

# Editorial Comment

## Some Benefits of the War

WAR causes destruction, death, and sacrifices, yet, at the same time, war forces developments and construction of facilities which are of benefit not only during the emergency but also in later years. For example, in the railroad signaling field, the benefits of authorizing train movements by the indications of semi-automatic signals rather than by written train order were proved on 50 miles of single track on the Missouri Pacific as early as 1925, and, in 1927, the New York Central made an installation on 41 miles of road, including power switches and semi-automatic signals all controlled from one office, this constituting the first project of what is now known as C.T.C.

The benefits to train operations resulting from centralized traffic control, including signal indications to authorize train movements thereby superseding time tables and train orders, were readily recognized. Through the years between 1927 and 1940 inclusive, 212 installations were made in the United States, covering 1,890 track miles. Many of these projects were on short bottlenecks, adjacent to terminals or between junctions where more trains had to be handled than on other territories. In one instance, on 105 miles of the Burlington, a complete engine district was equipped.

The reasons for not having installed more centralized traffic control prior to the war are of no interest now; a point of importance, however, is that a sufficient number of installations had been made to prove the benefits under various circumstances of train operations, so that when war conditions increased the traffic in 1941 and 1942, railroad executives, operating officers and signal engineers, as well as government authorities in charge of the allocations of critical materials, were in agreement that centralized traffic control offered a logical means for increasing the capacity of a section of railroad quickly.

As a result numerous existing C.T.C. territories have been extended to include complete engine districts or at least those parts of a district on which second track or alternate routes are not available; thus several continuous stretches of C.T.C., ranging from 80 to 90 miles in length, are now in service. On other divisions where no C.T.C. was previously in service, projects are now under way to include complete engine districts ranging from 125 to 170 miles in length. Three proposed installations are, respectively, 127, 233, and 248 miles in length. If all of these programs are carried to completion this year, more than half as much mileage of C.T.C. will have been placed in service during the two war years 1942 and 1943 as was installed in all the years prior to 1942.

When considering a proposed signaling project on his railroad, an executive agreed that the new facilities would solve the problem of expediting traffic during war, but he was afraid that the operating and maintenance expenses for the signaling would not be justified by a more normal volume of traffic after the war. A convincing answer

to his fears was that the records proved that the authorization of train movements by time table and train orders was not satisfactory in normal times from the standpoints of both train delays or accidents, and if manual block should be adopted, with the rules which must now be applied, even a normal number of trains could not maintain on-time performance. While an installation of automatic block would prevent collisions and permit following trains to be operated at closer spacing with safety, an installation including C.T.C. signals to authorize train movements without written train orders will not only aid war-time traffic now, but also bring benefits, under normal volumes of traffic after the war, which will more than justify the carrying charges, as well as operating and maintenance costs. Another fact of importance is that, as applying to lines which are handling a heavy volume of important war traffic, the materials required for C.T.C. are regularly being allocated by the War Production Board, because the comparatively small amounts of critical materials required will result in expediting war transportation.

### War-Time Changes for Your Magazine

AN ORDER, issued by the War Production Board, requires publishers of magazines to reduce their consumption of paper 10 per cent. Unless further unforeseen circumstances prevent, the issues of *Railway Signaling* will include approximately the same average number of pages as in 1942 or other recent years. The area for type and illustrations on each page is to remain the same as previously, but, starting with this the April issue, the white space margins at the top and bottom as well as the sides are narrower than heretofore. This saves about 6.2 per cent of the paper previously required.

The number of extra copies of each issue is to be reduced by limiting the number of copies for use in our offices as well as for distribution to authors and others especially interested in certain articles or news items. Subscribers are requested to make their payments for renewal of subscription promptly when billed, otherwise further issues are not to be mailed.

Also, as a means for reducing the amount of steel stitching wire, only one staple rather than two, is to be used in the binding of each copy. To overcome this weakening, more glue is used.

Although the paper now being used is the same weight and thickness, a slight decrease in brightness is due to the diversion to war industries of 30 per cent of the chlorine heretofore used to bleach the pulp when making the paper. The ink now being used has less lustre.

On account of these and other circumstances caused by the war, the general appearance of the issues of *Railway Signaling* may not be equal to those published in recent years, however, insofar as the information contained therein is concerned, we propose to maintain the quality of service to the readers, and improve wherever possible.