

I.C.C. Issues Statistics

THE Bureau of Safety of the Interstate Commerce Commission has compiled and issued its annual tabulation of statistics pertaining to block signals, interlocking, automatic train control, telegraph and telephone for transmission of train orders, and spring switches, on the railroads of the United States as of January 1, 1949. In addition, the tabulation includes a new section this year which shows the extent to which train communication systems were in use as of January 1. The following paragraphs are devoted to information abstracted from the tabulation.

Automatic Block

Automatic block signaling was in service on 74,888.6 mi. of road or 106,530.4 mi. of track. Of the miles of road, 47,194.8 were single track and 27,693.8 mi. were two or more tracks. These figures compared with those for January 1, 1948, represent an increase of 1,186.1 mi. of road and 1,195.6 mi. of track. Non-automatic block, at the beginning of 1949, was in service on 29,916.8 mi. of single track and 1,260.2 mi. of two or more tracks, totaling 32,463.4 mi. of track or 31,177.0 mi. of road. These figures represent a decrease of 1,879.3 mi. of road and an increase of 708.4 mi. of track.

At the beginning of 1949, semaphore signals were in service on 36,452.7 mi. of track, a reduction of 1,588.0 mi. compared with a year previous, and light type signals were in service on 68,032.0 mi. of track, an increase of 2,857.9 mi. The total number of automatic block sections were 87,199.

In the operation of the manual block system, telegraph was used on 10,627.9 mi. of track, a decrease of 70.7 mi. Telephone was used on 21,828.1 mi. of track, a decrease of 584.3 mi. The total number of block stations in service on January 1, 1949, was 3,960, an increase of 154.

Permissive block signaling was forbidden for all trains on 1,772.0 mi. of track, a decrease of 55.1 mi.

Permissive block was allowed for all trains on 11,334.6 mi. of track, a decrease of 261.2 mi. Permissive for all except passenger trains was allowed on 17,465.4 mi. of track, a decrease of 431.7 mi. Manual block was in service for rear-end protection only on 2,631.8 mi. of track, a decrease of 136.3 mi.

Train Stop and Control

As of January 1, 1949, automatic train stop or train control devices were in service on 14,112.9 mi. of track, involving 6,676 locomotives, as compared with 14,122.6 mi and 6,493 locomotives a year before. Cab signaling, in connection with automatic wayside signals, without automatic train control was in service on 6,668.5 mi. of track, involving 4,652 locomotives, as compared with 6,514.2 mi. and 4,615 locomotives. Cab signaling without automatic wayside signals and without automatic train control was in service on 6,778.7 mi., and cab signaling in connection with automatic train control, without wayside signals was in service on 1,665.0 mi. of track involving 661 locomotives. The totals indicate that automatic train stop, train control or cab signaling is in service on 20,891.6 mi. of track including 10,913 locomotives.

The total number of interlockings in service at the beginning of 1949 was 4,511, an increase of 8. Of the interlockings in service, 456 were automatic, 1,682 electric, 392 electro-mechanical, 452 electro-pneumatic, 1,451 mechanical, 4 pneumatic and 74 other types. About 640 of the interlockings were controlled remotely.

The tables list a total of 407 installations of centralized traffic control, an increase of 26 over the year previous. The 407 projects included 11,310.4 mi. of track, 1,739 passing sidings, 5,204 switches controlled, 14,303 signals controlled, and 7,208 automatic signals.

Single-direction train operation by signal indication was in effect under C. T. C. on 287.7 mi. of track, by manual block on 2,478.4 mi., by con-

trolled manual block on 9.5 mi., and by automatic block on 28,773.0 mi. Either-direction operation by signal indication was in effect by C. T. C. on 10,969.5 mi. of track, by controlled manual block on 194.5 mi., by automatic block in both directions on 3,576.4 mi., and by automatic block in one direction, with traffic locking reverse direction, on 473.9 mi.

About 6,621 spring switches were in service at the beginning of 1949 compared with 6,525 the year previous. Of the 6,621, about 4,560 were in automatic block territory, 236 in manual block, 161 in C. T. C., 909 in non-block, 182 in interlockings and 573 in yards. Classified as to application, about 4,275 of the spring switches were at ends of sidings, 614 at ends of double track, 239 at junctions, 841 on yard tracks and 652 on other tracks. Of the 6,621 spring switches, 1,788 were equipped with facing-point locks, and 20 with electric locks. A total of 3,324 dwarfs and 9,356 high signals were in service at these spring switches.

Communications

For the transmission of train orders, on January 1, 1949, the telegraph was used on 67,581 mi. of road and the telephone on 150,437 mi. As comparisons, on January 1, 1948, the telegraph was in service on 68,775 mi., and the telephone on 150,060 mi.

The tabulation indicated, as of January 1, 1949, there were 38 line-of-road installations of radio, inductive, radio-inductive, wire intercommunication systems and telephone company public radio-telephone service. These installations involved 17,159 mi. of road, 173 wayside stations, 746 locomotives, 287 cabooses, 35 other mobile and 2 pack sets. As to yard and terminal facilities, there were 84 installations of radio, inductive and telephone company leased radio service. These installations involved 112 wayside stations, 537 locomotives, 4 cabooses, 29 other mobile and 14 pack sets.