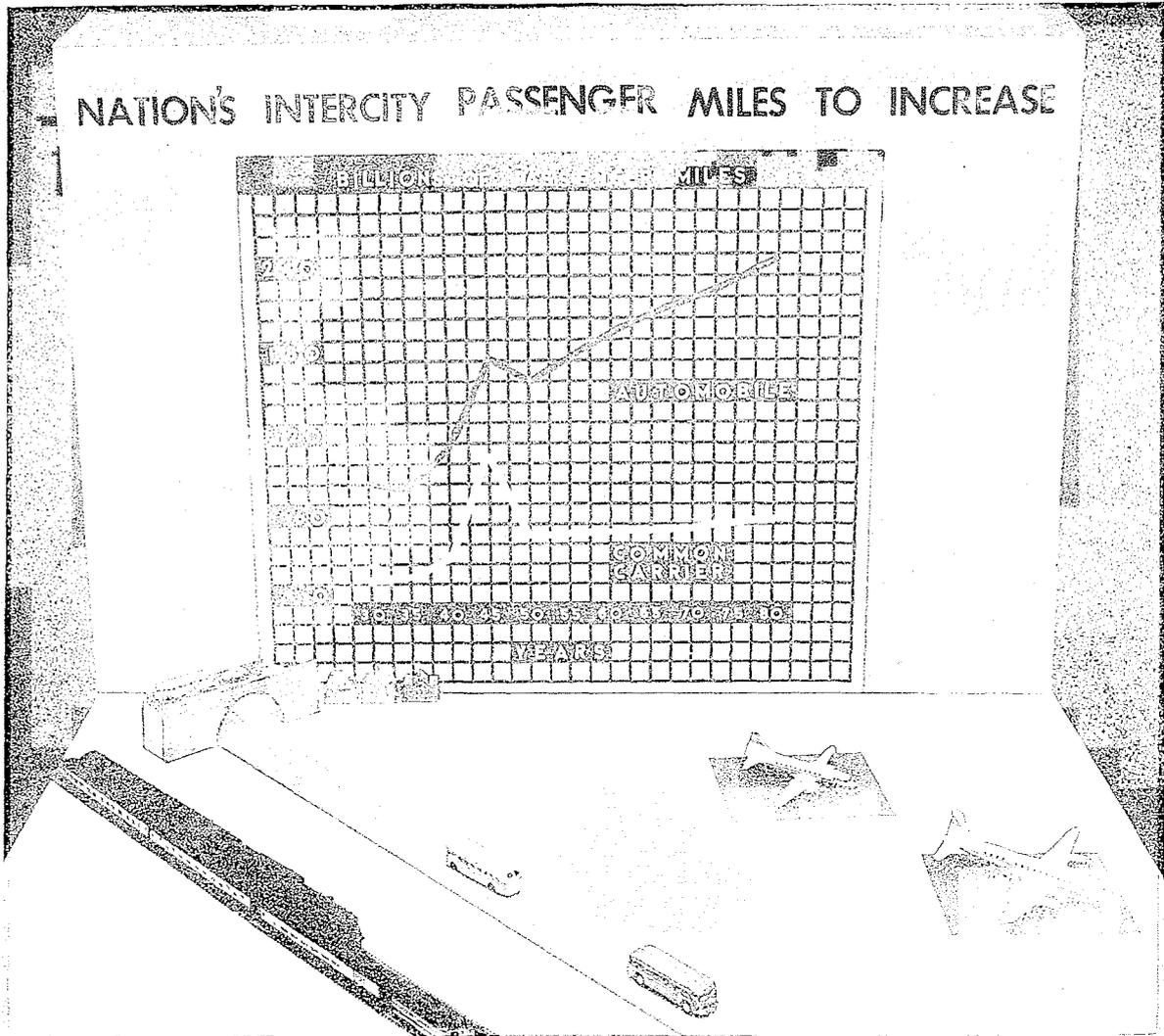
Operating, maintenance and administrative expenses were \$5,036,439 as compared with \$4,432,840 in 1949. The net operating revenue of \$246,591 at the four airports compared with an operating deficit of \$386,975 in 1949. These figures do not include interest costs or amortization of the outstanding \$74,400,000 of Air Terminal Bonds. Nevertheless an improvement of \$633,566 in our net operating revenues at the airports during 1950 is a most gratifying figure, and one that accelerates our progress on the long road toward self-supporting air terminal facilities.

On November 29, 1950 the Port Authority sold \$13,000,000 of Air Terminal Bonds, Third Series, out of which \$8,000,000 was allocated to Newark Airport, \$3,000,000 to New York International and La Guardia, and \$2,000,000 to Teterboro.

These bonds, sold at competitive bid, carry an interest rate of 2.20 per cent and are due December 1, 1980. They were sold at a price of 96.36 which reflects an average interest cost to the Port Authority for the term of the bonds of 2.32 per cent.

We Complete a New Air Traffic Survey

The New Jersey-New York Metropolitan District will maintain its position as the major air traffic center of the nation over the next thirty years, with air passengers in 1980 increasing to two-and-a-half times the 1949 number, air cargo almost seven-and-a-half times, and airmail almost seven times, according to an air traffic forecast made under the direction of the chief of our Airport Planning Bureau.



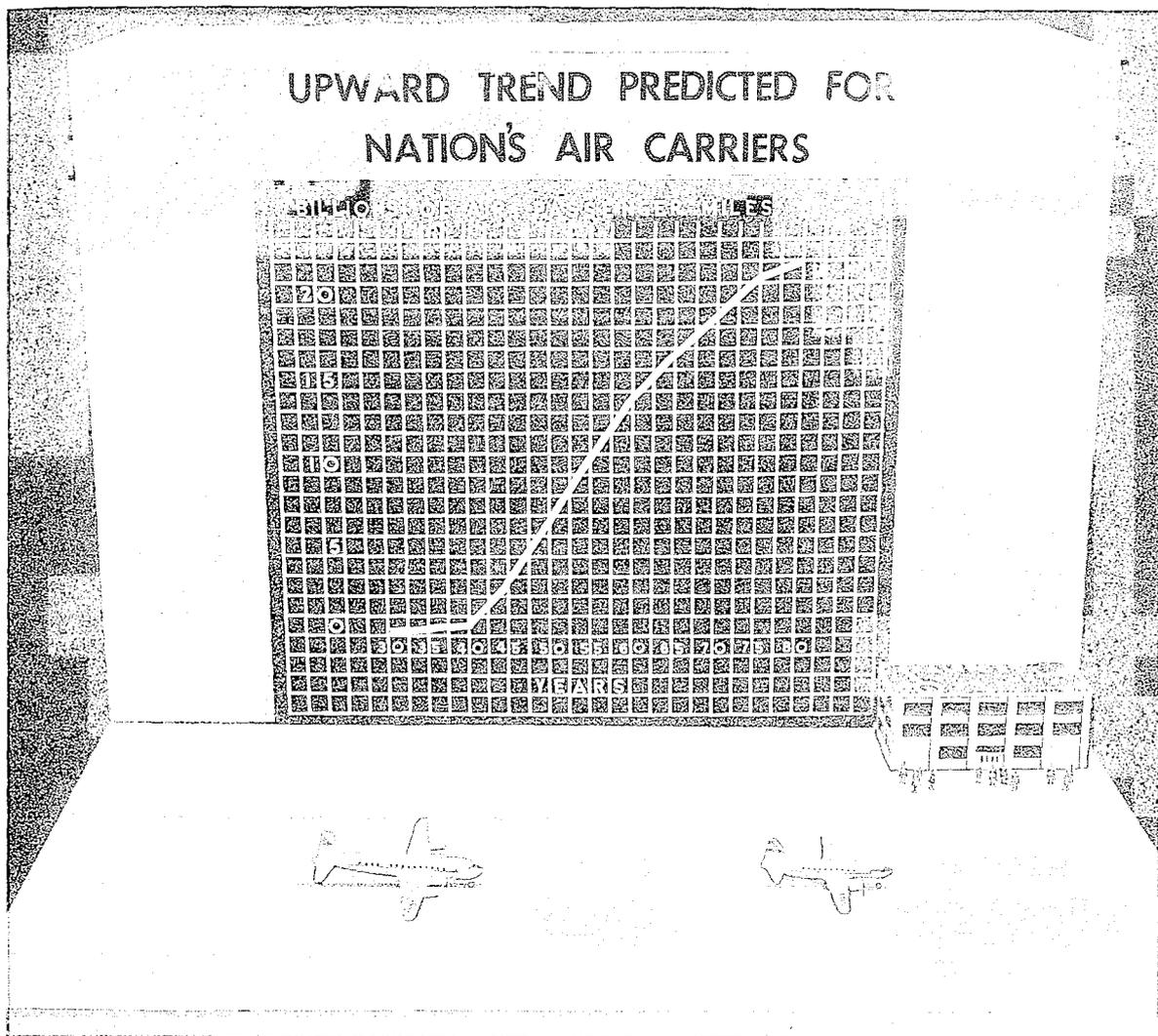
According to this forecast, released in August, the Port District will account for 11,200,000 air passengers in 1980, as compared with 5,081,000 in 1950, an increase of 120 per cent; 599,400 tons of air cargo, as compared with 102,970 tons, an increase of 482 per cent; and 131,500 tons of airmail, as compared with 20,790 tons, an increase of 533 per cent.

The 1950 Port Authority air traffic survey represents the most thorough appraisal of factors

influencing air traffic ever attempted. It takes into consideration not only the particular problems of air transportation in the New Jersey-New York Metropolitan Area, but also of intercity transportation in the nation as a whole, as well as competitive relationships between air transportation and surface transportation.

Completed prior to the Korean conflict, the forecast is a reasonable prediction of what we may expect in the development of air traffic in

UPWARD TREND PREDICTED FOR NATION'S AIR CARRIERS



the Port District and in the nation over the next thirty years. It was authorized by the Commissioners of the Port Authority as a definitive study to guide us in the long-range planning of airport facilities in the New Jersey-New York area. No one can tell what the future will bring in a mode of transportation and this survey indicates long-range estimates which may require certain adjustments over the years. However, it has been prepared on a basis which permits periodic reviews

and facilitates its revision in the light of changing political and economic developments.

According to the Port Authority's 1950 estimates, domestic airlines in 1980 will account for 22 billion passenger miles of travel. This compares with the 7.9 billion estimated by the C.A.A. for 1950. The report suggests that by 1970 air travel will be greater than intercity rail travel; that air transport will carry almost all of the common carrier passenger traffic moving beyond 1,000



Thomas M. Sullivan, Engineer of Airports, consults with Hervey F. Law (right), General Superintendent of Airports, on Port Authority airport plans.

miles, and more than half of the traffic moving between 150 and 1,000 miles, but only an insignificant part of traffic under 150 miles.

We believe that during the next thirty years one out of every four of the nation's domestic air passengers will continue to use the New Jersey-New York Port District's regional system of airports. Although four-fifths of New York's air passengers today are business travelers, future increases in the volume of air passenger travel are expected to come largely from personal travel.

Our 1950 study estimates that common carrier travel between the United States and other countries will double by 1980, and that two-thirds of the international travelers of the future will use air services.

For the nation as a whole air cargo tonnage is expected to increase ninefold by 1980; tonnage in the New Jersey-New York area will grow sevenfold. The market for air cargo will be limited to items moving relatively long distances and for

which air speed offers substantial marketing and distribution benefits. Air cargo costs will decline to a point which will justify rates about a fourth lower than present charges. In 1980 it is expected that the New York-New Jersey area will originate 23 per cent of domestic and 25 per cent of overseas air cargo tonnage.

The survey anticipates first-class mail delivery by air wherever such delivery would be quicker than by surface transportation. Under such a policy airmail tonnage would be multiplied seven times by 1980. It is expected that by 1960, 19 per cent of domestic letter mail in the metropolitan area will move by air and 45 per cent after 1965. The Port's share of all overseas airmail will increase from 55 to 65 per cent by 1970. Air parcel post in the area, both domestic and overseas, will increase, but it is not expected to exceed 5 per cent of the total of the district's parcel post.

Certain basic assumptions had to be made in order to conduct such a study, with respect to: (1) growth of United States; (2) business fluctuations; (3) private enterprise; (4) war and peace; and (5) Federal aid to aviation.

For purposes of the study we therefore assumed that the national economy will continue to expand during the next three decades; that there will be cyclical business fluctuations but that we will not have a depression of the magnitude of that which occurred in the Thirties; that the American economy will remain predominantly one of private enterprise; that in spite of political forces restricting free interchange of goods and people, the dominant role of the United States in world affairs will result in an expanding volume of international trade and travel; and that commercial air transport will continue to benefit from Federal and local government expenditures in the field of aviation.

Air Traffic at Port Authority Airports

NEW YORK INTERNATIONAL AIRPORT

	1950	1949	% Change
Scheduled Passengers			
Domestic	158,961	110,091	+ 44.4
Overseas	221,776	103,244	+ 114.8
Total	380,737	213,335	+ 78.5
Mail (Pounds)			
Domestic	830,767	677,892	+ 22.6
Overseas	4,709,446	1,622,266	+ 190.3
Total	5,540,213	2,300,158	+ 140.9
Scheduled Cargo (Pounds)			
Domestic	4,275,635	3,195,290	+ 33.8
Overseas	9,477,614	4,003,982	+ 136.7
Total	13,753,249	7,199,272	+ 91.0
Scheduled Plane Movements			
Domestic	5,603	5,873	- 4.6
Overseas	9,681	9,195	+ 5.3
Total	15,284	15,068	+ 1.4
All Other Plane Movements			
	3,991	3,047	+ 31.0
Total Plane Movements			
	19,275	18,115	+ 6.4

LA GUARDIA AIRPORT

	1950	1949	% Change
Scheduled Passengers			
Domestic	3,219,033	2,891,132	+ 11.3
Overseas	293,378	324,829	- 9.7
Total	3,512,411	3,215,961	+ 9.2
Mail (Pounds)			
Domestic	25,610,820	22,717,654	+ 12.7
Overseas	4,219,647	6,450,578	- 34.6
Total	29,830,467	29,168,232	+ 2.3
Scheduled Cargo (Pounds)			
Domestic	77,669,271	60,362,375	+ 28.7
Overseas	9,741,002	11,703,600	- 16.8
Total	87,410,273	72,065,975	+ 21.3
Scheduled Plane Movements			
Domestic	125,320	123,707	+ 1.3
Overseas	10,029	15,008	- 33.2
Total	135,349	138,715	- 2.4
All Other Plane Movements			
	21,121	20,750	+ 1.8
Total Plane Movements			
	156,470	159,465	- 1.9

NEWARK AIRPORT

	1950	1949	% Change
Scheduled Passengers			
Domestic	916,066	742,836	+ 23.3
Overseas	—	—	—
Total	916,066	742,836	+ 23.3
Mail (Pounds)			
Domestic	6,209,064	5,783,111	+ 7.4
Overseas	—	—	—
Total	6,209,064	5,783,111	+ 7.4
Scheduled Cargo (Pounds)			
Domestic	100,778,908	70,675,127	+ 42.6*
Overseas	—	—	—
Total	100,778,908	70,675,127	+ 42.6*
Scheduled Plane Movements			
Domestic	65,980	58,044	+ 13.7
Overseas	—	—	—
Total	65,980	58,044	+ 13.7
All Other Plane Movements			
	23,191	35,419	- 34.5
Total Plane Movements			
	89,171	93,463	- 4.6

* Figures reflect the transfer of principal domestic all-cargo carriers from nonscheduled to scheduled category by their certification in summer-1949.

NEW JERSEY—NEW YORK REGION

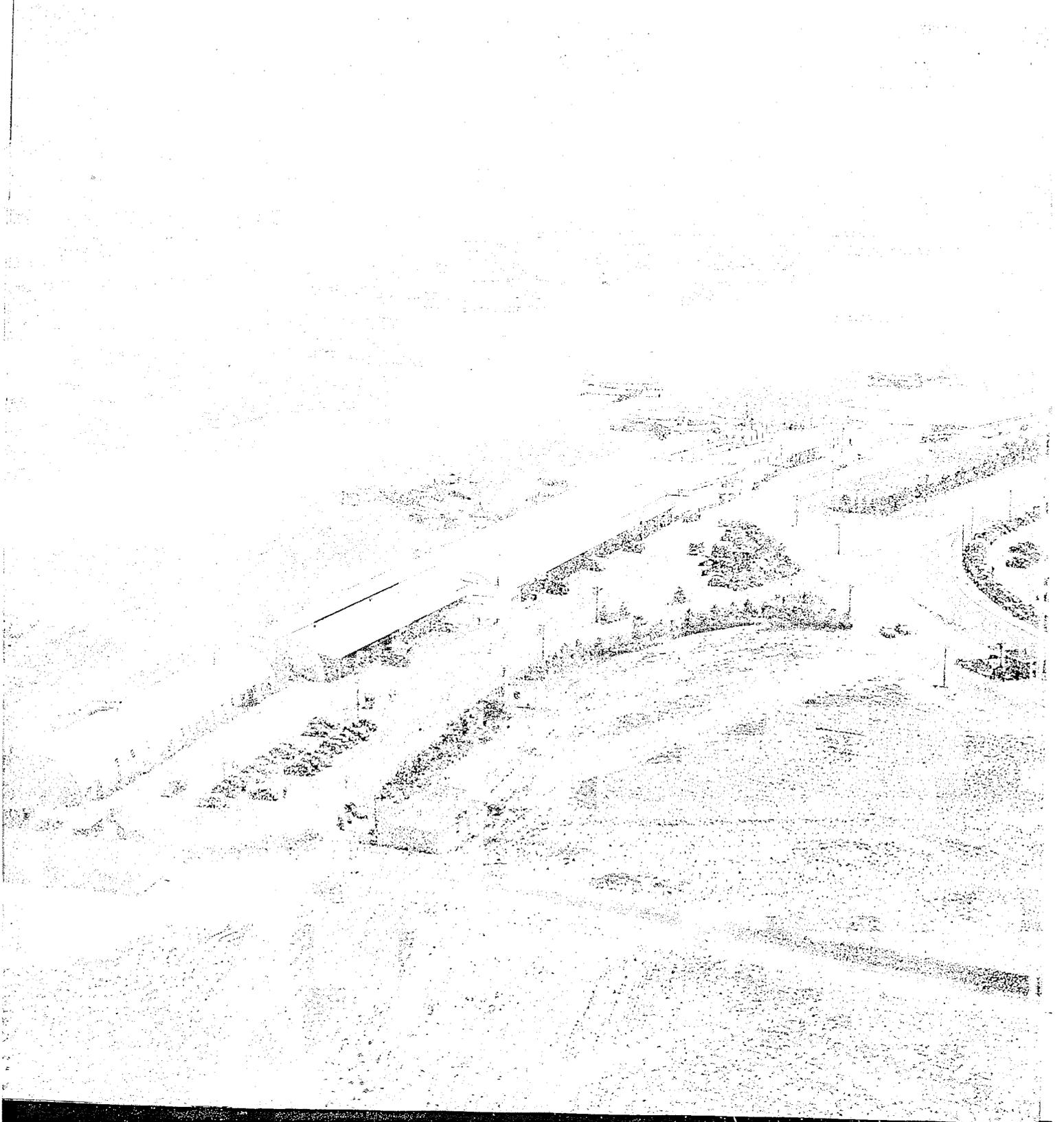
	1950	1949	% Change
Scheduled Passengers			
Domestic	4,294,060	3,744,059	+ 14.7
Overseas	515,154	428,073	+ 20.3
Total	4,809,214	4,172,132	+ 15.3
Scheduled Mail (Pounds)			
Domestic	32,650,651	29,178,657	+ 11.9
Overseas	8,929,093	8,072,844	+ 10.6
Total	41,579,744	37,251,501	+ 11.6
Scheduled Cargo (Pounds)			
Domestic	182,723,814	134,232,792	+ 36.1*
Overseas	19,218,616	15,707,582	+ 22.4
Total	201,942,430	149,940,374	+ 34.7
Scheduled Plane Movements			
Domestic	196,903	187,624	+ 4.9
Overseas	19,710	24,203	- 18.6
Total	216,613	211,827	+ 2.3
All Other Plane Movements			
	232,144	271,365	- 14.5**
Total Plane Movements			
	448,757	483,192	- 7.1**

* Figures reflect the transfer of principal domestic all-cargo carriers from nonscheduled to scheduled category by their certification in summer-1949.

** Figures include Teterboro plane movements as reported by C.A.A.
NOTE: Nonscheduled and contract carriers accounted for 271,811 passengers and 3,996,658 pounds of cargo during 1950.

New York International Airport

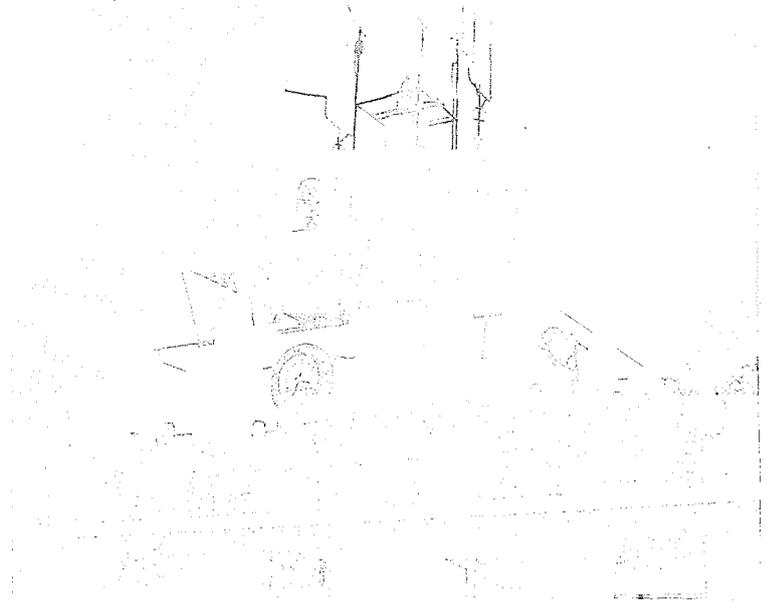
Air view of New York International Airport showing terminal area.



The flags of eleven nations are represented by tenant airlines at New York International Airport. This great airport has reached a point of development which renders it capable of efficiently handling the heavy flow of international travel for which speed is so essential in the current world crisis.

In a brief period of thirty months the 4,900-acre airport has been transformed from a Sahara-like stretch equipped with inactive runways, incomplete utilities, a makeshift Terminal Building and Control Tower—all unused and a great burden to the taxpayers of New York—into a vital, properly equipped port for world air traffic whose operational and developmental expenses are not charged back to the taxpayers. In 1950 New York International handled 43.1 per cent of the overseas passengers traveling on scheduled carriers to and from the New Jersey-New York Port District, 49.3 per cent of the overseas cargo moving on scheduled carriers, and 52.7 per cent of the overseas mail handled in the metropolitan area. It is anticipated that by the end of 1951 substantially all overseas service will have been transferred from La Guardia to New York International.

Scheduled domestic passengers at New York International Airport during the year rose to 158,961, as compared with 110,091 in 1949, an increase of 44.4 per cent. Scheduled overseas passengers totaled 221,776, as compared with 103,244 in 1949, an increase of 114.8 per cent.



New York legislators view the vast New York International Airport from the Observation Deck of the Terminal Building.

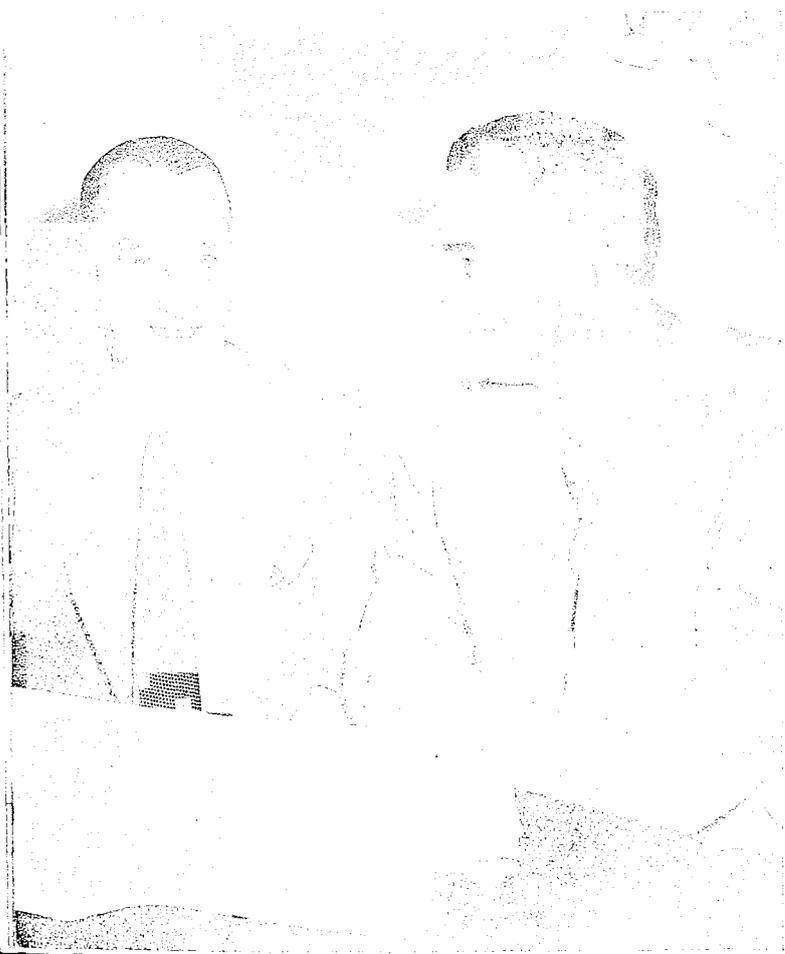
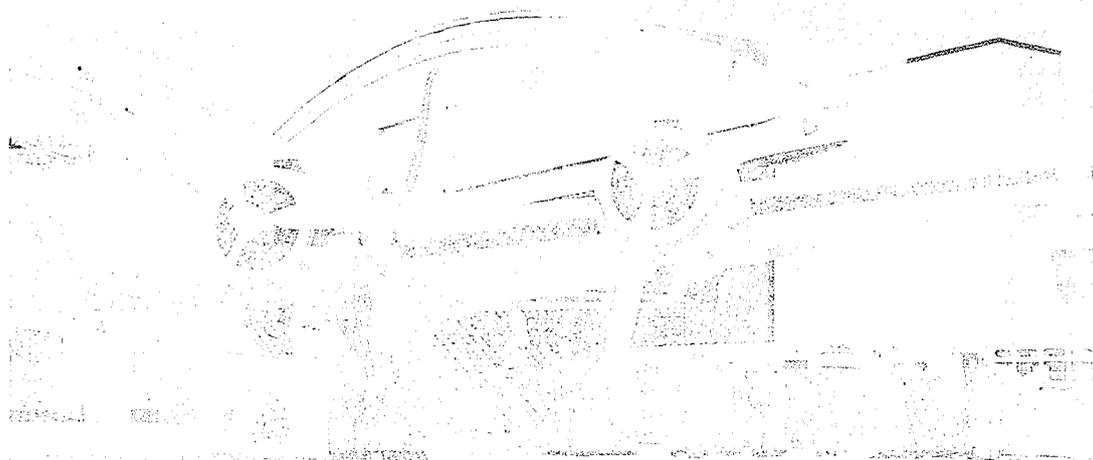
Scheduled domestic cargo totaled 4,275,635 pounds in 1950 as compared with 3,195,290 pounds in the previous year, an increase of 33.8 per cent. Scheduled overseas cargo totaled 9,477,614 pounds, as compared with 4,003,982 pounds in 1949, an increase of 136.7 per cent.

The amount of overseas mail handled at International increased from 1,622,266 pounds in 1949 to 4,709,446 pounds in 1950, a rise of 190.3 per cent.

Operating Revenues and Expenses

Gross operating revenues at New York International Airport in 1950 amounted to \$1,942,517, as compared with \$1,043,487 in 1949. Operating expenses were \$1,572,712 as compared with \$1,356,952 in 1949. Thus, a net operating revenue of \$369,805 was developed at the airport in 1950 before interest and amortization on outstanding Air Terminal Bonds. This compares with a deficit of \$313,464 in the previous year. As we have noted in the case of the combined airport picture, it will be a long time before New York International begins to earn the principal and interest

New Jersey State legislators visit one of the great new hangars at New York International.

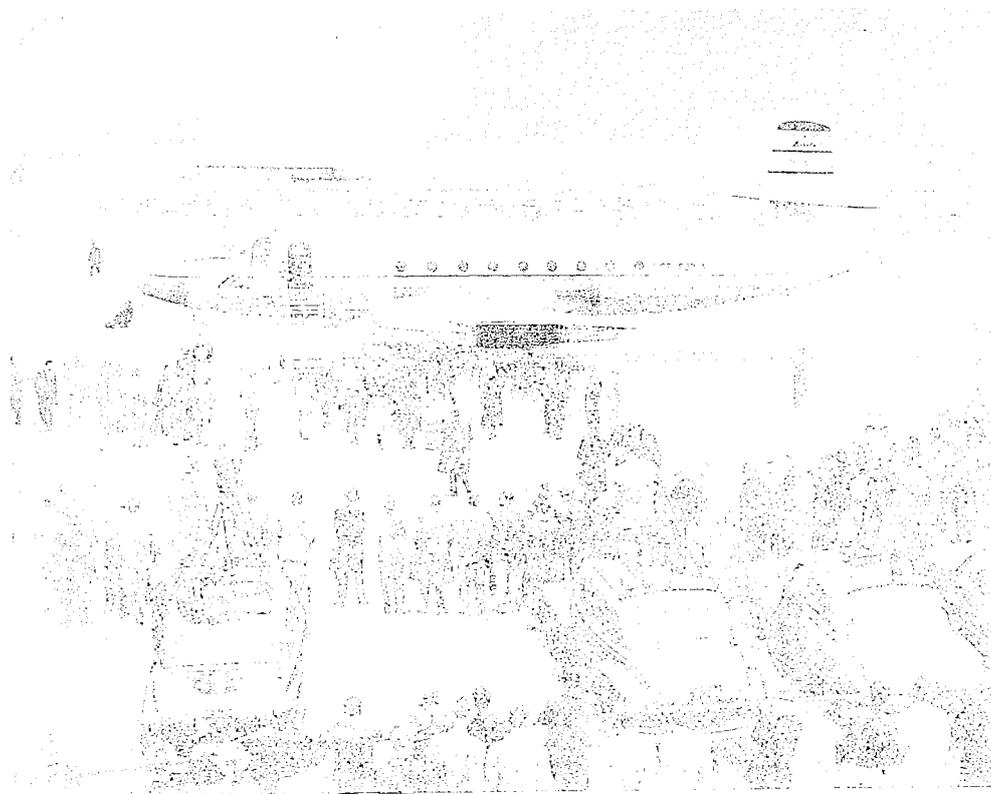


on the Port Authority's heavy capital investment.

Throughout the year, the airport was operated under the terms and charges of a Memorandum of Agreement upon the principles of proposed new base of space and service at New York International Airport—referred to as the Dewey Agreement. The Dewey Agreement was signed in 1949 as a result of the efforts of Governor Dewey, with the concurrence of Governor Driscoll, to arrive at a basis for new contracts at New York International on which to renegotiate the unsound, unworkable 1945 leases between the City of New York and the airlines.

The Dewey Agreement, in memorandum form, was signed on August 5, 1949 by the Port Au-

Governor Dewey with Chairman Cullman



Avro Jetliner, first jet propelled passenger aircraft to fly in United States, lands at New York International Airport from Toronto.

thority, Pan American World Airways, American Airlines, American Overseas Airlines, Northwest Airlines and British Overseas Airways Corporation. A similar agreement was signed by Transcontinental and Western Air, Inc. in September of the same year, and subsequently by United Air Lines, National Airlines, Air France, SABENA, Scandinavian Airlines System, KLM Royal Dutch Airlines and LAV Venezuela Airlines. The settlement contemplated the preparation of twenty-five-year contracts incorporating the terms of the memorandum agreement, and such contracts are in the course of preparation.

On the basis of the rates set by the Dewey Agreement, the flight fees paid by the airlines in

1950 amounted to approximately 15 per cent of the Port Authority's actual costs for the year of providing the runways and surrounding flight areas for the airlines' use as the New York terminal of their common carrier business.

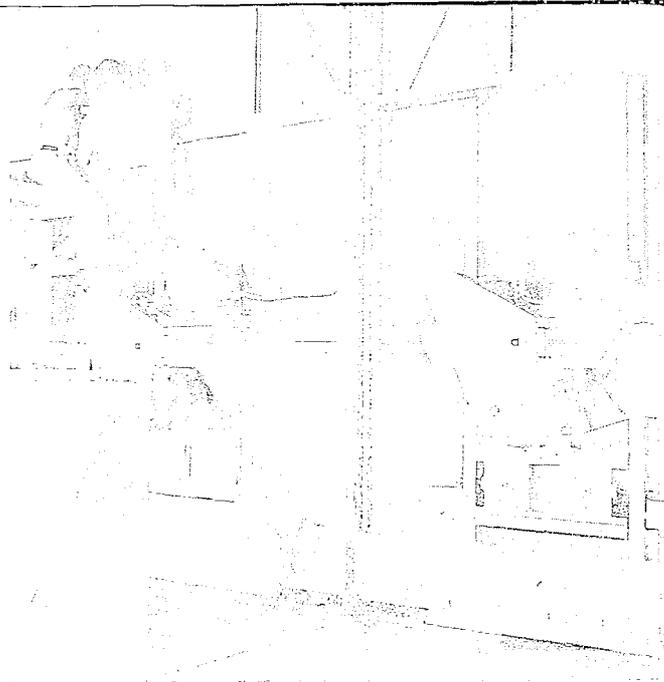
We Make Important Gains in Developing New York International Airport

At the end of the year, the Port Authority had spent or committed \$39,936,597 in the development of New York International Airport. Of this amount, \$6,528,878 was spent or committed during 1950.

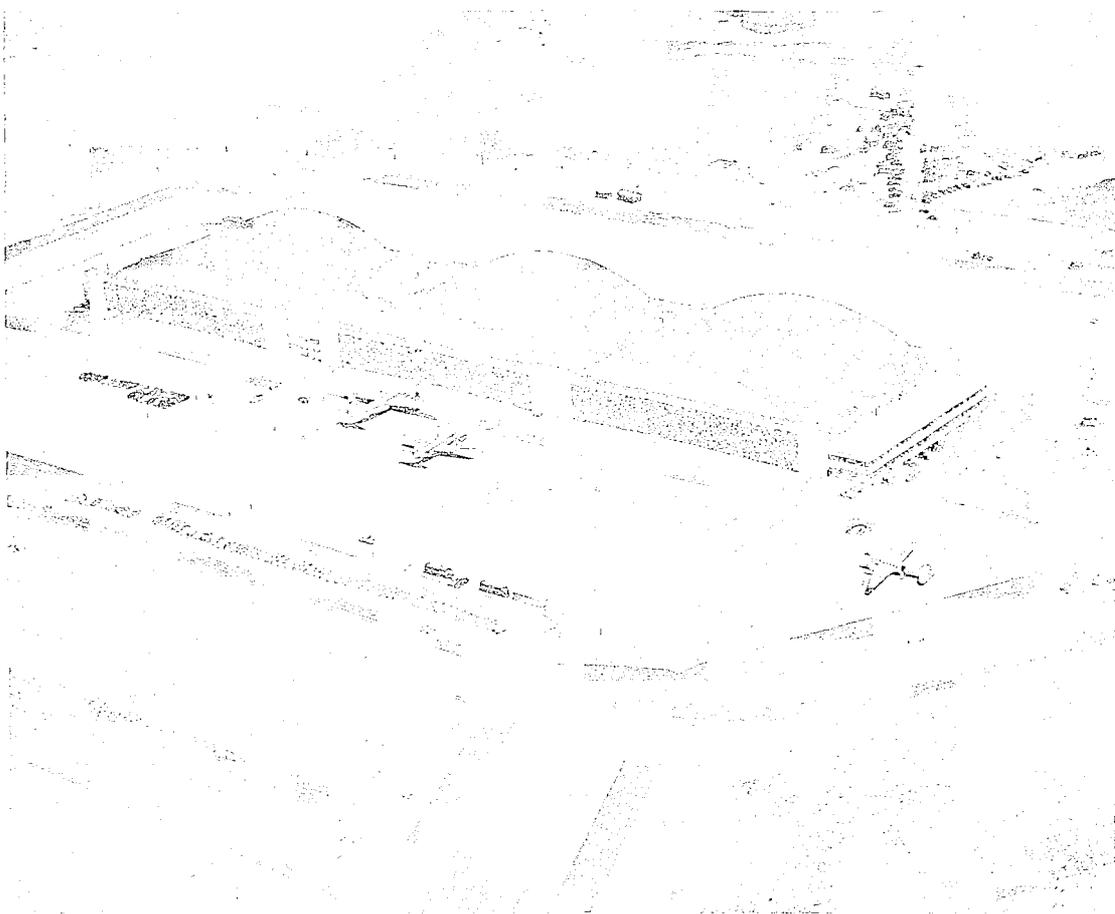
The largest single structural development was that of the three great hangars, identified as

Hangars Nos. 3, 4 and 5. Completed on June 28, the \$9,000,000 buildings are the world's largest triple-hinged steel arch hangars. With an over-all area of about 250,000 square feet, or about five-and-three-quarters acres, each hangar floor covers some 65,300 square feet, the size of two football fields.

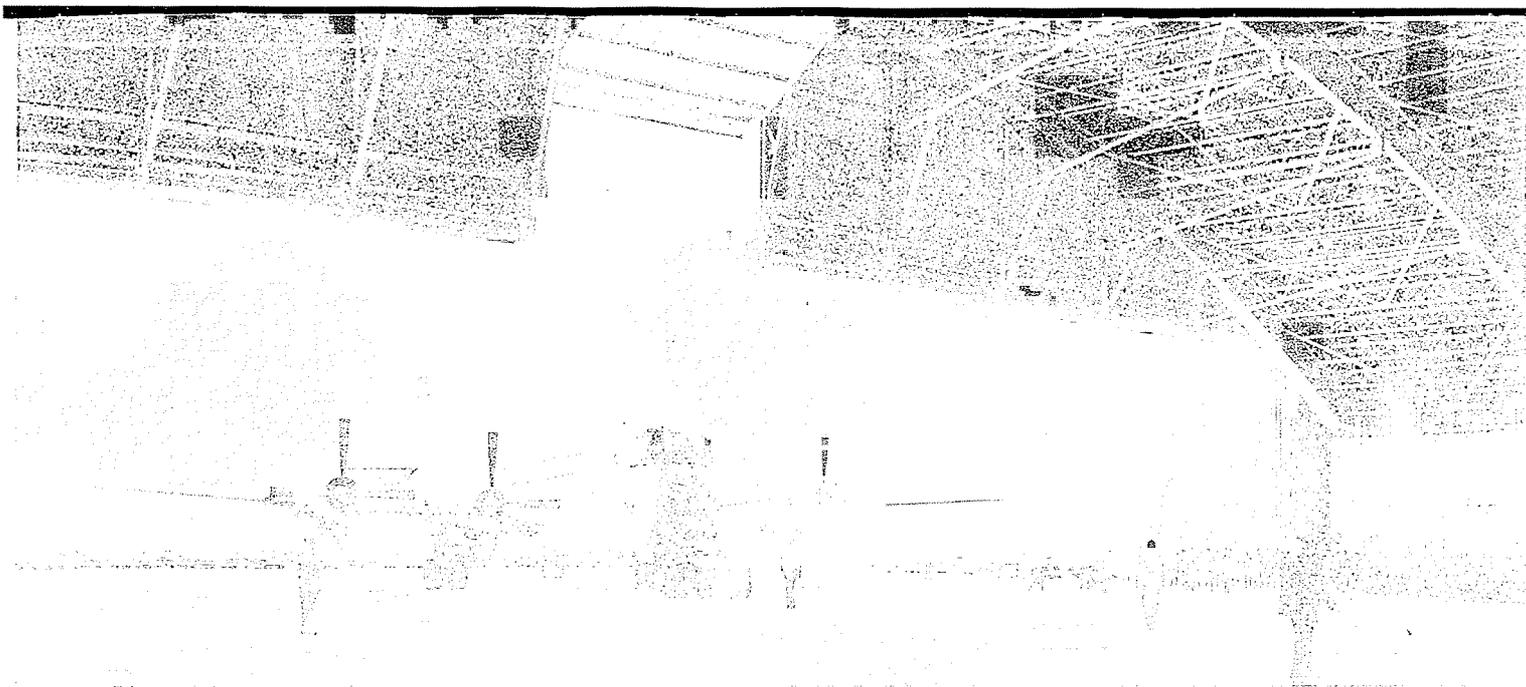
Each hangar can accommodate four Boeing Stratocruisers or six Lockheed Constellation type aircraft. The great aprons on the north and south sides of the hangars are large enough to park seventeen Boeing Stratocruisers, while permitting free access to the hangars. Offices and shops are housed in lean-to structures at each end and be-



Adjusting the driving mechanism which opens and closes the gigantic doors of the new hangars.



At New York International Airport the world's largest steel arch hangars are viewed from the air.



The great doors open and a Pan American Boeing Stratocruiser moves into Hangar No. 4 during the dedication ceremonies of the three new hangars at New York International Airport.

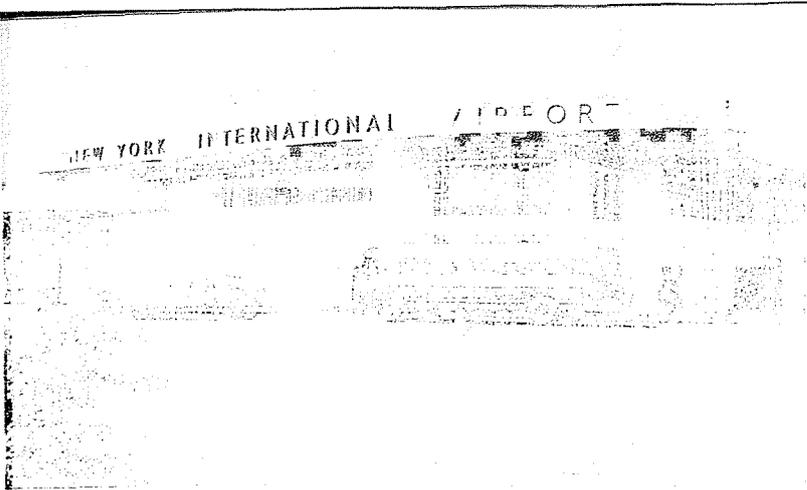
tween the hangars. Two stories high, they provide an additional gross area of about 108,000 square feet or two-and-one-half acres. A cafeteria on the second floor of the west center building structure can serve more than 350 people. The hangars, leased to Pan American World Airways, Northwest Airlines, British Overseas Airways Corporation and Trans-World Airlines, Inc., will be self-supporting. They were built by the Port Authority in anticipation of their need, and without airline leases or commitments of any kind. They were ready for occupancy at a time when the airlines urgently needed them.

Before we opened New York International Airport for operations in 1948 we expanded, at a cost of \$1,200,000, the small cinder-block terminal building built by the City of New York for the temporary accommodation of basic air terminal uses and passenger handling. During the past year, we spent about \$700,000 on a further extension of this temporary terminal, from 39,000 square feet to about 82,000 square feet, to increase the area required for airline federal inspection services, concessions, the Civil Aeronautics Admin-

istration, United States Weather Bureau and public waiting rooms. We built a cinder-block addition to the east end of the temporary terminal and a two-story connecting structure between the Temporary Terminal Building and the existing Temporary Cargo Building.

A new Operations-Cargo Building was built in the area immediately north of the present Terminal Building at New York International Airport at a cost of about \$1,900,000. This two-story rigid frame structure of reinforced concrete with brick facing is an interesting example of airport planning for the future.

During the next five years, the building will meet the urgent and immediate needs for space for the handling of air cargo, and will also house a general order warehouse, freight forwarders, customs brokers, the airmail field office of the United States Post Office Department, and in-flight kitchens. The first floor of the new structure has an area of over 100,000 square feet with a fourteen-foot ceiling. The second floor adds another 11,500 square feet of office space.



The new addition to the Terminal Building at the International Airport.

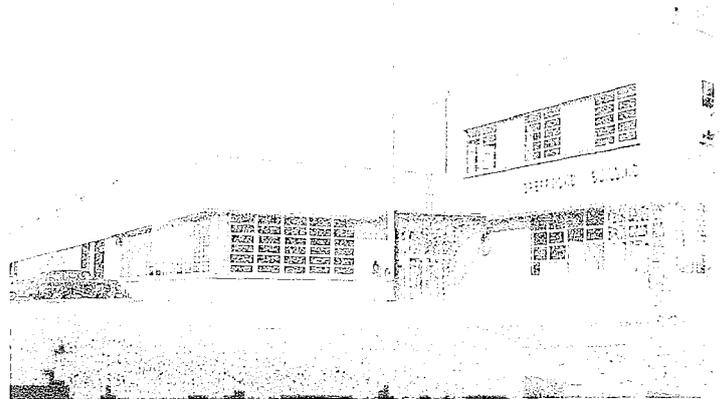
In addition, about 40,000 square feet of paved area has been built around the Operations-Cargo Building for aircraft parking. This space is sufficient to accommodate loading positions for seven cargo aircraft of Stratocruiser size. There has also been provided 180,000 square feet of macadam paved area for roads, automotive parking and sixty-two truck loading positions.

We expect to provide other facilities toward the end of the initial service period of the Operations-Cargo Building, that will meet the then indicated needs of the airlines for the landing of cargo. The present building will then be used by the Port Authority as the central administrative and operations building for the airport—the basic use for which it was designed.

In the meantime, it is anticipated that by April 1951, 30,000 square feet of cargo space vacated in the Temporary Terminal Building will be made available for additional public waiting area, concessions space, airline ticket counters and offices.

Under this schedule, Trans World Airlines and Northwest Airlines will occupy their new counter and office space in the expanded Terminal Building, and Trans-World Airlines will then move its overseas operations from La Guardia to New York International.

The new Operations-Cargo Building



Many Additional Improvements Are Made at the Airport

At the end of the year the Port Authority had spent or committed about \$6,442,000 on the development of various basic utilities at New York International Airport.

These included, at a cost of \$1,700,000, about 96,000 feet of duct banks, each containing from four to ten parallel ducts, to carry the airport's primary electrical power distribution, fire alarm and telephone systems. Wiring and equipment for the basic power and communications systems are being installed at a cost of over \$900,000. We completed a \$400,000 electrical feeder system between Van Wyck primary substation and Farmer's Boulevard substation, to provide alternate sources of electric power and greater flexibility in the distribution of power throughout the airport.

During the past year the airport's water distribution system was further developed. The Port Authority's total investment in this facility as of December 31, 1950 was approximately \$1,500,000. Substantial progress was made during the year in the construction of the new fire pumping station with its utilities, services, auxiliaries and pumping equipment. This improvement of the water distribution system when completed will represent a capital expenditure of approximately \$1,300,000. This station will supply sufficient high pressure water to fight two simultaneous fires at any part of the field at the rate of 34,000 gallons a minute at 165 pounds pressure.

We completed our first temporary fuel storage facility in 1949, with a capacity of 600,000 gallons. Increased activity at the airport during 1950 made it imperative to increase this capacity immediately to 1,020,000 gallons. It has been estimated that this will satisfy the fuel handling needs at the airport only until 1952, at which time we believe consumption will be about 4,150,000 gallons a month.

The Commissioners in August authorized the construction of further permanent fuel storage facilities at the airport, to cost about \$710,000. Such a facility would increase the fuel capacity

to over 4,000,000 gallons, or sufficient to take care of fuel handling needs at the airport until 1960.

We Are Building a New Control Tower at the Airport

During the year the Commissioners authorized the construction of a new Control Tower at New York International. The Civil Aeronautics Administration had found the existing tower, part of the original small Terminal Building built by the City of New York, inadequate for proper observation and control of aircraft approaches and departures and surface activities at the vast field.

The new Control Tower will be 150 feet high and will cost about \$900,000. The C.A.A. will advance approximately \$225,000 as a Federal grant. At the end of the year the construction contract and subcontract for steel had been awarded.

Other Improvements Total More Than \$17,225,000

Among other improvements at New York International Airport previously reported are the \$5,000,000 Federal Building occupied by the offices of the Civil Aeronautics Administration, the

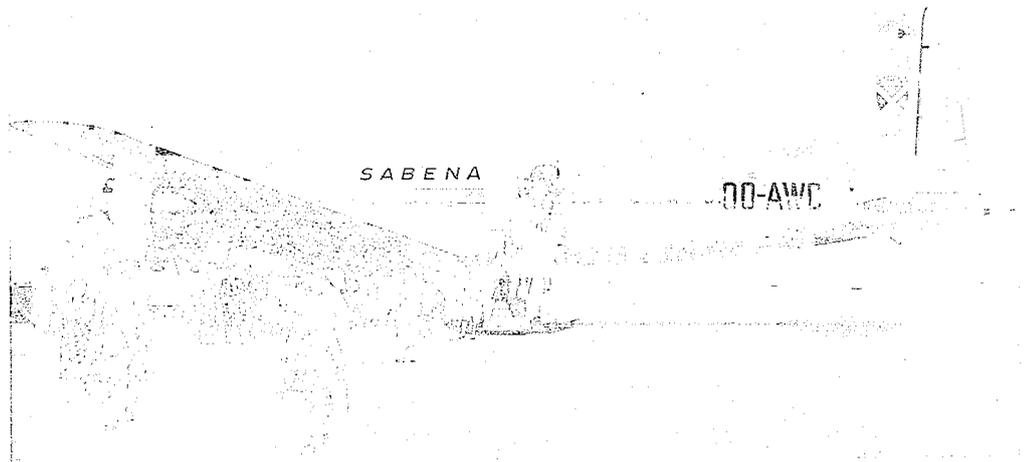
International travelers in the new two-story addition to the Terminal Building.



Expanded United States Customs area has speeded up the handling of arriving passengers.



Passengers on Sabena flight arrive in America from Brussels, Belgium.



New York State Senator S. Wentworth Horton, Assemblymen Allan P. Sill and Elijah L. Crump at International Airport with Sidney Goldstein, the Port Authority's Assistant General Counsel, during an inspection of Port Authority facilities by New York legislators.

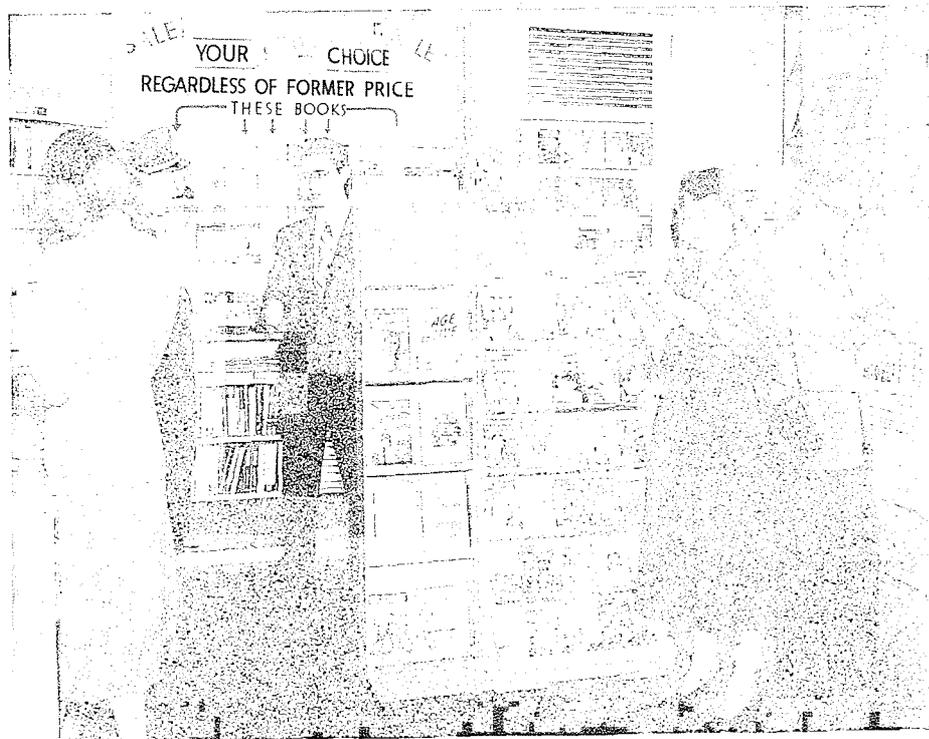
Famed visitors General Alphonse Juin, Inspector General of the French Armed Forces, and Rene Pleven, French Premier, arrive at International Airport.



Camera Shop in the Terminal Building



Vivien Leigh, passport in hand, arrives at New York International Airport from England en route to Hollywood.



The bookstore in the terminal building.

Civil Aeronautics Board, the United States Weather Bureau and a cafeteria which serves the tenant personnel. We have also spent or committed some \$4,192,000 on land acquisition and improvements; \$1,519,000 on storm and sanitary sewer system; \$6,259,000 on public landing area development; \$554,000 on the air terminal highway system and \$253,000 on the public vehicular parking area.

Volume of Concessionaire Business Is Increased

The concessionaires at the airport developed increased sales during the year, as compared with the previous year. Enlargement of the Temporary Terminal Building provided two attractive dining rooms for the Dobbs House Restaurant to add to its restaurant, bar and cocktail lounge.

Among other concession businesses now at the airport are a men's shop, camera shop, barbershop, book store, tobacco and newsstand, soda fountain and drugstore, several suppliers of telegraph and cablegram communication services, bank, public telephones and a variety of vending machines.

These concessions simply afford the minimum amenities that are required for passenger comfort and the convenience of visitors in the limited space available in the Temporary Terminal Building. The concessions now available in the Port Authority Bus Terminal afford a better pattern of what is planned for the Permanent Terminal at New York International.

The operation of a modern terminal airport requires, in addition to terminal buildings, runways, taxiways, etc., extensive surrounding air spaces for reasons of aeronautical safety and for future expansion of operational facilities, if the terminal is to stay abreast of aeronautical development over the years. As a result, large land areas

are available for productive use — some of the areas on a relatively short term and some on a longer term basis. New York International, Newark and Teterboro Airports typify this situation. The high cost of constructing and operating large modern terminal airports requires the maximum revenue development of these land areas, if the airport is to be operated on a sound financial basis and if charges to operators on the field are to be maintained at a reasonable level.

The proximity of New York International Airport to large population centers, and its excellent access to railroads and highways, make the large land areas temporarily reserved for future aeronautical purposes, potentially productive of substantial revenues through various types of development until needed for aeronautical purposes. Such utilization of this land has always been a basic and essential part of the Port Authority's planning for this and other airports which it operates. It represented a basic phase of the 1946 airport studies. Assurances of such aggressive development were included in our recommendations to the Legislatures of the States of New Jersey and New York, with respect to the airports. They were also included in our agreements with the Cities of New York and Newark and in the prospectus upon which \$74,076,000 of airport bonds have been sold to the public.

Operating Revenues and Expenses

Gross operating revenues at New York International Airport in 1950 amounted to \$1,942,517, as compared with \$1,043,487 in 1949. Operating expenses were \$1,572,712 as compared with \$1,356,952 in 1949. Thus, a net operating revenue of \$369,805 was developed at the airport in 1950 before interest and amortization on outstanding Air Terminal Bonds. This compares with a deficit of \$313,464 in the previous year.



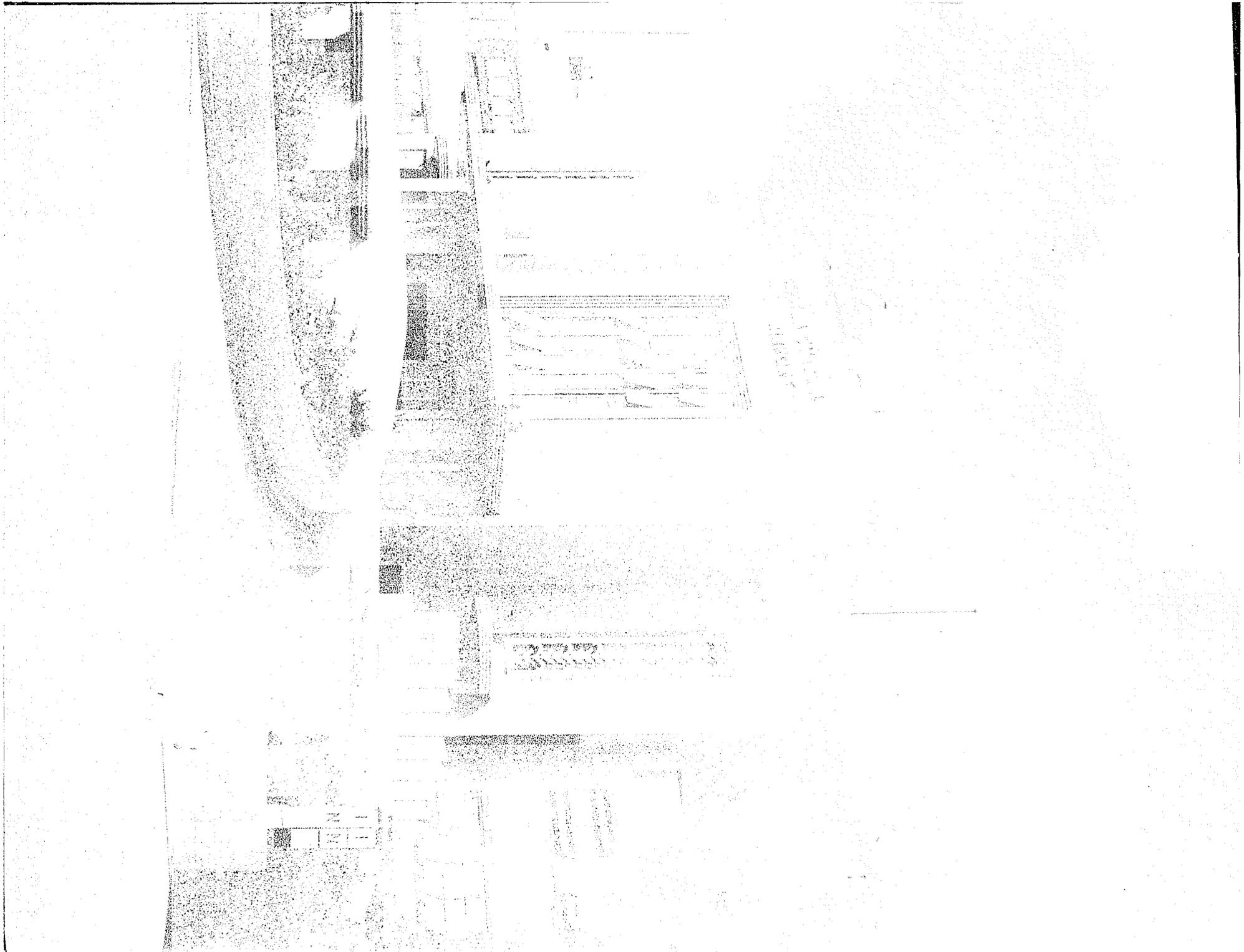
French models say hello to America as they arrive at New York International Airport for a ten-week tour of thirty American cities.



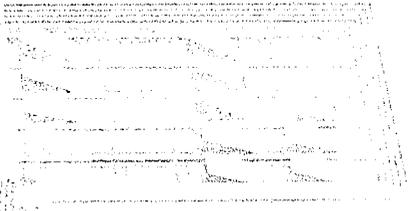
Lillian Michalsky at International Airport accompanies her song on a harp acquired on a visit to her grandparents in Ireland.



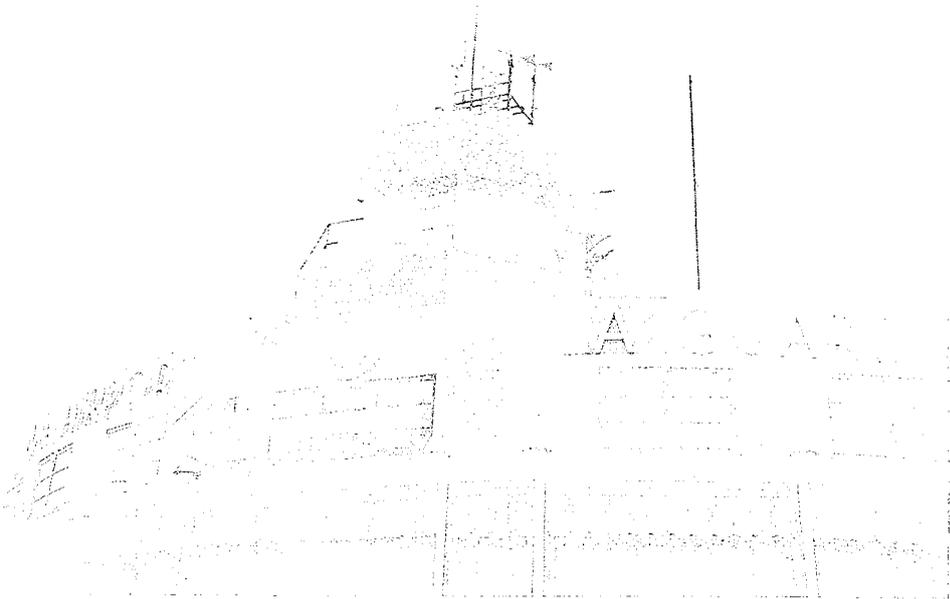
En route to a field hospital in Korea, a group of Swedish hospital personnel landed at International Airport after a flight from Stockholm.



Item	Quantity	Unit
...
...
...



...



La Guardia Airport

The problem of air and surface congestion at La Guardia Airport was aggravated in 1950 by the general increase in air traffic in the New Jersey-New York region. During the year La Guardia handled 3,512,411 scheduled passenger arrivals and departures, 87,410,000 pounds of scheduled air cargo and 29,830,000 pounds of mail. Non-scheduled and contract carriers accounted for an additional 118,864 passengers and 14,000 pounds of cargo during this period. The extent of the burden carried by this airport can be appreciated when it is realized that during an average day in 1950, about 10,000 passengers, 82,000 pounds of mail and 240,000 pounds of cargo arrived and departed on about 385 planes. Seventy-three per cent of the scheduled passenger arrivals and departures for the entire New York-New Jersey region was handled at La Guardia Airport.

When facilities are completed at New York International Airport in 1951 to handle all overseas air traffic, it will be possible to relieve congestion at La Guardia. The congestion in the airways into and out of La Guardia, as well as on the

ground, will be further relieved following the reconstruction of Newark Airport, one of the major objectives of our regional airport program. The weight of the planes using the airport will undoubtedly have to be limited because of the bearing capacity of La Guardia's unsatisfactory subsoil conditions.

The congestion, which has been complicated by the obsolete layout of the Domestic Terminal Building with its narrow "arcade" for a series of jerry-built unit terminals, will be reduced further by the transfer of all nonscheduled private, executive and corporate type aircraft to the Overseas Terminal which we plan to improve and renovate.

The perimeter dike, which has cost more than \$2,000,000, continues, except in times of abnormal tides, to hold back from the airport the waters of Flushing Bay. Before the dike was built, the airport had been submerged six times, and it was believed that within two years one of the runways would have been flooded twice a day by the Flushing Bay tide. Our engineering and operating



Port Authority Operations Supervisor Horace Dimond with Raymond Finnen and Theodore MacEachen in control tower at La Guardia Airport.

forces were able to confine the scope of the damage during the November 25th storm, and by dawn on the following morning planes were operating on limited schedules at the airport. There is no doubt that maintenance of the dike and our efforts to offset the continued sinking of certain portions of the airport nearest the bay, will involve heavy annual maintenance expenditures.

During the year it was necessary for us to re-surface sections of runways, taxiways and parking lots at La Guardia. We have repaired depressed areas caused by ground settlement near several of the hangars, as well as on Runway 4-22, near its intersection with Runway 13-21. The hangar access road has been raised to proper grade and black asphalt surfacing has been laid in a large section of previously unpaved parking area.

New and improved radar equipment to aid the landing of commercial transports under bad weather conditions was provided by a new ground controlled approach unit installed by the Civil Aeronautics Administration.

The Port Authority has worked closely with the Civil Aeronautics Administration during the past

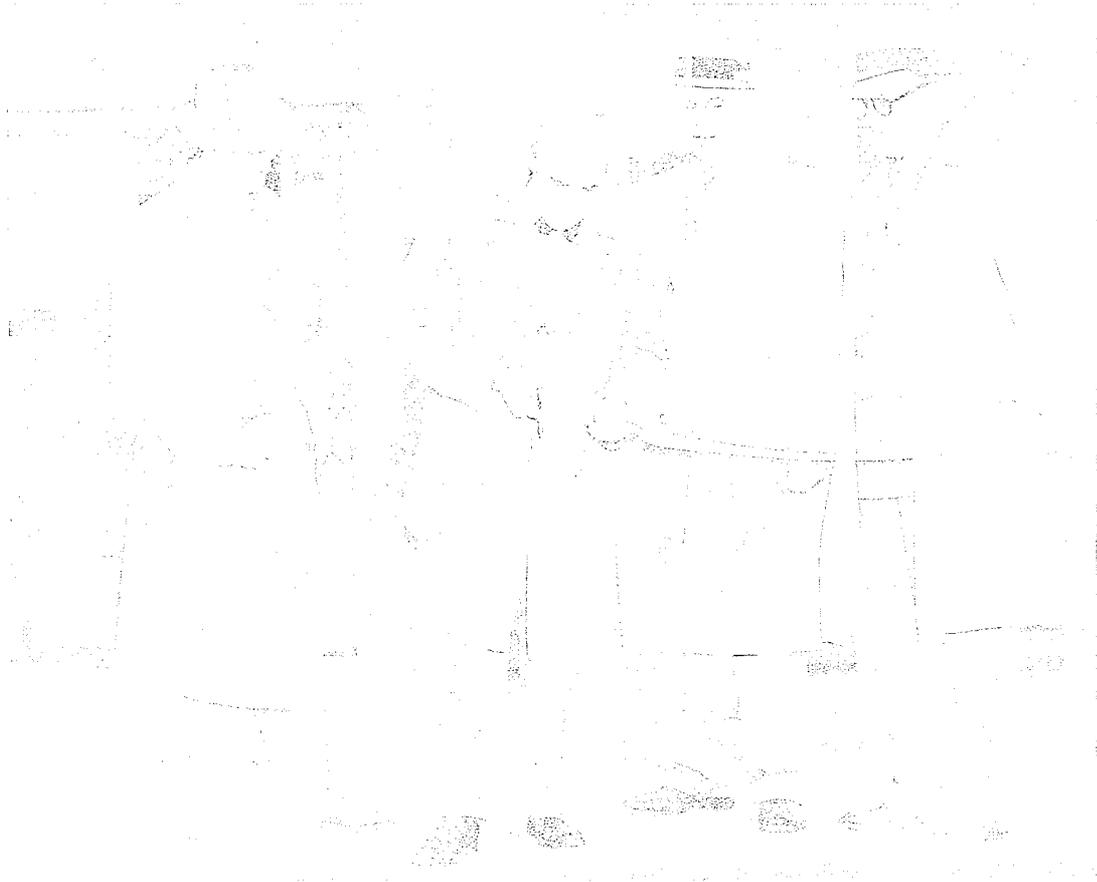
year in connection with the proposed development of approach light systems at this airport as well as at New York International and Newark Airports. The experience to be gained from the use of the different types of high intensity approach light installations will aid the C.A.A. in determining which system should be adopted as the standard for airports throughout the country, and, if acceptable to other countries, throughout the world. It will also enable the Port Authority to evaluate the use of each system under the conditions existing at our airports.

Operating Revenues and Expenses

Gross operating revenues at La Guardia Airport in 1950 amounted to \$1,914,922 as compared with \$1,857,580 in the previous year. Operating, maintenance and administrative expenses amounted to \$1,800,132; net revenue before debt service was therefore \$114,790, and takes into account the November 25th storm damage costs of about \$120,000. This compares with a net operating revenue before debt service of \$210,755 in 1949 and a net operating loss of \$74,234 in 1948. We do not believe that we will earn net operating revenues sufficient to meet debt service requirements at this airport for many years to come.

As we stated in last year's report, current and future financial results at La Guardia are not encouraging, considering the increasing burden of maintenance and rehabilitation costs at that airport. This is the more discouraging in view of the fact that our gross income from hangar rentals (to American, United, TWA, Eastern, Pan American, and Colonial Airlines) is frozen for the next thirty years, under the leases which we inherited from the City of New York, at rentals which actually average no more than 16 cents a square foot. This return is less than half of our out-of-pocket costs for these hangars, excluding any fixed

Ribbon is cut marking the opening of the exhibit building on the observation deck at La Guardia Airport. With scissors is C. S. Jones, President of Academy of Aeronautics, La Guardia Airport; at his left, H. George Harris, Officer of Aeronautical Exhibits, Inc. At right, Robert S. Curtiss, Port Authority Director of Concessions and Revenues, and Augustus Z. Schneider, Assistant to the Executive Director.



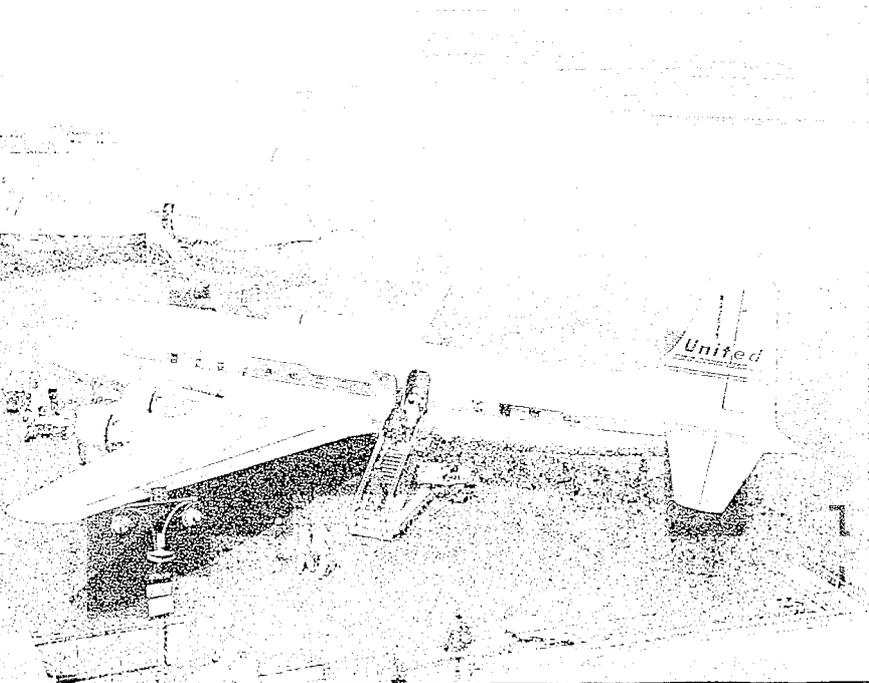
charges for depreciation. Furthermore, the leases impose practically all maintenance costs on the operator of the airport.

Landing area fees are also frozen for the same length of time to those same airlines under the old leases, resulting in costs substantially in excess of the gross income received for the use of this

area. All in all, leases under which the airlines operate at La Guardia are not encouraging to the future development of New York's first airport.

Concession Business at La Guardia Airport

Concession revenues at La Guardia increased 1.8 per cent this year over 1949 while gross sales



Passengers board a United Mainliner for departure from La Guardia Airport.

increased 3.3 per cent. This was due chiefly to increased revenue from the parking lot operation and the opening of a new gasoline station. The transfer of most foreign flights to New York International Airport adversely affected concession businesses located in the Overseas area, as well as the restaurant business in the Domestic Terminal area. One of the coolest and wettest spring seasons in years caused a drop in the number of visitors to the airport and the Observation Deck.

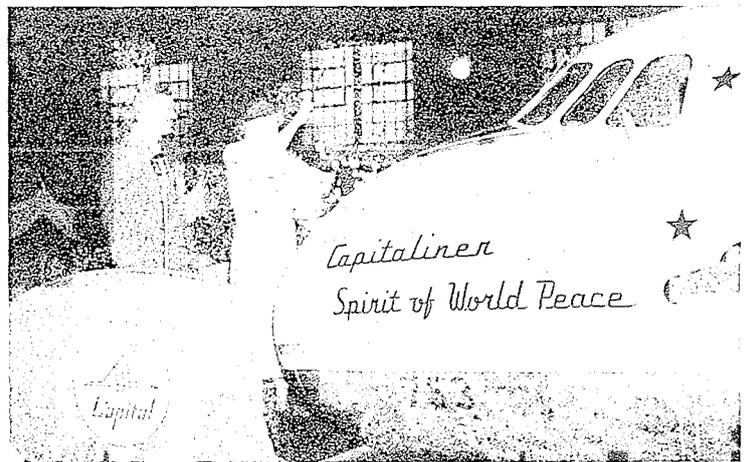
Among the major concession businesses at La Guardia Airport are a restaurant, a cocktail bar and lounge; parking lots; newsstands; drugstore; soda fountain and cafeteria; gasoline service station; photo shop; florist; haberdashery shop; observation deck; airport guided tour and exhibit building; vending machines; barber shop; hotel and theatre ticket reservation service and an employees' shopping service.

La Guardia has been used as an experimental airport in the field of concession development.

When we assumed responsibility for the operation of the airports in 1947 it was obvious that under the existing airline leases the airports could never be self-supporting. The development of a much wider range of concessions than had before been attempted at the nation's airports, and the promotion of airports as recreation centers of the community, were a vital part of our over-all airport program.

Neither the Domestic nor the Overseas Terminal Building at La Guardia was built for the accommodation of anything more than rudimentary concession services. Our concession experiments in and around those buildings have not, however, been as pleasing to the eye as are, for instance, the concessions at the new Port Authority Bus Terminal. But La Guardia has afforded a valuable experimental ground for concession experience that will be reflected in a much more pleasing appearance in the permanent terminal buildings at New York International and Newark.

The Union Newsstand in the Overseas Terminal Building is one of the many concessions at La Guardia Airport.



Mrs. Eleanor Roosevelt christens the Capitaliner, "Spirit of World Peace," at La Guardia Airport. At her left is J. H. (Slim) Carmichael, President of Capital Airlines.



Frankie Harris thinking things over as he is about to board an American Airlines flagship for his return voyage to Germany where his father is with the United States State Department.

Passenger arriving at Kindley Field, Bermuda, from La Guardia Airport, aboard Pan American World Airways' Clipper, are greeted by the Talbot Brothers. Featuring a type of calypso all their own, the Talbots lend a festive note to the visitors' first impressions of sunny Bermuda.



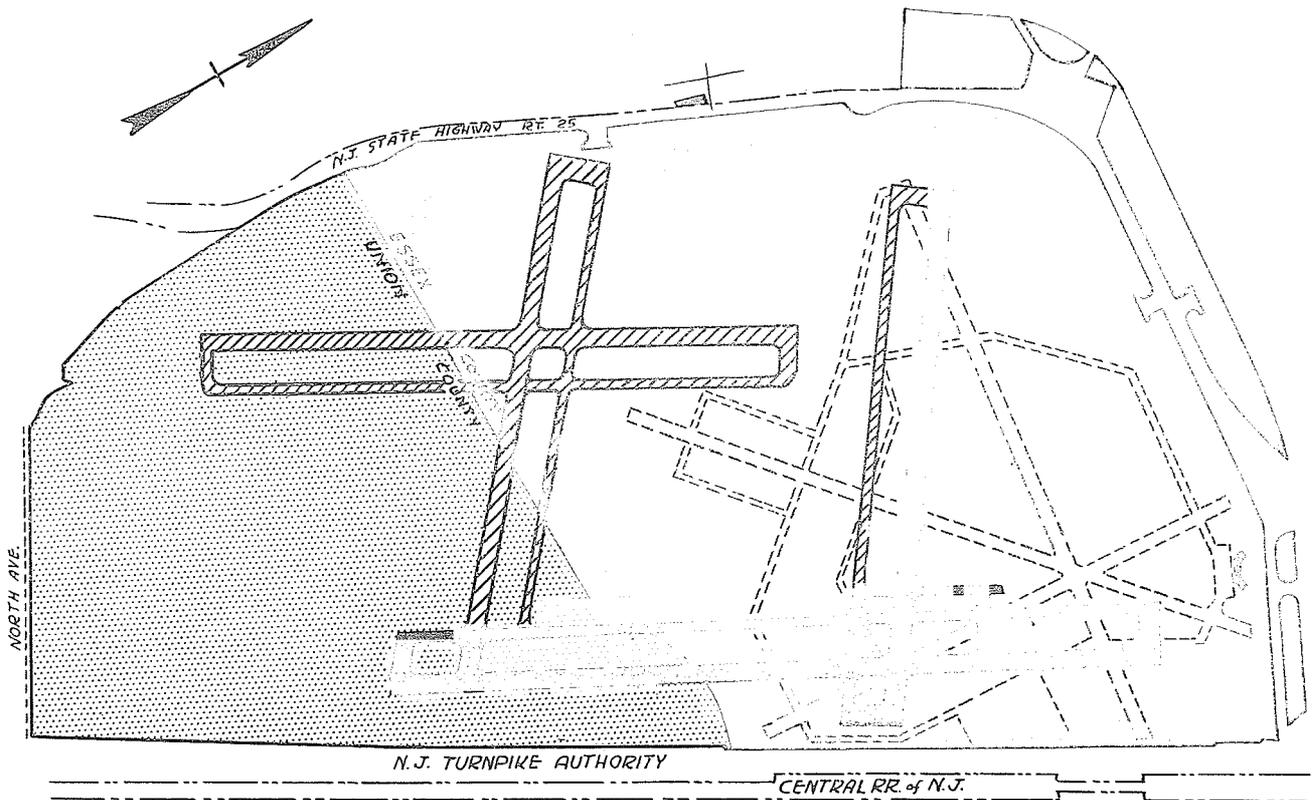
A group of Public School Principals on arrival at La Guardia Airport.



Newark Airport

Installation of reinforcing rods in culvert at Newark Airport as development of the New Jersey air terminal goes forward.





Map of Newark Airport. Dotted section at left indicates newly acquired acreage in Elizabeth. Black lines indicate two new runways under construction and hatched lines two remaining runways of proposed new four runway plan.

Newark Airport will take a leading role in handling air transport of the future in the New Jersey-New York Port District.

As a result of the enlargement and reconstruction of the Newark landing area and the construction of the new \$6,000,000 Terminal Building, we expect the airlines to distribute their schedules more evenly east and west of the Hudson River. This will relieve, to some extent, the congestion that now exists at La Guardia Airport. The construction of the New Jersey Turnpike will make Newark the airport closest to Manhattan, twenty minutes direct from the airport over the Turnpike, the new connections between the Turnpike and the Lincoln Tunnel and then through the tunnel itself to the west side of Manhattan. From the time the airline coach rolls away from the airport, it will encounter no traffic lights or grade crossings.

We expect that traffic at Newark Airport will gradually increase to a point where the airport will handle about half of the long haul domestic traffic and a fourth of the short haul domestic traffic entering and departing from the metropolitan area.

About 1,260 people are now permanently employed at Newark Airport. That number will increase sharply as our development program materializes.

Air traffic at Newark Airport, both passenger and cargo, reached an all-time high in 1950. The scheduled passengers numbered 916,066 as compared with 742,836 in the previous year—an increase of 23.3 per cent. Scheduled plane movements during this period were 65,980 as compared with 58,044 in the previous year, a 13.7 per cent increase. In addition, nonscheduled and contract carriers accounted for 139,340 passengers during

the year, as compared with 92,080 during 1949.

Newark Airport has developed an impressive lead in the handling of air cargo in the Port District. In 1950, 55.2 per cent of the scheduled domestic air cargo in the metropolitan area was handled at Newark as compared with 42.5 per cent at La Guardia Airport and 2.3 per cent at New York International Airport.

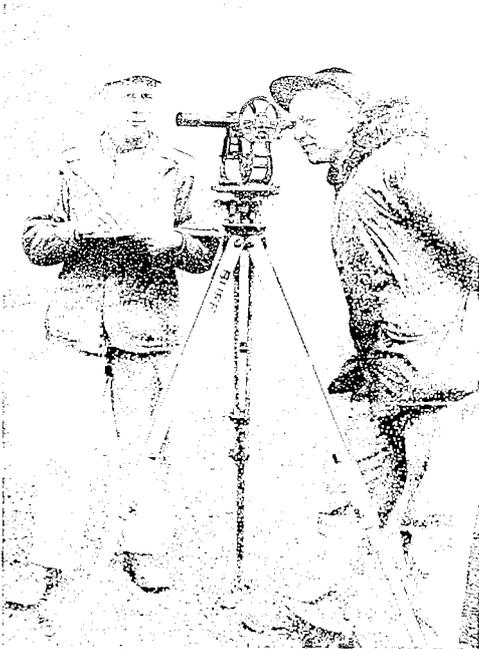
In 1950, 100,779,000 pounds of air cargo were handled at Newark Airport by scheduled carriers as compared with 70,675,000 pounds in 1949, an increase of 42.6 per cent. These figures reflect the transfer of the principal domestic all-cargo carriers from nonscheduled to scheduled category

by their certification in the summer of 1949. In addition, nonscheduled and contract carriers handled 2,114,000 pounds of cargo during the same period. We estimate that air passenger and cargo traffic at Newark Airport will triple in the next fifteen years.

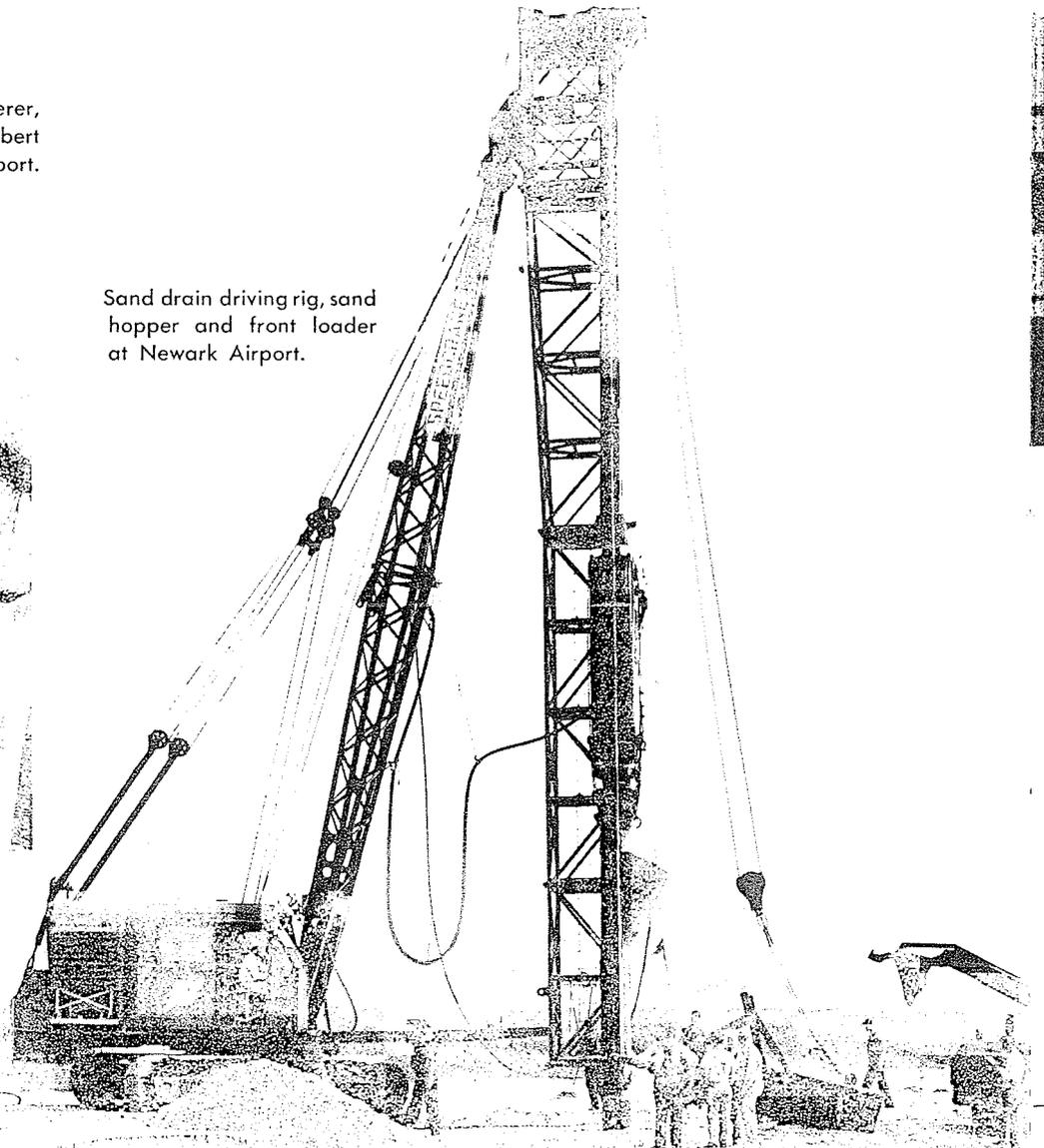
Port Authority Puts Into Effect Its Plans for Major Development of Newark Airport

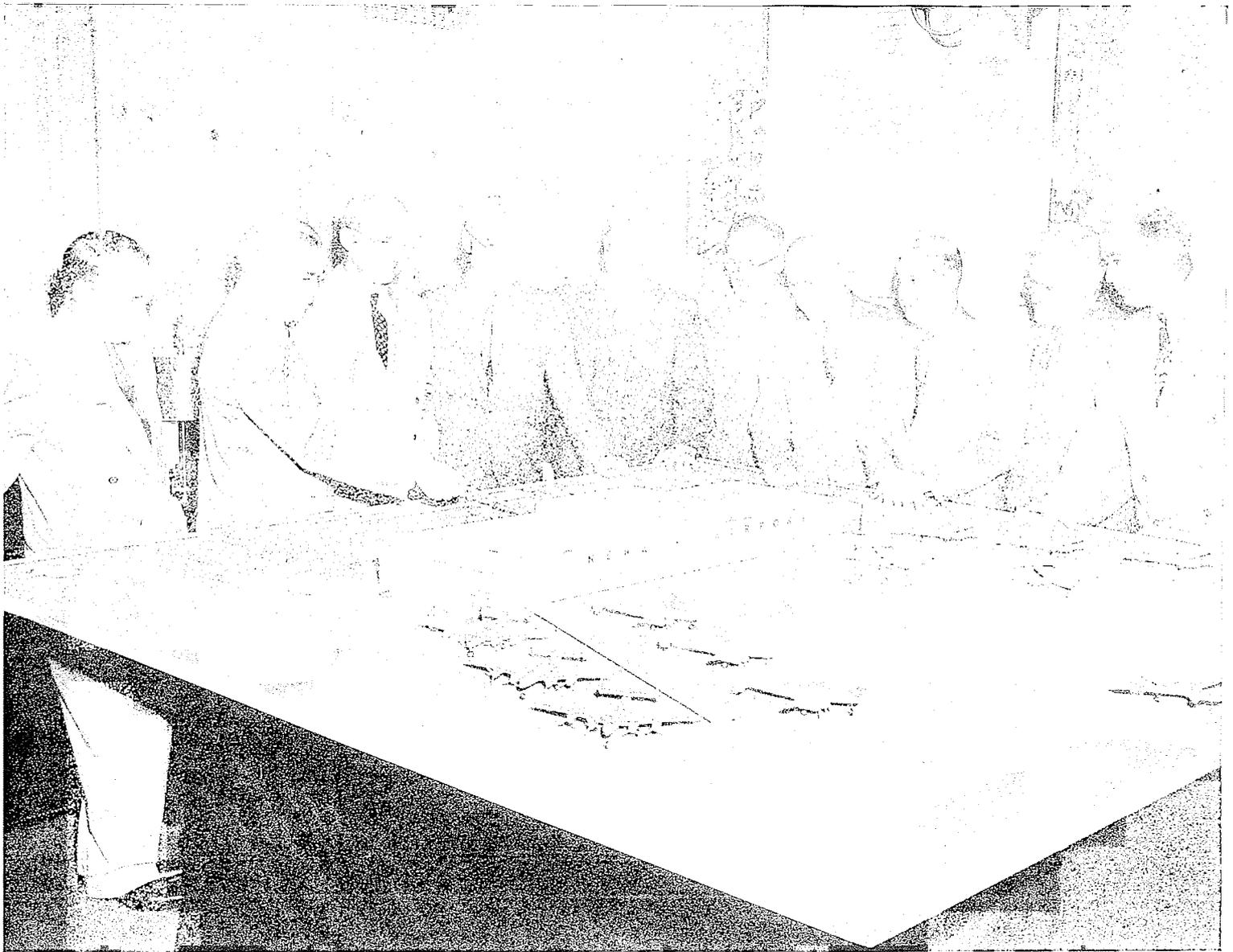
The subsurface testing and engineering studies which we completed in 1949 indicated that runways with a service life of twenty-five years for use by large transport planes were practicable at Newark Airport. We immediately made plans

Chief of field survey party, John M. Kaelberer, takes notes on reading by Engineer Robert Shepard in survey for fill at Newark Airport.



Sand drain driving rig, sand hopper and front loader at Newark Airport.





Executive Director Tobin discusses plans for new terminal building at Newark Airport as Commissioners and members of staff view model. Left to right, Chief Engineer Kyle, Mr. Tobin, Port Authority Commissioners Hamilton, Colt, Pope, Lowe, Armstrong, Chairman Cullman, Commissioner Corbin, and Director of Airport Development Glass.

for the construction of a master four-runway plan for the expansion of the airport.

In order to permit the construction of open parallel runways ranging in length from 6,000 to 9,000 feet, we proceeded to acquire, in accordance with our agreement with the City of Newark, 897 acres of land in Elizabeth, New Jersey. Title to all of the tract, exclusive of the streets and acreage owned by the City of Elizabeth and the State of New Jersey, was vested in the Port Authority by

notice in the condemnation proceedings on March 17, 1950. The New Jersey Turnpike will be constructed along the easterly margin of this property.

Following meetings with officials of the City of Elizabeth and the New Jersey Turnpike Authority, an agreement was signed in July in which the City of Elizabeth agreed to vacate portions of Division Street and Bay Avenue within the area acquired by the Port Authority for the extension of Newark Airport. The City also agreed that the

Central Railroad of New Jersey could cross certain local streets in building a new rail connection to an industrial area south of the airport, replacing the present Elizabeth Extension Branch.

Under the Elizabeth agreement, the Turnpike Authority and the Port Authority agreed to construct a new access road to properties east of the airport bordering Newark Bay, by paving North Avenue and extending it to a point 550 feet east of the center line of the Central Railroad of New Jersey tracks. The two Authorities would also provide necessary bridge structures over the turnpike and railroad tracks.

The Authorities, in addition, made a \$60,000 deposit with the City of Elizabeth to be applied to the paving of portions of Division Street and North Avenue west and south of the expanded airport property. They also deposited \$60,000 in escrow with E. J. Grassman, a representative of property owners in the meadowland east of the Central Railroad of New Jersey tracks, to be applied to the extension further eastward of fill for North Avenue, and for the placement of fill for a new north-south access street to the meadowland. In turn, the owners of the meadowland agreed to make no severance damage claims for the closing of Division Street and Bay Avenue. It is estimated that the final cost of this settlement with the City of Elizabeth will be about \$1,084,000, to be shared equally by the Port Authority and the Turnpike Authority.

Determination of the compensation to the owners for the property taken by condemnation has not been made, but an agreement has been reached with the Central Railroad of New Jersey for assignment of all claims for compensation for an area comprising some 850 of the total of 897 acres being acquired. The Port Authority has paid to the railroad approximately \$3,000,000, covering all claims for value of this land and also of the Elizabeth Extension Branch of the railroad crossing the area. The amount also covers con-

sequential and severance damages, and the relocation and reconstruction of the railroad's freight line into the properties west of Humboldt Avenue, but does not cover the value of approximately twenty-one acres of land owned by E. J. Grassman, nor the value of state or city lands in the area.

We Are Building Great New Runways at Newark Airport

A contract totaling almost \$6,000,000 was let for fill and installation of subsurface sand drains and culverts, as the initial action in the construction of the four new Newark runways. These first two runways, when completed, will have a peak hour capacity of 120 aircraft movements. Aligned in two directions at an approximate 90 degree angle, they will give coverage under practically all wind conditions.

In keeping with our plan for the regional development of airports in the Port District, the new



John R. Wiley, Port Authority Deputy Director of Airport Development (left) and Roger H. Gilman, Assistant to Director of Port Development (right) discuss model of Newark Airport Terminal Building with New York Assemblywomen Elizabeth Hanniford and Gladys E. Banks.

Chairman Cullman acts as a guide during an inspection of Newark Airport by members of the New Jersey Legislature. With Chairman Cullman are (left to right) Senator Anthony J. Cafiero, Assemblyman T. James Tumulty, Senator David Van Alstyne Jr., Assemblymen Lawrence A. Cavinato and John M. Summerill Jr., and Port Authority Commissioner Armstrong.



runways at Newark will be integrated with the regional air traffic control pattern. They are designed to make possible to a great degree the avoidance of residential districts in Newark and Elizabeth for aircraft approaches and departures. The runway placement will permit the ultimate central terminal area to be reached by a surface roadway from Route 25, thus making unnecessary the construction of a costly underpass. Operation of the airport will not be interrupted during construction of the new runway system.

We will build the first two runways, A and D, in the next two or three years, and the remaining two when traffic at the airport requires them.

By the end of the year, over 430,250 cubic yards of sandfill had been delivered to the airport, and put in place for a distance of 3,800 feet on Runway A, at all of the warm-up aprons at the south end of the runway, and for a distance of 600 feet at other locations. A total of 7,777 sand-drains of varying lengths, totaling 116,147 feet, had been driven for Runway A to insure the efficient flow

of drainage waters into the basic culverts. In addition, over 68,782 cubic yards of ditch and other excavation work has been done for the diversion of Bound Creek.

Construction of two basic culverts, which will carry millions of gallons of water beneath the surface of the airport, was ahead of schedule at the year's end. We installed 7,486 cubic yards of concrete and 1,213,280 pounds of reinforcing steel, covering an area 890 feet long and 47 feet wide under Runway A and Taxiway T-2, and 418 feet long and 22 feet wide under Runway D.

Our Plans for the Development of a New Terminal Area

At the end of the year, the Port Authority had spent or committed about \$13,549,302 on the reconstruction of Newark Airport, and by the end of 1951, our total expenditures and commitments are expected to approximate \$20,274,000.

We believe that Newark Airport will realize substantial increases in all classes of passenger

traffic. By 1965, the number of passengers arriving at and departing from the New Jersey air terminal is expected to be 224.8 per cent higher than 1949, or 2,712,000 passengers as compared with 834,916.

The present passenger Terminal Building at Newark Airport, built in 1934, is inadequate to handle the air traffic and concession business there. The public waiting areas are often filled beyond a reasonable capacity. During peak periods the aircraft ramp and apron area is jammed.

Originally the Port Authority hoped to provide a temporary solution to this problem by expanding the present Terminal Building and the surrounding ramp and apron area. The success of this plan depended upon availability of the unused, southerly side of Port Street. In 1948 the Port Authority requested the City of Newark to make that portion of Port Street available. Despite repeated attempts to secure favorable action by the City of Newark in this matter, no action has been taken by the City in the more than two years that have elapsed.

Aware of its responsibility to provide adequate terminal facilities, the Port Authority devoted considerable study in 1949 and 1950 to the type and location of terminal buildings that it was possible to build within the limits of space available and of economic practicability. It was concluded that a permanent Terminal Building in the central area between the new runways would not be economically feasible for some years to come. At the same time it was clearly evident that a terminal building must be provided which has adequate capacity to serve the airport needs for some years to come and which could later be converted to other airport use. Such a building has been approved by the Board of Commissioners of the Port Authority, and the contract for the steel has been let.

The new \$6,000,000 Terminal Building will be located between the present Terminal Building and the Brewster hangar. This location provides the

most convenient connections with the New Jersey Turnpike and Route 25; there are no clearance problems and all utilities are readily available; the most advantageous use of existing taxiways and runways can be made even after the new runways are built. Existing hangars, the fuel storage area, and the present Terminal Building, which will be devoted to other aeronautical uses, are all adjacent to the site of the new terminal.

The new Terminal Building will be a handsome, modern building of functional design. Although its original use will be as a passenger terminal building, it can be readily converted to other aviation uses. The main floor will provide a total of 93,000 square feet of space: 31,000 square feet of airline office and ticket counter area, 20,000 square feet for concessions of all kinds, 37,000 square feet for a public lobby and waiting area, and 5,000 square feet for offices, utilities and service rooms. A large mezzanine will be provided (43,000 square feet) where an attractive restaurant will be located, together with offices and other facilities.

A 300-foot glass enclosed Observation Deck with an unobstructed view of the field is planned. There will be covered passenger walkways, which will provide comfortable and convenient access to aircraft loading positions and the terminal area. Over 165,000 square yards of paved area will be provided for ramps and taxiways, with room for sixteen plane positions at the outset (the airport now has eight plane positions) and for expansion, if required, up to twenty-two plane positions.

We Make Miscellaneous Improvements at Newark Airport

During the year we completed an access road extending from the south end of the apron paving to the ground controlled approach installations being made by the Civil Aeronautics Administration. Fuel storage tanks and dispensing apparatus

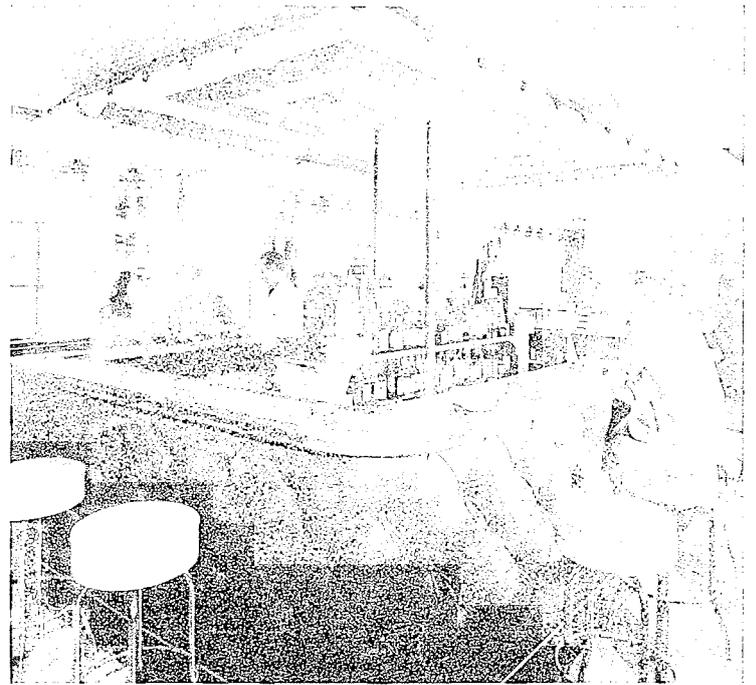
were installed for the Texas Company. The entire surface of a 17,000-square-yard area south of the present Administration Building was covered with sealcote, and extensive apron paving and drainage work were completed in midsummer. To relieve peak-hour congestion we added four new aircraft gate loading positions, bringing the total now available to twelve. Extensive alterations and repairs were made at the Control Tower and Equipment Building, including the installation of a covered stairway, air conditioning, and a 550-gallon gasoline storage tank. The obstruction lighting on the Calco stack was virtually completed.

We Take Steps to Increase Airport Revenues Through Land Usage and Concession Development

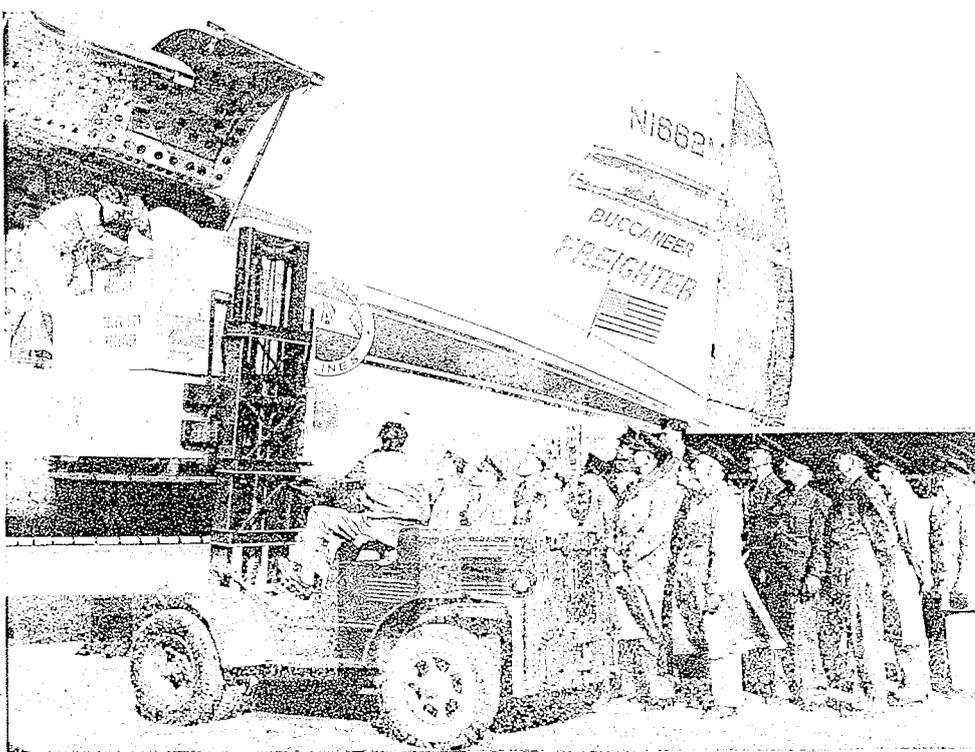
In May 1950, we leased a 22-acre parcel adjacent to Route 25 for a streamlined nine-hole golf course and 45-tee golf driving range, and a restaurant is being developed nearby. In addition, we made available some 25,000 square feet of unused land north of Route 25 for the storage of lumber and we also rented roadside billboard space.

In May 1950, Newarker, Inc., took over the management of the Terminal Building snack bar,

increasing the business there so that fees paid to the Port Authority were 32 per cent more than the previous year. The Newarker also has a cocktail lounge and bar in the previously unused space on the second floor of the Terminal Building. Fees from our parking lot in 1950 totaled \$63,443 as compared with \$44,010 in 1949, an increase of \$19,433 or 44.2 per cent.

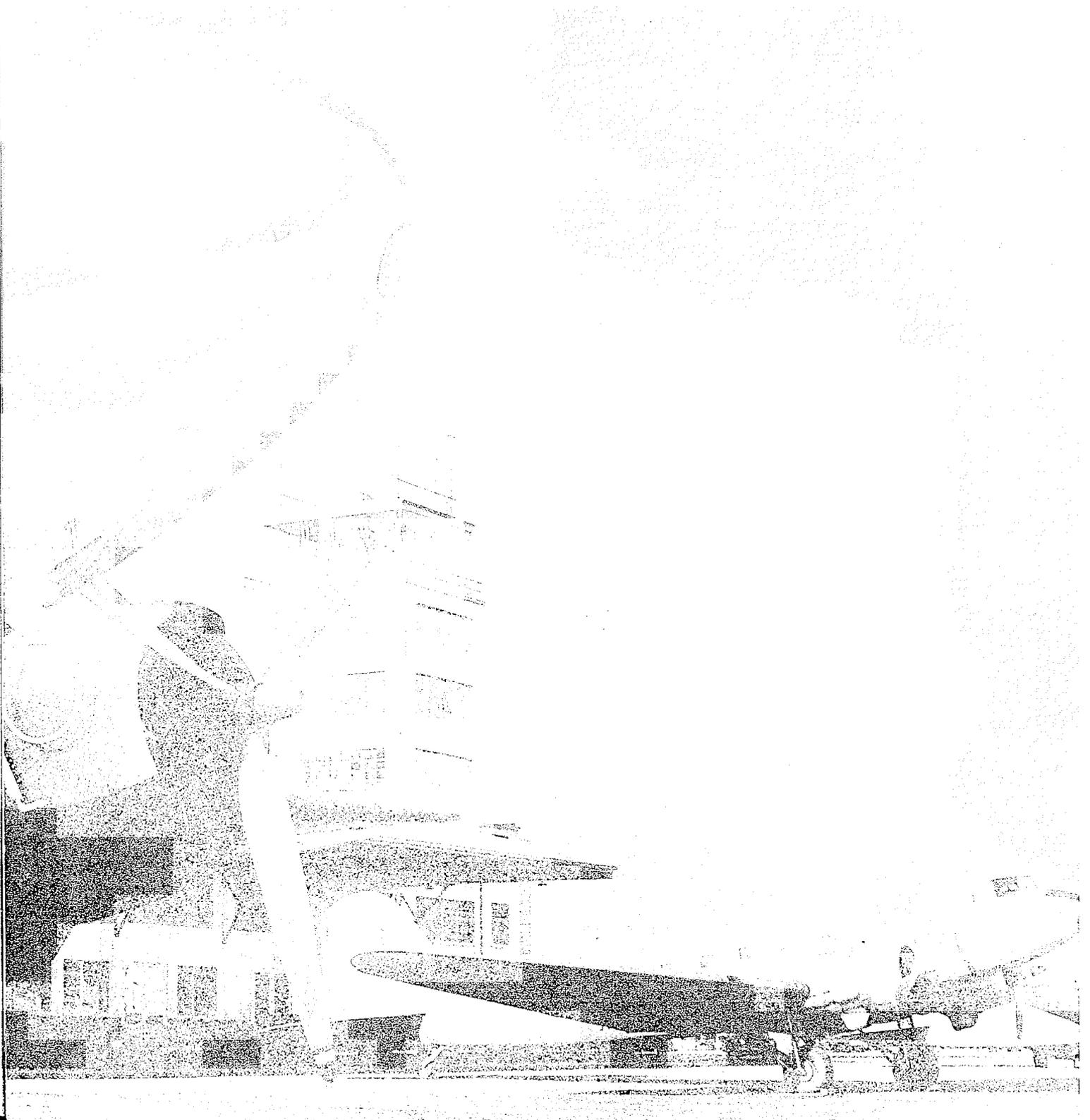


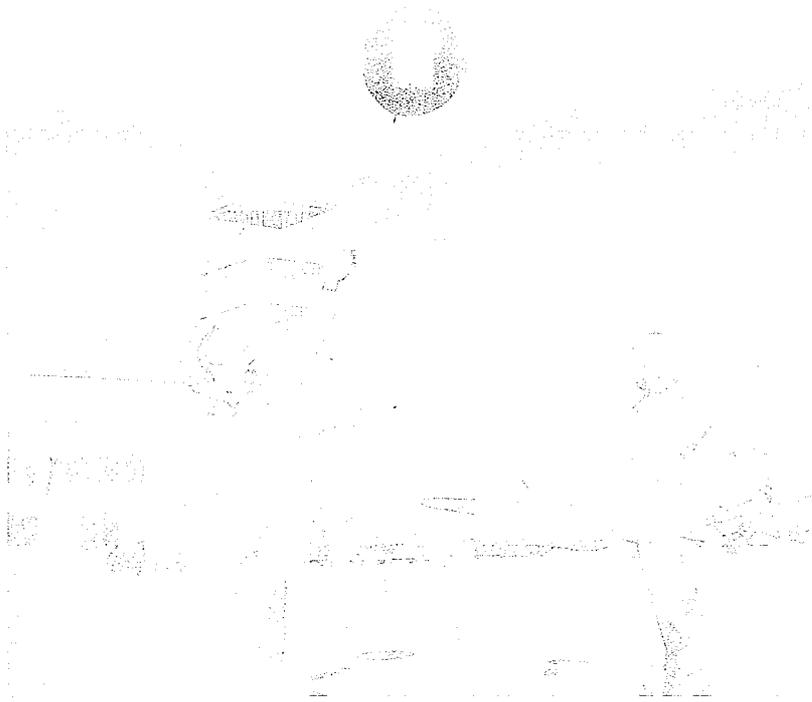
The Newarker cocktail lounge is a new attraction at Newark Airport.



Cargo Facilities at Newark Airport are inspected by a group of Army Transportation Officers from the Port of Embarkation, Brooklyn.

Teterboro Airport





Weather balloon is released at Teterboro Airport by observers Edwin Cohen and Lee Pavelec of Port Authority maintenance division.

At Teterboro Airport in New Jersey, which is twenty-five minutes from Manhattan's West Side, the principal activities are private, corporate, nonscheduled and cargo air traffic. In 1950 Teterboro handled 183,841 plane movements. Of this number 142,097 were local flights related primarily to aviation school activities at the airport, 5,276 flights were by nonscheduled aircraft, 35,591 by civil itinerant aircraft and 877 by military aircraft. A lack of "G.I." vocational training funds curbed school flying at the airport most of the year. In October, however, there was a sudden increase in local aircraft movements, reflecting some increased school activities as a result of national defense efforts and excellent late fall flying weather.

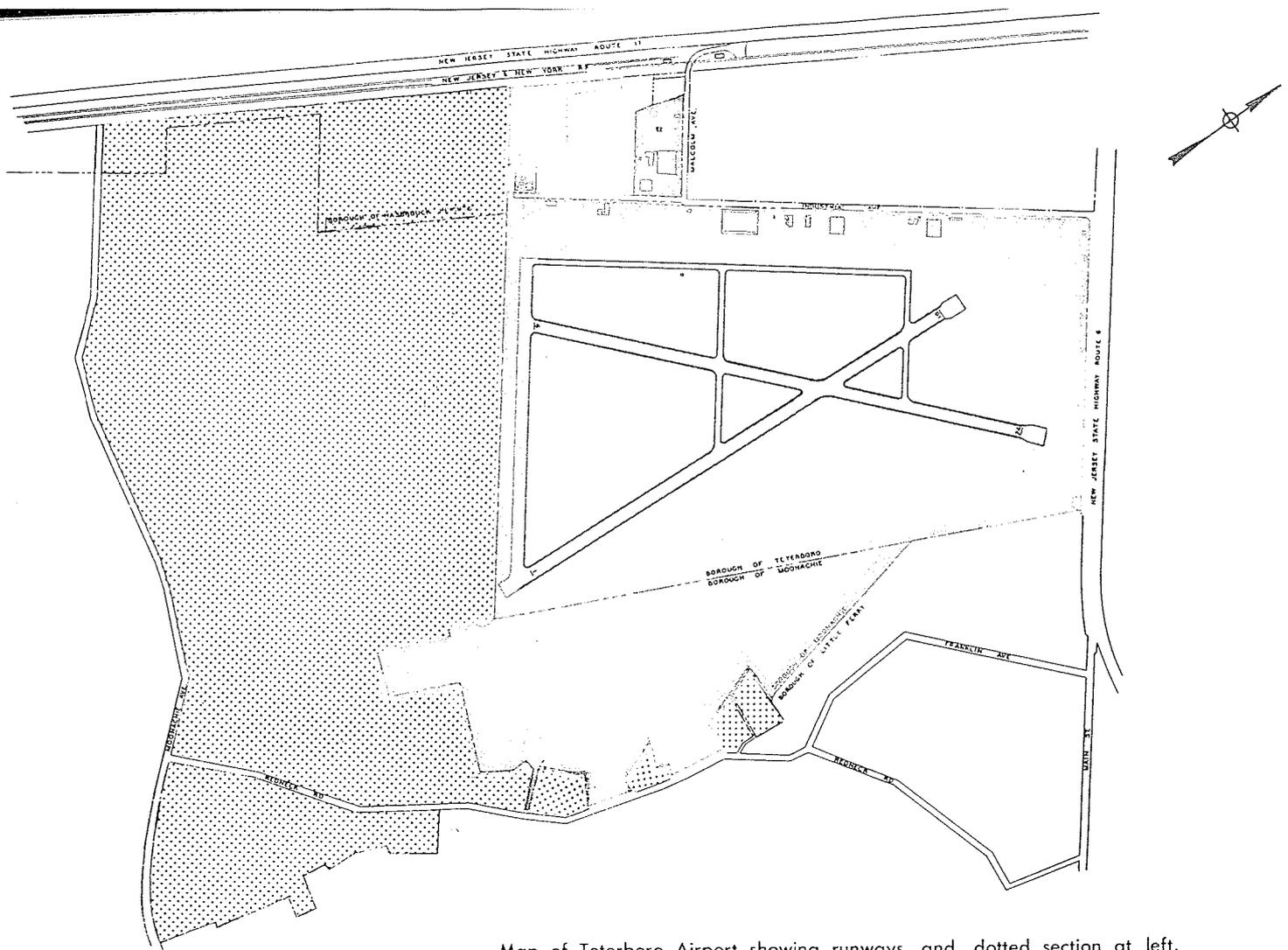
Following the opening, in December 1949, of Hangar No. 3 as an executive aircraft center, increasing numbers of corporate aircraft have been attracted to the airport, and we expect a continued increase in executive aircraft activities at Teterboro in the coming year.

In June the first air passenger terminal designed for the exclusive use of travelers using non-

scheduled airlines was opened at Teterboro. This new facility provided a central waiting room, a grill for light meals, an operations office and limousine service office. A covered area adjoining the building is used for the handling of baggage. Eight planes can be handled on the 200,000-square-foot ramp area in front of the building.

Owing in part to the revocation by the Civil Aeronautics Board of the operating authorizations of various nonscheduled carriers, there has been a critical decline in the volume of nonscheduled passenger and cargo activity at Teterboro. The Puerto Rican service is the only remaining passenger operation, since many of the transcontinental coach type operators have either suspended operations or transferred their equipment to military contracts. Some of them have located at our other airports in the metropolitan district.

Contract cargo operations, of course, have not been prohibited by the Civil Aeronautics Board. Several nonscheduled carriers at Teterboro are conducting cargo operations which they claim fall within this category. These carriers now at Teterboro are developing their cargo business to an



Map of Teterboro Airport showing runways, and, dotted section at left, acreage being acquired for expansion of the property.

extent that no doubt will permit their continued economic development.

We rented 9,000 square feet of space in Hangar No. 3 and one acre of land for automobile parking purposes to the Bendix Aviation Corporation. We also rented space in Hangar No. 3 to Lear Aviation, a regional sales and service office for aeronautical electronic components. The Ballantine Machine and Tool Company, subcontractors for aeronautical manufacturers, have taken space in Building No. 28.

At the end of the year, the Port Authority had spent or committed about \$5,328,464 on Teterboro Airport. Of this amount, \$3,015,000 represents the original purchase price of the 550-acre airport. Acquired on April 2, 1949, Teterboro is essential

to the full regional development of a system of major airports which will ultimately be required to handle the anticipated air traffic in the New Jersey-New York Port District.

In July 1949, we bought the two main hangars and purchased the surrender of outstanding long-term leaseholds on approximately 25.7 acres of the primary terminal area at Teterboro for \$1,350,000. Strategically located, the purchase of these properties assured their future use in the public program for the development of the airport.

We have made various improvements at the airport, including the rehabilitation of Hangars Nos. 1 and 3. We resealed and applied special surface treatment to all runways, taxiways and aprons at a cost of more than \$46,000.

The Commissioners during the year authorized the purchase of extensive areas adjoining the airport in the Borough of Moonachie to protect the approaches to, and the proposed extension of, the north-south runway of the airport. The acquisition of this property has been under way during most of the year. We have obtained title to numerous parcels through voluntary sale at a cost of \$404,000.

Installation of an instrument landing system at Teterboro and the approval by the Civil Aeronautics Administration of a standard radio frequency, permit aircraft with standard ILS equipment to use the airport under instrument con-

ditions. Previously, it was necessary for the aircraft operator to carry specialized equipment in order to operate at Teterboro under instrument conditions.

Operating Revenues

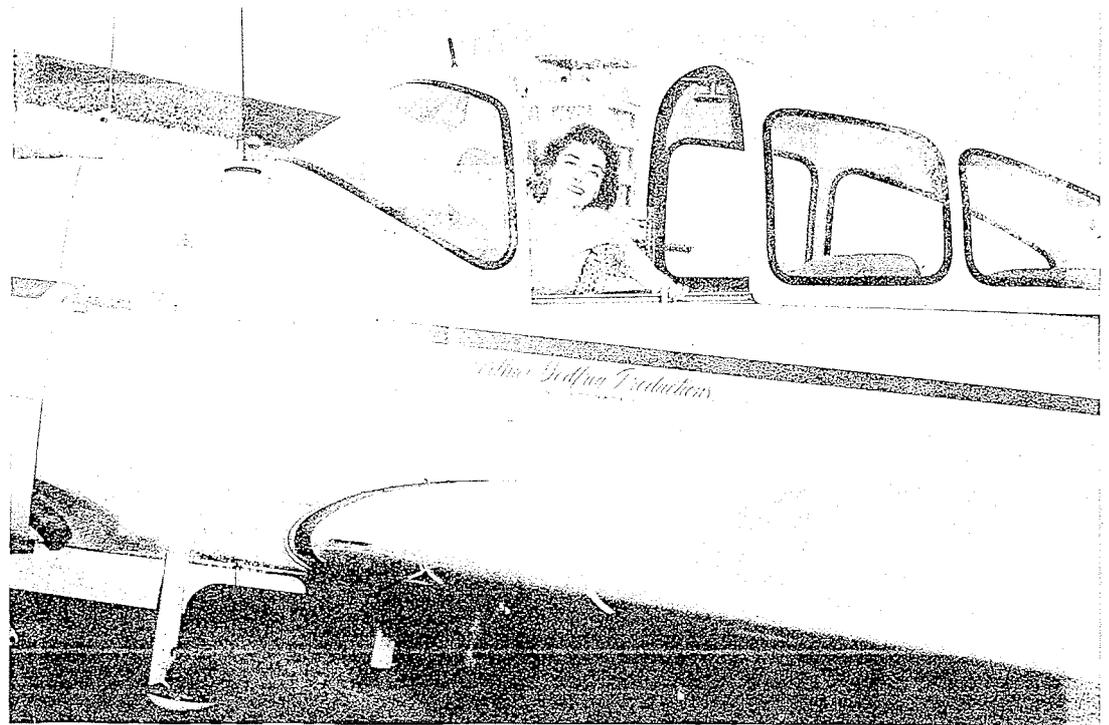
Gross operating revenues at Teterboro Airport amounted to \$693,599 in 1950 as compared with \$476,539 in the nine-month period of Port Authority operation the previous year. Operating expenses were \$661,432 as compared with \$461,951 in the 1949 period. The net operating revenue of \$32,167 for 1950 was before debt service on the air terminal bonds outstanding, as compared with \$14,587 in 1949.

Port Authority Appears Before Civil Aeronautics Board

More and more, in this age of air transportation, it is essential that the New Jersey-New York Port District be equipped with a network of air routes providing the most direct and efficient connections with air centers in the United States as

well as abroad. Our four major airports in the harbor region offer the necessary terminal facilities. But the establishment of the routes themselves requires not only airline initiative but also certification of public convenience and necessity by the

Alice Jean May of Englewood, New Jersey, a secretary at Teterboro Airport, recently won 175-mile all-women's air race at Reading, Pennsylvania.





Fred M. Glass, Director of Airport Development, testifies at Civil Aeronautics Board hearing on behalf of the establishment of helicopter service in the Port District.

Civil Aeronautics Board. We therefore appear before the C.A.B. to support the establishment of routes and services in the public interest.

We Participate in Civil Aeronautics Board Proceedings

The Port Authority in 1950 continued its aggressive program of promoting and protecting the interests of the New Jersey-New York Port District in the increasingly important sphere of air commerce. During the year we participated in five Civil Aeronautics Board proceedings.

1. Helicopter Service for the New Jersey-New York Port District

We continued our efforts in behalf of the establishment of helicopter service in the Port District and adjacent areas. We are convinced that it is essential that passenger, mail and cargo helicopter service be certificated to serve the world's greatest transportation center which lies within a radius of fifty miles of midtown Manhattan. It would be of great advantage to air transportation in this region if city-to-airport travel by helicopter were available.

In addition to the advantages of helicopter passenger service, the certification urged by the Port Authority would greatly expedite the delivery of airmail within the metropolitan area as well as in the suburban areas. It would assure the early establishment of helicopter commuting service and promote the use of the helicopter in short haul air transportation. The inauguration of helicopter service in this area would provide vital experience in the use of helicopters for national defense and other emergencies.

The Commissioners were gratified to note that the Civil Aeronautics Board Examiner, in his report to the Board, followed closely most of the Port Authority recommendations. We believe, however, that the Examiner erred in failing to

recommend the certification of all types of helicopter passenger service involved in the proceedings. These include service between New York International, La Guardia, and Newark Airports and the various metropolitan centers, between the airports and the various suburban communities in the metropolitan area, and between the suburban communities and metropolitan centers.

On November 15, 1950, the Port Authority filed exceptions to the Examiner's report, stressing particularly the economic justification for the full range of helicopter services proposed by the applicants. On December 29, 1950, a brief was submitted to the Board underscoring the urgent reasons for certification now of the full range of proposed helicopter services in this area. The final procedural step prior to decision by the Board was the oral argument before the members of the Board at which the Port Authority position was presented by our Washington counsel on January 8, 1951. It is expected that this case will be decided sometime in 1951.

2. Seaboard and Western Airlines (Transatlantic Air Cargo)

In 1950 the Port Authority continued its support of the demand-area type, transatlantic, all-cargo service proposed by Seaboard and Western Airlines without request for mail pay support. This unsubsidized air freight service offers the shipping public of the Port District and other points served by Seaboard, the flexibility required to meet shipping demand when and where it exists on an economical operating basis. Certification of a demand-area service would enhance the development of overseas bulk air shipping techniques.

On September 15, 1950, we filed twenty-five exceptions to the Examiner's unfavorable report on this case, following them with a brief on October 12 and oral argument by our Washington counsel on November 13, giving strong support to the points outlined in our exceptions.

3. Transcontinental Coach Type Service

In a brief filed in April 1950, the Port Authority continued support of low cost, coast-to-coast air coach service. There is no doubt that the public has expressed a desire for such service and the airlines have proved that it can be furnished at a profit. Pending its final decision, the Civil Aeronautics Board has approved such service on a trial basis. Cross-country coach service has been furnished by two of the largest scheduled transcontinental carriers since the latter part of 1949.

To the extent that this type of service is being operated, one of the objectives of Port Authority intervention has been satisfied. The Examiner's report issued on November 22, however, failed to recommend a final decision as to whether permanent transcontinental coach service was required in the public interest and whether it could be operated on a profitable basis.

In exceptions filed on December 18 and in its brief to the Board filed on February 2, 1951, the Port Authority urged that the Board give immediate and clear-cut approval to transcontinental air coach service. The Port Authority has not taken sides as to whether scheduled or nonscheduled lines should perform this service. It has contended, however, that reduced fares for this service would tend to expand the air travel market and that the air carriers could operate the service profitably at reduced costs.

4. Additional Air Service, Puerto Rico-New York

We continued our support of the proposed certification of additional direct nonstop scheduled air service between the Port District and Puerto Rico, in oral argument before the Civil Aeronautics Board in June 1950. In view of the clearly established community of interest between the New

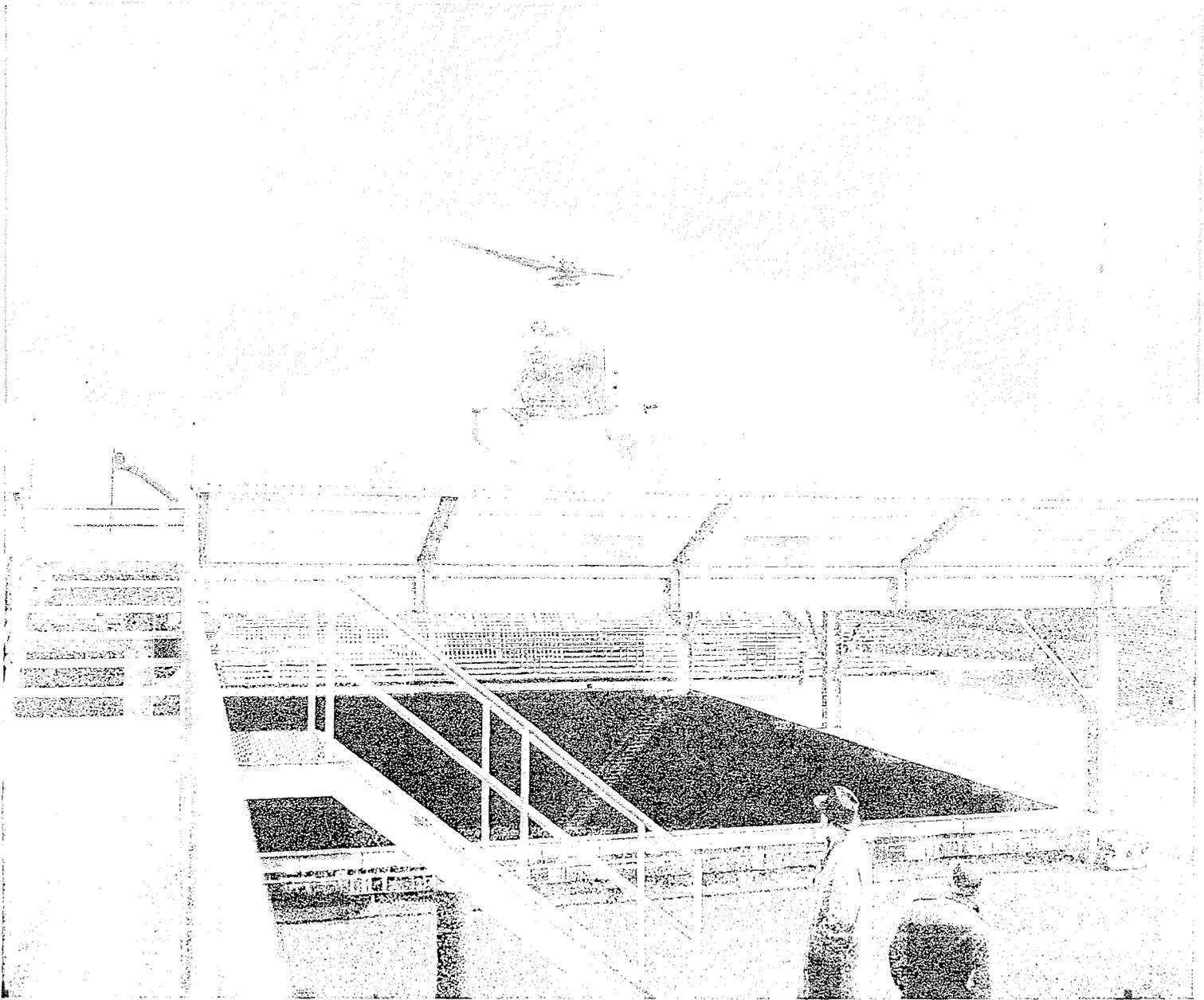
Jersey-New York Port District and Puerto Rico, we have urged that additional and competitive non-stop service between the two points is necessary if the full potential of air traffic between the two areas is to be realized. On January 23, 1951, the Civil Aeronautics Board granted Eastern Air Lines' application for a certificate for direct nonstop scheduled air service between New York and Puerto Rico for a temporary five-year period. At the same time, the Board also granted Riddle Aviation's application to operate scheduled all-cargo service between New York and Puerto Rico via Miami.

5. National Airlines Dismemberment Case

During 1950 the Port Authority attended hearings in this proceeding originally instituted in 1948 to determine whether National Airlines' route system should be dismembered because of the company's alleged poor financial position and questionable earning power.

The Port Authority has continually maintained that the early postwar financial ills of National which led to the investigation were common to the entire industry at the time and were not a logical basis for singling out National's routes for dismemberment. The Port Authority has further pointed out that the continuance of National as a single airline was essential to the air trade and commerce of the Port District; that its routes constituted a logical air service pattern; and that National had operated above the average of all airlines in terms of the usual efficiency factors. In the meantime National has earned substantial profit, and it now appears unlikely that the Board will order* the dismemberment of the line's route system.

*The Board, on March 19, 1951, decided that the position of National within the air transportation system had improved so substantially since the proceeding was instituted that there was no basis for dismemberment and that the proceeding should be terminated.



New York City Police Helicopter lands on Port Authority helicopter landing platform atop the sixteenth floor of the Port Authority Building. Empire State Building in background at right. The helicopter landing platform will be regularly used by the Port Authority helicopter as well as for emergency helicopter landings.



Rolls of newsprint, imported in large volume through Port Newark, are shown being hoisted from the hold of a freighter in from Canada.

3

Marine Terminals

Port Newark

The Port Authority in 1950 made notable progress in its development and promotion program at Port Newark. New facilities were added, old ones were improved, and business and employment were increased. It was on March 22, 1948 that we assumed responsibility, under a fifty-year lease agreement with the City of Newark, for developing and operating what was then a deteriorating though vital part of the New Jersey-New York Harbor. We lost no time in putting our program for the Port into effect, and by the end of 1950, we had spent or committed about \$8,444,000 on our improvement program.

The Newark Municipal Yearbook for 1949-50, referring to Port Newark and Newark Airport jointly, makes this statement: "These local facilities have now become two of the most important factors in the great metropolitan system of transportation and terminals. Sea and air cargoes handled by these two facilities in 1949 represented an all-time high and were still increasing in 1950."

Record ocean cargoes moved through the great New Jersey Port in 1950, showing an increase

of 10.6 per cent over 1949, and 62.7 per cent over the best previous tonnage during the twenty-eight years of municipal operation. Under City of Newark sponsorship, for the period 1918 through 1944, the average monthly gross revenue at the Port was \$11,080. During the initial period of Port Authority operation, March 22, 1948 through December 31, 1949, the average monthly revenue was \$45,000. During 1950 the average monthly revenue amounted to \$82,000, or seven and a half times the average monthly revenue during city operation.

Ship berthings at Port Newark showed a steady increase during the past year. An increase of 187 vessels, or 33.4 per cent, was developed when we recorded 747 ocean carrier calls as compared with 560 in 1949.

Operating revenues at Port Newark for 1950 amounted to \$984,077. Operating, maintenance, administrative and development expenses totaled \$973,174, resulting in a net operating revenue before debt service of \$10,903. This revenue would have been greater had it not been for expenses of \$40,000 incurred as a result of the



Among the most modern port facilities in existence is Cargo Terminal Building No. 138 at Port Newark, one of two similar structures at the seaport completed in 1950 at a cost of \$2,500,000.

November 25th storm. We anticipate the need of expending greater than normal amounts on rehabilitating and improving old and deteriorated structures during the next few years.

When we took over the Port, the job we had to do might have been compared with what would be required for the restoration and modernization of a tumble-down house; and we are glad to report that we have completed, or have well under way, many of these "housekeeping" improvements.

Additional Workers Are Employed at Port Newark as a Result of Our Development and Promotion Program

Employment rolls climbed higher than ever at Port Newark as a result of the increased tonnages, new tenant leases and the rehabilitation and development of the Port's facilities. There are now 1,629 people at work at Port Newark,

exclusive of Port Authority personnel and warehouse agents. This compares with 1,510 last year, an increase of 8 per cent. The regular annual payroll at the Port now exceeds \$5,300,000; in addition, longshoremen, carloaders, clerks, checkers, and other miscellaneous laborers earned about \$3,500,000 in 1950. Workers at Port Newark are now earning yearly about \$3,500,000 more than they were prior to our undertaking the responsibility for the Port's development and operation.

We Make Fine Progress in Our Improvement Program

As previously stated, since beginning our improvement and rehabilitation job at Port Newark, we have spent or committed about \$8,444,000 in order to convert the Port to a first class modern marine terminal.

On May 24, 1950, celebrated in the Port of New York as World Port Day, we dedicated two new



Ample storage space is one of many unusual features of Port Newark. Here Canadian newsprint is stored in one of the new cargo terminal buildings.

Cargo Terminal Buildings which the Port Authority built at a cost of about \$2,500,000. The ceremony was attended by about 1,000 guests, including public officials, representatives of civic organizations, shipping and other business interests. The new terminals, located on the south side of the channel, were put into immediate use. Comprising some 90,000 square feet of storage space each, they have more than proved their importance to the welfare of Port Newark and the whole Port District through their efficient handling of ship cargoes.

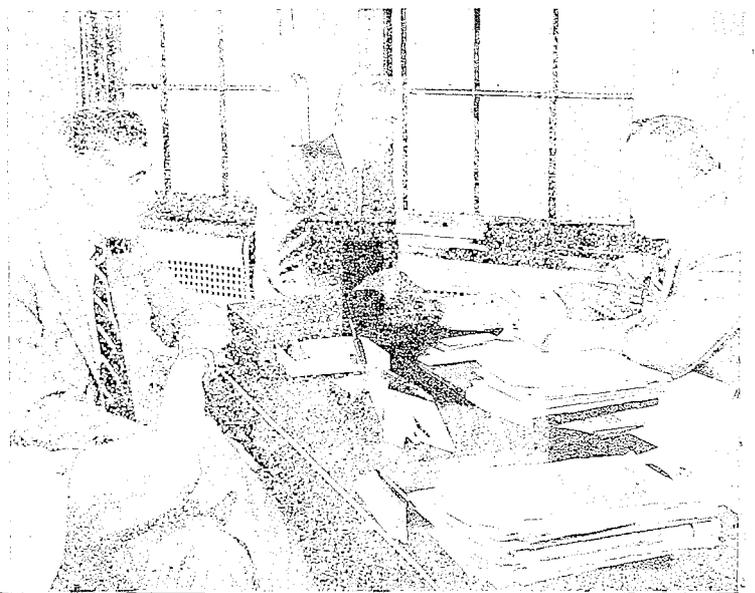
The United States Army Engineers, reimbursed by the Port Authority in the amount of \$296,000, deepened the Port Newark channel to 35 feet, as compared with its previous depth of 30 feet, for the handling of modern deep-draft vessels.*

We redecked the north wharf in the area leased from the United States Navy, at a cost of about \$142,000. Greenheart durable lumber has replaced the badly decayed soft wood decking, which had made the wharf virtually unusable.

*Bids for the second section of the 35-foot Federal project in Newark Bay, from Bergen Point to the Port Newark approach channel, have been solicited by the United States Army Engineers. Foresight in progressing this channel deepening has been justified even before completion of the work, since some of the large intercoastal ships require almost full project depth to navigate at low tide.

On the north side of the channel in the Coastal Oil Company's leased area, we also reconstructed, at a cost of \$117,700, the timber wharf for the handling of bulk oil tankers. When we entered Port Newark, the wharf was a total wreck.

Marine Terminal Bureau representatives J. M. Hayes (left) and J. L. Eyre (center) solicit cargo from a shipper, H. L. Francis, Koppers Co., Kearny, N. J.





Mechanized cargo handling equipment puts on a show for spectators at the dedication ceremonies for the new cargo terminal buildings at Port Newark. Large and small fork lift trucks are shown.

In 1950 we also completed the rehabilitation and improvement of Cargo Terminal Building No. 2 and the rebuilding of the adjoining wharf on the north side of the channel. This job cost about \$550,000.

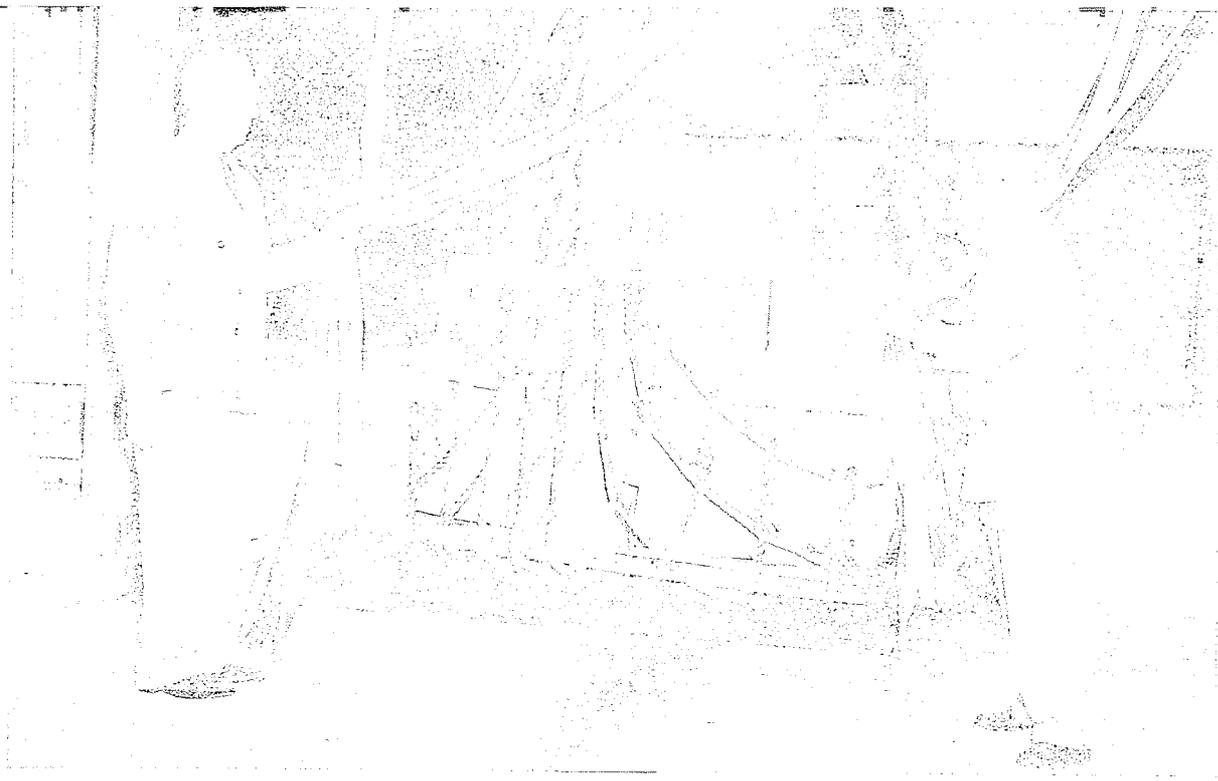
We continued our track rehabilitation program at the Port, replacing crossties and switch ties. Since we undertook to put the tracks into good operating condition, 29,837 lineal feet of track have been rehabilitated. We spent \$125,000 on this part of our rehabilitation program during the year, bringing to \$332,000 the total amount expended on the railroad track at the Port since the Port Authority commenced operations.

Our Aggressive Promotion Increases Port Newark Business

Our Marine Terminal Bureau continued its aggressive promotion of Port Newark facilities

Matthias E. Lukens, Port Authority's First Assistant to the Executive Director, with Congressman E. H. Hedrick of West Virginia, during an inspection tour of the New Jersey-New York Port.





The new cargo terminal buildings at Port Newark are opened officially. As Vice Chairman Byrne (left) and Mayor Ralph A. Villani of Newark hold streamers aside, a mobile crane enters Cargo Terminal Building 138.

and services, with the result that tonnages reached an all-time high. In 1950 we handled some 1,687,967 tons of ocean cargoes, an increase of 162,104 tons, or 10.6 per cent, over the 1,525,863 tons handled in 1949. In addition to the ocean cargoes, 2,420,434 tons of sand moved over Port Newark wharves during the year, for use as fill in the construction of runways at Newark Airport, and the New Jersey Turnpike.

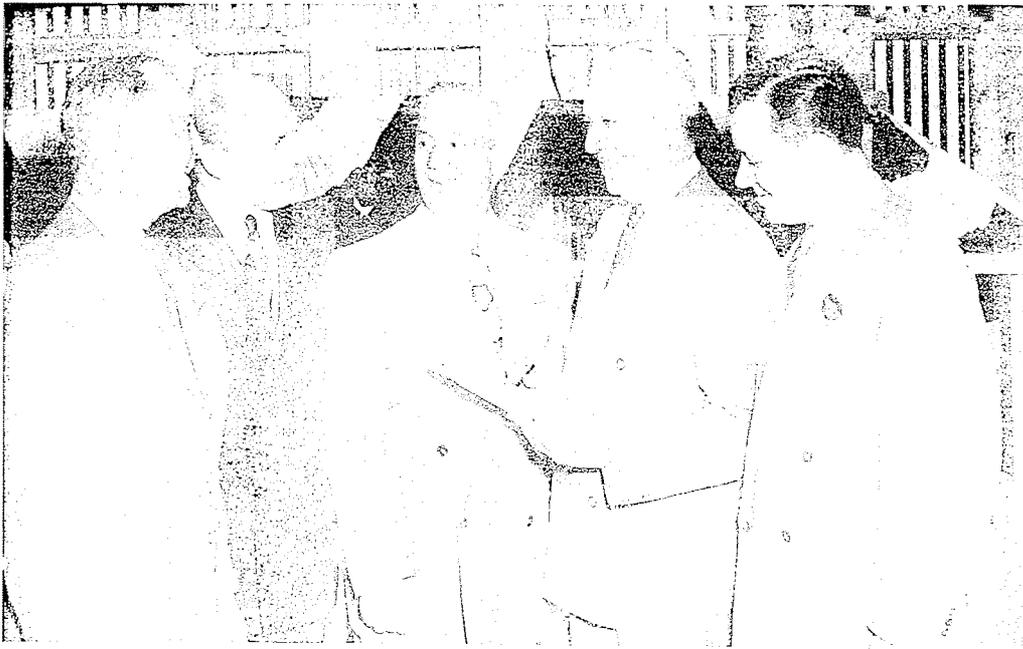
Throughout the year negotiations and discussions took place between Marine Terminal Bureau representatives and steamship lines, manufacturers and shippers, as well as railroads, trucking firms and others providing transportation to and from the Port. A survey of more than 1,000 major industries in Northern New Jersey was undertaken to furnish information on potential imports and exports for handling by steamship lines at Port Newark.

As a result of this comprehensive business development program, many new commodities came to the Port, including pineapples from Hawaii and the Philippine Islands, crude rubber and copper from the Malay Peninsula, toys and china-

ware from Japan, newsprint from Quebec, chick peas from Mexico, steel rail from Belgium, pine lumber from Brazil, sperm oil from Holland, doors from Sweden, granite from Vermont and aircraft destined for Western European countries through the Mutual Defense Assistance Program. These new commodities alone, during 1950, amounted to over 45,000 tons.

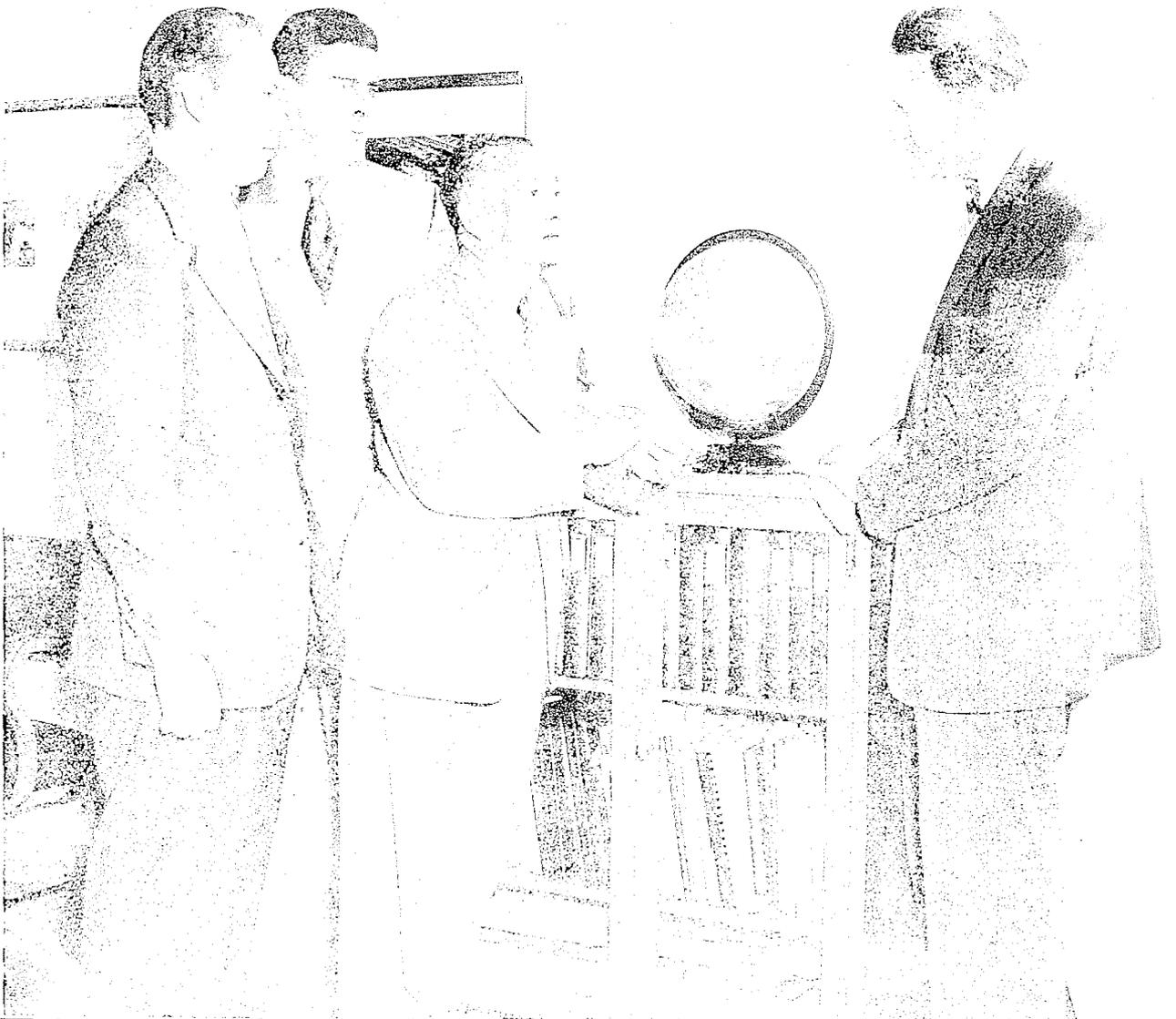
As the leading lumber port on the East Coast, Port Newark handled 326,529,280 board feet (437,315 tons) in 1950, an increase of 118.8 per cent over the volume of the preceding year. Mild weather during the winter months of 1949-50 resulted in a decline in use of fuel oil and kerosene, and the movement of such products at Port Newark, therefore, also was reduced, from 948,610 tons in 1949 to 844,120 tons in 1950.

As a result of our efforts, Scandinavian and West Coast wood pulp continued to move through Port Newark and was slightly increased in volume to 59,299 tons as compared with 56,543 tons in the previous year. Owing to the world-wide wood-pulp shortage and the extra ocean freight rate of one dollar a ton charged against the New



At the Port Newark cargo terminal dedication, left to right: Chairman Cullman; Attorney General Theodore D. Parsons of New Jersey; Mayor Ralph A. Villani of Newark; Vice Chairman Byrne; City Commissioner Leo F. Carlin, Newark.

Two visitors from Indonesia call on A. L. King, Chief of the Port Authority's Marine Terminal Bureau. Left to right: A. F. Ompi, Indonesian Supply Mission; N. Guldenaar, Harbor Advisor, Indonesian Government; R. W. Cruikshank, Isthmian Steamship Company; Mr. King.



Jersey-New York Harbor, including Port Newark, a charge which was not assessed against any competing port, the further development of pulp tonnage was retarded. As the year ended, aided by wood-pulp importers and consumers, we filed a complaint with the Federal Maritime Board charging discrimination and asking for the removal of the one dollar ocean freight rate penalty.

We expect to make available a large area on the south side of the channel for development, by a private operator, of tanks and other facilities for storage of vegetable oils and other non-petroleum liquids. Numerous requests have been received for more facilities on deep water in the New Jersey-New York Port for the handling of imported castor, cocoanut, linseed and palm oils, fuel oils, latex, liquid sugar and molasses.

The program of the Federal Government in accelerating the stockpiling of vegetable oils used in steel-making and for other defense purposes, lends added significance to this project.

We Bring New Steamship Lines to Port Newark

Through the activities of our Marine Terminal Bureau several steamship companies are using Port Newark for the first time. The Arrow Line, operated by Waterman Steamship Line as agent, which began to operate at Port Newark during the year, in December was awarded a six-months preferential permit for the use of Cargo Terminal Building No. 2 on the north side of the channel, which, as previously stated, we had completely rehabilitated at a cost of \$550,000.

Port Newark Is a Major Distribution Center for Canned Fruits and Vegetables

In 1950 we brought to a successful conclusion our efforts to promote Port Newark as a major distribution center for canned fruits and vegetables

in the Port District, an increasing volume of these commodities coming here from California by water. We leased to the Luckenbach Steamship Company, Inc. our Cargo Terminal Building No. 138 which we built on the south side of the channel, for a ten-year period, at an annual rental of \$110,600. The Luckenbach and American Hawaiian Lines now discharge eastbound cargoes at this building, while they continue to pick up westbound freight at Newark Tidewater Terminal on the opposite side of the channel.

The Board of Commissioners at the end of the year authorized the construction of a \$1,257,000 warehouse, immediately south of Cargo Terminal Building No. 138, for waterside storage of grocery food items and other commodities handled by intercoastal water carriers. We leased to Hunt Foods, Inc. for a period of five years a 43,200-square-foot building on the south side of the channel, near Cargo Terminal Building No. 138. The third largest fruit and vegetable packer in the United States, with seventeen canneries on the Pacific Coast, Hunt Foods expects to use Port Newark for the storage and distribution of 1,500,000 cases of canned foods a year.

Additional Port Newark Buildings Are Leased

The Mayor's Fact-Finding Committee on Building Conditions, in May 1950 reported: "There has been considerable industrial construction in the Port area and Ironbound district. Several of these plants are the result of improved port facilities under Port of New York Authority operations."

In addition to our lease with Hunt Foods, Inc., through our Marine Terminal Bureau we have negotiated a number of leases on other Port Newark buildings to bring added business and employment to the entire Newark area. In this effort, local realtors of the Port District have been most helpful.

We have leased to the Quality Container & Paper Products Company a 39,700-square-foot building on the south side of Newark Channel for a ten-year period. Materials used in the manufacture of the paper products come to Port Newark by water.

The Evans Warehouse Company, Inc. increased its Port Newark operation to 45,070 square feet from the previous 14,400 square feet. Metro Lumber Company and the G. & G. Lumber Haulage Company also added to their leased space.

The Vermiculite Industrial Corporation signed a five-year lease on Building No. 8 to handle South African vermiculite used in building construction, thus bringing another new product to Port Newark. Building No. 86 was leased for three years to the K & S Electric Sales & Service Company, a firm engaged in vessel repairs, adding a valuable service to shipping at the Port.

One of the largest Pacific Coast lumber importers, the Ballmill Lumber and Sales Corporation, leased for ten years two buildings and four acres on the south side of the channel. This lease will provide added space for the corporation, which is already operating at Port Newark.

Port Authority Grain Terminal and Columbia Street Pier

Port Authority Grain Terminal

The Port Authority Grain Terminal and Columbia Street Pier on the Gowanus Canal in Brooklyn continued to render an important public service and returned satisfactory net operating revenues. During the year just past our net operating revenues totaled some \$651,843, as compared with \$643,377 in 1949. This increase reflects the Port Authority's continuing program of rehabilitation and improvement of the Grain Terminal properties as well as our intensive promotional efforts. Before transfer to the Port Au-

We Sign a Fifty-Year Agreement on Gas Pipeline

During 1950 we signed a fifty-year agreement granting permission to the Transcontinental Gas Pipeline Company for the transportation of natural gas from Texas to the New Jersey-New York Port District through the Goethals Bridge, Port Newark and Teterboro Airport properties. For this we received \$70,843 as a lump sum settlement based upon a formula widely used in establishing rentals for such purposes.

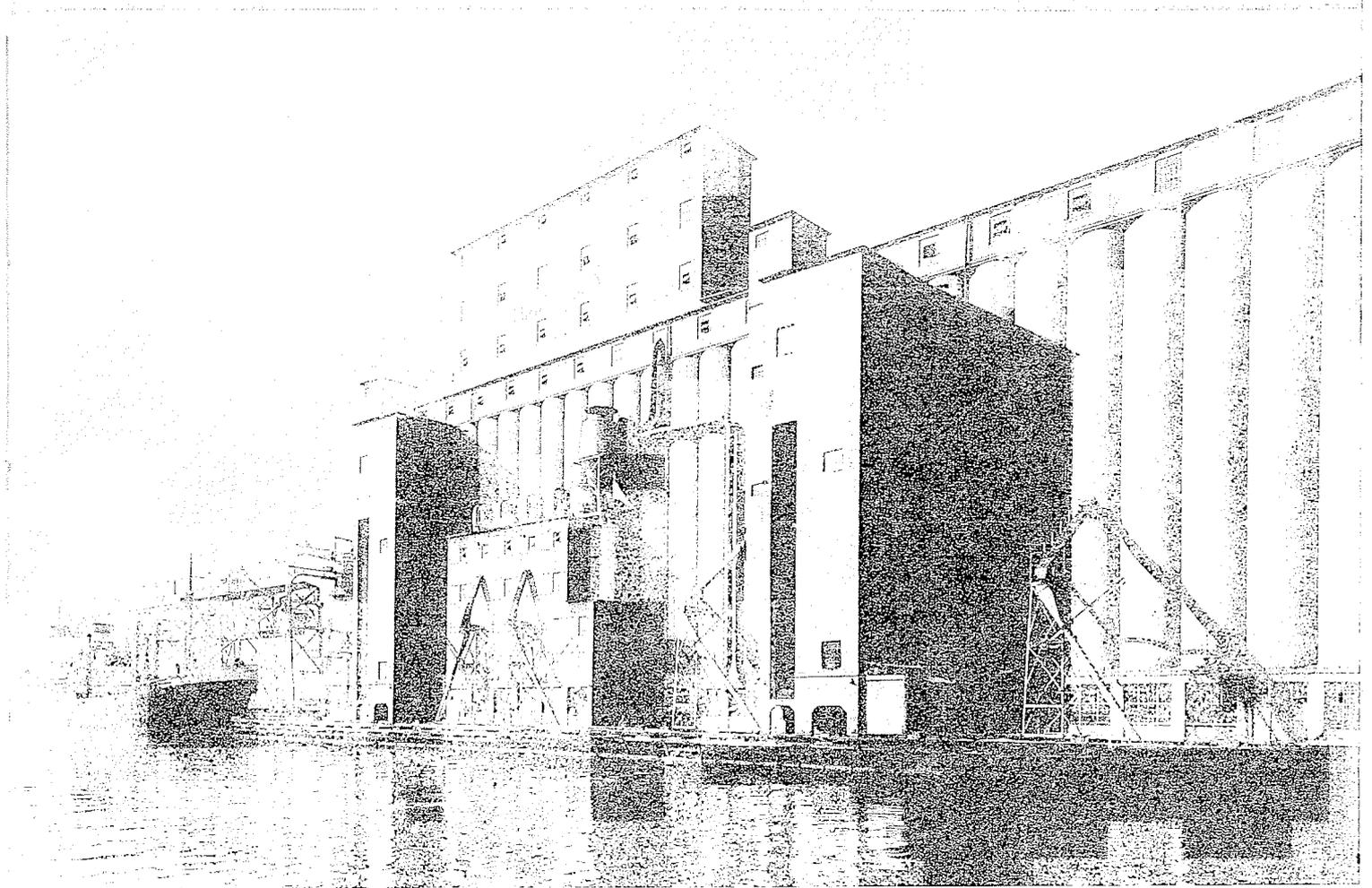
Port Newark Services

A \$35,000 diner on the north side of Port Street opposite the Tidewater Terminal property entrance provides good food, reasonably priced, for seaport personnel working on the north side of the inshore channel. The diner was erected by an outside firm to whom it was leased for operation. A second diner is under construction near the Port Newark Administration Building for workers on the south side of the channel.

A taxi service, automobile parking area, mobile food service and vending machines at Port Newark provide additional needed conveniences for personnel, as well as concession revenues.

thority by the State of New York, the facilities failed to earn sufficient revenue to provide proper maintenance. In addition to the \$500,000 which we paid to the State for the properties, we have spent some \$2,248,771 in rehabilitating and improving them. Thus our total investment at the end of 1950 amounted to \$2,748,771. We are particularly proud to say that the Grain Terminal and Columbia Street Pier now rate among the most modern and efficient marine terminal facilities in the entire New Jersey-New York Port.

We have constructed a new Grain Pier and a



The Port Authority Grain Terminal with loading gallery at left and a freighter alongside taking a grain cargo.

new Grain Gallery at the Grain Terminal property, among other major improvements. We have also leased five acres of upland storage area for lumber distribution. All of these Grain Terminal improvements have given employment to many workers and have reduced shipping costs, particularly on the large volume of lumber going to Long Island and Westchester. Total operating, maintenance and administration expenses of \$330,291 at the Grain Terminal and related pier properties represent a decrease of \$8,886, or 2.7 per cent, under 1949 expenses.

Business Is Greatly Improved at the Grain Elevator

During 1950 more than 6,100,000 bushels of grain were received at the Port Authority Grain Elevator. About half of this — over 3,300,000 bushels—was brought to the elevator for treatment and inspection from the Federal Government's Hudson River "Moth Ball Fleet."

Under an agreement between the Port Authority and the harbor railroads, grain destined for export through the Port Authority Grain Elevator

for storage will be directly assessed the lower rail freight rate charged for export grain, effective March 15, 1951. Previously, under a cumbersome procedure, grain moving into the elevator was charged the higher rail rate for domestic movement, and a refund was later made on proof of exportation. The Port Authority has posted a \$50,000 surety bond to guarantee that grain, under the export freight rate, is actually exported.

Lumber Shipments Increase Use of Port Authority Grain Pier

The use of the Grain Pier for the berthing of vessels bringing lumber to our public open storage area, as well as for loading grain, in 1950 raised the occupancy to 63 vessels working cargo for 192 ship days. This compared with 37 vessels for 137 ship days in 1949. Part of this increased business was brought about by the heavy movement of inspection and treatment of grain for shipment overseas.

Columbia Street Pier Business Also Improves

The Columbia Street Pier in 1950 was used by 98 vessels for 441 ship days, as compared with 80 vessels for 342 ship days in 1949. These vessels handled 179,000 tons of cargo as compared with 152,000 in 1949.

Of the 98 ships using the pier during the year, 87 were those of the Fern Line and the Isthmian Steamship Company, the two lines holding preferential permits on the west and east sides of the Columbia Street Pier, respectively. The remaining eleven ships were accommodated during the slack periods of the regular users.

A preferential permit system is used in many other ports but is unique at the Port of New York. Under this system each steamship line is awarded a six-month permit with preferential right to use the two berths on its side of the pier on payment of a fixed fee plus ship dockage and

wharf usage charges. We retain the right to assign vessels from other steamship companies to any berth not scheduled for occupancy during a fourteen-day period. Under this system we not only increase our revenues but make available much needed pier space for use by other vessels.

Public Open Storage Area Handles Water-Borne Lumber

In 1949, after partially paving and fencing a five-acre area of our Grain Terminal property, we rented it to Beard's Erie Basin for use as a public open storage area for lumber.

In 1950 the area was used for the handling of about 67,300,000 feet of lumber destined for use in the New York-New Jersey region. During 1950, as in the preceding year, more than half of all the lumber moving into the Port District was handled at the Port Authority Grain Terminal and Port Newark.

New Jersey Water-Front Proposal

Another year passed without constructive action on our \$30,000,000 proposal to improve the Jersey City and Hoboken water fronts.

In November 1947, the Port Authority was requested by Governor Driscoll to resurvey the water front to determine the physical and economic practicability of pier and terminal construction along New Jersey's long neglected water front within the Port District. The report on the resurvey was submitted to the Governor and was released for publication by him on February 14, 1949.

During the past year we indicated our continued readiness to undertake to furnish pier improvements recommended in our original proposal. We met with municipal officials and representatives of railroads and local industries who would be affected by this water-front development in the hope that a way might be found

to carry out plans suggested in our proposal.

Our 1949 report to Governor Driscoll recommended the immediate construction of a \$13,000,000 two-pier marine terminal at Jersey City; the \$17,000,000 restoration and development of the important piers owned and operated by the United States Maritime Commission at Hoboken; the use of part of the Bayonne Naval Base as a modern commercial marine terminal; also the consolidation of railroad terminals on the water front, the establishment of all-rail joint rates to permit through-routing to all water-front points, and an adequate reciprocal switching arrangement between railroad companies. The report also urged the expenditure in the New Jersey-New York Harbor of a more equitable share of the Federal funds annually appropriated in this country for channel improvements. Suggestions were made for improved highway access to the water front. All construction figures in our New Jersey wa-

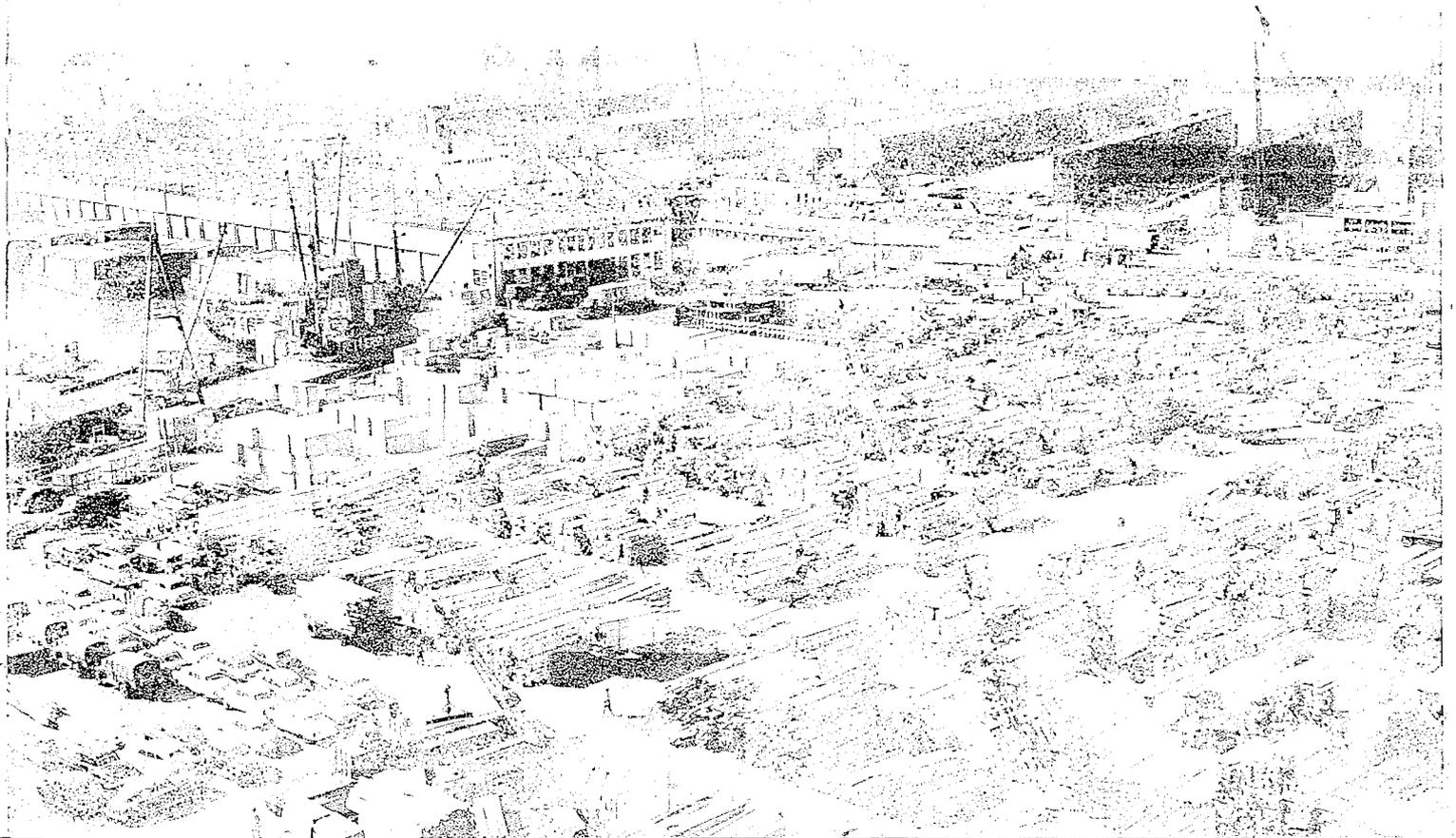
ter-front proposal were based upon 1948 costs.

We Ask the United States Maritime Commission to Lease to Us the Government-Owned Piers at Hoboken

On January 6, 1950 the Port Authority, on behalf of the State of New Jersey and at the request of Governor Driscoll, asked the United States Maritime Commission to lease to the Authority at the rate of one dollar a year for fifty years the Government-owned piers at Hoboken. Under the terms of the Authority's proposal to the Maritime Board, the bi-state agency would undertake to rehabilitate and improve existing Hoboken Piers Nos. 1, 2 and 3, and to construct a great new double-deck freight pier, the finest on the Atlantic Coast, at an estimated cost of \$17,000,000.

The piers would revert to the Federal Gov-

Lumber from the Pacific Coast to ease the housing shortage is stored in great volume in the large upland space at the Port Authority's Columbia Street Pier.



ernment in the event of, and for the duration of, a national emergency, provided that the Federal Government would undertake the expenses incident to bond interest and amortization for the period of its occupancy of the property. Title of the facilities would be transferred to the Federal Government at the end of the fifty-year leasehold.

The Port Authority informed the Maritime Commission that it would be willing to enter into an agreement with the City of Hoboken for payment to the municipality of 75 per cent of all net revenues derived from the marine terminal operation.

On February 2, 1950 Governor Driscoll personally called on the chairman of the Maritime Commission in Washington to urge that the Hoboken piers be transferred to the Port Authority so that the greatly needed rehabilitation and improvement program for this important part of the New Jersey water front might get under way.

The Port Authority's proposal, which followed a request by the City of Hoboken that we survey the possibility of developing and rehabilitating the piers at that great New Jersey port, was submitted originally in September, 1947.

The Port Authority Recommends Rehabilitation of Pier 16, Hoboken

In a letter to the Administrator of the Defense Transport Administration at Washington, D. C. we pointed out the desirability, from a defense standpoint, of the rehabilitation and moderniza-

tion of Pier 16, Hoboken, in order that the maximum number of modernized piers might be available in the New Jersey-New York Harbor. Pier 16 is owned by the 15th Street Pier Corporation. We expressed no opinion on the economic aspects of the project, for which a Reconstruction Finance Corporation loan was being sought.

Notable Victory in Establishing Rate Equality for Rail Service to Edgewater Water Front

An important sector of the New Jersey water front, the Edgewater Docks served by the New York, Susquehanna and Western Railroad, was recently freed of a rate handicap, which had retarded its full development. Although enjoying the usual New York harbor rates to shipside via lighterage service from all railroads, Edgewater Docks could not secure all-rail service by switch interchange to the Susquehanna tracks from other trunk line railroads without payment by the shipper of extra charges ranging from 60 cents to \$6 per ton.

The Port Authority encouraged and supported a complaint by the Borough of Edgewater to the Interstate Commerce Commission in 1947, asking for removal of this disability. The proceeding was significant not only to Edgewater but to the entire New Jersey water front, in establishing the principle of encouraging direct interchange via nearby rail junctions between all carriers, and consequent reduction of lighterage.

In our report of February 10, 1949 to Governor Driscoll on a marine terminal survey of the New Jersey water front, we said:

"The Port Authority urges the publication by the railroads of joint rates to and from New Jersey water-front points via all-rail routes in the interest of increased economy in port transportation. One such proceeding, relating to the Edgewater water front, is now before the Interstate Commerce Commission. The brief of the Port Authority in this case, *Borough of Edgewater v. Arcade and Attica Railroad Corporation, et al.*, stresses this objective."

In cooperation with the officials of the Borough of Edgewater and carriers supporting the elimination of the rate handicap, we presented testimony, briefs and oral argument on this subject to the Interstate Commerce Commission. In 1950, a division of the Commission ordered the desired correction. The decision was appealed to the full Commission which reaffirmed the order early in 1951, with a gratifying statement stressing the need for opening up the entire harbor for modern pier and terminal development. It rejected the railroad plea that interchange facilities in New Jersey were inadequate, and pointed out the possibility of reducing lighterage service by acceleration of all-rail movement.

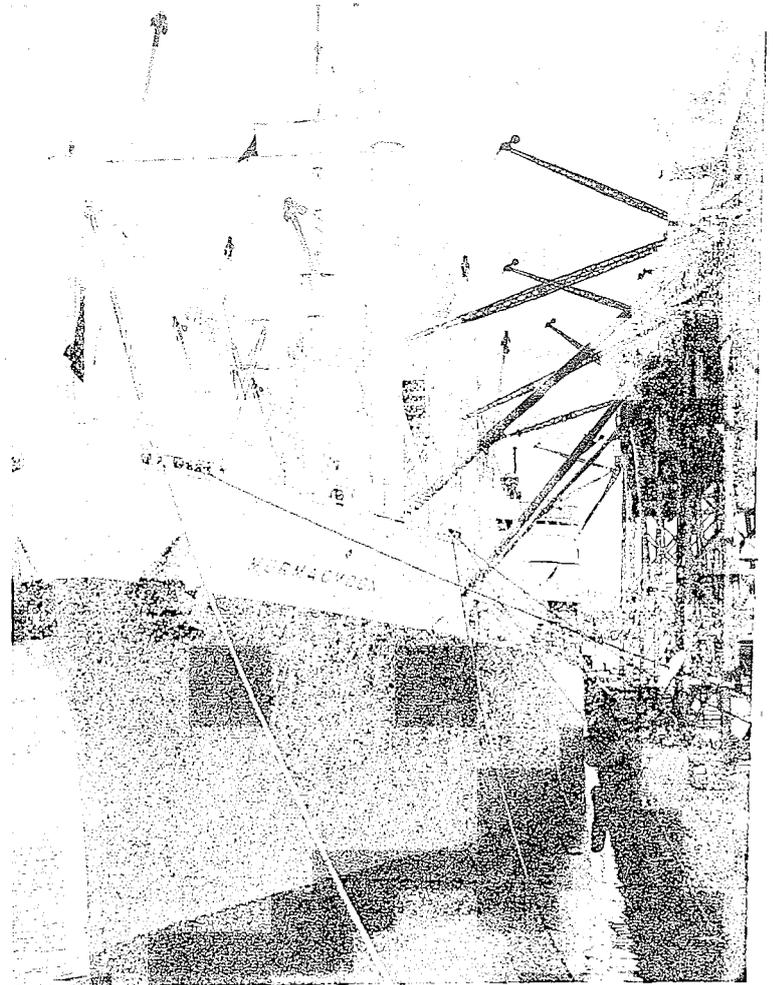
At the same time, the Interstate Commerce Commission ordered the Susquehanna to grant full lighterage service out of its Edgewater terminals to all parts of New York harbor to remove any discrimination on that score. This sweeping decision upholds the Port Authority's contention that the best development of the Port can be achieved by maintaining maximum freedom in using *both* rail interchange and lighterage to all water fronts. This would insure unity and make it possible for the carriers to choose the most economical means of accomplishing ship-side delivery without rate penalties.

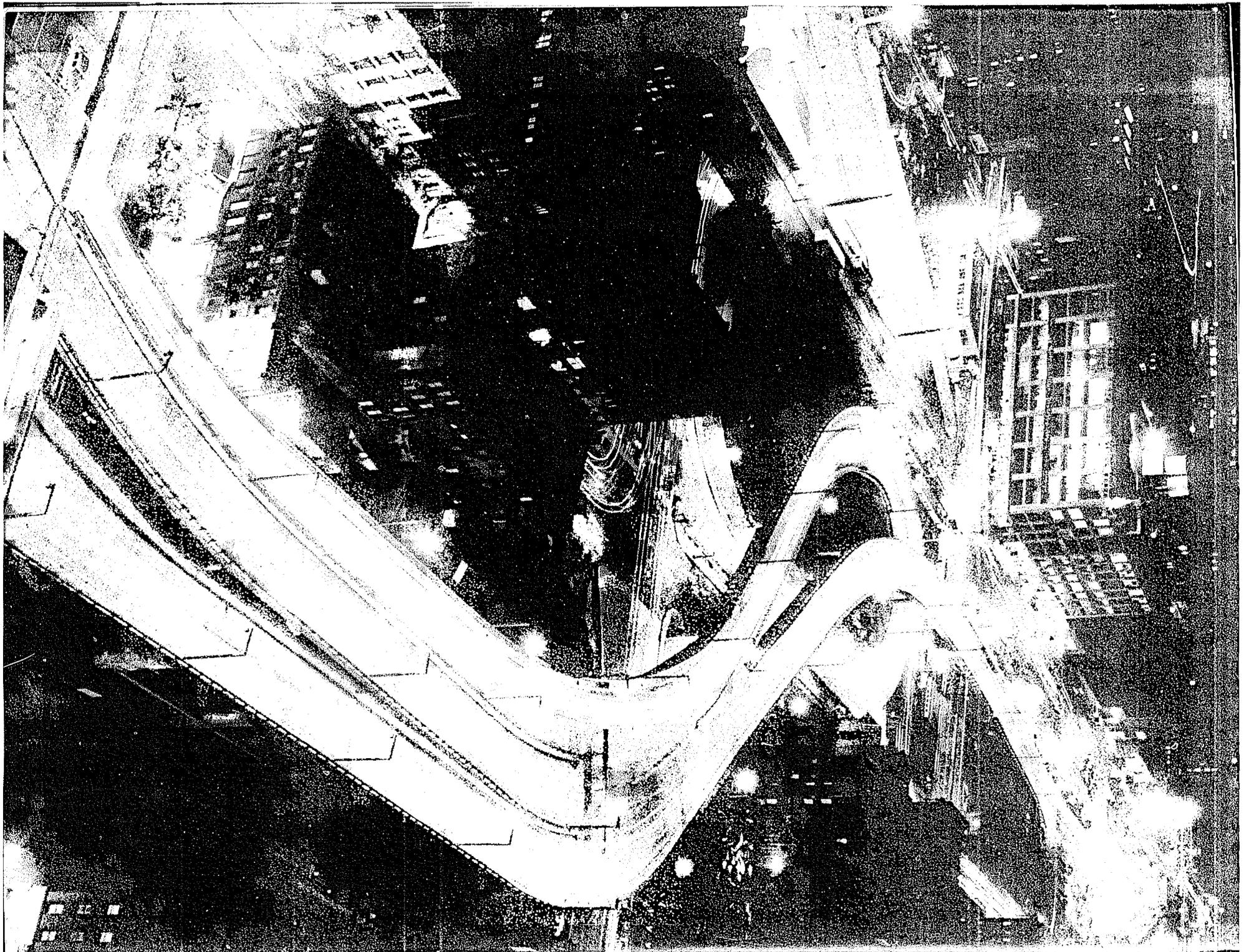
Virtually No Improvement Is Made to the Municipally Owned Water-Front Facilities of New York

Only a minimum improvement has been made to the municipally owned water-front facilities of New York City since Mayor William O'Dwyer on December 3, 1948 asked us to restudy our \$114,000,000 pier program which had been rejected by the Board of Estimate in September of that year. Our second proposal contemplated a Port Authority expenditure of about \$89,000,000.

Civic associations and other groups and individuals, as well as the press, favored the Port Authority's original and second proposal. The Board of Estimate, however, on May 1, 1949 rejected the proposal in favor of one by the Department of Marine and Aviation, under which the City pledged itself to go forward immediately with a \$58,848,000 program of pier construction and modernization.

Spouts from loading gallery at Port Authority Grain Terminal fill up a big freighter.





Night view of the great ramps connecting the Port Authority Bus Terminal with the Lincoln Tunnel Plaza. The commuter buses from New Jersey will avoid New York City streets by using this direct ramp connection to and from the tunnel.

4 Bus, Truck and Rail Terminals

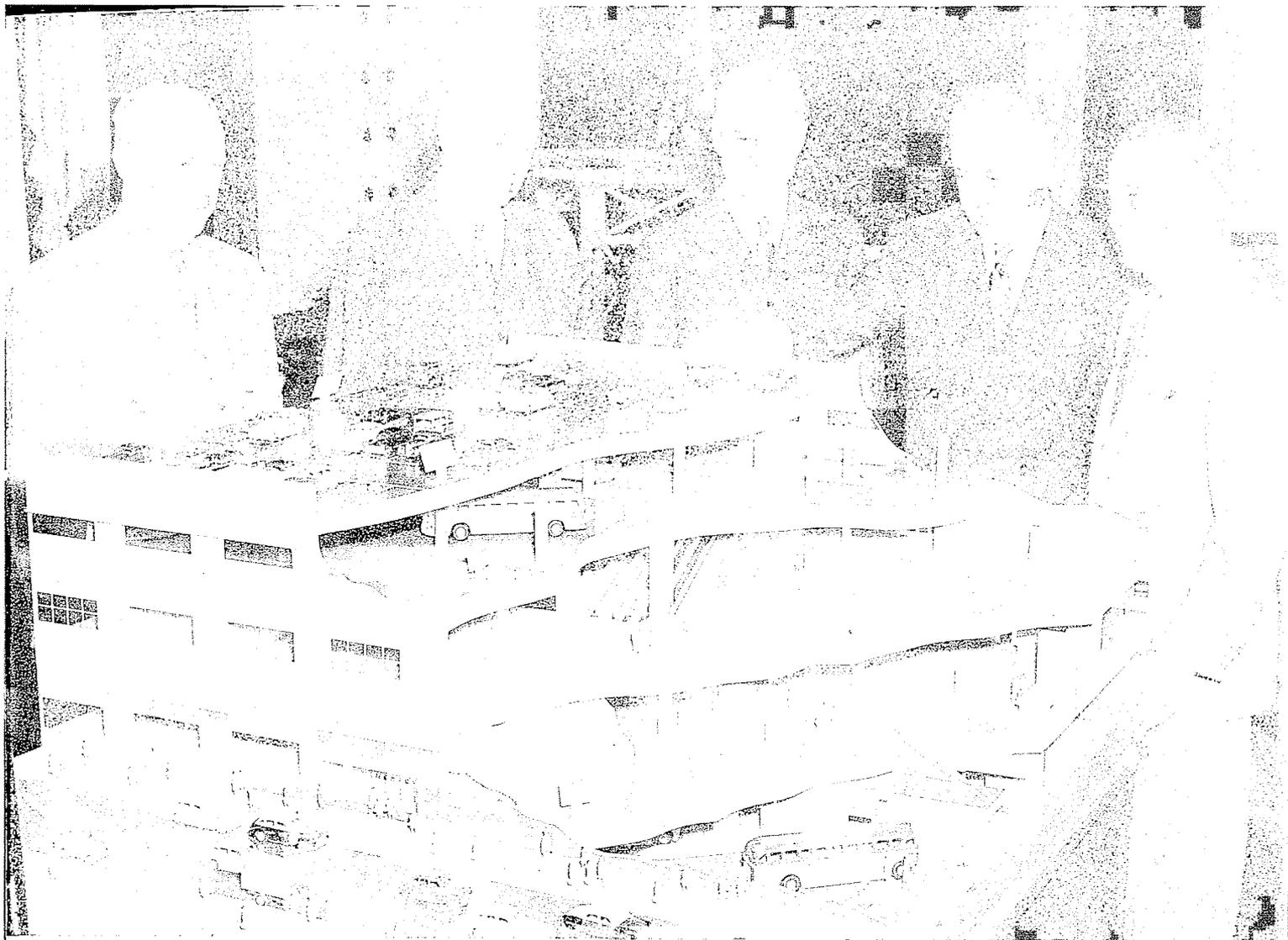
The Port Authority Opens the World's Largest Union Bus Terminal

The Port Authority Bus Terminal, largest and most modern bus terminal in the world, was dedicated on December 14, 1950 and opened for business the following day, with fifteen short-haul bus companies providing commuter service between New Jersey and New York, and nine long-haul carriers serving major bus routes throughout the country. Two additional short-haul carriers signed contracts before the end of the year, to start operations on January 2, 1951.

Soon after the opening of the new terminal a number of bus lines indicated that their business had increased between 10 and 20 per cent. Interstate buses were saving as much as thirty minutes in the travel time previously required to reach their Manhattan terminals, through use of the overhead ramps connecting the terminal directly with the Lincoln Tunnel. Mid-Manhattan streets showed a marked decrease in traffic congestion when almost 5,000 daily movements of huge interstate buses were eliminated.

The bus terminal was opened eleven years after Mayor Fiorello H. La Guardia's Committee on Interstate Buses recommended that bus stations be kept west of Eighth Avenue outside the congested traffic area in Manhattan. The Port Authority, at Mayor La Guardia's request, first undertook a study of the bus terminal situation in 1940. Four years later, the Mayor again requested us to study the possibility of building a union bus terminal in mid-Manhattan *west* of Eighth Avenue. In June 1945 the Board of Estimate of the City of New York unanimously adopted a resolution disapproving bus stations in midtown, *east* of Eighth Avenue, and in September of the same year the City Planning Commission adopted a zoning resolution permitting it to designate exceptionally congested traffic areas in which new or enlarged bus terminals would not be permitted. In October, the Board of Estimate confirmed the Planning Commission's action.

On January 30, 1947 the Board of Estimate

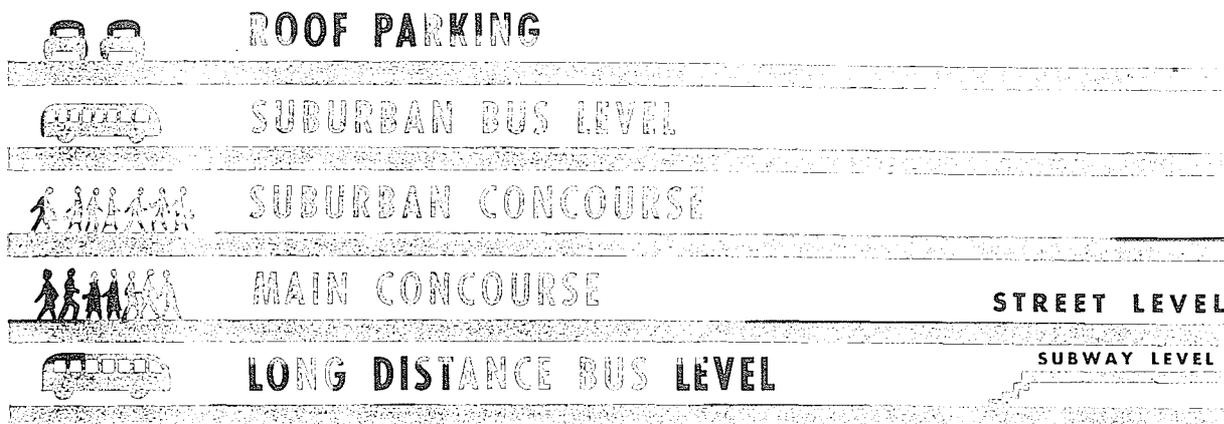


Port Authority Commissioners inspect cutaway model of Port Authority Bus Terminal. Left to right: Commissioners Armstrong, Pope, Colt, Byrne and Cullman.

unanimously adopted a resolution declaring it to be the policy of the City that it would not approve construction of new bus terminals or enlargement or reconstruction of existing bus terminals in mid-Manhattan *east* of Eighth Avenue. On the same date we announced that the Port Authority would proceed, on the basis of that commitment, with the construction of the terminal. It was necessary for us to obtain such an official commitment from the City of New York before proceeding with the financing of the terminal. We could not have

expected bus companies to move west of Eighth avenue into the public terminal to be built by the Port Authority while there existed the possibility that additional terminals would be constructed in preferred locations in the heart of the congested midtown area.

Early in January 1950, the Greyhound Bus Company, which, time and again throughout the preceding six years, had attempted to obtain permission to enlarge its terminal at Thirty-fourth Street east of Eighth Avenue, once again submitted



a plan for expansion of its midtown facility. Immediately the application was criticized by the public and the press. The New York City Planning Commission and the Traffic Commission to whom the Greyhound Plan had been referred by Mayor O'Dwyer for report and recommendation, unanimously recommended to the Board of Estimate that the plan be rejected. In April the Board of Estimate by unanimous vote refused to approve the Greyhound application and restated the policy of the City of New York as previously expressed in the Board's resolution of January 1947.

Early in 1951, following the opening of the Port Authority Bus Terminal, the New York City

Traffic Commissioner banned stops by interstate buses in the congested area of midtown Manhattan. But he permitted a limited number of stops at subway station corners outside the congested area bounded by Twenty-second Street and Fifty-ninth Street, for interstate buses operating through the Holland Tunnel and over the George Washington Bridge.

On January 8, 1951 it was announced in Albany that the New York City Parking Authority law included a repealer of the prohibition against the construction by that Authority of bus terminals in the congested traffic area east of Eighth Avenue. Chairman Cullman immediately sent to Mayor Vincent R. Impellitteri a telegram as follows:

"The act passed by the Legislature last year creating the New York City Parking Authority includes provision to insure that the proposed new authority will observe the City policy set forth in the resolution unanimously adopted by the Board of Estimate on January 30, 1947 prohibiting the construction of a new bus terminal or the permanent enlargement or extension of an existing bus terminal in the congested midtown Manhattan area. Today's HERALD TRIBUNE carries the story that New York City will seek at this legislative session to have this provision repealed. Any such action by the City of New York will appear to be in direct contravention of the pledge of City policy, on which the Port Authority relied in going forward with the union bus terminal, before even the plaster in the bus terminal is dry. I urgently request that you immediately and publicly disavow the proposal."

Mayor Impellitteri agreed with our position and the amendment was withdrawn.

Concession Development

Of major importance in the financing and designing of the great new Bus Terminal was the consideration of concession revenues. The concession businesses not only will be of convenience to the bus traveler, but are expected to carry over 50 per cent of the terminal's costs. Careful attention was given to the types of businesses that would be most appropriate, and to their proper location in the terminal. More than 90 per cent of the available concession floor space had been selected by the end of the year for a wide variety of stores and services, and a recreation center.

Within the framework of design dictated by the needs of handling buses on two levels and people on two concourses, the Port Authority was able to integrate space for about fifty efficiently located concessions. For the most part the store areas are along the walls of the concourses, leaving the center areas cleared for the uninterrupted flow of passengers.

The new terminal is the first public building of its kind to have recessed wall display areas incorporated into its original design. Thirty such areas were rented to national advertisers for diorama displays.

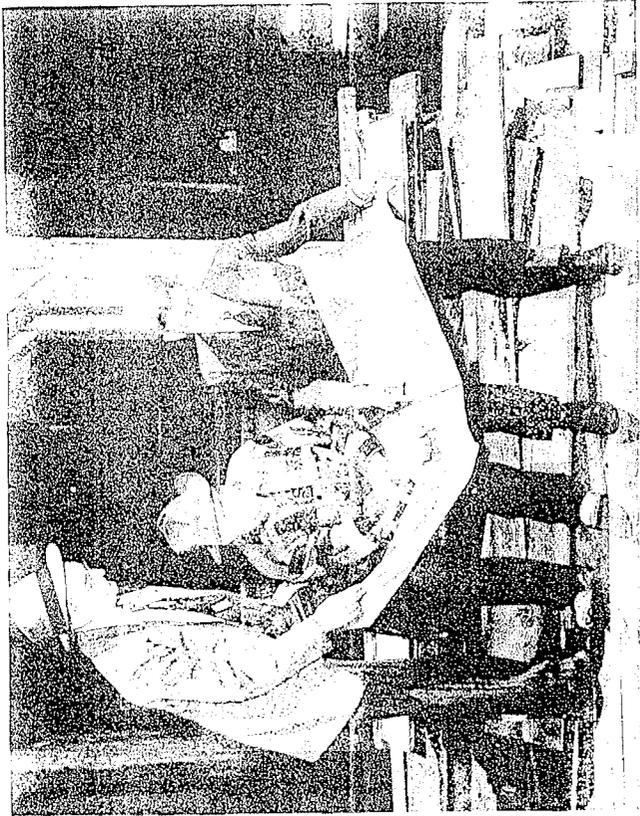
All telephone booths and package lockers are fully recessed to provide flush wall areas. At carefully selected points throughout the terminal there are nearly one thousand automatic dime and quarter-sized parcel lockers. An enclosed public telephone station with twenty-two booths on the main concourse serviced by operators, and 155 coin telephones located throughout the terminal, provide a telephone service unsurpassed by any other large terminal. The New York Telephone Company has said that these 177 public telephones

constitute the largest initial public telephone installation in the history of the Bell System.

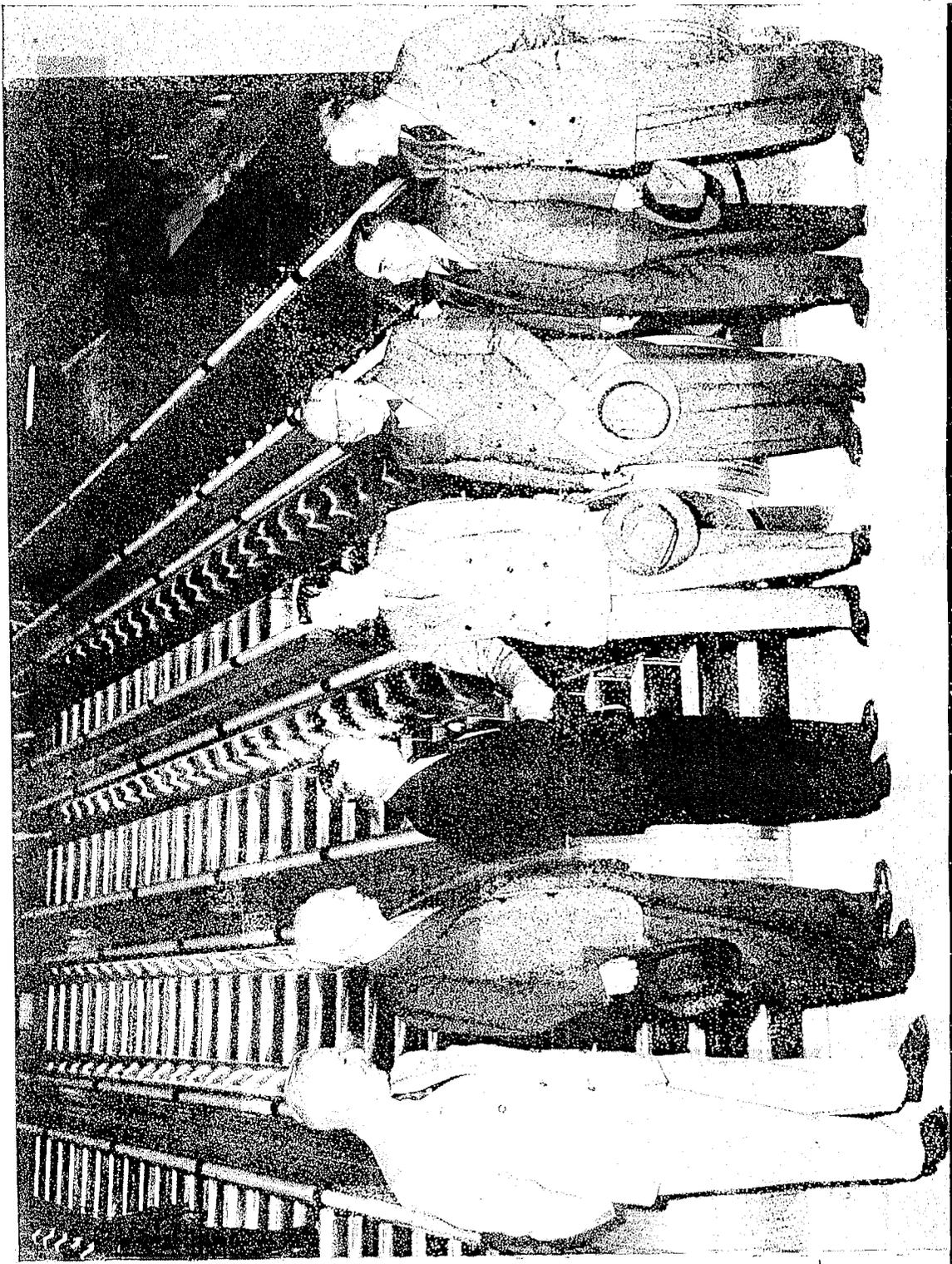
In its selection of the various stores and services to occupy the larger areas of the terminal, the Port Authority required that each be of the type that best satisfies public needs and that furnishes, however modestly priced, the highest grade merchandise and the finest service. The leases, in almost all cases, are based upon a guaranteed minimum annual rent against a percentage of gross receipts. They range from one to twenty years' duration, and their continuation is subject to the nature of the tenant's performance. All stores have attractive glass fronts and efficient illumination, and are air-conditioned.

More than 2,500 firms and individuals applied for space in the terminal and at the end of the year forty-two had been selected. The Bus Terminal businesses include, among others, one of the largest drugstores in the east, restaurants, snack bars, a huge supermarket, a florist, candy shops, newsstands, a bookstore, a bake shop and a bowling center.

Chairman Cullman congratulates H. C. Turner Jr., President of the Turner Construction Company, which completed the Bus Terminal as scheduled on November 1, 1950. At Chairman Cullman's right are Commissioners Pope and Byrne. At Mr. Turner's left are Commissioner Lowe, D. C. Andrews of the Turner Construction Company, and Port Authority Chief Engineer Kyle.

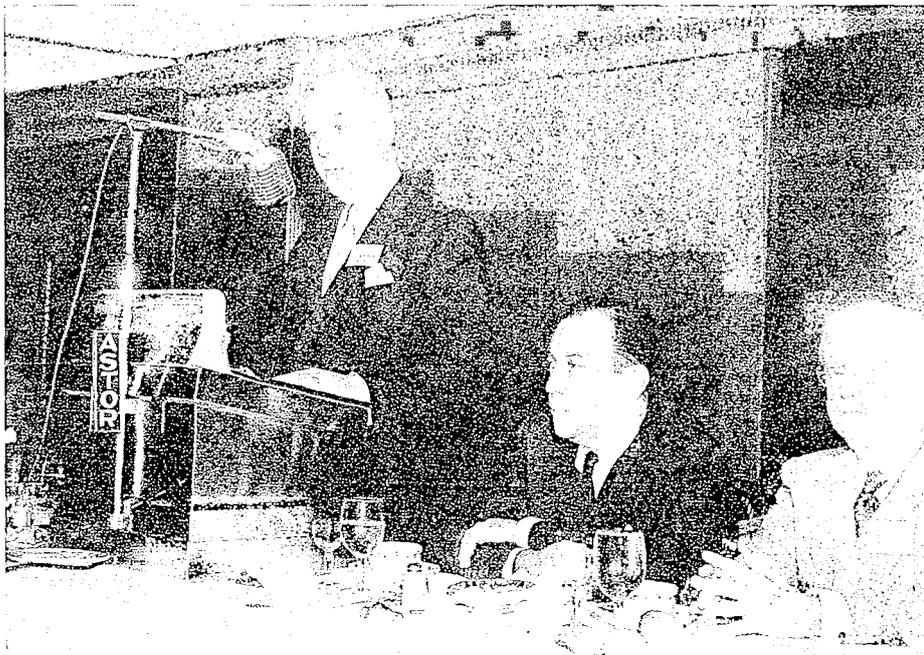


Before Bus Terminal construction began Lee C. Webb, Superintendent of the Bus Terminal (left), discussed plans with George Cosman, Supervisor of Demolition, and Harvey S. Quigel, Port Authority Director of Real Estate.



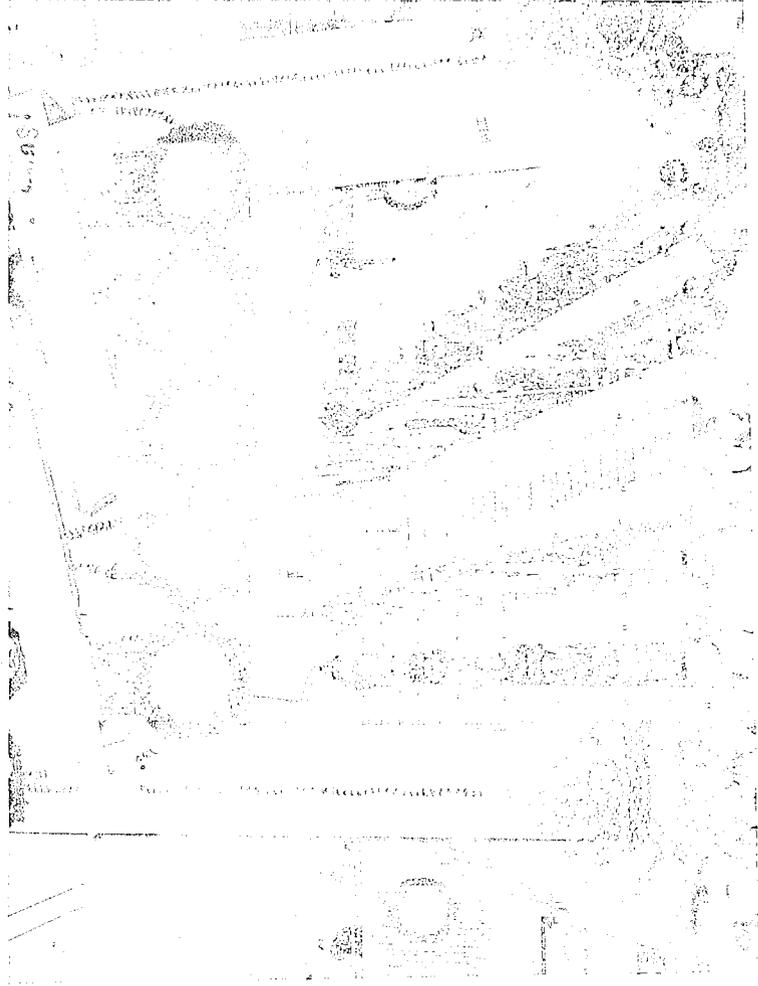


Miss Marguerite Patricia Cullman puts the Port Authority Bus Terminal into operation as she pulls the switch that starts movement of the motorstairs. At Miss Cullman's right are Governor Driscoll and Mayor Impellitteri. At her left Commissioner Lowe and Chairman Cullman smile approval.

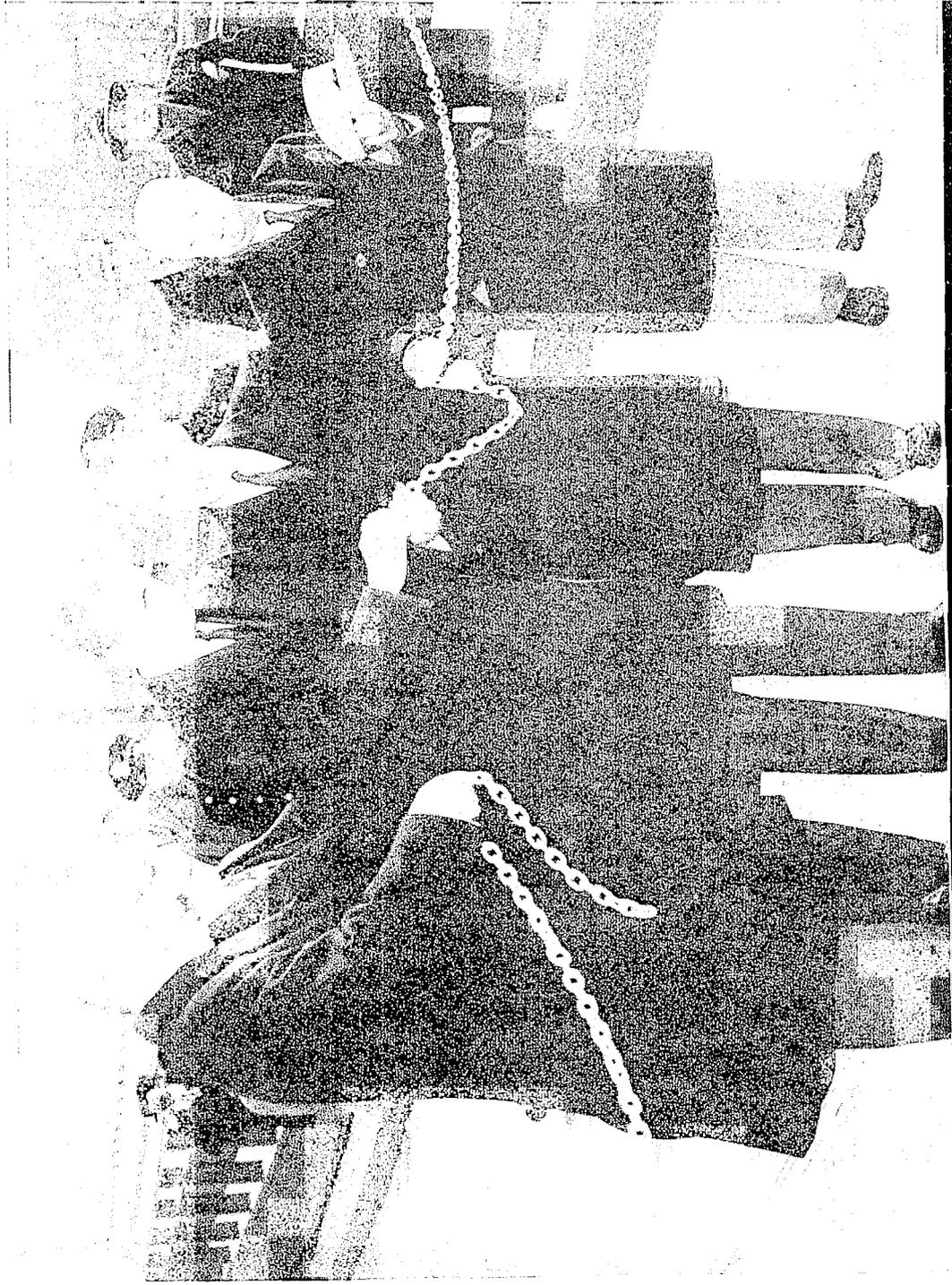


Vice Chairman Byrne addresses the luncheon guests at the Port Authority Bus Terminal dedication ceremonies. At his left are Manhattan Borough President Robert F. Wagner Jr. and Port Authority Commissioner Moran.

Massing of the colors by United States Army, Navy, Air Force, Coast Guard, New York and New Jersey National Guards and the New York City and Port Authority Police as motorstairs start their first downward trip to main concourse of Port Authority Bus Terminal.



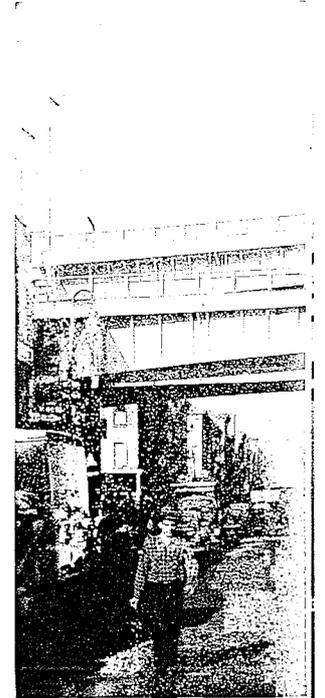
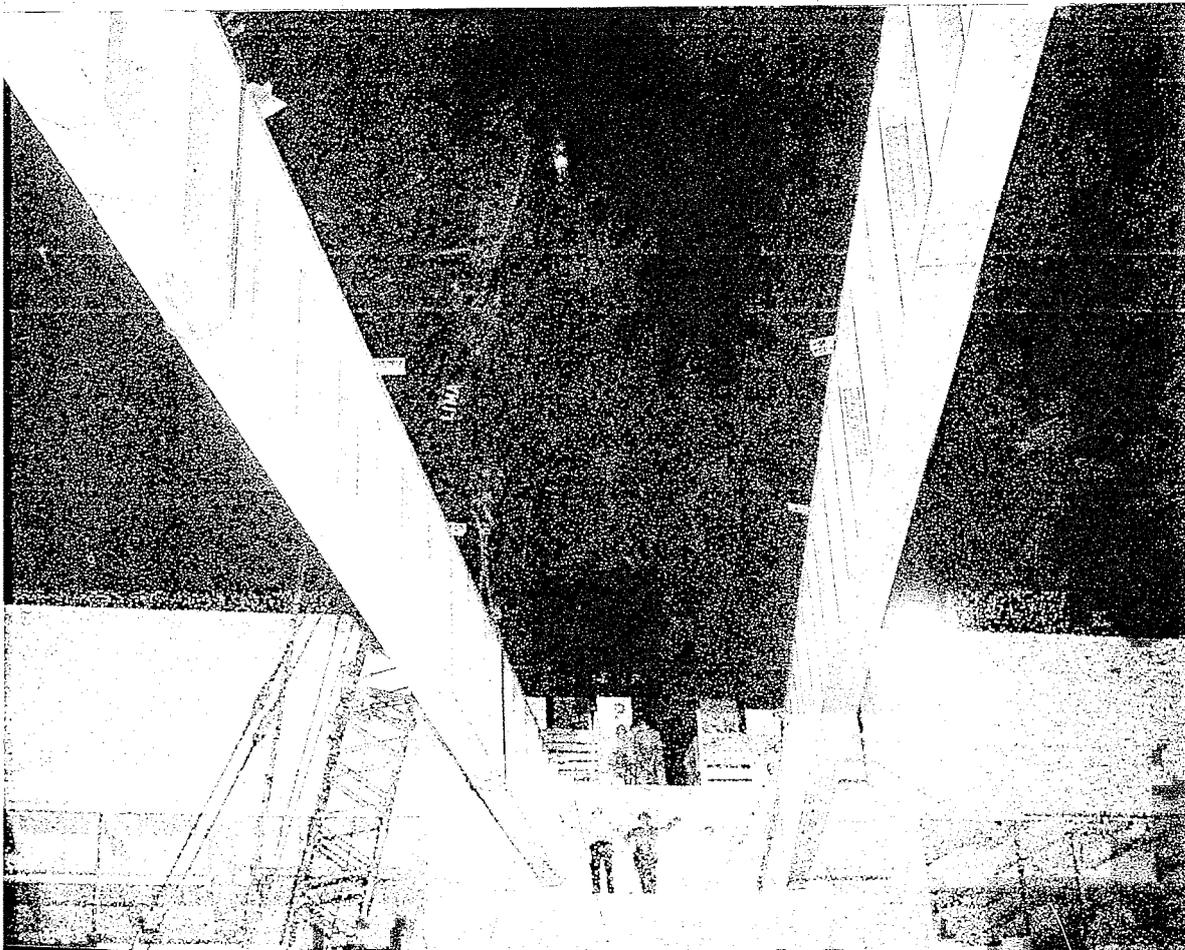
Governor Driscoll unlocks the chain barrier on the Bus Terminal ramp just before operations start. With him are (at his right) Commissioners Armstrong and Pope; at his left, Commissioners Cullman and Moran.

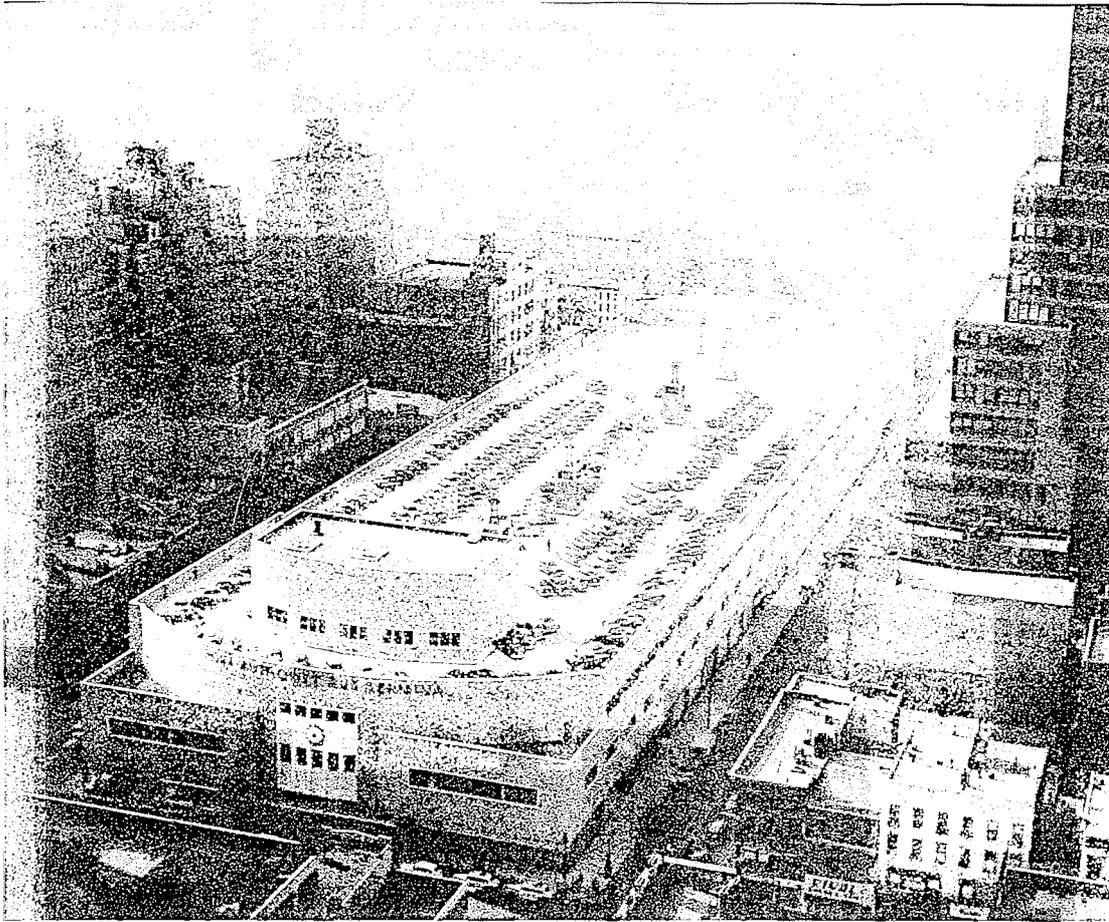




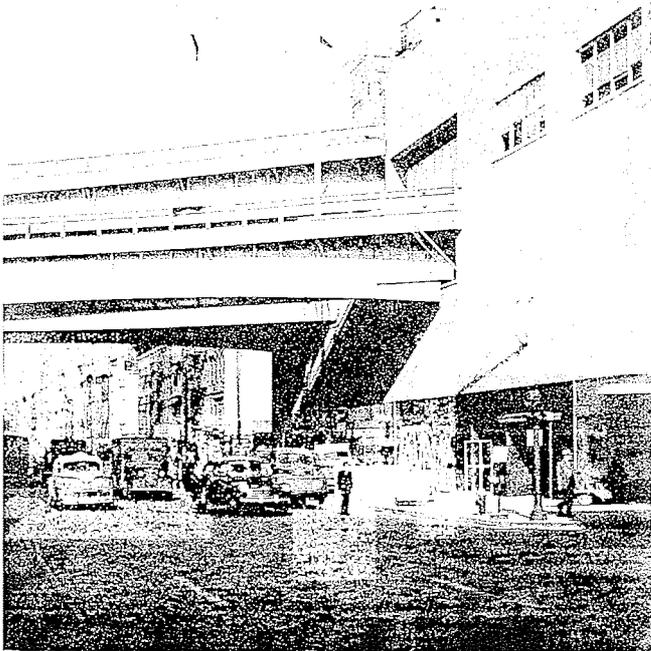
They talk it over with J. C. Evans, Chairman of the Port Authority Engineering Board. Left to right: Messrs. Evans, Shelley, Wilson and Chairman Cullman.

The great girders of the Bus Terminal ramp at Ninth Avenue are put into place.





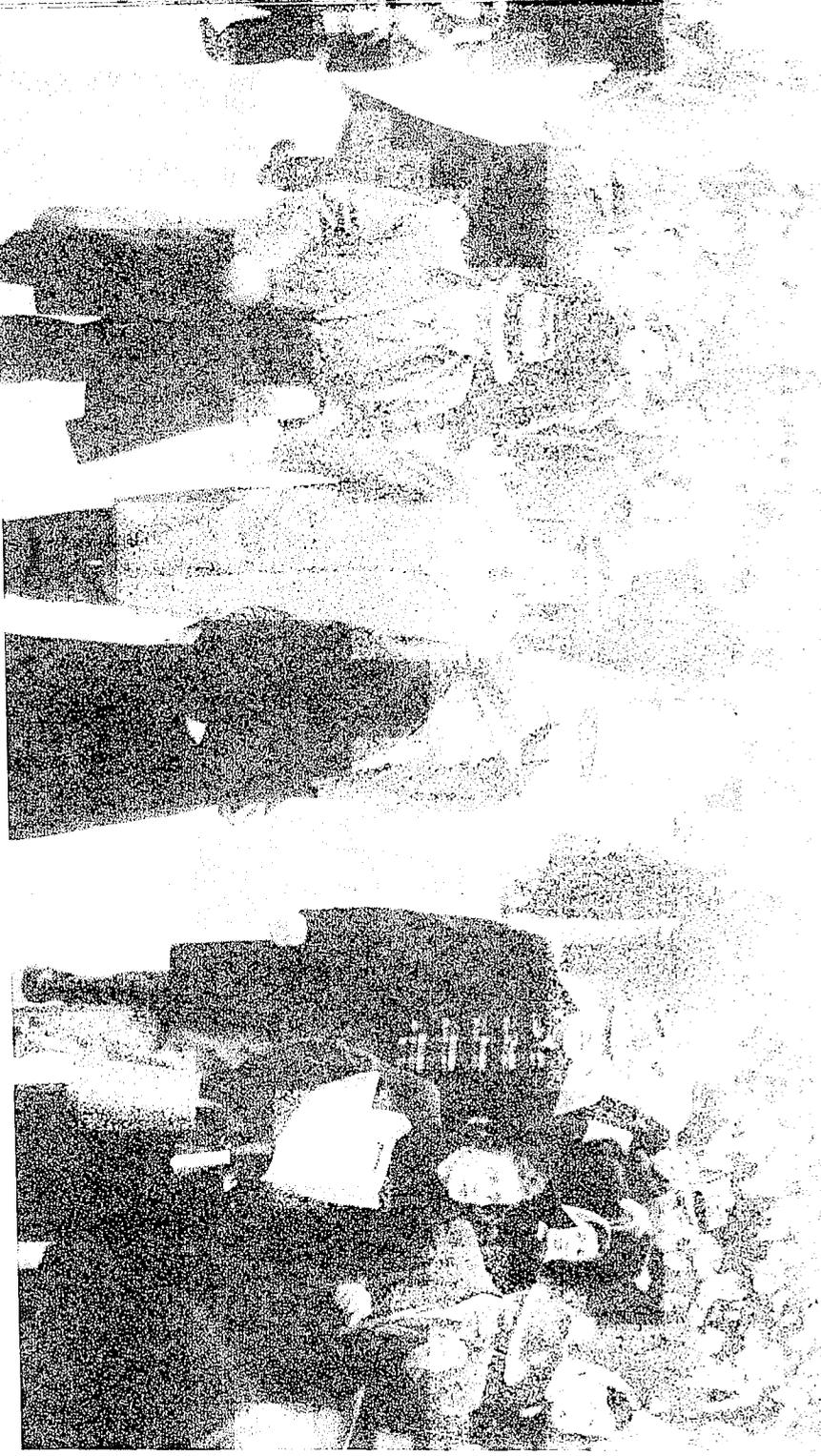
The Port Authority Bus Terminal showing main entrance, roof parking area, and ramp to Lincoln Tunnel.



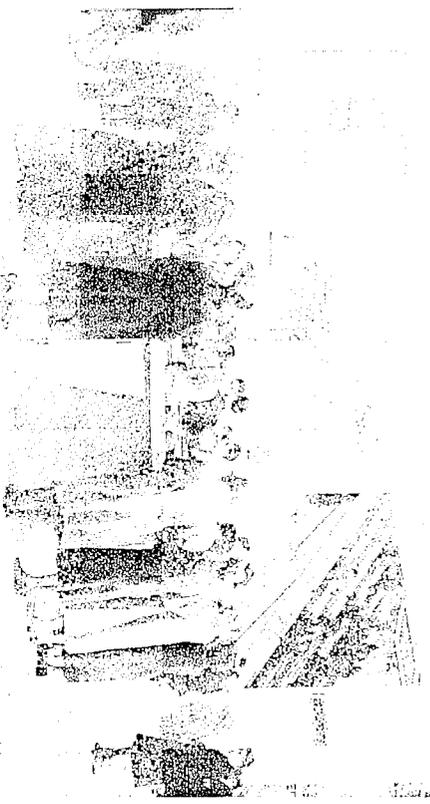
The Bus Terminal ramp at Ninth Avenue



No more bus commuter lines out-of-doors. All loading and unloading in the new Terminal is from indoor platforms reached by motorstairs from spacious concourses.



The Information Desk



The bus terminal barber shop on the main concourse



One of the world's busiest newsstands

