

INTER-AGENCY TASK FORCE REPORT

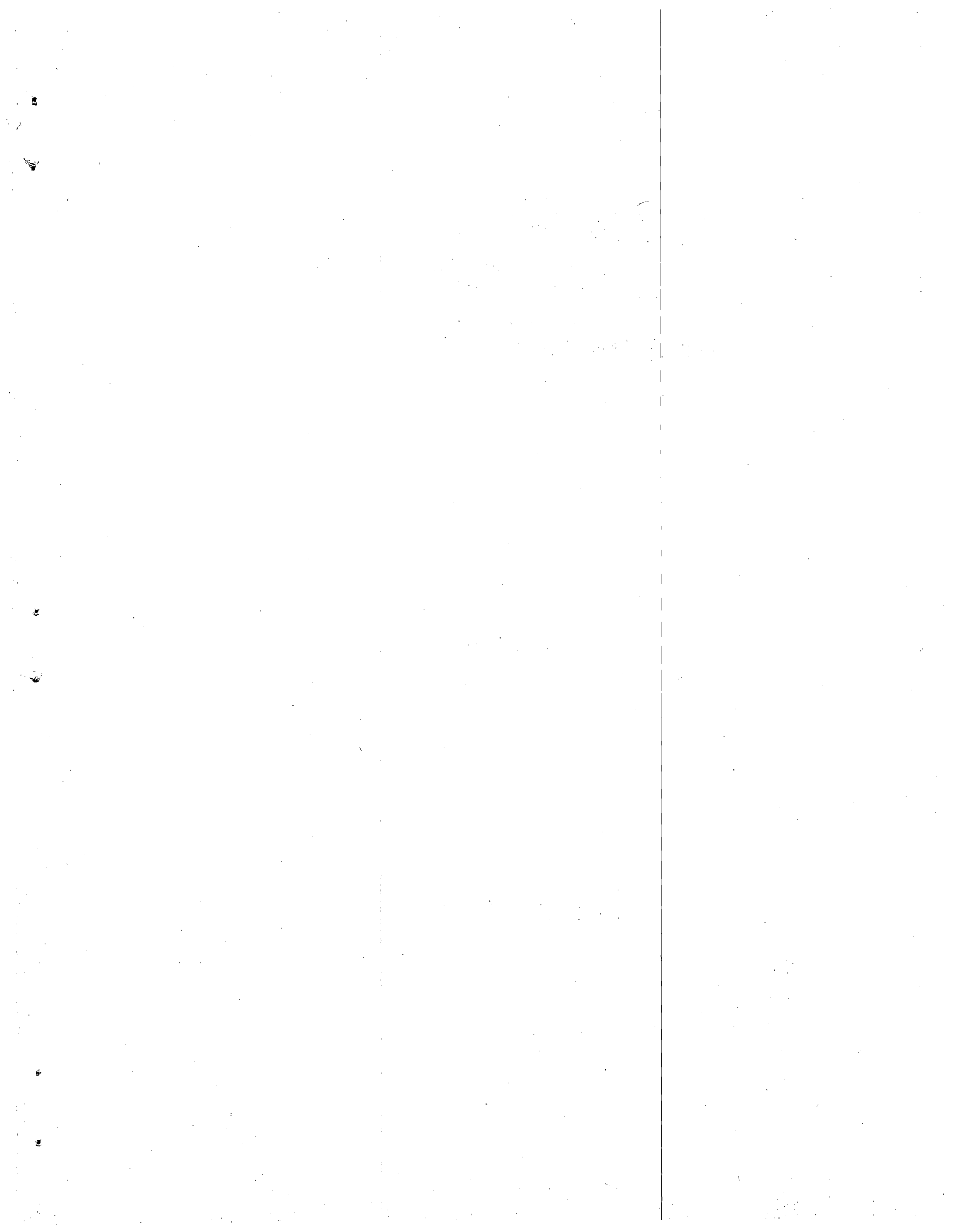
MARCH 1, 1971

THE NEW JERSEY DEPARTMENT OF TRANSPORTATION  
John C. Kohl, Commissioner

THE METROPOLITAN TRANSPORTATION AUTHORITY  
William J. Ronan, Chairman

THE PORT OF NEW YORK AUTHORITY  
Austin J. Tobin, Executive Director

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In March 1970, the Inter-Agency Task Force was established by Governor William T. Cahill of New Jersey and Governor Nelson A. Rockefeller of New York to determine the improvements required in interstate public transportation between the States of New Jersey and New York. The Inter-Agency Task Force is comprised of Commissioner John C. Kohl, New Jersey Department of Transportation; Dr. William J. Ronan, Chairman, Metropolitan Transportation Authority; and Mr. Austin J. Tobin, Executive Director of The Port of New York Authority.

The Inter-Agency Task Force, together with staff representatives of the three agencies, commenced this investigation immediately after the establishment of the Task Force in the Spring of 1970. This is the first report of the Inter-Agency Task Force.

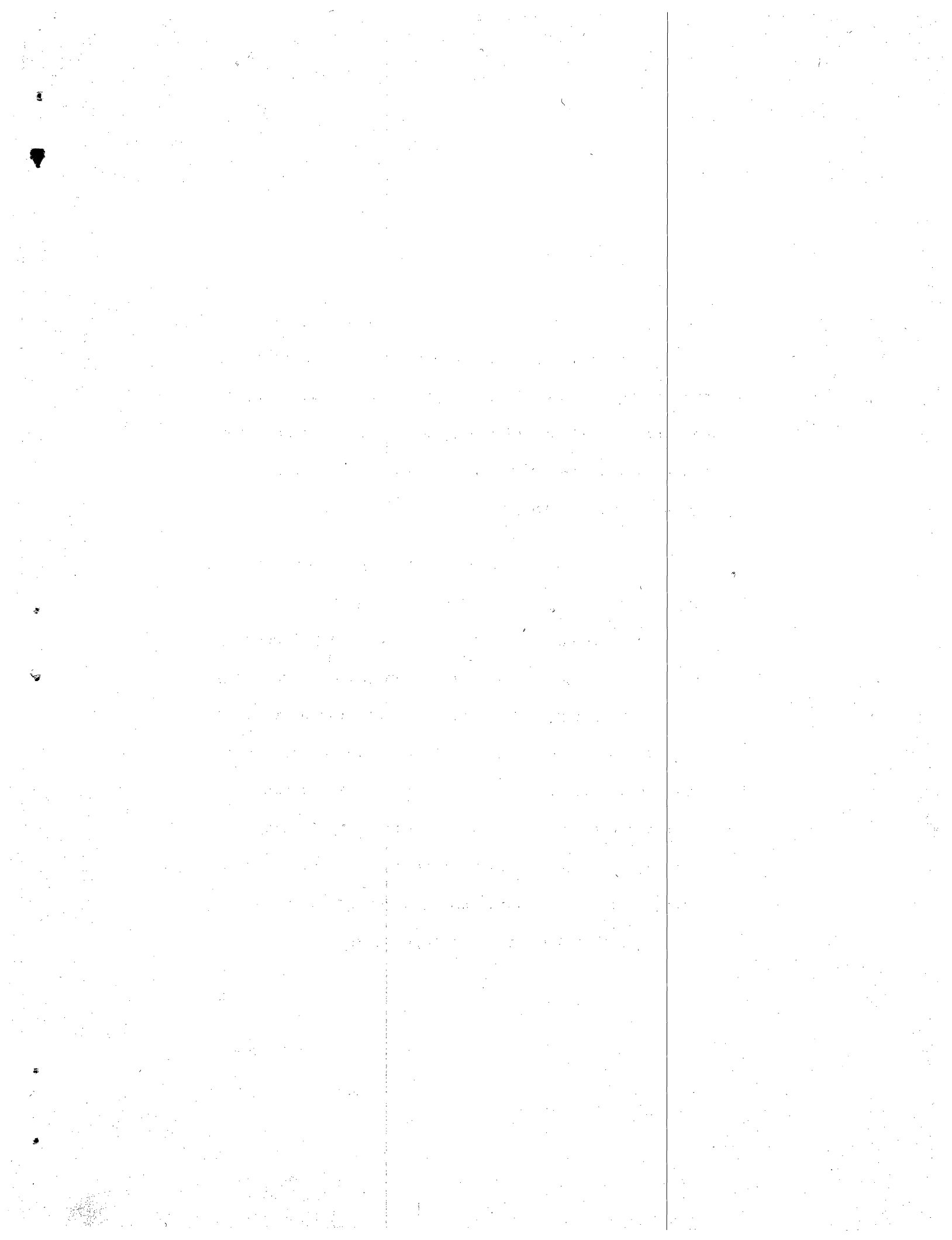
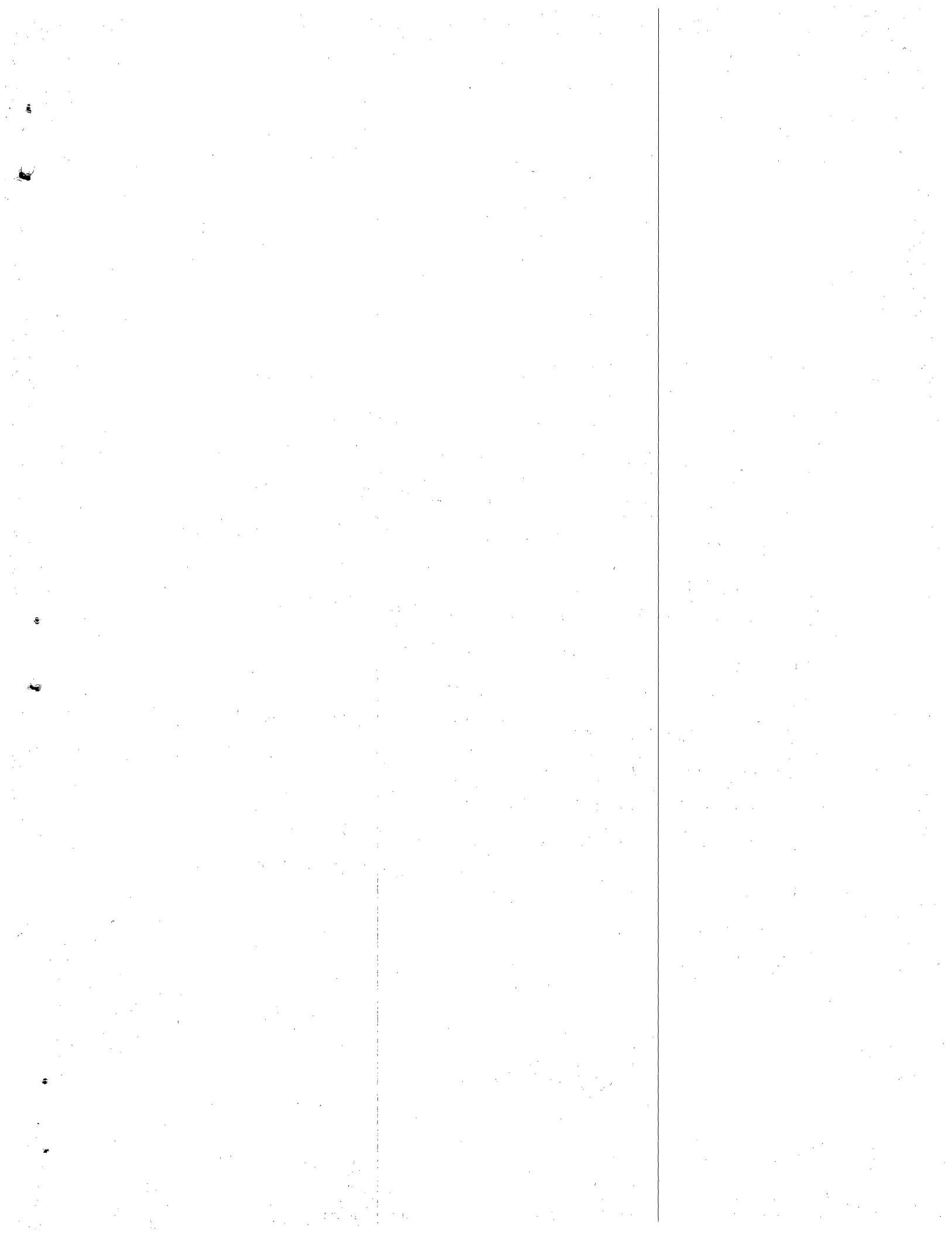


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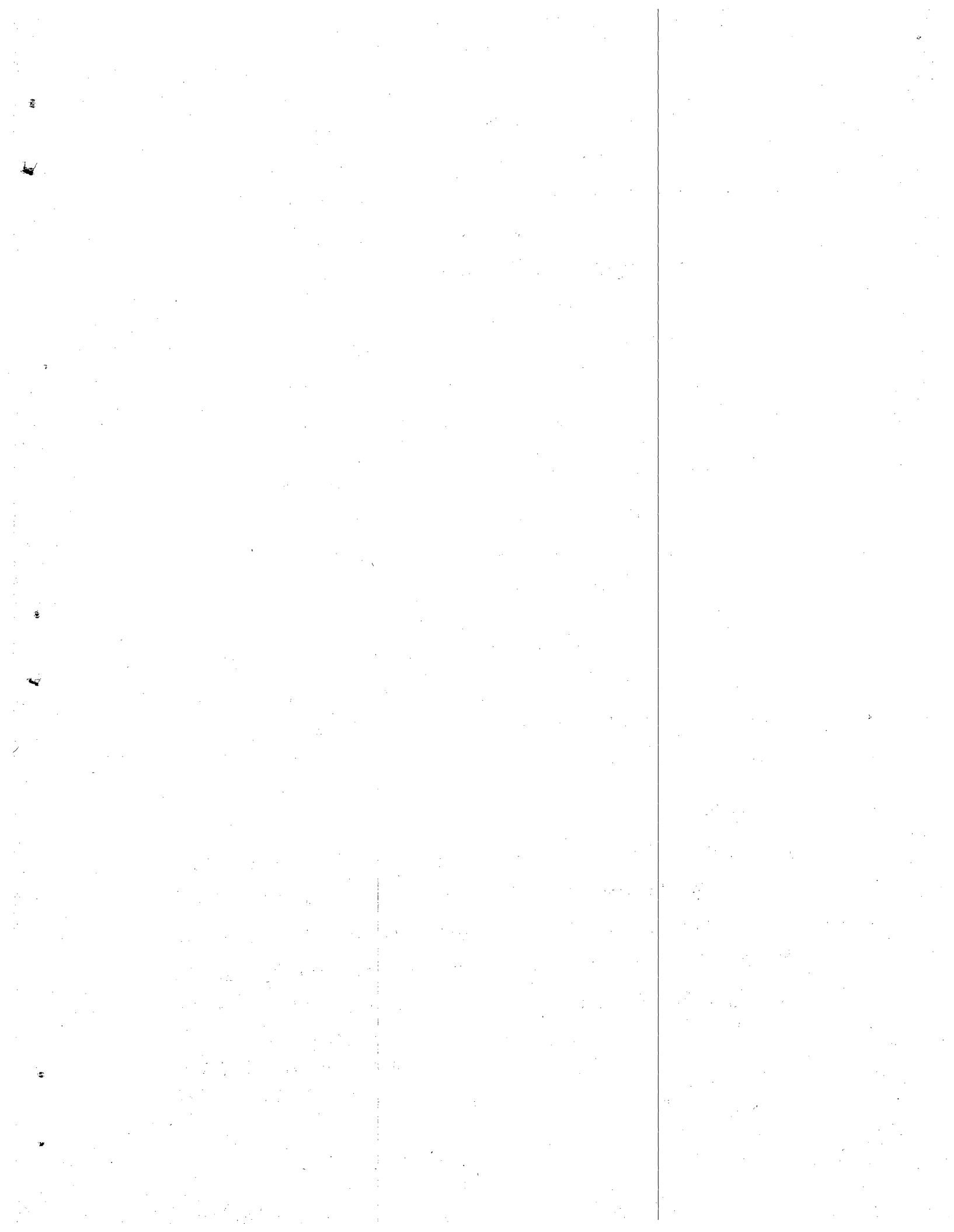


## SUMMARY OF RECOMMENDATIONS

The principal objective of the Task Force is to develop a program for the improvement of passenger travel across the Hudson River with the goal of an uninterrupted through trip for as many passengers as possible. This stems from Task Force findings that there will be a substantial deficiency in peak-hour trans-Hudson rail capacity in the coming years. A map of the area and facilities investigated is shown in Figure 1.

In order to achieve the several goals of the Task Force program as well as to overcome the deficiency in rail capacity, the principal recommendations of the Task Force are:

1. Construction of a new station on the Penn Central main line to provide demonstration-type rail service for the new Newark Airport complex in connection with an Inter-Terminal Transportation System.
2. Maximize the currently under-utilized capacity of Penn Station, New York, by:
  - Constructing the necessary connections and making other related improvements to permit trains from the Erie Lackawanna Railway system to operate to the New York terminal.
  - Modernizing the Central Railroad of New Jersey main line commuter service, including electrification, and re-equipping it with Jersey Arrow



type cars, to permit through service from Raritan, New Jersey, to the New York terminal.

3. Initiate detailed physical feasibility and engineering investigations on a new trans-Hudson rail tunnel to mid-Manhattan.

The Task Force regards the availability of vastly increased Federal funds for public transportation improvements under legislation approved this year as of great significance. These funds should provide major assistance in implementing the recommendations contained in this report.

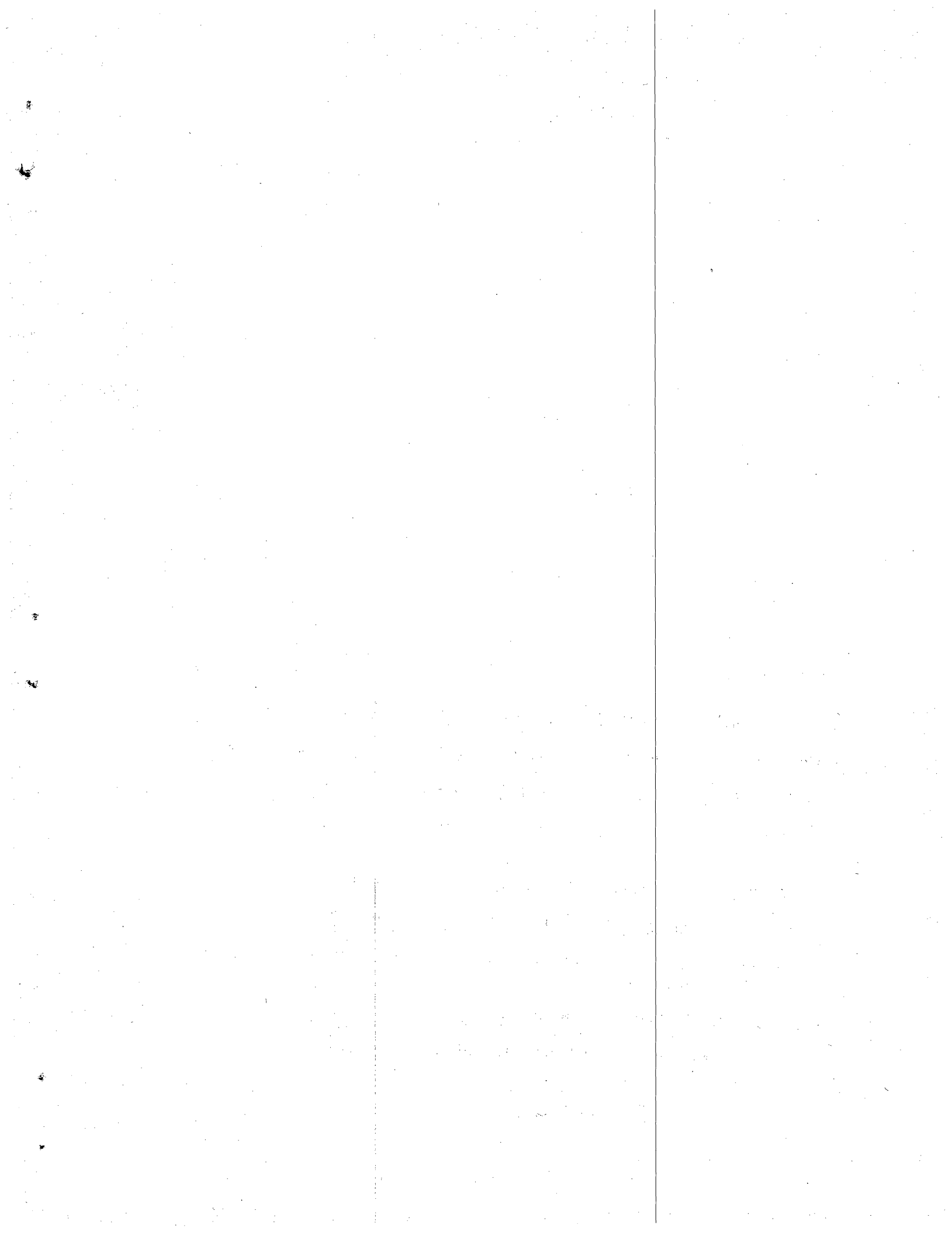
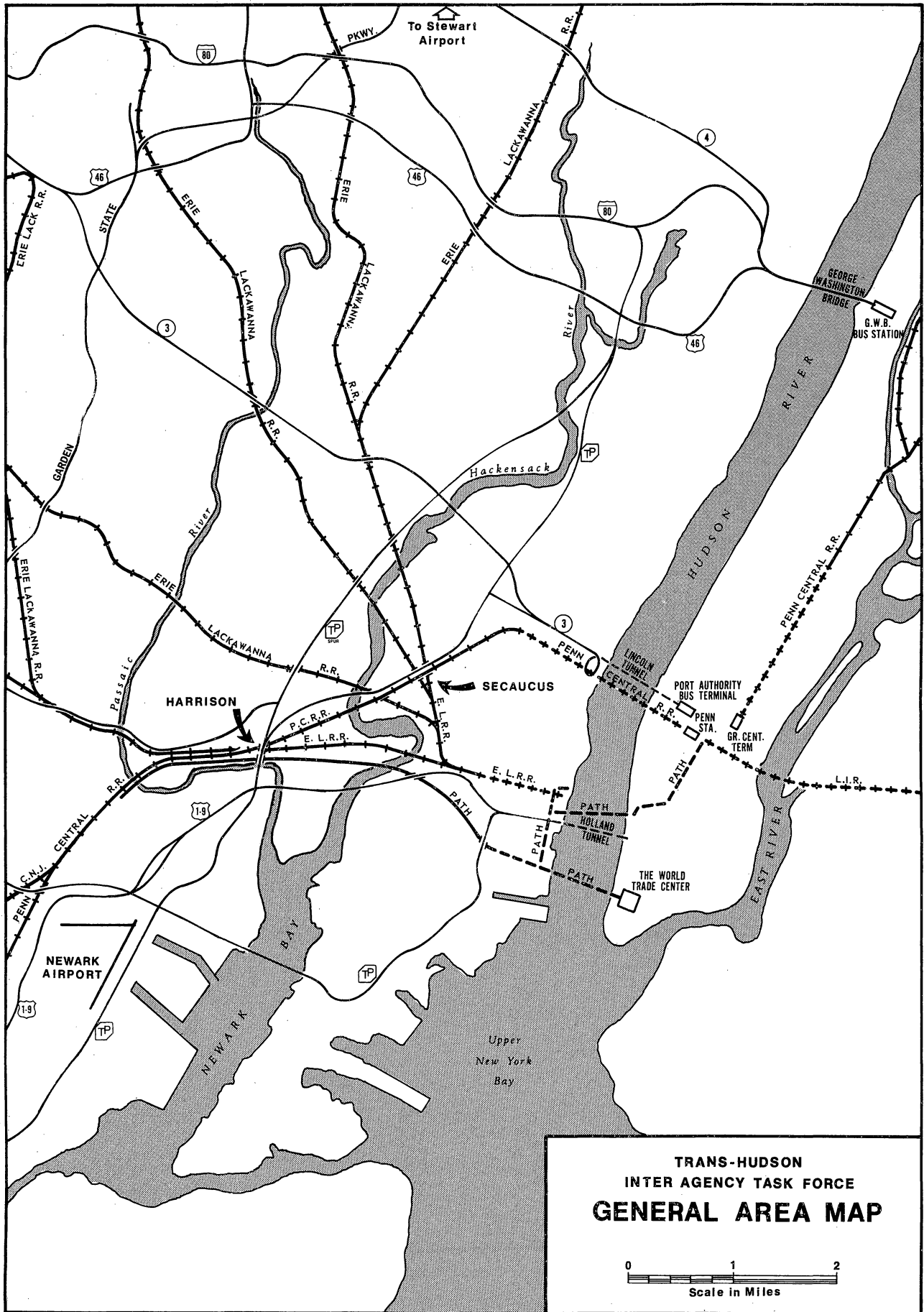
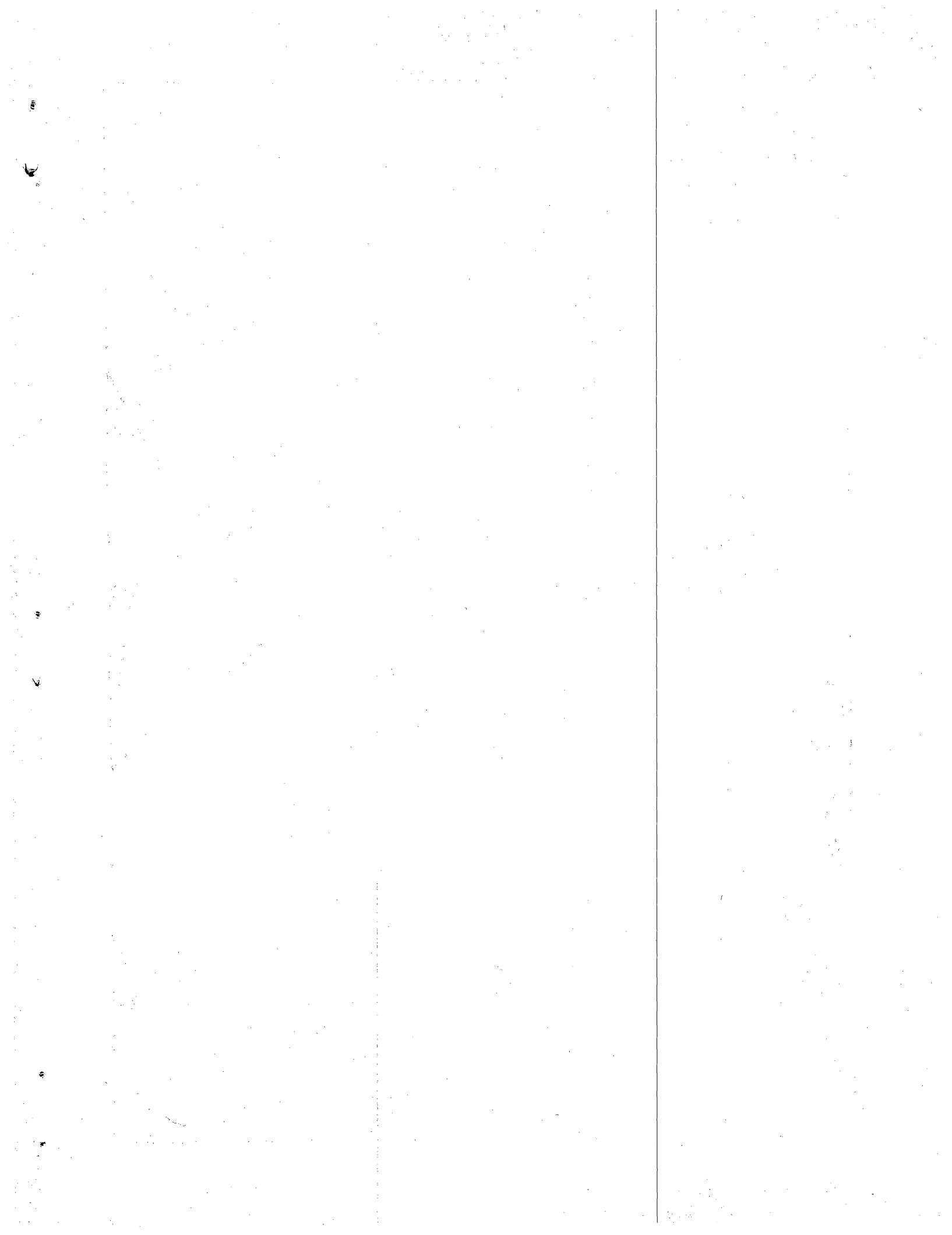


Figure 1



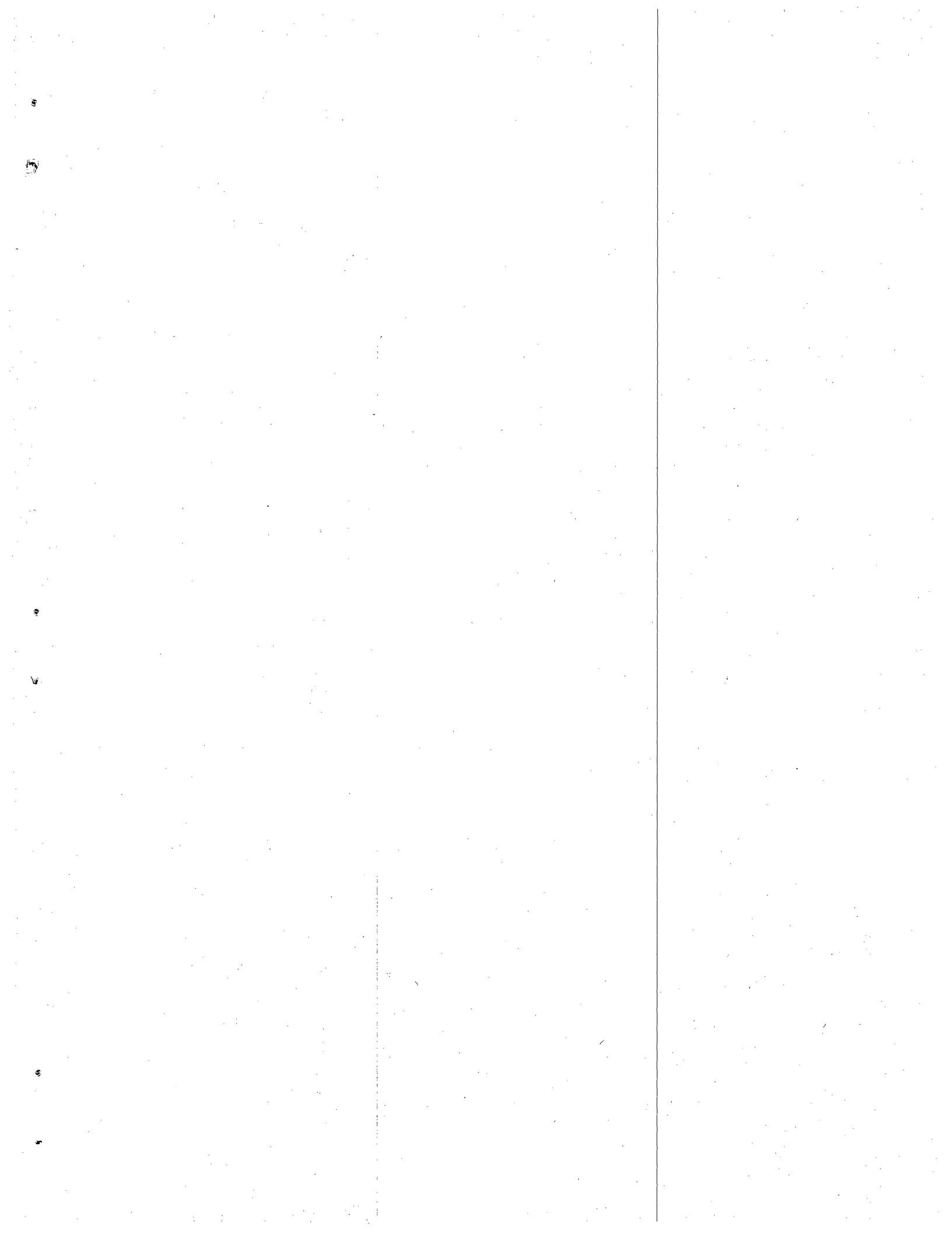


REGIONAL GROWTH AND TRANS-HUDSON TRAFFIC

Each of the region's major planning agencies - the Tri-State Transportation Commission, the Regional Plan Association, the New York City Planning Commission, The Port of New York Authority - agrees that there will be an upward and outward trend in regional population and jobs through the foreseeable future. Further, there is agreement that the white collar industries will absorb the greatest share of this growth and that, even with substantial development in suburban centers, the Manhattan Central Business District will continue as the focal point of such employment in this region.

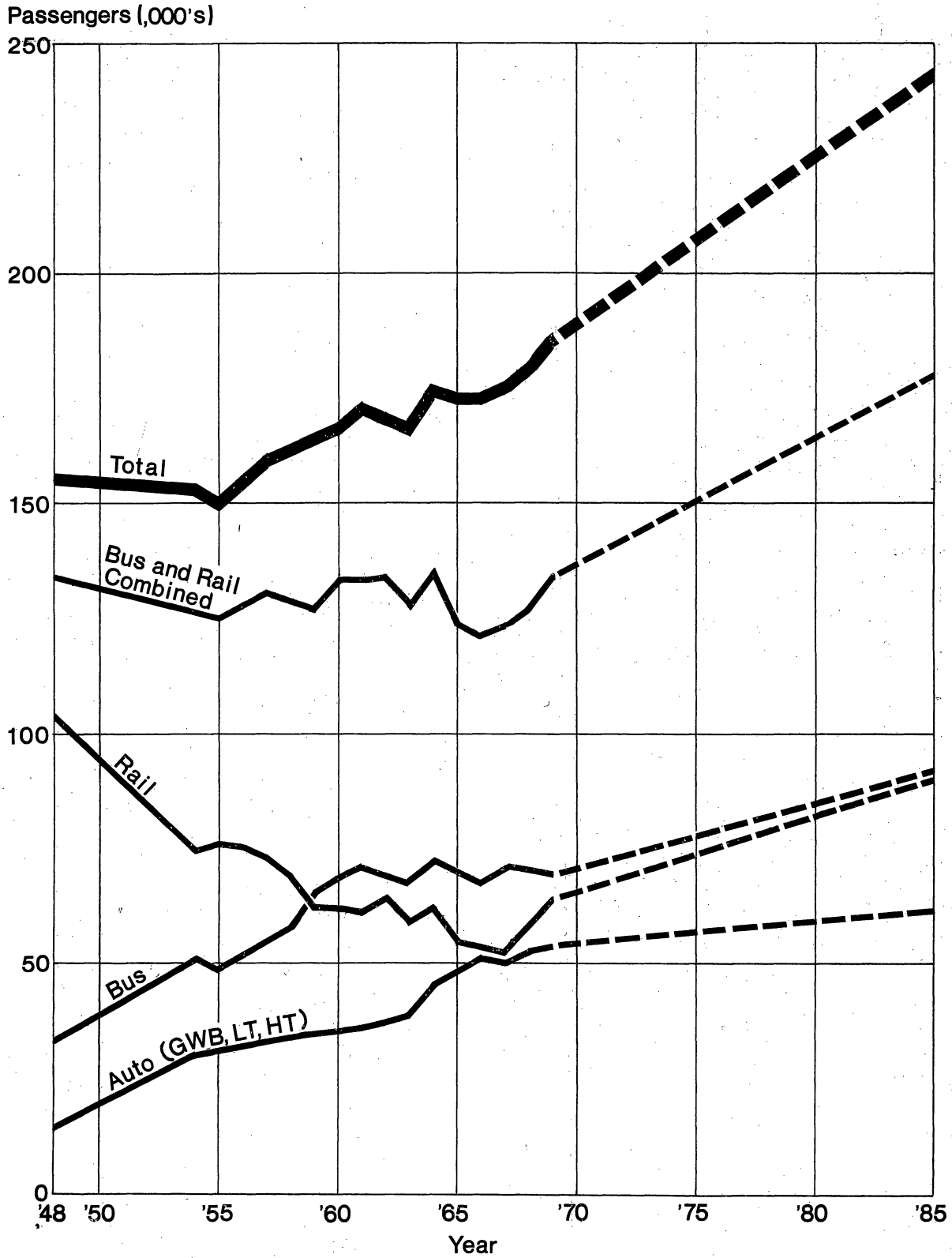
A major element in providing for the regional growth and development anticipated is adequate trans-Hudson transportation capacity. Based on computer analyses and forecasting models, it is estimated that the overall peak period (7-10 a.m.) demand for travel across the Hudson River between New Jersey and New York will grow, as shown in Figure 2, by more than 30 per cent between 1969 and 1985. In terms of eastbound passenger trips during this peak period, the growth would be from the current level of 186,000 to about 244,000 trips.

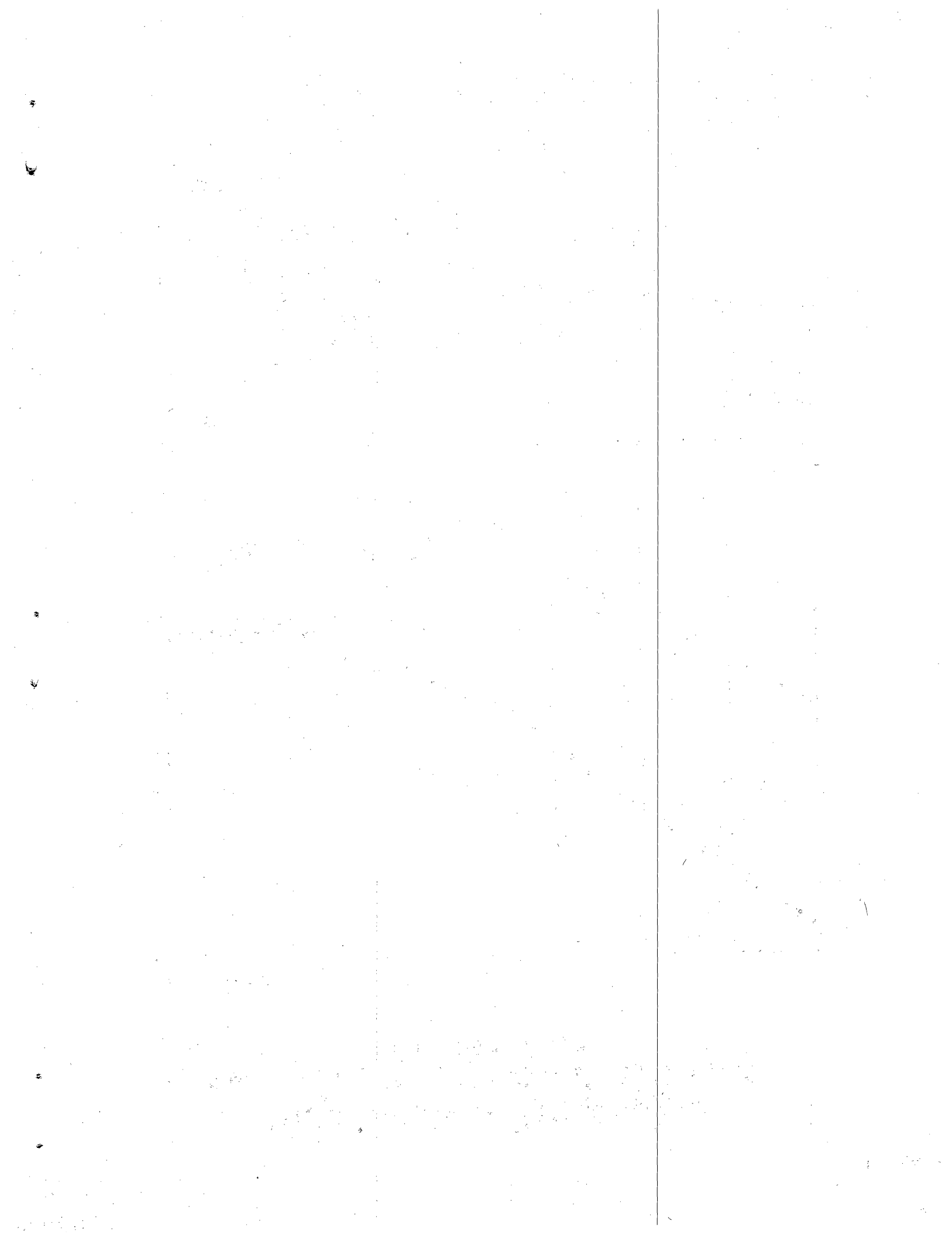
In addition, given adequate transportation, developments in Rockland and Orange Counties, New York, including Stewart Airport, could produce substantial additional demands for trans-Hudson travel.



# Trans-Hudson Passengers

Peak Period 7:00-10:00 A.M. Eastbound  
Rail, Bus, Auto

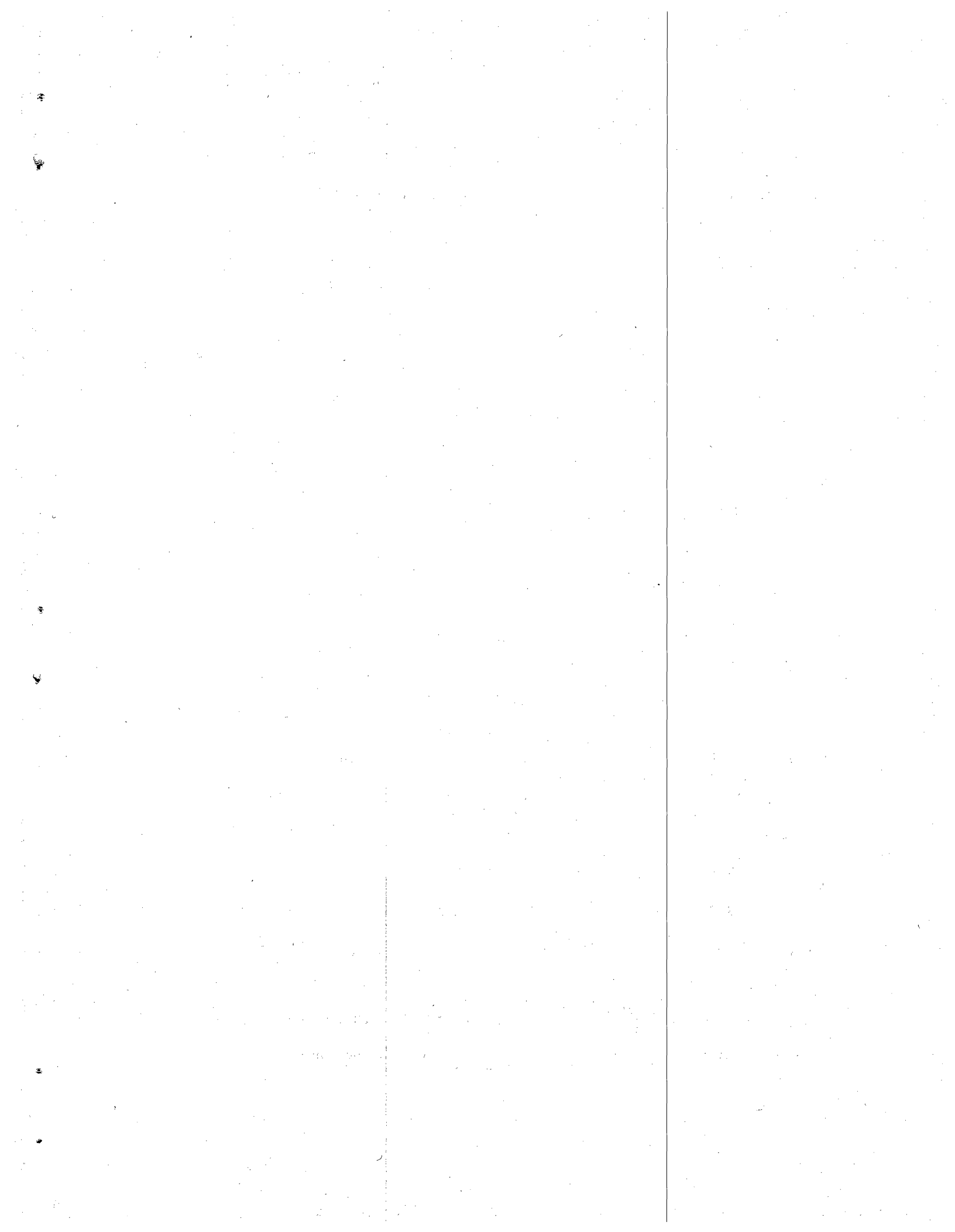




Based on analyses of origins, destinations, comparative travel times and costs, and other relevant factors, it appears that the largest portion of this overall growth will occur in the rail mode, for which a 43 per cent increase in basic demand for peak period travel is projected. As a basic demand forecast, this percentage growth is developed under the assumption that there would be no significant new trans-Hudson rail capacity additions. With the assumption of new or expanded trans-Hudson rail capacity, the demand figures could be significantly higher.

New Jersey's program for upgrading its suburban railroads and providing additional through services to Manhattan recognizes these projected needs in the early part of the forecast period. The same is true of the exclusive bus lane in the Lincoln Tunnel approaches and expansion of the Port Authority Bus Terminal in Manhattan. Additional studies, together with further experience, will be required to determine the nature, location, timing and effect on travel patterns of additional trans-Hudson capacity to meet long-term needs. The addition of such capacity in the future is a major objective of the Task Force.

At the same time, the Task Force recognizes the desirability of modern suburban rapid transit operations such as the Lindenwold line in southern New Jersey, and would recommend the development of such facilities where practical, both from a physical and institutional point of view.

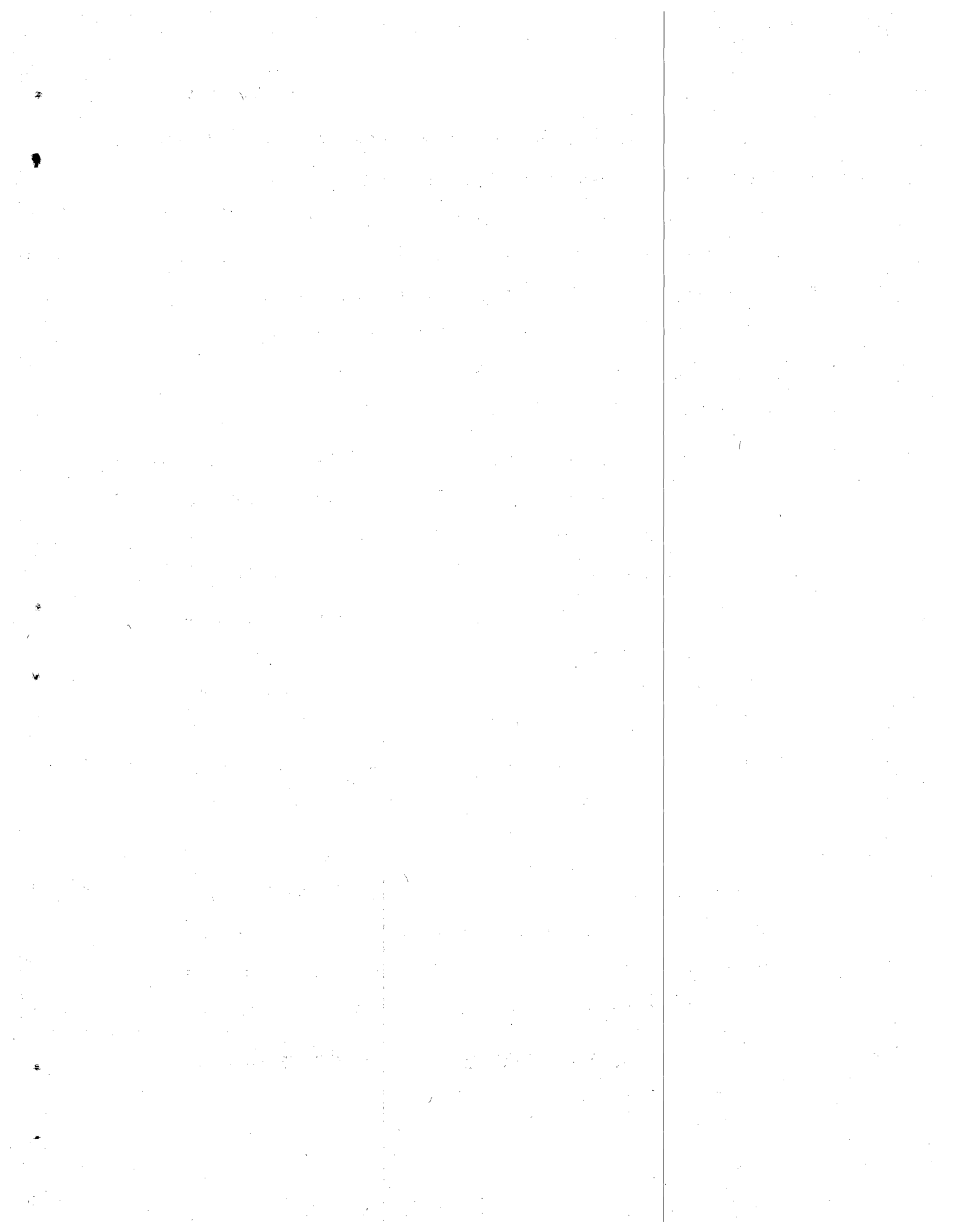


INCREASED UTILIZATION OF PENN STATION, MANHATTAN

One of the principal objectives of the Task Force is the provision of a through trip to and from Manhattan for as many persons as possible. This would enhance travel convenience and remove one of the greatest single deterrents to the use of public transportation from the rider's point of view.

The Penn Central Railroad has completed, at the request of and in cooperation with the New Jersey Department of Transportation, a study of the capacity of Penn Station. The principal conclusion of this study is that the Hudson River tunnels are capable of accepting 26 trains in one direction in the peak hour. This capability is based on a two-minute spacing between each of the 26 trains, with periodic gaps left to enable on-time performance to be maintained. The study also concluded that Penn Station could handle this number of trains as well as existing Long Island Rail Road service and planned service to Kennedy Airport with little modification.

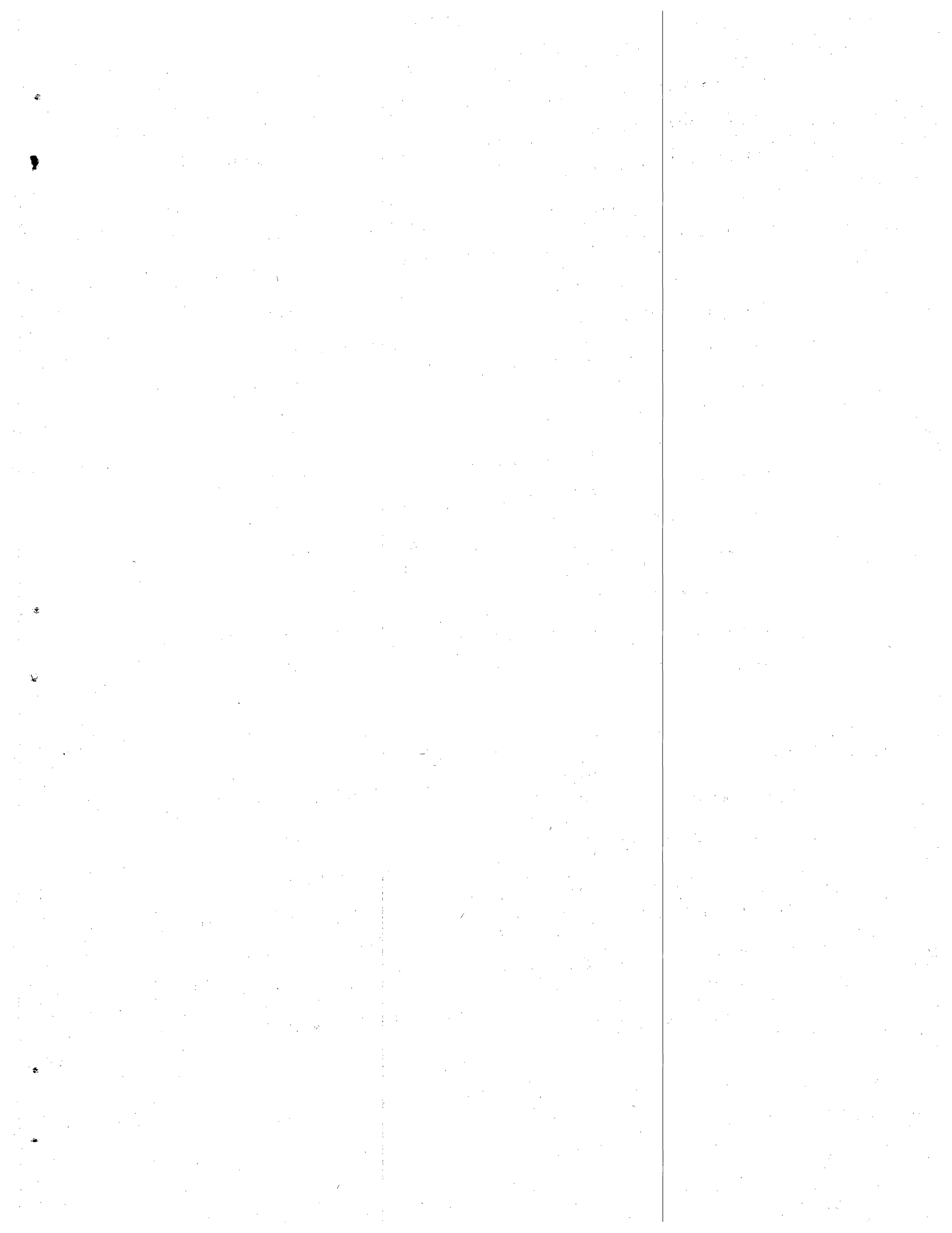
To obtain this under-utilized Penn Station capacity, certain rail connections must be built in New Jersey, an equipment storage yard must be built in the Meadowlands, basic changes must be made in the signal and communications systems, and all trains operated during the period of maximum traffic density must consist of high performance equipment. Trains of conventional equipment, hauled by locomotives, then must be scheduled outside of peak periods or be replaced by high performance equipment if they are to operate during the peak periods.



The 26 trains per hour rate described in the study appears to be a reasonable goal for planning future operations into Penn Station, and would provide sufficient capacity to handle all expected growth in traffic destined to Penn Station from its current market areas. However, this train capacity would be insufficient to serve the total needs for through service from all northern New Jersey and Rockland and Orange Counties, for which a minimum capacity of 38 trains would be required.

Several means of utilizing this additional Penn Station capacity are possible. Direct connections to the Penn Central tracks are feasible from the Morris & Essex lines of the Erie Lackawanna in the vicinity of Hudson interlocking, east of Harrison, New Jersey, and from the Bergen County lines of the Erie Lackawanna at Secaucus. A connection with the Jersey Central already exists. Construction of a transfer station at Secaucus is also possible but would require an additional stop for Manhattan-bound trains on the Penn Central.

None of the lines mentioned above currently use high performance equipment capable of operating into Penn Station. The Jersey Central is scheduled to be electrified with high performance equipment at some future date. The Morris & Essex lines are largely electrified and are scheduled to be re-equipped in the near future with high performance equipment. The Bergen County lines, which also serve Orange and Rockland Counties in New York, are in the process of receiving new diesel locomotives and coaches which are not compatible with Penn

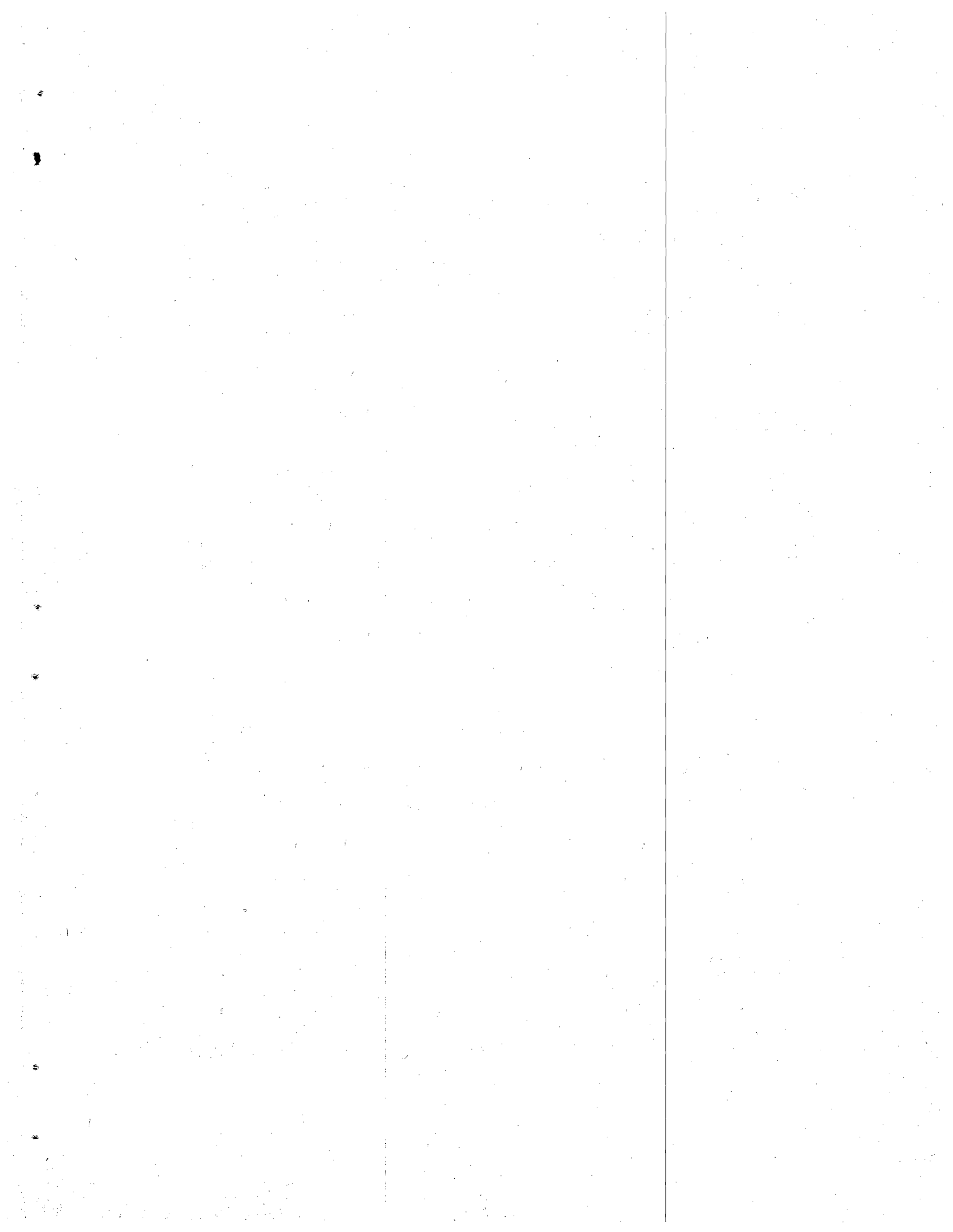


Station operation. The MTA, however, is preparing to purchase gas turbine electric cars for possible use on these lines. These cars will have the high performance capability necessary for operation into Penn Station.

Several factors, in addition to equipment and operational compatibility, must enter into the decision as to which lines will have access to Penn Station. Among these are the benefits to current rail passengers, the potential for additional usage, and the cost of providing the connection or transfer facility.

It appears unlikely that capacity is available to provide sufficient service from all possible routes. Thus, a choice must be made. To assist in this choice, each alternative was considered with regard to the above described factors. For example, of these alternatives, the Morris & Essex connection would produce the highest level of benefits to current rail users, the CNJ connection would have the lowest construction cost, while a direct connection for the Erie Lackawanna Bergen County lines would have the greatest potential for additional usage.

Implementation of the Penn Station program, including the construction of the necessary connections with the other railroads represents the major opportunity to provide a through ride to Manhattan from those areas of New Jersey and New York west of the Hudson



River which are not now enjoying through service. This through service could be provided in a reasonably short time, possibly a decade sooner than service via a new rail tunnel crossing of the river.

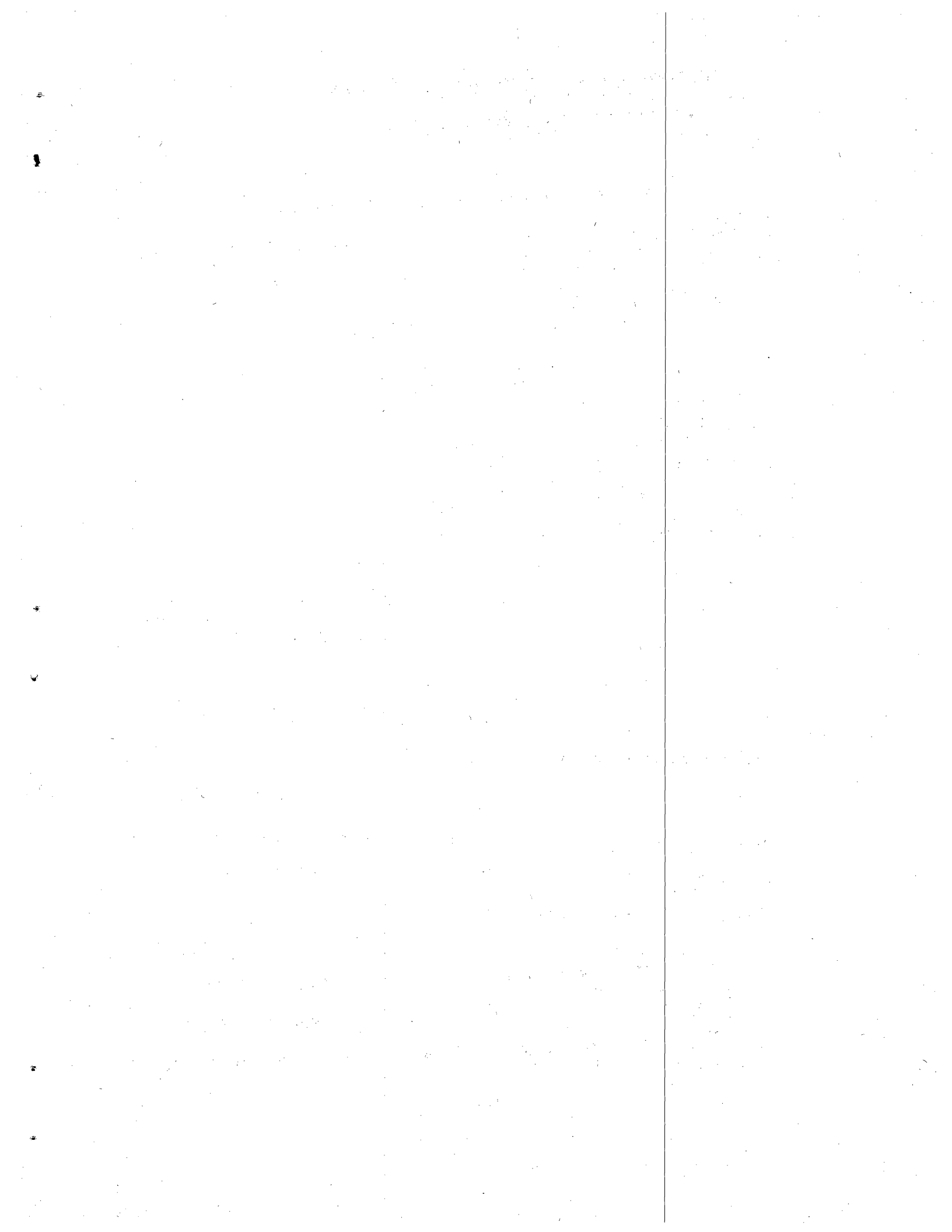
Since none of the rail lines under consideration has equipment capable of operating into Penn Station, some lead time is available for thorough design of an implementation program for Penn Station access.

The Task Force, therefore, recommends that work begin immediately to develop such a program. The following should be included.

1. Operating plans for the provision of service from each connecting route into Penn Station, including proposed train schedules. Such operating plans should provide for an equitable division of capacity among routes. Attention should be paid to the possibility of consolidating and rescheduling trains so that capacity and usage of Penn Station, Manhattan, can be placed in better balance.

Operation of trains from routes that will not operate into Penn Station should be examined. In particular, the removal of Morris & Essex trains from Hoboken to a Meadowlands transfer point should be considered.

The effects of Penn Station access on other transportation facilities needs to be examined. In



particular, an operating plan would be required for Port Authority trans-Hudson (PATH) service based on the substantial redistribution of travel that would result from Penn Station access. Also, the effects on trans-Hudson bus service should be investigated.

2. Detailed engineering design and cost estimates of all elements of the project. This would include items essential to the operation of Penn Station services as well as optional items of construction that would improve operations but are not essential for Penn Station access.

In addition, necessary equipment and facilities of the connecting lines would be part of these considerations. The items to be investigated include:

Harrison Connection between the Morris & Essex and the Penn Central lines.

Secaucus Connection between the Bergen County lines and the Penn Central.

Secaucus transfer facilities.

Train storage yard facilities in the Meadows.

A new Hackensack River railroad bridge.

A third track on the Penn Central "high line," on western approach to the portal tunnel.

Penn Station platform and passenger access improvements.

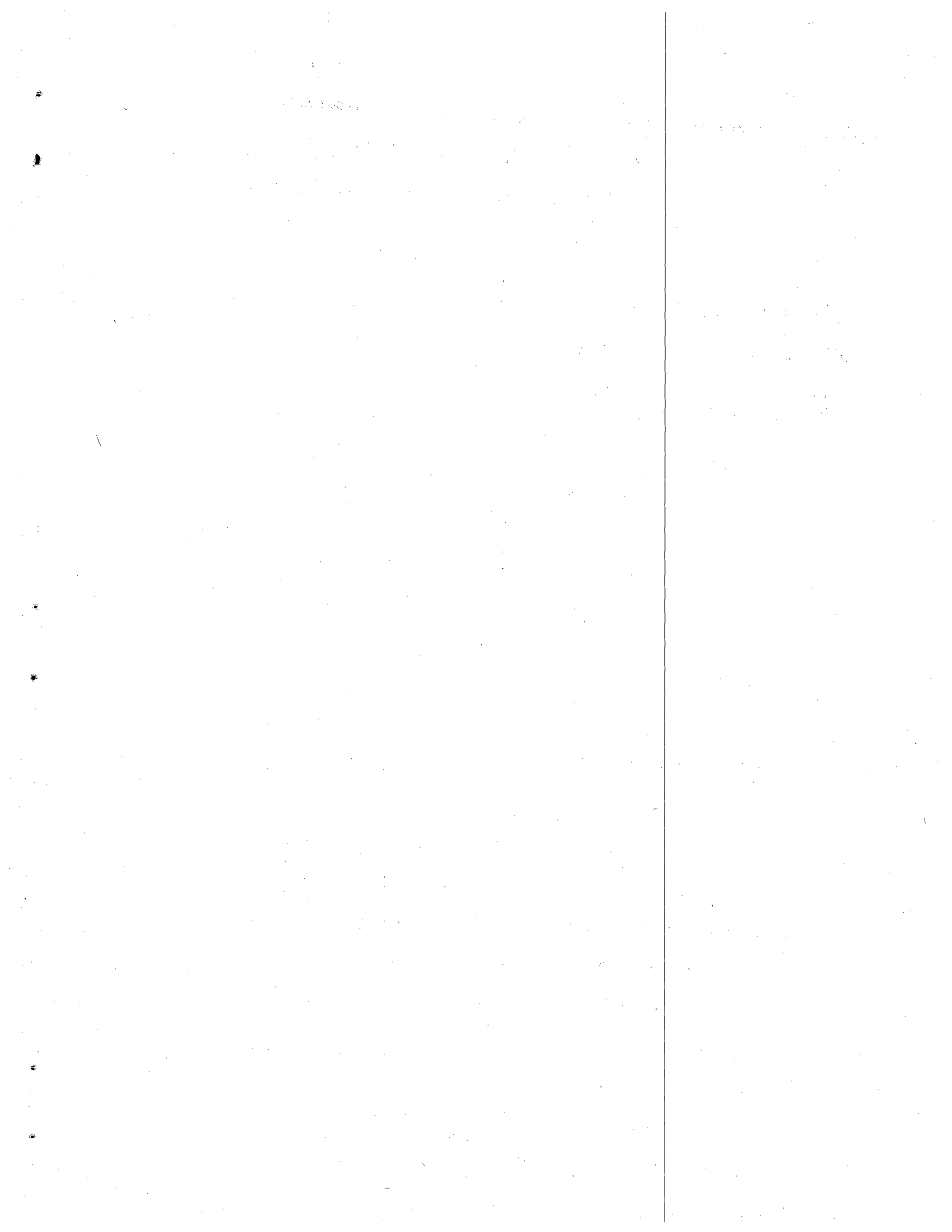


While preparation of the implementation program is underway, it is strongly urged that no program be adopted that would preclude the entry of any of the Erie Lackawanna or Jersey Central lines into Penn Station. In this regard, it is recommended that rolling stock to be acquired in the Morris & Essex re-equipment program be capable of operation into Penn Station.

A special group should be formed to undertake the preparation of the detailed operating and engineering plans for Penn Station access. This group should be composed of representatives of the New Jersey Department of Transportation, the Metropolitan Transportation Authority and The Port of New York Authority.

#### ADDITIONS TO TRANS-HUDSON PASSENGER CAPACITY

The estimated 30 per cent increase in total peak period eastbound trans-Hudson passenger trips and the estimated 43 per cent increase in the basic demand for peak period trans-Hudson rail passenger trips make the provision of additional trans-Hudson capacity imperative. The only readily available additional capacity is represented by a possible increase in the number of peak hour trains that could be handled at Penn Station and the greater train lengths made possible by the PATH's new World Trade Center Terminal. It should also be noted that the provision of through rail service will, in itself, affect basic travel demand patterns, concentrating greater volumes of traffic at the terminals with through rail service at the expense of other modes and facilities.

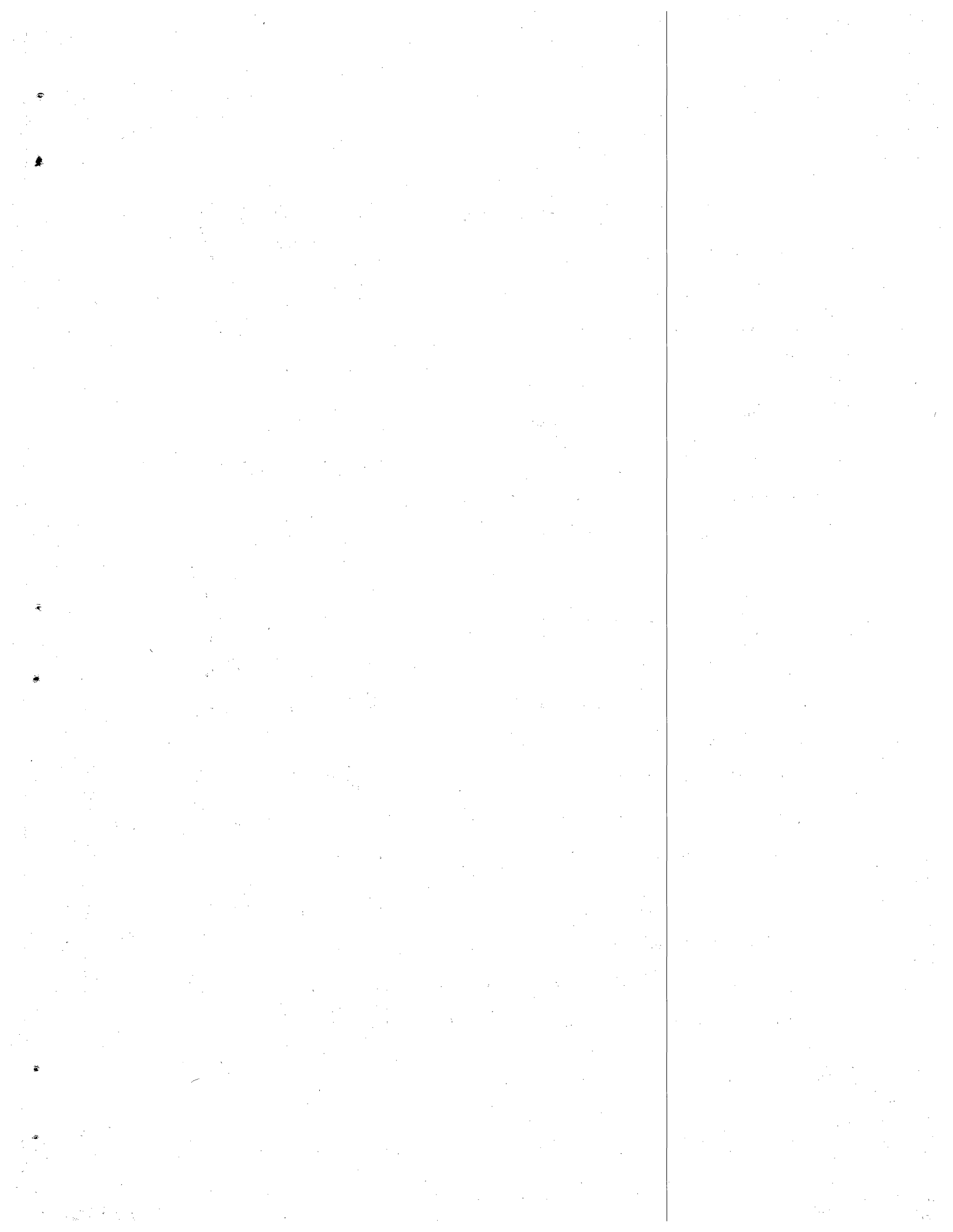


Indications are that only a limited number of additional buses will be handled by the Lincoln Tunnel and its access roads. As a result, a substantial deficit in trans-Hudson peak period passenger capacity is projected over the next decade.

It appears, therefore, that the long term needs of trans-Hudson travelers could best be met by a new rail tunnel into mid-Manhattan north of 42nd Street, with a terminal closely coordinated with existing and planned transit and other facilities in Manhattan. This rail tunnel would accommodate the substantial growth expected on the existing rail system, and would handle the likely diversion of travel from other crossings and modes to the more desirable through rail services.

The Metropolitan Transportation Authority is in the process of developing plans for a crosstown "people-mover" system along 48th Street in mid-Manhattan. This facility could well serve as a principal distributor of trans-Hudson rail passengers using the new tunnel.

An alternative is an additional trans-Hudson rail tunnel into Penn Station. However, the problems of expanding the station and distributing larger numbers of people from this already heavily utilized location may make this alternative less desirable. There also may be other alternatives which should be considered.



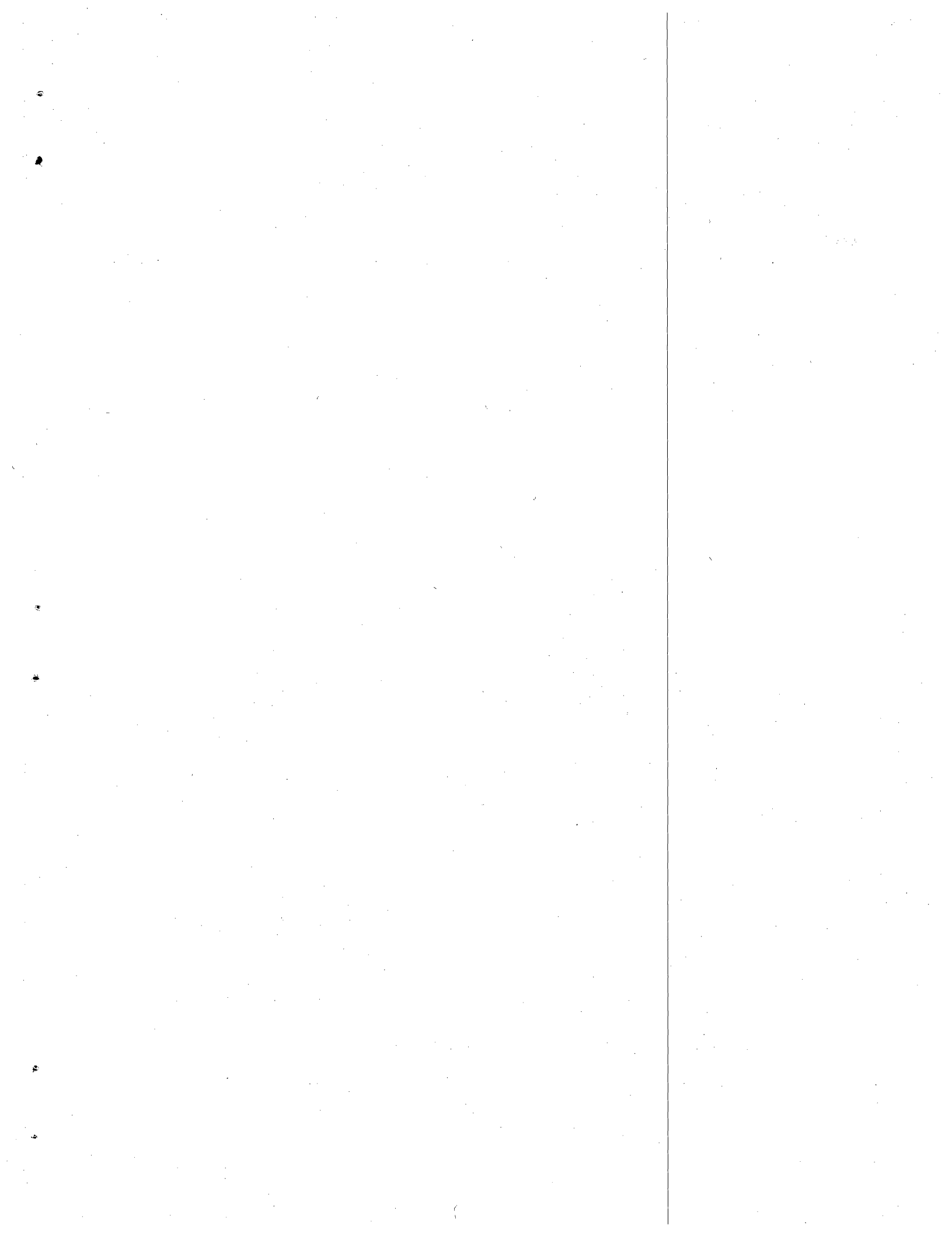
Based on recent experience, a decade of lead time is required from the inception of a project of this size to its completion. Therefore, it is necessary to begin intensive study immediately for the development of new trans-Hudson rail passenger capacity into mid-Manhattan so that the additional capacity will be available when it is needed.

It is recommended that a special group composed of representatives of the New Jersey Department of Transportation, the Metropolitan Transportation Authority and The Port of New York Authority be formed under the chairmanship of The Port of New York Authority to progress detailed physical feasibility and engineering investigations of a new rail tunnel as soon as possible. At the same time, steps should be taken to implement the Task Force recommendations on the maximum utilization of Penn Station.

#### MODERNIZATION OF THE JERSEY CENTRAL COMMUTER SERVICE

The Task Force has considered at some length the alternative approaches to a modernization of the main line service of the Jersey Central. For more than a year, the New Jersey Department of Transportation and the Port Authority staffs had collaborated on a study of the possibilities of:

- (1) Modernization of the Jersey Central as a commuter railroad which would involve new electrification with new Jersey



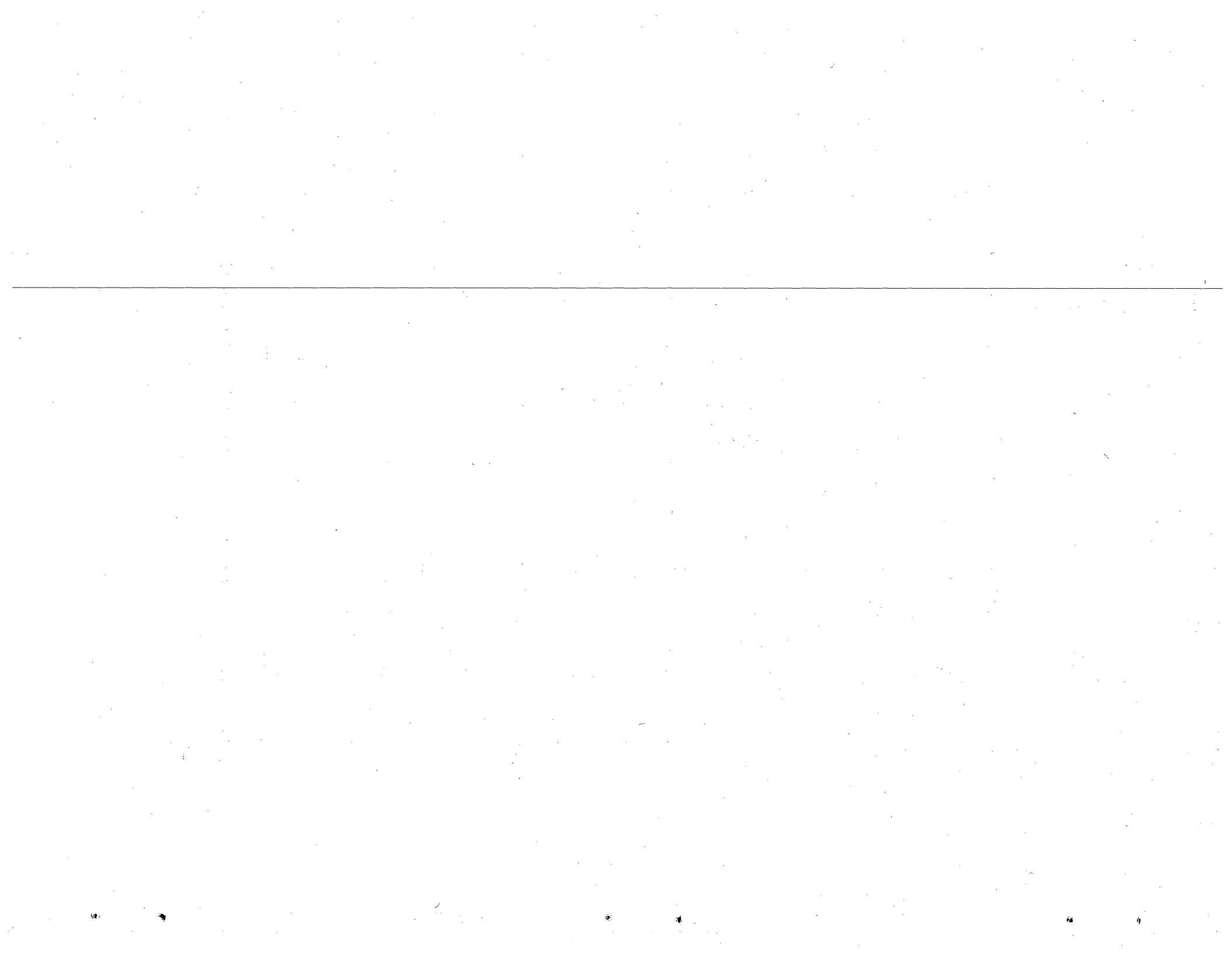
Arrow type cars, high level platforms and other station improvements; and

(2) Conversion of the Jersey Central commuter service to a transit-type operation as part of PATH, extending from Newark to Raritan.

It has been concluded that the Jersey Central modernization should proceed as a commuter railroad improvement and that the alternative of a transit service on the main line be discarded. This decision is based largely on the constraints imposed by the small size of PATH equipment. Such equipment would require a substantial increase in the number of trains needed to handle the present Jersey Central traffic as compared to a railroad service. Furthermore, the downtown PATH tunnels do not have the capacity to accommodate the number of trains needed to handle the projected Jersey Central traffic.

The proposed commuter railroad improvements, including electrification compatible with the Penn Central, will enable trains from the Jersey Central main line to continue beyond Newark as through service into Penn Station.

It is recommended that a program be implemented at the earliest possible time to provide modern commuter rail service on the Jersey Central between New York, Newark and Raritan.

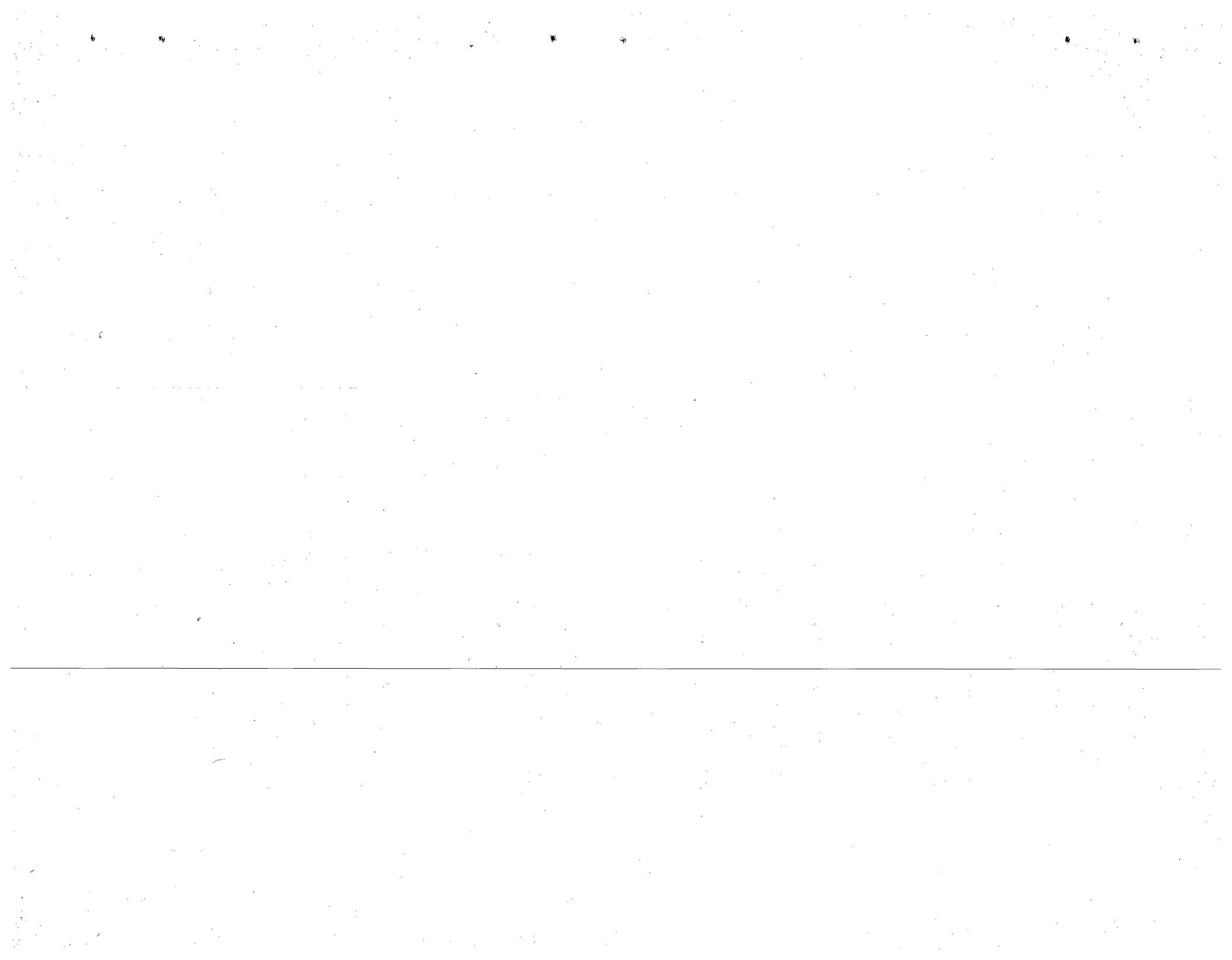


NEWARK AIRPORT RAIL ACCESS

The Task Force has carefully considered the matter of rail access to the redeveloped Newark Airport, where the first of three new terminal buildings is expected to be completed and opened in 1972. There is a general consensus among the Task Force representatives that when completed, the arterial highway system serving Newark Airport will give unparalleled access. Interstate Route 78, U.S. Route 1, U.S. Route 22, the New Jersey Turnpike and, hopefully, Route 81 in the future, will provide excellent highway arterials in all directions with sufficient capacity to serve airport-oriented traffic as well as the far larger volumes of other traffic.

The Task Force believes that, in addition to this excellent highway access, it nevertheless is desirable to proceed with plans to establish a demonstration-type rail service for the airport on the main line of the Penn Central, which would be connected to the airport by an Inter-Terminal Transportation System. The Inter-Terminal Transportation System would carry passengers and baggage from a proposed rail station on the Penn Central to the various airline facilities and would also serve the many thousands of workers expected to be employed at the new Newark Airport complex.

It is recommended that detailed planning studies be undertaken to identify feasible alternatives with the objective of determining whether a rapid transit service, an extension of the

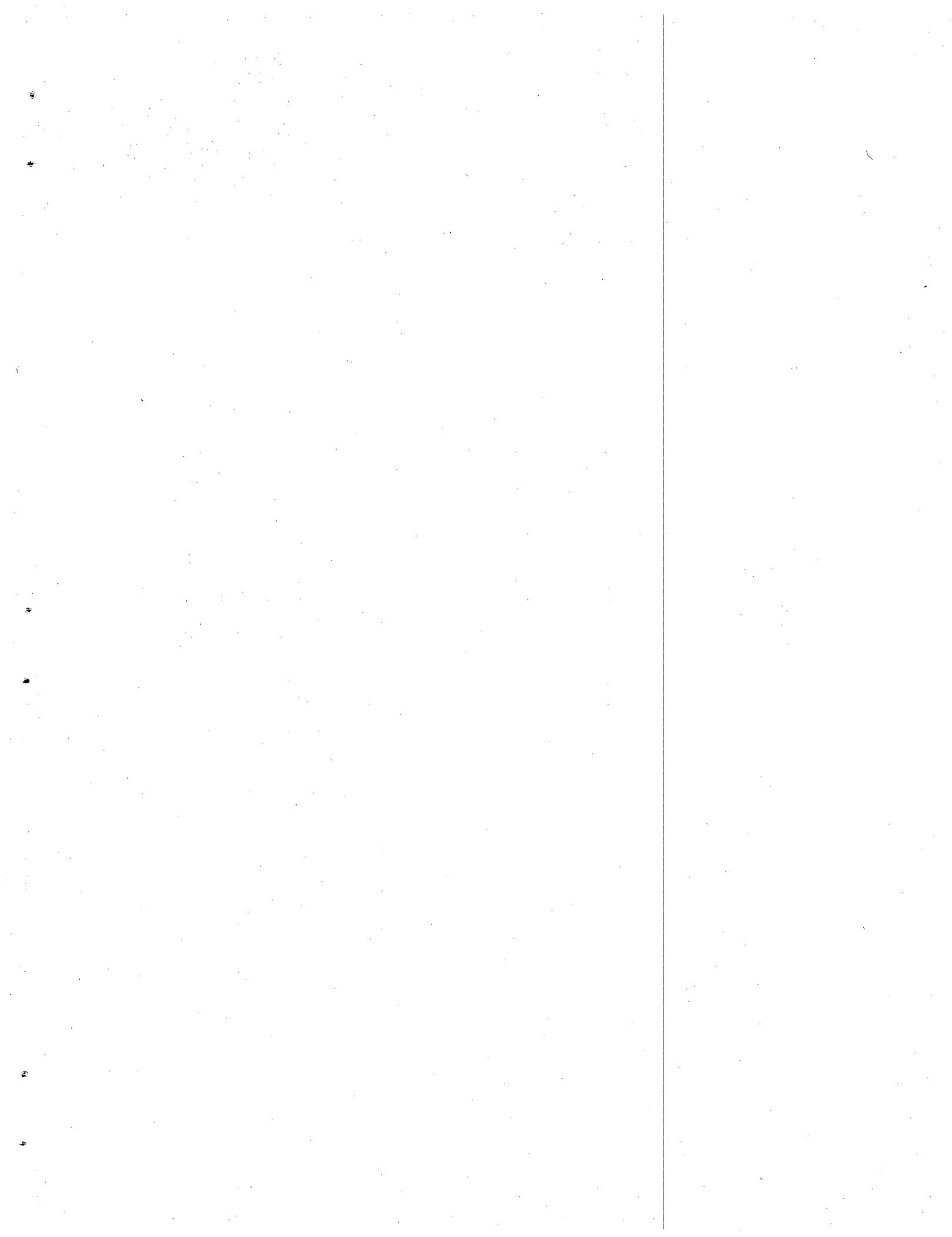


Newark subway, or both, could supply direct service to the point at which the Inter-Terminal Transportation System and the Penn Central main line are planned to connect. In this way, service on the Penn Central could be supplemented by these other facilities. The New Jersey Department of Transportation, the Port Authority and the Penn Central will continue to explore the feasibility of such service during the next few months.

#### STEWART AIRPORT RAIL EXTENSION

Interstate public transportation planning should take into account the fact that on March 1, 1970, the MTA assumed control of Stewart Airport (formerly Stewart Air Force Base) and operates this field as a general aviation airport. The New York State Legislature in 1970, authorized the construction of a railroad extension from the Erie Lackawanna's Graham Line to Stewart Airport. The MTA has begun aerial mapping of the route and is selecting a consultant to design the extension.

MTA plans for the airport contemplate, among other proposals, the development of an intermodal transportation center at Stewart Airport to be served by the railroad extension. The construction of a direct connection at Secaucus, New Jersey, however, is necessary in order to provide through rail service between Penn Station, New York, and Stewart Airport.



GAS TURBINE ELECTRIC RAIL CARS

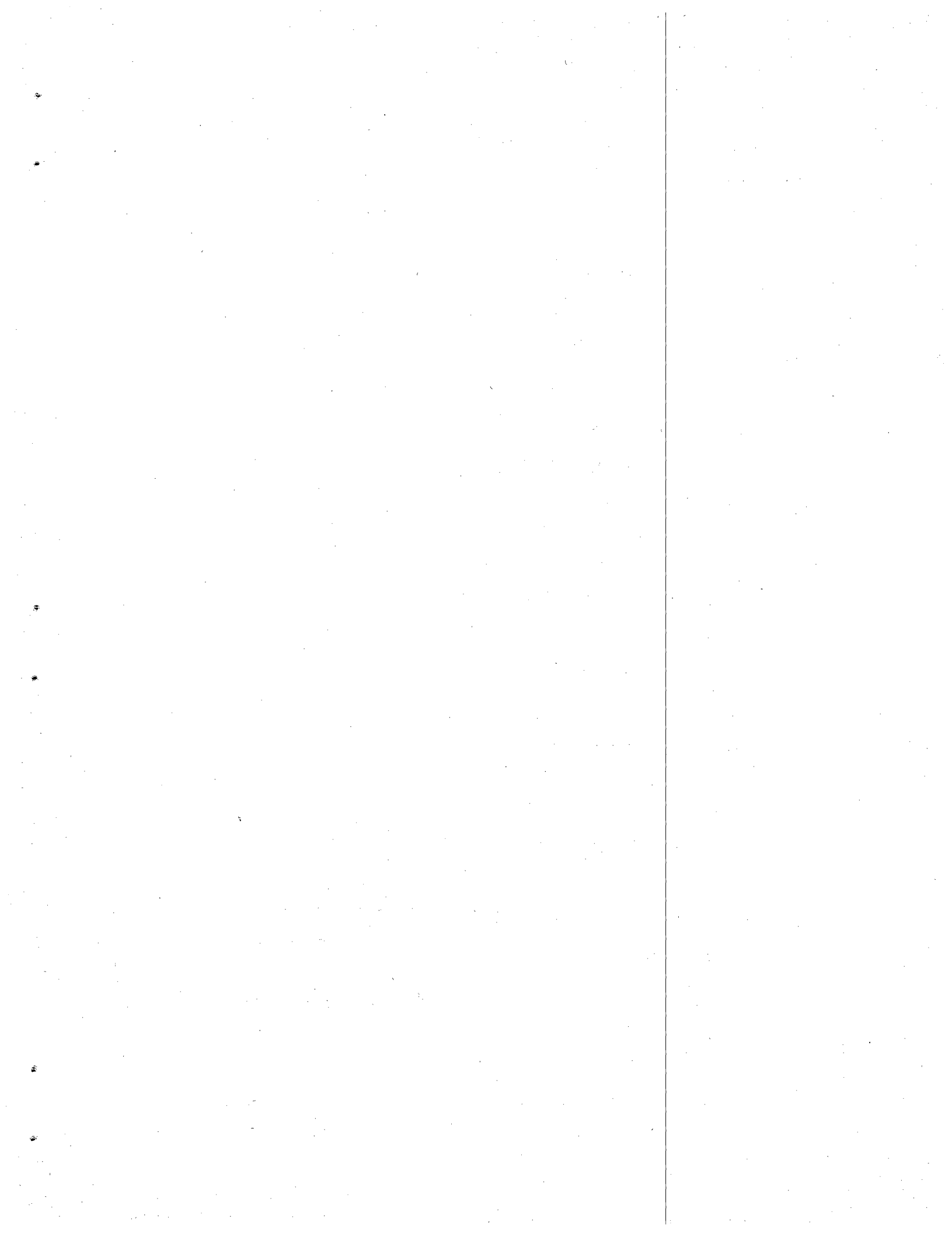
The Metropolitan Transportation Authority is in the process of obtaining a prototype group of high performance passenger-carrying gas turbine electric rail cars. These cars would be placed in revenue service, including service to Orange and Rockland Counties and should be capable of operating into Penn Station, Manhattan.

The MTA has conducted considerable research on this type of railroad equipment and the GT-1 and GT-2 tests on the Long Island Rail Road have demonstrated the technical feasibility of such cars. Further work has been done (with financial assistance from the State of New Jersey) on the preparation of specifications for revenue passenger cars.

Such equipment, if it proves to be reliable and economical in operation, would eliminate the need for electrification of low density rail lines, and at the same time, provide through service into Manhattan's tunnels and underground terminals. Trans-Hudson services which could be made possible by such equipment include the outer portion of the New York & Long Branch, the Reading, and the Erie Lackawanna lines into Orange and Rockland Counties.

EXCLUSIVE BUS LANE

The Inter-Agency Task Force, in its early deliberations, established as an objective a substantial improvement in bus operation



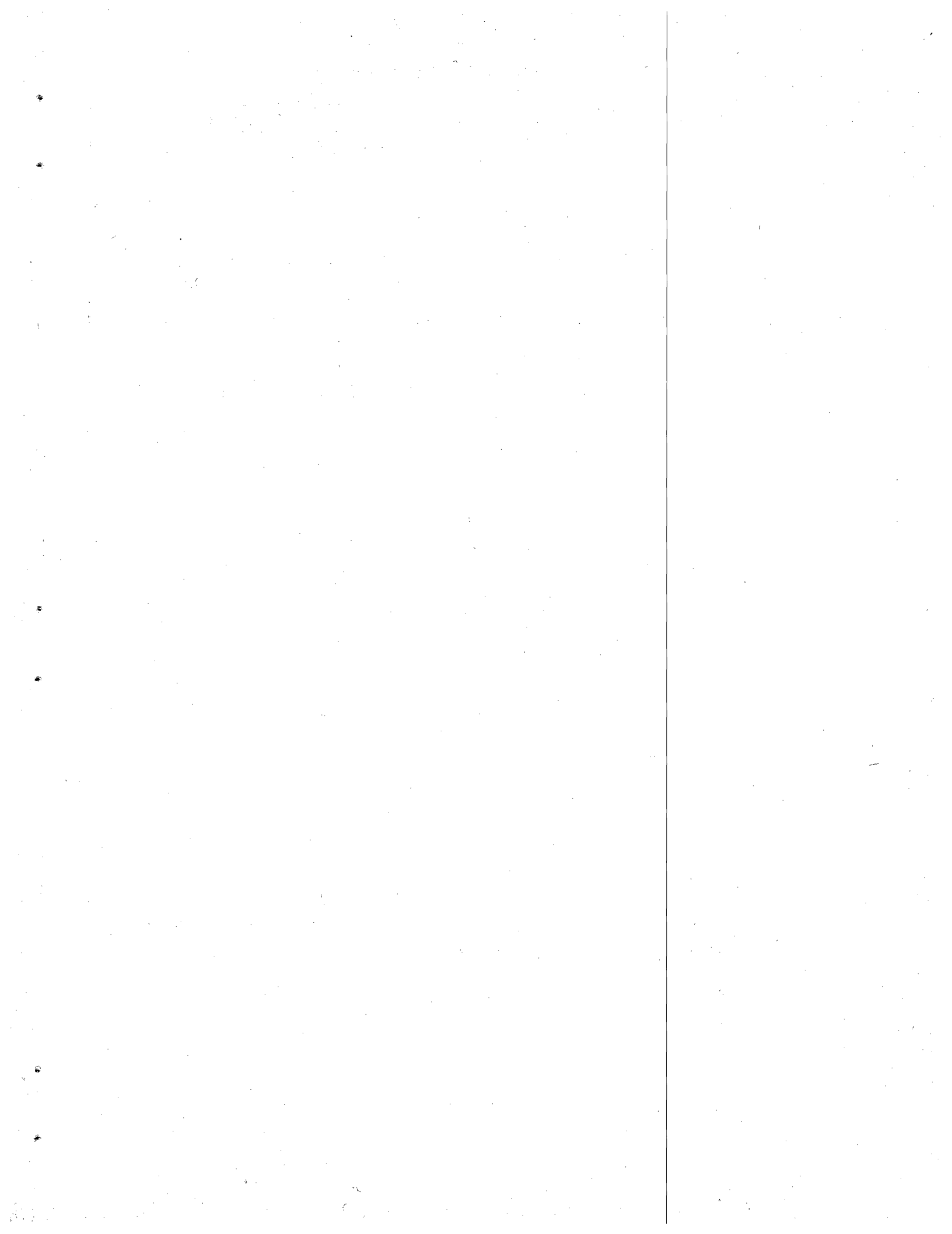
between northern New Jersey and Manhattan. With this objective in mind, the Task Force played an important role in a decision in August of 1970, to proceed with the implementation of an exclusive bus lane on the New Jersey approaches to the Lincoln Tunnel. It was placed in operation in December 1970.

While operation of the bus lane itself is under the control of The Port of New York Authority, it was developed as a joint project of the U.S. Department of Transportation, the New Jersey Department of Transportation, the New Jersey Turnpike Authority, the Port Authority and the Tri-State Transportation Commission. Its implementation has resulted in significant time savings of 15 to 20 minutes in the daily journey to work of some 35,000 bus commuters between northern New Jersey and Manhattan.

The Task Force is particularly pleased that the Federal Government has given its full support to this program and agreed to finance the costs up to \$500,000. This public transportation improvement is an excellent sample of inter-agency cooperation and effective relationships between the Federal Government and local agencies. As the project proceeds, additional recommendations will be made by the participating agencies for improvement and expansion of the basic installation.

#### GEORGE WASHINGTON BRIDGE BUS STATION

In its studies, the Task Force investigated the public transportation service aspects of the George Washington Bridge Bus



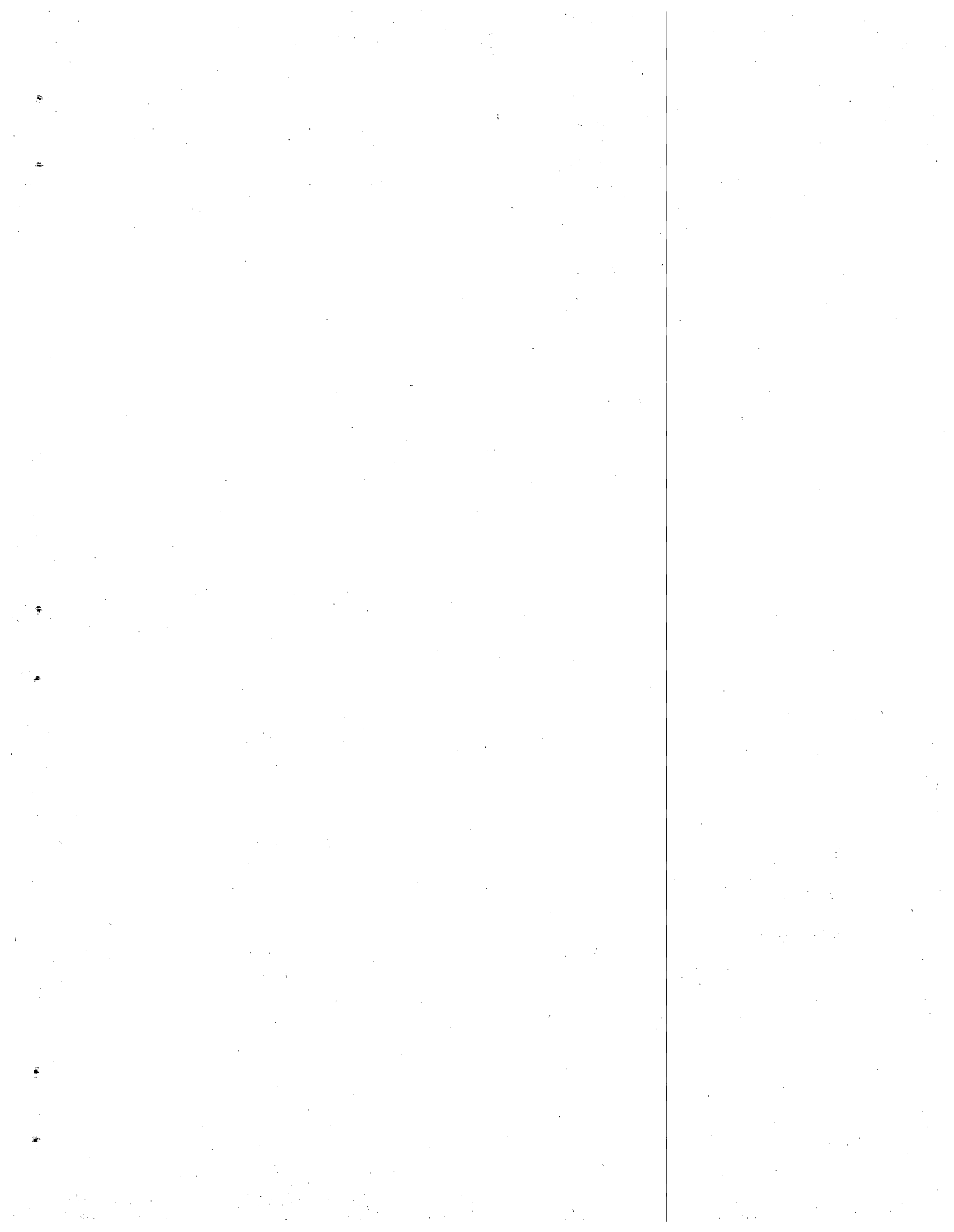
Station and its connections with the Independent Subway line in Manhattan. It is recommended that operating procedures for subway service to 175th Street be reviewed by the Transit Authority to insure the availability of adequate service to the Bus Station during peak periods.

It must be noted, however, that the introduction of the exclusive bus lane, the expansion of the Port Authority Bus Terminal in Manhattan and the recommended expansion of rail service from New Jersey into Manhattan are likely to result in a decreased usage of the George Washington Bridge Bus Station.

#### IMPROVED ACCESS TO UPTOWN PATH

Future trans-Hudson rail improvements such as the operation of Erie Lackawanna trains into Penn Station or the construction of a new trans-Hudson rail tunnel are likely to decrease the use of PATH's uptown line. Accordingly, capital intensive improvements such as realigning the Christopher Street curves would not be warranted.

However, the usefulness of the uptown line could be enhanced with better passenger transfers to the City subway system. The best location to accomplish this appears to be at Ninth Street. The Ninth Street station of PATH is a short distance from the mezzanine of the West 4th Street station of the IND 6th and 8th



Avenue lines. Every Manhattan service of the IND System passes through this station, affording excellent distribution not only to the business areas of Manhattan, but also to all parts of New York City. The new transfer passageway would connect the existing PATH entrance with the north end of the IND mezzanine near Eighth Street.

Accordingly, the Task Force recommends that an investigation be conducted jointly by the Port Authority and the New York City Transit Authority (MTA) to determine the feasibility and cost of developing such a new passageway at Ninth Street.

#### STAGGERED WORK HOURS

The Task Force has noted the effective program established by the Downtown Lower Manhattan Association and the Port Authority in staggering the hours of work in lower Manhattan. Since April 1970, more than 60,000 employees from over 60 major firms and government agencies have shifted away from the traditional 9 to 5 work period. This has resulted in a noticeable reduction in the peaking of travel on various modes of transportation. Figure 3 dramatically illustrates the effects of staggered work hours on PATH evening peak period volumes.

The New Jersey Department of Transportation, the Metropolitan Transportation Authority and the Port Authority have all

