

ICC Reports on Railroad Safety

● The annual "Report of the Section of Railroad Safety, Bureau of Safety and Service, to the Interstate Commerce Commission for the year ending June 30, 1960" has just been released. Tables summarizing those aspects of the report which relate to signaling and communications are reprinted here.

In the previous year a low was reached in false proceed failures, and a near-low in false restrictive failures. This year, signal performance has slipped in both respects, though it is still a big improvement over figures of 10 years ago.

The table of total signaling installed in the United States shows a decline from the previous year, and that was, in turn, a reduction from the figures for January 1, 1958. A factor not reflected in these figures is the transformation from double-track automatic block to single-track operation with CTC. This would, of course, record a decline in miles signaled. On the other hand, the total signaling investment in terms of a constant dollar world undoubtedly show an increase. Furthermore, train operation and track utilization is generally improved. The trend in interlockings, of course, has recently been to consolidate several into one, controlled from one point. In many cases there are actually more signals on the ground, but the ICC will report it as one plant, whereas before there had been several.

During the year ending June 30,

1960, the Section investigated 43 accidents which had resulted in 68 persons being killed and 726 injured, a decline in all respects from the previous year. Of these accidents, six collisions are attributed to the engineer's "failure to obey signal indications" and one collision to the "failure to operate train in accordance with rules governing movements within interlocking limits, and improper installations of track circuits of the interlocking." (Editor's Note: As a result of RS&C reporting the last accident, September 1960, page 27, at least one midwestern road has initiated a program of relocating signals or insulated joints at interlockings to meet the strict interpretation of the ICC's rules.)

The Section inspected 4,495 signal systems in the fiscal year, an increase of 329 over the 4,166 inspected the previous year. It acted upon 251 applications for approval of modifications to signal systems, and 77 applications in connection with the Rules, Standards and Instructions. A total of 83 applications in the two classifications were pending at the end of June 1960.

There was a sizeable increase in the number of applications filed and acted upon for relief from the RS&I. The section says that "a large number of applications continue to be of a complex nature covering extensive signal changes."

Train Communications Systems

Radio and inductive systems of train communications increased during this fiscal year compared to the previous year, even as that year saw an increase over the year before. The number of railroads equipped with radio or inductive train-to-wayside communications at the beginning of 1960 was 130 compared to 129 at the beginning of 1959. The accompanying table enumerates this growth. Not shown in the table are 230 road-miles and 52 yard installations of commercial leased radio service.

Those desiring a more detailed analysis of signal failures may obtain a copy of the report for 15 cents from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Failure of Signals Year Ending June 30, 1960						
	Block Systems	Interlocking	ATS-ATC ACS	Other Systems	Total 6/30/60	Total 6/30/59
False restrictive	14,400	7,541	3,475	209	25,625	25,590
False proceed	37	26	9	1	73	59
Potential false proceed	5	4	2	0	11	8

Signal Devices in Service			
Type of Signal Protection	Jan. 1, 1960		Jan. 1, 1959
Block signal systems	106,720.0 Rd Mi		107,693.6 Rd Mi
Train control, train stop and cab signals	14,105.3 Rd Mi 9,279 Locom		14,198.1 Rd Mi 9,344 Locom
Interlockings	4,089	Plants	4,160 Plants

Radio and Inductive Communications (In Service January 1)					
	Road Miles	Base Stations	Locomotives Equipped	Caboose & Other	Portable Pack Sets
Line of Road					
Radio 1960	108,217	1,358	7,888	4,311	4,550
Radio 1959	102,097	1,235	6,695	4,080	3,747
Inductive 1960	7,802	238	1,106	337	1
Inductive 1959	7,802	239	1,106	345	1
Yard					
Installations					
Radio 1960	863	934	3,384	963	1,723
Radio 1959	755	758	3,051	593	1,327
Inductive 1960	5	6	36	0	0
Inductive 1959	6	7	42	0	0

Causes of False Proceed and Potential False Proceed Indications (Year ending June 30, 1960)	
Sand, rust, or other deposit on rails	8
Relays and similar devices	9
Circuits open, crossed, or grounded, foreign current, etc.	17
Apparatus broken, defective, or out of adjustment	17
Failure of apparatus due to ice, sleet, snow, wet track, weather, or lightning	15
Failure of apparatus due to obstruction	7
Errors in making connections or adjustments	10
Undetermined	1
	<hr/> 84

Highway Grade Crossing Accidents (Year ending December 31)			
	1959	1958	1957
Accidents	3,075	3,099	3,569
Killed	1,203	1,271	1,371
Injured	3,247	3,161	3,767