Signaling In War

Railroad Signals Go to War

C.T.C. on main track and car retarders in yards are an effective means for increasing capacity of existing track facilities, locomotives and cars

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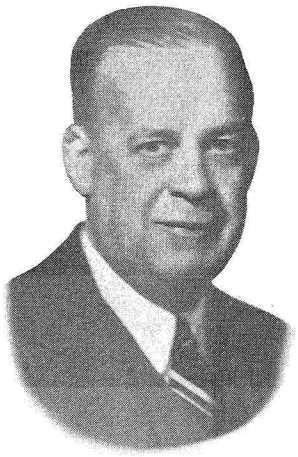
WHEN the Axis nations declared war upon the United States, they attempted to reassure their worried peoples by telling them that "A democracy is wasteful, inefficient and bumbling. The United States will never be able to strop itself down to the hard cutting edge of war."

Today the railroads of this nation are proving how utterly wrong those Axis mouthpieces were. They are now carrying loads which a year ago, even six months ago, were thought impossible. Freight and passenger business over some lines has increased more than 150 per cent. Gross ton-miles for the first eight months of 1942 rose to approximately 26 per cent over the same period of 1941. For the year 1942, the figure is expected to be 76 per cent greater than the gross ton-miles handled in 1938.

Back in the 1920's, the railroads were faced with a rapidly expanding volume of business. They met it then by construction of additional main tracks and by reducing grades and curves to speed up traffic. Today this method is impossible.

The railroads are being forced to use such facilities as they have already available; to take these facilities and use them better and more efficiently. It is a tribute to the American way of life, which the railroads exemplify, that they have been able to do this so well.



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One very important way in which the railroads have increased the efficiency of their equipment is through the use of railway signaling devices. Automatic block signals, centralized traffic control, car retarders, yard train communications and train operation by signal indication without train orders, etc., have played an important role in increasing track capacity and reducing traffic hazards, at a minimum expenditure of critical materials.

Congestion Relieved by C.T.C.

While local operating conditions have determined the type of signaling most adequate for a particular operating problem, the Office of Defense Transportation has found that traffic congestion on single and multiple-track lines has often been relieved by the installation of centralized traffic control by means of which train movements are authorized and directed by signal indications without the use of train orders or train superiority.

Centralized traffic control practically eliminates the time lag in the transmission of orders, and results in more efficient train dispatching, as the trains are directed by signal indications at the time and place required by traffic conditions. This results in the elimination of one of the main reasons for traffic congestion on single-track lines, or on multiple-track lines where trains are operated in either direction on one or more tracks.