Meeting Wartime Demands for Passenger Transportation in the New York-New Jersey Metropolitan Area

When the Japanese captured the principal rubber supplies and the Germans initiated their U-boat campaign in the Atlantic, they created a transportation problem in this Region, as well as other parts of the country, which calls for the utmost in planning by all concerned—government, industry and individuals. Meeting the situation involves more than transportation planning. The rationing of gasoline, rubber and automotive equipment, the planning of new housing, the location of all future war production, the area each industry can draw upon for additional labor, all determine in larger or smaller degree the ability of transportation to handle the load.

Believing that transportation is one of the most important problems facing the Region in maintaining its contribution to the war effort, the Regional Plan Association is devoting this issue of the Bulletin to outlining some of the specific problems faced by this Region in meeting the wartime passenger transportation situation, the relationship of the many agencies dealing with it, and the considerations which enter into effective planning and action to meet what appears will be increasingly a problem in the months ahead.

Since the movement of war workers is regional in an increasing degree and since most of the war transportation planning has to date been organized on a state, county or city basis, the Regional Plan Association has been directing its efforts toward bridging political boundaries and facilitating the cooperation of official governmental agencies in the various separate jurisdictions of the Region.

The major problem is to make most efficient use of existing equipment so as to handle all important travel requirements, which have been increased due to the war effort. A constantly greater reliance is being placed upon public mass-transportation facilities due to severe restrictions on tires and gasoline available for private automobiles. Yet little new equipment will be available, and that will not take care of normal replacement requirements.

A major characteristic of the transportation problem in this Region is a changed pattern of use—that is, an increased demand for transportation to industrial centers, whereas the system has been built up to serve urban business and shopping centers. The system of transportation service must be readjusted to meet this changed demand.

Measures to conserve and increase efficiency of public transportation are being instituted by the Office of Defense Transportation. Rationing of gasoline and tires, under the direction of the Office of Price Administration, aims to reduce private automotive use considered unessential to the war effort. Since use of private automobiles and public transportation by railway, bus and rapid transit are all part of the same problem of getting people from their places of work to homes, shopping, schools and recreation, they must be considered as a whole, if maximum utilization of equipment is to be achieved. To date, the governmental machinery to permit such total consideration and planning of transportation for the Region does not exist.

As the pinch of wartime needs increases, this more comprehensive approach to planning of transportation will become imperative. Since transportation requirements are a natural product of where people live and where they work or do business, war production, employment and housing programs must be developed more in relation to one another and to transportation. Governmental agencies in charge of these programs all have a deep interest in the transportation problem, but have as yet no means of getting together in this specific Region to work out their policies and programs as they relate to the whole problem.
New York—New Jersey Metropolitan District

Areas Served by Public Transportation

A Regional Transportation System—It Requires Regional Consideration in Planning
Necessary Adjustments to Wartime Needs and Conditions

An increasing number of workers in war and other activities are moving across state lines in this particular metropolitan area. This is possible because of the region-wide highway, bus and rail systems, evident in the above map. By the same token, any major adjustments in transportation service to meet wartime needs must be considered on the basis of the regional system to get the most out of available transportation facilities.
Regional Organization Needed

Because of its interstate character, this Region requires close cooperation among the many existing agencies and across state lines more, perhaps than any other area of the country. As a result of experience to date, it is recommended that a regional office of war transportation for the New York-New Jersey metropolitan region be established by appropriate federal or joint state action.

This regional office, equipped with a director and small staff, would fill the need of a continuing analysis of the war transportation problems of the interstate metropolitan area. It would assist, not supersede, the existing administrative agencies in the manner indicated below.

This regional office would assemble at one focal point all information bearing on the transportation problem now gathered by a number of separate government agencies listed on pages 6-9 of this bulletin. Assembled information would then be made available to all official interested agencies—the Army, Navy, Maritime Commission, War Manpower Commission, War Production Board, National Housing Agency, as well as the Office of Price Administration, the Office of Defense Transportation and the New York and New Jersey State transportation committees. As transportation problems grow in intensity such assembled information will become increasingly essential in making full utilization of the Region's resources for the war effort.

This regional office would fit transportation into its proper place alongside of manpower, housing and war production. It would assist in the difficult task of applying general principles and standards prepared in Washington to the specific conditions of the New York-New Jersey metropolitan region.

This regional office can probably be most effectively established by the Office of Defense Transportation. While there are at present regional administrative offices of several divisions of the O.D.T. dealing separately with railroad and commercial motor transport (trucks, buses, taxis), these offices are not set up to do the interstate planning recommended above and to maintain the necessary liaison with regional representatives of federal agencies responsible for location of war production, manpower, gasoline and tire rationing and housing, on the transportation phases of their work.

This regional office would work in close cooperation with the already well-organized and functioning New York and New Jersey state war transportation committees and utilize them in making necessary surveys and plans and in implementing plans agreed upon.

Local agencies in the Region, including the Port of New York Authority and the Regional Plan Association, are available to assist such a transportation office on the regional aspects of the problem.

WARTIME DEMANDS BRING CHANGED PASSENGER TRANSPORTATION REQUIREMENTS

An Increasing Load on Public Transportation Facilities

The passenger transportation system of the New York-New Jersey metropolitan region is being subjected to the greatest strain in its history. It is meeting the test by means of increased efficiency of operations and readjustment of schedules. The load it is being asked to carry, however, is increasing daily.

Due to the fact that little if any increase in railroad or bus equipment can be expected, it is clear that mass transportation facilities have their limitations in total carrying capacity and should not be asked to do the impossible. Every effort must be made to avoid unnecessarily burdening mass-transportation when other ways of meeting the situation are available.

Since transportation requirements are influenced by where the worker lives and where he works, housing of workers nearer to war plants is one apparent method of alleviating the burden on railroads and bus lines. However, the shortage of important building materials has eliminated new housing in all except the most critical spots.

The Changing Pattern of Transportation Movement

The problem is further complicated in this Region by the huge increases in employment at industrial centers having, up until now, little if any public transportation, but depending on use of private autos.

Not only war industries, but also bases for military, naval and air operations, distant from existing public transportation, have intensified the problem of getting personnel to their place of work.

The public transportation system of the Region has been developed over a period of years primarily to serve the congested office and shopping centers, such as downtown and midtown Manhattan, downtown Brooklyn and Newark. In general, the City of New York itself has no wartime transportation problem, being well served with comprehensive network of railroad, rapid transit, trolley, bus lines and ferries. The new concentrations of industrial employment in northeastern New Jersey and central Long Island, however,

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* This does not mean that New York City has no transportation problems in specific areas, or that peacetime schedules can be maintained. For example, by O.D.T. order, effective December 1, 1942, bus mileage on Manhattan Island is to be reduced a total of 15 percent.
are new foci of worker movement which must be served by a readjusted pattern of transportation service.

**Flexibility of the Transportation System**

The public transportation system is composed of two principal parts—the rail lines (railroad and rapid transit) which are inflexible as to location, and the bus lines, the routes of which can be readjusted so as to serve new areas. It appears obvious that transportation must be planned so as to utilize the rail lines to the absolute limit in the areas they serve and, where necessary, to relocate bus lines as to serve residential and industrial areas now accessible only by private automobile. The Office of Defense Transportation has recognized this in its orders that one or another of paralleling transportation services be eliminated where they duplicate or, in cases where the total traffic requires both, that they merge so as to dovetail service and supplement each other.

**Relationship of Housing**

It is only where workers live outside of walking distance from their plants that transportation is needed. Therefore, an alternative to increased transportation is the provision of housing for workers closer to their work. The National Housing Agency is devoting its entire effort to the meeting of as much of this housing demand as possible. However, the war production program has drawn upon critical materials to such an extent that severe limitations have been placed upon the amount of new housing which can be built. Accordingly, the N.H.A. is authorizing additional housing in only the most critical areas, and therefore, can be counted upon to relieve the transportation problem in a relatively small number of areas. Few of these can be in this area; most are needed where new industrial plants are distant from existing cities or towns.

An alternative to building more housing as a way of relieving transportation problems, is maximum utilization of existing housing and the “exchange” of housing between workers so as to bring them closer to their work. The N.H.A. is now getting under way a “homes utilization” program, which will promote the taking in of roomers and assist in the remodeling of homes to provide increased living quarters.

**The Rationing Problem**

Practically everyone in the Region has been touched by the rationing of gasoline and tires, and with reduced gasoline rations now a necessity this problem will be even more acute. Rationing boards have been flooded with applications for supplementary gasoline. The problem has been how to determine those who absolutely need the additional gasoline for essential war and civilian activities. In practice, almost any war worker who applies with certification from his plant that he is an essential worker and has a car-sharing arrangement with other workers has been able to get the gasoline. Many of these could use mass-transportation if routes, schedules and hours of work were adjusted to meet particular situations. If during the coming winter the amount of available gasoline is reduced, as may happen, there will be a greater need for planning of transportation so that many supplementary rations will no longer be necessary and sufficient gasoline will remain for war workers absolutely dependent upon private auto transportation.

A major problem to date, has been to relate the rationing of gasoline and tires to the work of planning

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*Railroads are Confronted with Unprecedented Demands*

Typical of the increasing dependence upon public carriers, service to this war industrial area was initially inaugurated as a three-car train to accommodate workers of the day shift. Within the past year it has been increased to two ten-car trains which operate at full capacity. “Staggered-hours” of work will permit public transportation facilities to carry a greater number of workers with the same equipment.

*Courtesy, of Long Island Railroad*
for improvement of public transportation services. Additional gasoline and tires have been authorized because adequate public transportation has not been available. Yet new public transportation facilities specifically initiated to take workers to war plants have not been much used, because with additional rations of gasoline and tires the workers could continue to ride in their own autos. This resulting stalemate cannot be broken until an organized working relationship is established between rationing officials and those responsible for planning improved transportation.

The rationing program is so new and so large in its magnitude that it has been practically impossible for rationing officials to make detailed checks of all applications in relation to available public transportation service. In some instances, local war transportation administrators have assisted rationing boards on an informal basis, but in general there has been little tie-in of transportation planning with rationing to date. What is necessary is an agreement between transportation and rationing officials, whereby

1. Full data on public transportation, existing or planned, is placed in the hands of each rationing board as a guide to its action on applications for supplementary gasoline rations.
2. War transportation officials agree to adjust public transportation service wherever possible better to serve war workers, as indicated by applicants' statements as to non-useability of existing service.
3. Rationing officials agree to withhold supplementary ration books where available public transportation is not used to capacity, and where it can be made available.

Although public and private transportation are the "team of horses" which must haul essential passenger traffic for the duration of the war, the federal government has provided a separate driver for each horse—the O.P.A. for private autos, through gas and rubber rationing, and the O.D.T. for trains, buses and other commercial transportation.

A recent development in the O.P.A. rationing procedure, however, offers the possibility of partially meeting this problem. According to an announcement of the O.P.A., each local rationing board may have the assistance of a panel of transportation experts in reviewing applications for supplementary gasoline rations. Efforts will be made, O.P.A. officials say, to place on such panels representatives of local transportation systems, public utility commissions and other persons well acquainted with the community and its transportation facilities. These panels will rule on the accuracy of applicants' claims as to mileage and the availability of other transportation means.

In large cities where rapid transit facilities are available the applicant must establish that they are inadequate for his purpose even though he has also formed a car club. Applications approved by the panel will be submitted to the rationing board for action on supplementary gasoline rations.

**Necessary Reduction in Civilian Travel**

As the problem of transportation gets greater during the months immediately ahead, transportation demands of war workers will be met first, and if necessary, equipment will be transferred so that non-war workers will find themselves standing up on trains and busses, which may be running on less frequent schedules. Such readjustments of transportation service require careful planning in order to avoid working unintentional and unnecessary hardships.

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**Flexibility of Bus Routes Permits Adjustments to Changing Transportation Pattern**

Many areas, formerly dependent solely on private automobiles, are being served by the extension or relocation of existing bus routes. The ability to change the routes of bus lines, almost overnight if necessary, is a valuable asset in meeting transportation requirements at new locations.

*Courtesy, "Bus Transportation"*
MANY AGENCIES STRUGGLE WITH THE PROBLEM

Many agencies—federal, state, county and local—are at work on one or another phase of the wartime transportation problem. It is encouraging that so many see that there is a job to be done. But—as always—“too many cooks may spoil the broth.” The following list includes the various agencies with which the Regional Plan Association has come in contact in its efforts to assist in meeting the war worker transportation problems of the New York-New Jersey metropolitan area. It might be pointed out that one reason for the large number of agencies involved in this region, is the fact that there are only a few important interstate metropolitan areas in the country and the national program to meet wartime transportation problems has not been specifically designed to meet the needs of such areas as the New York-New Jersey metropolitan region.

Federal Agencies Concerned with Transportation

The Office of Defense Transportation has been established to organize and deal with the transportation problem on a national scale. The O.D.T. has established basic standards of transportation service. With regard to passenger transportation it has set up standards relative to loading, frequency of stops, frequency of service, and other aspects of operation, is gradually eliminating duplicating intercity service and is coordinating schedules of paralleling lines in order to assure maximum utilization of their facilities and conserve equipment, rubber and gasoline. Through a new requirement that all commercial motor operators (trucks, buses, etc.) qualify for a “certificate of war necessity,” the O.D.T. will be able to better enforce the conservation practices which it has ordered.

Early in 1942 the O.D.T. requested each state to appoint a war transportation administrator to cooperate with it in dealing with transportation problems in more detail in each state and locality. Simultaneously, the O.D.T. requested every city and town of over 10,000 population to appoint a local war transportation administrator. This was an unfortunate complication of the problem of organizing to meet local transportation needs, since an effective state set-up requires that it in turn organize the cities and towns. The O.D.T. request direct to the subdivisions of the state made the state organizational job more difficult since it raised the question of whether the local administrators were working with the O.D.T. or the state administrators. This state organization, however, has been effected in New York and New Jersey, and details of local cooperation are being worked out as discussed in a later section of this bulletin.

More recently, local war transportation organization has been further complicated by the establishment of county farm transportation committees. Appointed by the state and county organization of the U. S. Department of Agriculture under an agreement with the O.D.T., a number of these committees are being set up in the Region. While necessary in many parts of the country, such further organization in this Region should have been arranged for through the state war transportation agencies of New York and New Jersey so as to tie in with their already well-organized programs. This is particularly true in the New York part of the Region, where official county war transportation committees have been in operation for several months. An effort must now be made to tie the new county farm transportation committees in with the job underway.

The Office of Price Administration has a part in this picture through the operation of its nationwide rationing of tires and new automobiles, and rationing of gasoline. Each passenger motor vehicle subject to rationing is entitled to a basic ration of gasoline, at present amounting to 12 gallons per month. For all gasoline over that amount and for tires and new automobiles, the rationing boards require formal application, draft of the essential character of the car use by the owner and the nonavailability of other means of transportation. In effect, control of the private passenger auto part of the transportation problem lies in the hands of the O.P.A. and its rationing boards.

The local rationing boards are composed of unpaid local citizens who act under policies and orders laid down by the O.P.A. The granting of supplementary rations of gasoline is one of the most difficult aspects of the local rationing board’s work, since determination of actual need is hard to establish without relating the application to the existing or planned public transportation service. Since this latter job is the assignment of the local war transportation administrators, an effective working relationship must be established. In certain parts of this region such a relationship has been arranged on a voluntary, cooperative basis.

A third federal agency enters this picture with the appointment on September 18, 1942, of a federal Rubber Director to take complete charge of administering the nation’s rubber program, with authority to issue directives to all agencies where the use of rubber is involved. Since rubber is an essential basis of motor transportation, the Rubber Director, in effect, can control the actions of O.D.T. and O.P.A. in so far as they relate to allocation and use of rubber.
Other Interested Federal Agencies

In addition to the three agencies just discussed which have controls over transportation, there are a number of federal organizations whose work is directly affected by transportation and who are interested in the extent of having transportation divisions or experts. These agencies include the War Manpower Commission, the War Production Board, the Maritime Commission, the National Housing Agency, the United States Employment Service, the War Department and the Navy Department.

The War Production Board determines the amount and location of war industrial activity and consequently the number and general location of workers who have to be transported to work. The location of war production can either aid or complicate the transportation problem. An additional war plant, or increased employment at an existing plant, in a congested area may place impossible loads on the existing transportation of that area. The location of new war plants is determined by the Plant Site Board of the W.P.B. which is supposed to give consideration to labor supply, housing and transportation facilities among other aspects. To the extent that the Maritime Commission and the War and Navy Departments make actual decisions on the location and amount of increased production and employment at existing industrial plants, they affect and are affected by transportation problems. The interest of the War Department is evidenced by the fact that the Air Corps has a special staff working on transportation problems of war plants in the Region working on aircraft contracts. The War Department is considering the need of formally requiring all of its prime contractors to have competent transportation divisions to deal with the transportation problems of their workers.

Not only war industries, but location and sizes of bases for war operations affect the problem of transportation. Embarkation bases, naval repair bases, supply depots, base hospitals, air bases, training camps and similar establishments all require transportation for personnel. This is easy or difficult to provide depending on locations selected for these establishments.

In effect, the decisions of the production agencies listed above determine the location and size of the problems dealt with by the War Manpower Commission, United States Employment Service, National Housing Agency, the Office of Price Administration (in so far as rationing of tires, gasoline and new automobiles are concerned) and the Office of Defense Transportation. And the policies and actions of each of these agencies affect each of the others.

The War Manpower Commission with the aid of the United States Employment Service is responsible
for seeing that the necessary number of workers are supplied to the various war plants to meet production schedules. Their ability to do this depends, in part, upon available housing and transportation for these workers.

The National Housing Agency has the responsibility of providing necessary housing for war workers. Whether new housing is necessary depends to a large degree on the availability of transportation to bring the required number of workers from existing place of residence in the areas around the war industry or base.

Each of the agencies above mentioned has a direct interest in the transportation problem. While the Office of Defense Transportation has the responsibility, already outlined above, of meeting the transportation requirements of the war effort, its ability to do so is affected by the amount and location of employment and the availability of housing near the employment centers.

State Agencies

The states of New York and New Jersey have agencies which are working formally or informally with the O.D.T. These have been referred to above. The war transportation committees of the two states were established at the request of the O.D.T., but they vary as to status, program and organization.

NEW JERSEY—The New Jersey War Transportation Committee was appointed by the Governor. It is primarily organized as a state organization with a program involving an intensive survey and study to determine the transportation requirements of more than 1,200,000 workers throughout the state. Workers in all industries and businesses of the state are providing essential information in a questionnaire survey, the results of which are being tabulated and placed on state-wide maps to serve as a concrete, factual basis for recommendations and action to increase the usefulness of mass-transportation facilities, and reduce substantially the necessity of using private automobiles. Pending the completion of this major undertaking, the Committee developed and is carrying out an emergency “staggering of hours” program to alleviate the most serious conditions in a number of critical employment areas of the state.

In addition the Committee is encouraging the conservation of private automobile transportation by promoting “swap-riding,” slower driving speeds, elimination of traffic bottlenecks and similar methods.

The war transportation administrators appointed in cities and towns at the request of the O.D.T. have been asked to assist the State committee in carrying out its recommendations to improve local public trans-

poration. The “swap-riding” and private car conservation program is being considered the primary responsibility of the local administrators. As a guide to conduct of this work the State Committee published “A Program for Private Car Conservation to be Sponsored by Local Transportation Administrators and Committees.”

The New Jersey Office of Civilian Defense and local defense councils are cooperating and assisting the State War Transportation Committee in this program.

On September 24, 1942, the Governor of New Jersey appointed a State Coordinator of Transportation “to coordinate transportation in the State and to administer and supervise staggering of hours programs during the present war emergency, to the end that adequate transportation facilities may be furnished to employees in war industries, the school population, and to the public in general.” This action was taken because increased use of public transportation in the State has reached the limit of available equipment and the only way of increasing capacity of the facilities lies in staggering of working and school hours so as to spread out the passenger load. The emergency staggering of hours program prepared and recommended by the New Jersey War Transportation Committee will serve as a basis for much of the Coordinator’s work. The President of the New Jersey Board of Public Utility Commissioners was appointed to this post, thereby tying in the work of that agency.

The New Jersey Board of Public Utility Commissioners, as the State’s regulatory body on public transportation, is participating in the emergency war transportation program through administration of emergency statutes giving the Board the right to extend existing bus routes to war plants, and to grant permits for new bus routes to war plants, without public hearings and municipal consents. The Board is working plant by plant to solve specific transportation problems. To date it has materially assisted a number of the industrial plants of the state.

NEW YORK—The New York State War Transportation Committee was established by the State War Council and has a definite organizational relationship with county and city war transportation administrators appointed by the local war councils (which are part of the State War Council set-up). Probably because of this type of organization, the Committee has developed its program on a more decentralized basis than has been possible in New Jersey. The New York State Committee has prepared a manual for guidance of local and regional transportation studies, but has not initiated a comprehensive state-wide study as has been done in New Jersey.
WAR TRANSPORTATION AGENCIES IN THE NEW YORK METROPOLITAN REGION

(As of December 8, 1942)

OFFICE OF DEFENSE TRANSPORTATION

JOSEPH B. EASTMAN, Director
Interstate Commerce Building
Washington, D. C.

REGIONAL OFFICES

Division of Rail Transport
25 Broadway, New York City
W. G. CURRAN, Associate Director

Division of Rail-Truck Coordination
220 E. 42nd Street, New York City
CHARLES F. CALEY, Director

Division of Local Transport
(no office in region)
Washington Office
Interstate Commerce Building
Washington, D. C.
GUY M. RICHARDSON, Director

Division of Motor Transport
220 E. 42nd Street, New York City
WILLIAM J. CLARK, Regional Manager

District Offices of Division of Motor Transport Covering New York Metropolitan Area

Connecticut Sector
Fairfield and other southwestern Connecticut counties

New York Sector
Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster
and Westchester counties

New York City, Nassau and Suffolk counties

New Jersey Sector
Bergen, Essex, Hudson, Middlesex, Passaic, Union
and other northern New Jersey counties

Monmouth, Morris, Somerset and other southern
New Jersey counties

NEW JERSEY WAR TRANSPORTATION COMMITTEE

State House, Trenton, New Jersey

* Chairman
GEORGE K. BATT, Vice Chairman

IRVING ABRAMSON
 MATTHEW BOYLAN
E. MORGAN BARRADALE
 GEORGE M. EICHLER

DR. CHARLES H. ELLIOTT
 D. Y. GIBBES

JAMES LEONARD
 LOUIS P. MARCIANTE

ROBERT B. SKINNER, Secretary
T. LEDYARD BLAKEMAN, Director of Surveys

* Arnold H. Vey resigned as chairman, successor not yet appointed.

NEW JERSEY STATE COORDINATOR OF TRANSPORTATION

JOSEPH E. CONLON
1060 Broad Street, Newark, New Jersey

LOCAL WAR TRANSPORTATION COMMITTEE ADMINISTRATORS (New Jersey)

EDWARD BODEEP
600 Bangs Avenue
Asbury Park

PATRICK H. SHERMAN
586 Avenue C
Bayonne

NORMAN D. LAUTERSETTE,
c/o National Grain Yeast Company
Belleville

PHILIP LEHRMAN
40 Carlisle Street
Bergenfield

ALWIN E. WANGNER
109 Lexington Avenue
Bloomfield

A. J. HARRINGTON
c/o Mayor's Office
Carteret

GEORGE SCHLICHT
48 Olden Avenue
Cliffside Park

JAMES A. QUINN
16 Madison Avenue
East Orange

LT. HARRY JOHNSON
Police Department
Elizabeth

THOMAS MACALUSO
40 Marsellus Place
Garfield

CARL W. WEIGHT, Secretary
Hackensack Defense Council
Hackensack

JAMES WALSH
708 Warren Street
Harrison
### Local War Transportation Committee Administrators (New Jersey) — Continued

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<th>Name</th>
<th>Address</th>
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<tr>
<td>HARRY HARRISON</td>
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<td>CHARLES HAMMEL</td>
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<td>JERSEY CITY</td>
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<td>WILLIAM KEEGAN</td>
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<td>ALBERT WOOLLEY</td>
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<td>Long Branch</td>
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<td>BARKLEY W. FOX</td>
<td>c/o Mayor's Office</td>
<td>Linden</td>
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<tr>
<td>FRANK H. SCHIAFFO</td>
<td>71 Prospect Street</td>
<td>Lodi</td>
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<tr>
<td>EARL BITTLE</td>
<td>418 East Vine Street</td>
<td>Millville</td>
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<td>CAMPBELL SCOTT</td>
<td>57 Union Street</td>
<td>Montclair</td>
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<tr>
<td>FRED A. ROFF</td>
<td>Municipal Building</td>
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<tr>
<td>HARVEY HUFF</td>
<td>127 Church Street</td>
<td>New Brunswick</td>
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<tr>
<td>ANDREW F. PECORA</td>
<td>57½ Stone Street</td>
<td>Newark</td>
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<tr>
<td>CARL A. TSCHEMACHER</td>
<td>72 Meadowbrook Road</td>
<td>North Plainfield</td>
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<tr>
<td>EDWARD P. DUFFY</td>
<td>175 Passaic Avenue</td>
<td>Nutley</td>
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<td>SPENCER G. HARVEY</td>
<td>569 Berkeley Avenue</td>
<td>Orange</td>
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<td>ANDREW MCLEAN</td>
<td>145 Pennington Avenue</td>
<td>Passaic</td>
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<td>CARLETON H. RITTER</td>
<td>325 Main Street</td>
<td>Paterson</td>
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<td>J. WHITNEY BAKER</td>
<td>429 Stelle Avenue</td>
<td>Plainfield</td>
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<td>HARRY F. SUITER</td>
<td>Merck and Company</td>
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<td>CHARLES R. PIPER</td>
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<td>ADAM J. FREEMAN</td>
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### New York State War Transportation Committee

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### County Transportation Administrators

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<tr>
<td>Dutchess</td>
<td>Thomas Boyce</td>
<td>Dover Plains, New York</td>
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Supplement to Bulletin No. 60 —

"Meeting Wartime Demands for Passenger Transportation in the New York-New Jersey Metropolitan Area"

**REGIONAL PLAN ASSOCIATION, INC.**
400 Madison Avenue, New York City
The Committee has divided New York State into six regions and appointed a field representative in each. This field representative has the responsibility of assisting local and regional areas to organize and carry out their programs. The executive vice-president of the Regional Plan Association is serving as field representative for the southeastern part of the state including Sullivan, Ulster, Orange, Dutchess, Rockland, Putnam, Westchester, Nassau and Suffolk counties and New York City. The responsibility for surveying local needs and taking specific action rests with the local administrators.

In New York State the War Transportation Committee has emergency regulatory powers relating to public transportation and can, without public hearings, grant temporary permits for bus routes to war plant areas pending the regular formal hearings and action by the Public Service Commission. The applications for these temporary permits require the recommendations of the local war transportation administrators.

The New York State Committee is following a policy of adopting various basic orders of the O.D.T. (with increased stringency where needed by state conditions), thereby putting behind the federal orders the additional authority of state enforcing agencies.

Local Agencies

For several months, a Metropolitan Defense Transport Committee has been working on a coordinated plan of handling trucking, traffic and evacuation of citizens in event of an air attack on the metropolitan area. This Committee is composed of representatives of New Jersey, New York State, New York City and Connecticut, with a representative of the Port of New York Authority as chairman. Liaison members represent federal military and civilian defense agencies and the motor transport division of the O.D.T. While this Committee has not been engaged directly with war worker transportation problems, it provides an excellent example of interstate cooperation, and the results of its work will be invaluable should the area be subject to air raids, or other disaster.

In several counties and cities of the New York metropolitan area, county and city planning boards are providing material assistance to war transportation administrators in getting the facts necessary for emergency realignment of transportation services. Several instances of this work are outlined in a later section of this bulletin.

Transportation Planning Maps Are an Invaluable Aid to Rationing Boards and War Plants

This photograph shows the map and operating personnel of the war transportation board of the Singer Manufacturing Company at Elizabethport, New Jersey, one of the first to establish an effective organization for meeting its workers' transportation problems.
PROGRESS IS BEING MADE

Conservation of Transportation Equipment

The Office of Defense Transportation, with the objective of conserving both rail and motor vehicle facilities, has prepared and issued manuals outlining methods of planning for transportation conservation, and has placed in effect certain basic standards in the form of orders directly to transportation operators.

The basic standards of transportation operation issued by the O.D.T. in the form of orders to operators relate to freight as well as passenger movement. With reference to passenger transportation a typical order is "General Order No. 11" which concerns intercity bus operations, effective June 8, 1942. It provides, in substance, that no bus shall:

1. Operate a "limited" schedule in intercity service;
2. Operate a round-trip schedule in intercity service where it is reasonable to believe, in the light of experience and prospective travel, that during any calendar month, the schedule will operate at less than 40 per cent of bus capacity. (It is provided, however, that one round-trip schedule may be operated daily on each route.)
3. Extend or inaugurate intercity service over a route not previously served by the carrier, without the prior approval of the O.D.T.
4. Operate intercity service for primarily recreational purposes, i.e., to or from golf courses, race tracks, etc.

These orders establish standards of intercity service. The New York State War Transportation Committee has adopted the same order, giving it greater legal effect within the state. So far as is known, no such action is contemplated in New Jersey.

The O.D.T. General Order No. 11 also provides that wherever two or more common carriers (bus) engage in competitive intercity service over the same or closely parallel routes they shall formulate a plan of joint action for the duration of the war emergency by one or more of the following methods:

- Pooling or joint use of equipment or other facilities;
- Pooling or division of traffic, service or revenues;
- Alternation or staggering of schedules between any two or more points;
- Mutual honoring of one another's tickets at the option of the passenger;
- Suspension, lease, exchange or joint use of operating rights.

Such operators have been required to submit plans of joint action or reasons for nonagreement on joint action. The O.D.T. issues specific orders putting joint operations into effect as it deems essential. To date, available information indicates the O.D.T. has issued orders affecting service in the region between New York City and Washington, D. C. (four operators), between New York City and Chicago (two operators), between New York City and points in Ulster and Sullivan counties of New York State (two operators), between New York City and Harrisburg (five operators), between New York City and Miami (four operators), and between New York City and Williamsport, Pa. (three operators).

In granting "certificates of war necessity" mentioned previously, the O.D.T. intends to see that operation of trucks, buses, taxicabs and other commercial vehicles (except motorcycles) is confined to tasks necessary to the war or to the essential domestic economy, that the maximum utilization of equipment is obtained and that the operators conserve rubber and other critical materials used in their vehicles. This will have a relation to gasoline and other rationing, since an operator of such a motor vehicle must have a certificate in order to get gasoline, tires, tubes or replacement parts after the effective date.

The order gives the O.D.T. authority to require that the above-mentioned commercial motor vehicles be operated in such manner, for such purpose and between such points as the O.D.T. shall from time to time direct, regardless of any existing contract, lease or other commitment with respect to use or operation of the vehicle. It is estimated that about 154,000 buses and more than 50,000 taxis will be affected by this order throughout the country.

Other orders of the O.D.T. prohibit sightseeing services and certain types of charter service, restrict taxi operation, and paralleling bus and railroad services.

The above does not include all orders issued by the O.D.T. but serves to indicate the types of basic standards of transportation service being worked out and applied on a nation-wide basis to conserve equipment.

Conservation of Gasoline and Tires through "Car-Sharing" Programs

While the above program acts to also conserve gasoline and tires, the rationing program of the Office of Price Administration operates to accomplish this end more directly. All motor vehicles come under rationing and are granted gasoline and tires in relation to essential need. This need is under review of local rationing boards, and while constant improvement in rationing procedure will undoubtedly be made, a substantial reduction in nonessential driving has been achieved.

The objective is to reduce car mileage to a 5,000-mile-a-year rational average, as recommended by the Baruch Committee report. The basic mileage ration now provides for 2,160 miles a year for each registered passenger automobile, with some few exceptions. Each owner will be allowed more mileage only if he shows an occupational need for it.

Wherever feasible, car sharing by groups of workers is being required as a condition to granting of gasoline above the basic ration. This has been only partially effective and much greater cooperation in this program
is necessary. A "group-riding" survey, made by transportation officers of the Army Air Corps at major war plants in Nassau County, L. I., during August, 1942, showed 8,924 cars carrying 21,607 passengers, or an average of 2.4 passengers per car. Of this group, 40 per cent carried solely the driver, and only 21 per cent carried four or more in the car. The officers noted that most of those carrying the driver only were the better, newer cars, while it was primarily the older autos which carried a full load. During the same survey approximately 5,000 tires were checked to determine condition. One-half the cars had at least one bad tire on the ground, and over 40 per cent of all the tires were "bald, ready for retread" or "dangerous, near salvage point."

A similar car-sharing survey by the New Jersey War Transportation Committee at 40 selected war industries in the state, during August, 1942, showed an average of 2.3 persons per car, a slight increase compared with 2 persons per car in the first such survey in June, 1942. A recheck at twelve of these plants on October 28, 1942, showed no increase in car-sharing since the August survey.

These surveys demonstrate that the "group-riding" program has not been too effective to date. It is recognized that varying hours of work complicate the problem, but greater car sharing is possible and necessary, if available tires and the cars themselves are to be sufficient to last the full period of the war.

Increasing the Capacity of Passenger Transportation Facilities through "Staggered-Hours" Programs

The large-scale war effort and the program to reduce private automobile travel, have combined to produce a tremendous increase in demand for public transportation. According to the New Jersey War Transportation Committee riding on surface transit facilities of that state during July, 1942, showed an increase of 43 per cent above that of July, 1941. The Committee "conservatively estimated that the riding in December of this year will be 60 per cent greater than in December of last year." This is characteristic of most of the transportation of the Region.

And yet, the demand for public transportation continues to rise. Since little, if any, increase in equipment can be counted on, the only practical way of handling this demand is to spread out the passenger load into hours when equipment is not now at full capacity. This can be accomplished through "staggering" of the hours of work of plants and businesses served by the transportation facilities, so that all employees do not report for work and leave at the same time.

In the Region, New York City was one of the first to ease the transportation load when the hours of work of about 300,000 lower Manhattan Island workers were changed during the spring of 1942. The State of New Jersey recently became the first State in the nation in which a staggered hours program has been ordered officially by government authority. The O.D.T. viewed the action as the possible forerunner of similar steps by other states and municipalities throughout the country to meet the transportation crisis.

The State Transportation Coordinator of New Jersey has to date staggered the hours of schools in eight counties, retail businesses in downtown Newark, and certain large companies in Newark. Plans for staggering of hours of many large industries in congested parts of the state are being developed by the State War Transportation Committee, which has already held a series of conferences throughout the state, to which representatives of management and labor of companies in the areas concerned were invited.

Readjustment of Transportation Routes and Schedules

The changed transportation needs of many workers in the Region are beginning to be met by public transportation systems. As the need for these changes has been established, equipment has been shifted from one route to another and from one schedule to another on the same route. Some express routes are being changed to local service. In a special report of the New Jersey Board of Public Utility Commissioners, dated August 1, 1942, it states that it has:

(1) approved since April 27, 1942, the establishment of 128 new routes where formerly there were practically no transportation facilities, and

(2) licensed the placing in operation of 1,094 buses with seating capacity of 37,854 persons (31 per cent on new routes, 38 per cent on extension of established regular routes and 11 per cent on existing routes).

Similar action is being taken in other parts of the Region where transportation needs have changed.

The changes in process are illustrated by the Public Service Coordinated Transport of New Jersey which is endeavoring to meet demands of war workers by transferring vehicles from residential bus routes to lines serving war industries during rush hour periods.

More of this sort of readjustment will be necessary as time goes on. To date, in many areas the increased load has been carried on the "surplus" of equipment not used to capacity, and existing service has been left undisturbed.

Surveys of Transportation Requirements

With broad nation-wide standards and interstate decisions being determined by the national war transportation agency, the burden of working out detailed plans of transportation adjustment to wartime conditions in specific localities falls upon the state and local war transportation agencies. The following para-
graphs show major results in this work in the New York-New Jersey metropolitan region.

Both the New Jersey and New York State war transportation committees have prepared manuals for guidance of local administrators and committees. The New York State manual is the more detailed and specific, and is of loose-leaf form designed to be added to with more up-to-date and informative material from time to time. The difference in the manuals is explained by the different types of war transportation programs in the two states. New Jersey is engaging on an intensive fact-finding effort at the state level to get data as to the transportation requirements of workers. Local transportation administrators are relied upon for promotion of conservation measures. In New York State, on the other hand, the state committee is not making such surveys, but is relying on local organizations for such work where local communities feel a critical situation exists. The state committee's regional field representatives are promoting such surveys of needs, and the detailed state manual is designed to guide local efforts along sound lines.

NEW JERSEY—The New Jersey survey of worker transportation needs is perhaps the most intensive effort of its kind in the country. The State War Transportation Committee asked the State Planning Board to make this survey and to submit suggestions for meeting the needs disclosed. The work under way is divided into four major operations:

One, a quick survey of existing transportation conditions and facilities as a basis for emergency action by the Committee should it become necessary before the mapping and questionnaire mentioned below are complete.

Two, mapping all transportation lines on State Highway Maps at a scale of 1"=1320'. The type and amount of service provided by each line will be shown by symbols. For purposes of analysis there will also be placed on the same maps industrial areas, commercial areas, and areas of residential concentration.

Three, an origin and destination survey to be conducted by questionnaires to all employees in companies (industrial and commercial) that employ 100 persons or over. This survey will show where the number of person working in each area (Destination Zone) come from; how they now get to work; what time they get to work; how they drive automobiles; how they expect to get to work after they can no longer use an automobile; and about when they expect to start using public transportation facilities.

Four, combining and analyzing the data obtained from the above studies to provide a factual basis for Committee recommendations.

The New Jersey survey will provide data such as the above for the entire area of the state.

NEW YORK—There is no comparable comprehensive survey of local wartime transportation needs in the New York State portion of the metropolitan region, but some surveys of a less comprehensive nature are under way in several places.

In New York City, the Transit Commission has been intensively surveying the operations of the many bus lines and has adequate data on the relation of passenger use to bus capacity, thus permitting well-planned readjustment of service to meet changes in passenger demand.

Information on the areas at present served by bus and railway lines has been assembled for use in Dutchess, Nassau, Rockland, Putnam, Suffolk and Westchester counties, and New York City, in some cases by the county and local war transportation administrators, in other cases by county planning boards.

Data on the location of workers' homes in relation to their place of work, such as is being assembled in complete fashion for New Jersey, is being secured in varying degrees of completeness in six of the seven southern counties of New York State outside of New York City. These surveys have or are being made by the city and county war transportation administrators with the aid of the more important war industries. With this information the transportation requirements of workers are being charted and examined in relation to the system of transportation routes, so as to prepare for practical readjustments in service as necessary. The Regional Plan Association has acted as coordinator for the county war transportation committees on Long Island, so that a unified attack could be made on the island-wide problem.

As a result of such surveys and studies with reference to an important group of war industries on Long Island, the need for certain new bus routes was determined and the service established.

County and Local Surveys

It is not feasible to report with complete coverage all of the work that has been done by counties and municipalities within the Region. A few examples will be cited to illustrate the local participation which is helpful, in fact very necessary in the New York portion of the Region due to the previously mentioned dependence on local planning for readjustment of transportation routes to meet changing conditions.

Figure 1 shows one type of information needed—the location of workers' homes in relation to place of work. When this is studied in relation to existing transportation routes and service, any deficiencies in the transportation system become evident. Studies such as this have already been used in some parts of this Region as an aid in planning and inaugurating more adequate service for war workers. It will be noted that the map indicates the shifts of the workers. This is an essential part of the data secured for such a study.

Figure 2 gives another type of study (using the above mentioned type of data as a base), showing the
amount and direction of worker-movement to plants. This particular study is being used by the transportation companies as a guide to improving the allocation of their equipment to serve the war workers. Supplementary maps would give details as to shifts and other aspects of the workers’ transportation requirements.

A number of industrial companies, realizing the seriousness of possible transportation shortages to their own production schedules, have made studies of the problem based on surveys of their workers. In New Jersey many of these are organized to fit in with the state-wide survey mentioned above. One of the outstanding plans of procedure has been devised by a company in Northern New Jersey, which has recognized the fact that transportation planning is an integral part of the job of assuring uninterrupted production. It aims to take care of transportation problems with a minimum of worry to the worker and loss of working time at the plant. A special staff is maintained to keep a current record of the facts necessary and to administer the war transportation plan. This staff prepared and utilizes a control map upon which is recorded such data as the location of workers’ homes with relation to transportation lines, those workers using private cars, the number of workers carried in each car and the cars in the “swap-ride” program.

The transportation division of this plant provides invaluable assistance to the local rationing boards in rationing gasoline and tires, in so far as its own operations are concerned. In doing this it checks the essential mileage from home to work of all applicants for supplementary gasoline, keeps in touch with condition of tires to insure continued operation of workers’ cars.

Based on a worker survey a “staggered-hours” plan was devised and put into operation. Some distant employees were shown how they could move closer to the factory.

A similar plan* for use by rationing boards in more accurately checking the need for supplementary gasoline rations is being developed in Bergen County in Northern New Jersey. The County Planning Board is assisting the rationing boards in assembling the necessary information and preparing the “control” maps used, which are similar to those of the industry mentioned above, except that the county data deals with all residents needing additional gasoline, regardless of where they work.

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* Information on these worker transportation planning procedures may be obtained by writing to the Regional Plan Association or the New Jersey War Transportation Committee.

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![Fig. 1. Section of Map Indicating Available Means of Transportation for War Workers](image-url)

Maps such as this enable ration boards to make fast, accurate decisions on who needs extra gas, and who does not. It also facilitates formation of “share-the-ride” groups.

Employment centers, rail and bus lines, and workers’ residences are plotted. Workers living within walking distance of public transportation lines do not need their cars to get to work and thus don’t need supplemental gas rations. Workers living outside of walking distance to public transportation lines—the area cross-hatched on the map—must receive supplementary gasoline rations or public transportation must be extended to serve them.

Mapping of this type provides a quick, clear technique useful to war transportation committees and war plants as well as ration boards, and is already being used in some parts of the Region.
It is expected that the plan, when properly developed, may be extended to all rationing boards in New Jersey, and will assist in a substantial increase in car-sharing and use of public transportation, where unused capacity may still exist. The difficulty to date has been that most rationing boards have not had the necessary information in usable form to determine actual possibilities for car-sharing, use of bus and railroad.

Fig. 2. Type of Map Used in Determining Best Allocation of Bus Transportation Equipment

The above map shows diagrammatically the flow of workers from their homes to place of work. From the map, it is possible to determine those routes of worker movement which justify mass transportation, and those which do not. The original study from which the illustration was prepared has been advantageously used by bus operators in the allocation of their equipment. The original study was prepared by a county planning board of the Region for the use of a war transportation committee. For the purposes of this bulletin the map has been redrawn and its identity concealed.
ACTION NEEDED ON URGENT PROBLEMS

The problem of wartime passenger transportation is essentially one of conservation—of making the best possible use of the facilities now available to move passengers and of keeping the total amount of movement down to the minimum essential. This involves prompt action on certain fundamental problems.

Employment

Complete information on the location of the places of employment and the number of employees in each is essential. It is needed both for the situation today and for the expected situation six months and a year from now. Today's figures are being secured by various war transportation agencies in the course of their surveys of present transportation needs. The War Manpower Commission can best estimate the future picture, based upon data from the War Production Board and the United States Employment Service.

Such employment statistics should be gathered at one point for a bi-state regional study. While all New York City and environs is involved to some extent, Fairfield County in Connecticut, and Dutchess and Orange counties in New York present somewhat local problems and their industries draw largely upon areas mostly outside of New York City and its neighboring suburbs. A logical area for study would be the New York Industrial Area as defined by the U.S. Census of Manufactures (New York City, Westchester, Bergen, Passaic, Hudson, Essex, Union and Middlesex counties) plus Rockland, Nassau and Suffolk counties in New York, and Morris, Somerset and Monmouth counties in New Jersey. This would include nine counties in each state, five of the New York ones being within New York City.

While workers in the war industries have a primary importance, many other types of workers must also have transportation. Some of these are and will continue to be of major importance during the war; others will be diverted into activities more closely connected with the war effort. Among the former are employees of the public utilities (transportation, light and power, water supply and sanitation), public officials and public employees at all levels of government (including the essential wartime services of fire, police and maintenance of structures); workers in the distribution of food, fuel and building supplies; those engaged in the manufacture of civilian essentials, such as clothing, household supplies and personal service establishments of all kinds.

Accurate figures on the present and future number and distribution of these various types of workers are probably unavailable, but some estimate must be made if we are to know what the transportation needs are really going to be. The comprehensive survey of the New Jersey War Transportation Committee covers all types of workers and will be useful in more clearly stating the total picture in that part of the Region.

Present Means of Transportation

About two-thirds of the persons entering Manhattan on a typical business day come by rail over the city's rapid transit lines and less than one-quarter come by motor vehicles, including buses and passenger cars. On the other hand, in some of the outlying wartime industries of the Region from 90 to 100 per cent of their workers come by automobile. The railroads, both rapid transit and trunk line, that lead to the center of the Region are mostly radial routes. It is true these lead out as well as in, but the whole system of rail service has been developed on the basis of a rush-hour inbound movement in the morning and outbound in the late afternoon. The existing system has been successfully turned "inside-out" to some extent and more can be done in this direction, but the rail system of passenger transportation in the Region falls down when one must travel in circumferential rather than radial directions. Circumferential railway routes do not exist, and rubber instead of rails must supply the routes, or a reorganization of places of work and places of residence must be effectuated. This raises the next problem.

Future Availability of Automotive Transport

To what extent can automotive means of transportation be counted on to handle passenger movement within the Region in the months ahead? The availability of gasoline, tires and other replacement parts will be determining factors.

After the new pipeline is extended to the Atlantic coastal area, lack of gasoline should not be an obstacle to all needed use of cars. The prior needs of the armed forces, however, might enter the picture to require continued strict rationing. The federal fuel and rationing authorities should be able to give a good estimate on the future gasoline situation.

The tire situation, on the other hand, appears to depend primarily on the life of the tires now in use, although a sizeable number of recapped tires will be made available during the coming months, along with the relatively small stock of tires previously "frozen" and, later, synthetic tires for most essential users. Contrary to general impression, there will not be "tires for everybody" and the total available will provide for only a part of normal replacement in terms of mileage. It is anticipated that the huge scheduled pro-
duction of synthetic rubber will be largely used directly in the war effort and cannot be counted on to relieve the civilian shortage, at least within the foreseeable future. For wartime transportation planning, the best possible estimate of the number of cars which can be kept supplied with tires should be made available by the federal rubber and rationing agencies.

One little-discussed aspect of the automotive situation is the degree to which availability of replacement parts will restrict the number of cars which can be kept on the road. Tires and gasoline are much more in the public eye, but wearing out of equipment might well be an equally important factor in the transportation picture. This question relates to the general production requirements of the war effort, and will have to be answered by joint action of the Office of Defense Transportation and War Production Board as the problem arises.

The above questions relate to both bus and private automobile transportation. Presumably bus transportation will be maintained at full capacity and any shortage of gasoline, tires and other equipment will primarily affect the use of private automobiles.

**Detailed Surveys and Plans for Critical Areas**

There is, fortunately, a growing understanding of the need and importance of detailed surveys of the worker transportation problem in critical areas and plans for continuing essential movement. A few industries have appreciated this problem and gone ahead on their own to solve it with considerable success, as outlined in the preceding pages. The gasoline rationing boards are beginning to see the need of having similar data covering the areas of their jurisdiction, as has been reported in an earlier part of this bulletin.

Similar surveys and plans must be developed on a region-wide basis and on a basis of meeting the essential transportation needs not only of war industrial workers, but also of the other types of activities already referred to. These surveys should show: (1) the origin and destination of the workers; (2) their time and present means of getting to work; (3) alternative transportation available to them; and (4) the life of tires and condition of equipment where automotive transport is used. The plans should develop alternative means of transportation which can be made available when some of the private cars, and perhaps a number of the buses, can no longer be operated. In many cases where a worker now makes his entire trip to and from work on rubber he may have to resort to a combination of rail and rubber, automotive equipment being used as feeders to rail lines.

**A Regional Organization Needed**

A major essential is the unification of the many programs bearing on war transportation. There is need of an organization to tackle wartime passenger transportation problems on a regional basis in this metropolitan area and to facilitate cooperative action of the state war transportation committees, the O.D.T. and the O.P.A. This office should have adequate means to analyze the problem and determine what is essential to meet the changing worker transportation requirements, and should have authority to work with employment, production, housing and other transportation agencies in making plans effective.

Such an organization, with the necessary working relations with all key agencies, will insure for the period of the war maximum utilization of whatever transportation may be available to serve the war effort and essential civilian needs of the Region.

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