

Highways for National Defense

By Thomas H. MacDonald, Commissioner of Public Roads

Legislation now before Congress leads us to expect that very shortly we can begin a considerable program of highway construction urgently needed for national defense. Passage of the legislation will find the Public Roads Administration and the State highway departments with nearly all of the preliminary work completed and ready to let contracts for many jobs as soon as definite selection of projects to be included in the program is indicated by defense officials.

The program will be made up entirely of improvements found to be of critical importance in defense operations. It will not include much work that is badly needed for ordinary peace-time traffic. There is no plan to build great, new military highways over long distances. But, it is planned to build quickly and efficiently those highways now most needed for the movement of traffic in and out of army and navy reservations and defense industries. We also plan to correct dangerous weaknesses on 75,000 miles of main highway that have been selected to form the strategic system.

The program will not be based on hasty action or incomplete knowledge as to the work most important in the defense program. The Public Roads Administration has maintained a close contact with the War Department for many years.

When the original Federal-aid system was in process of selection, the War Department was requested to make recommendation of the highway routes of importance to meet the potential demands of military usage. This request was promptly and intelligently met by the War Department in findings which were incorporated in a route map now known as the "Pershing Map of 1922." All of these recommended routes were provided for when the Federal-aid system was established. There have been periodic revisions, and during the past two years the Army General Staff, the State Highway Departments and the Public Roads Administration have cooperatively made a most careful review, followed by detailed revisions.

In its present form, this system of important military routes is known as the strategic network, and incorporates approximately 78,000 miles of the major roads of the nation. It represents the agreement of the military and civil highway officials, both State and Federal, as to the long distance routes that will best serve the defense requirements of the nation. The completion of the initial highway planning surveys reveals in what degree the "strategic network" exists as adequate arteries of transportation. Records from the road inventory show the mileage of highway and the number of structures that are satisfactory for defense transportation, as well as those which are inadequate in one respect or another. The traffic surveys have measured accurately the normal civilian traffic over these highways. To this is now being added traffic movement generated by the new defense activities, which fortunately can be forecast with a reasonable degree of accuracy.

With the help of the State highway departments, tabulations have been made of those weaknesses in the strategic system that are of critical importance in the movement of defense traffic or which might not be able to stand the strain of traffic movement in emergencies that may arise.

In the strategic network there are over 5,000 miles of surface less than 18 feet in width; there are nearly 2,500 bridges of capacity of less than 30,000 pounds; and there are approximately 14,000 miles of road whose surface is incapable of supporting wheel loads of 9,000 pounds. Furthermore, there is a substantial mileage which is over 18 feet in width, but is still narrower than necessary for the proper accommodation of present and expected civilian and military traffic, and there is a common condition of narrow shoulders, a very general condition of excessive curvature, too steep grades, and inadequate sight distances.

However, there is a class of highway work for which the need is more immediate and urgent than that on the strategic system. All over the country training camps, concentration areas and defense industries have been established. Many of them are some distance from main highways. Where large numbers of men are concentrated, either for training or defense production, a large volume of traffic is quickly generated. Some of the camps are in reality small cities. Access roads are a necessity for their proper functioning.

The Public Roads Administration has taken steps toward the improvement of roads in such areas only upon the request of the defense officials concerned. There have been certified by the War

Department, the Navy Department, and the Council of National Defense more than 300 defense areas at which access road problems exist. Conferences have been organized and were attended by State and local officials, State representatives of the Work Projects Administration, representatives of the Army or Navy or defense production, and the District Engineer of the Public Roads Administration. As a result of these conferences, many access roads were begun with funds supplied by States, cities, counties, the Work Projects Administration and as Federal aid.

Where construction funds were not obtainable, arrangements were made for surveys and preparation of plans so that construction could begin immediately after the authorization of funds. Federal-aid funds are now being used on the construction of 147 miles of access road and have or are being used for engineering work on 1169 miles of access road.

The country's immediate highway needs for defense purposes were described in a report to the Administrator, Federal Works Agency, Mr. John M. Carmody by the Public Roads Administration. This report was approved by the Secretary of War, the Secretary of the Navy, and by the Transportation Commissioner of the Advisory Commission to the Council of National Defense and submitted to the President on February 12.

Consideration was given the report by the President and on June 2 a message was sent to Congress recommending that \$100,000,000 be authorized specifically for assisting in the development of access roads and that \$25,000,000 be provided to strengthen bridges and

widen surfaces on the strategic system in key areas. Congressional hearings on the subject have been completed and legislation recommended by committees is now being considered. It is expected that final action will be taken soon and an act sent to the President for approval.

The Public Roads Administration and the State highway departments are ready for instant action when legislation is approved. From the contractors' viewpoint the procedure in handling the work will not differ from the usual Federal-aid practices except that emphasis will be laid on immediate action.

It is our confident expectation that the highway contractors of the country will shortly be called upon to join with the State and Federal governments in initiating and bringing to rapid conclusion another large highway program. These groups have worked together for many years and have handled other emergency programs. Greater urgency attaches to the impending work but there is no defense activity for which the country is better organized and prepared.