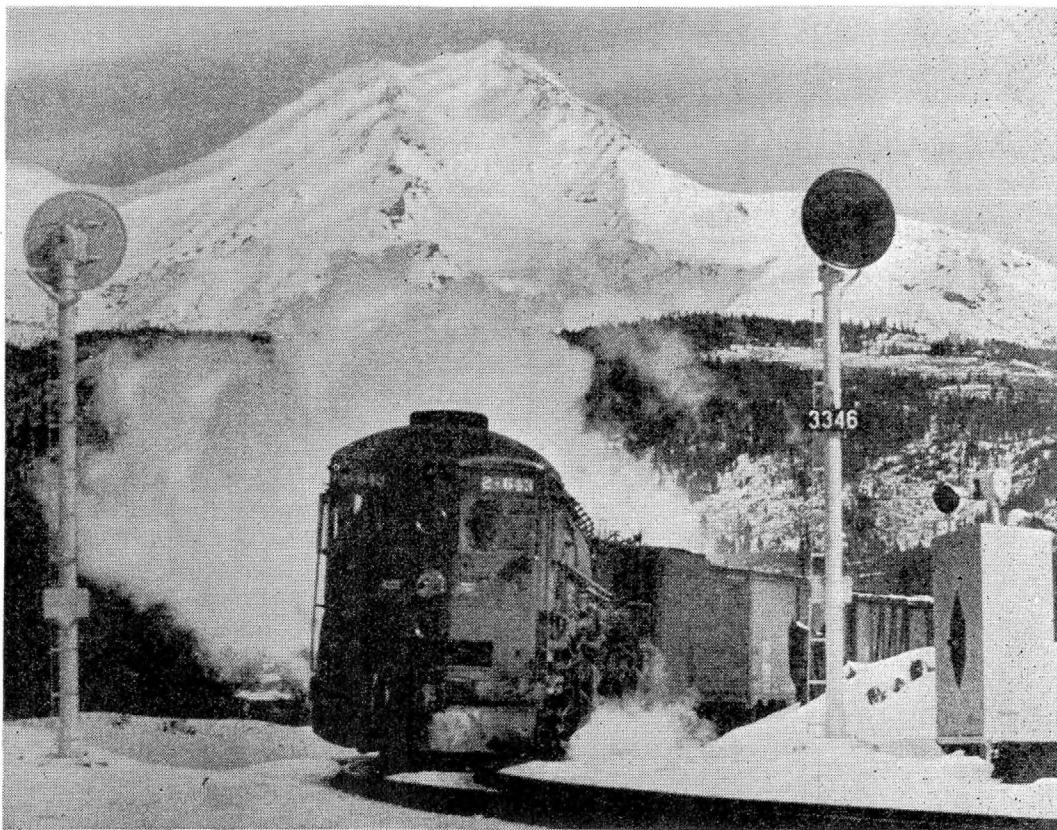


I.C.C. Annual Signaling Statistics



Striking pictorial study of Southern Pacific cab-in-front freight locomotive framed between two automatic signals on the famous Shasta Route linking San Francisco and Portland. The backdrop is beauteous Mt. Shasta. The picture was made in C.T.C. territory near Dunsmuir, California

THE annual tabulation of statistics pertaining to block signals, interlocking, automatic train control, and the use of the telegraph and telephone for transmission of train orders on the railroads of the United States as of January 1, 1944, has been compiled and is available for reference at the offices of the Bureau of Safety of the Interstate Commerce Commission in Washington, D.C. For the years prior to 1942 these tabulations were printed, and copies could be purchased at the United States Government Printing Office. In order to relieve the enormous printing load now occasioned by the war program, however, these statistics for the current year are not to be printed by the Government Printing Office.

In order that this data may be available for ready reference by the readers, *Railway Signaling* is printing, herewith, the tables concerning automatic block signaling mileages, train control and cab signaling, interlocking plants, centralized traffic

Tabulations are on file for public reference in the office of the Bureau of Safety, but are not to be printed by the U.S. Government Printing Office for general distribution.

control, and the telegraph or telephone in service for the dispatching of trains. The complete compilations also include tables concerning the types of signals used on automatic block, the mileages of manual block and the forms of protection used with manual block, as well as a table showing the mileage on which train operation is by signal indication without train orders, this last table including not only C.T.C. but also manual block, controlled-manual block and automatic block.

Table 1, printed herewith, lists the automatic block signaling in service on 67,619.9 miles of road, 98,878.3 miles of track, on the roads in the United States as of January 1, 1944,

which represents an increase of 333.2 miles of road and 508.8 miles of track as compared with January 1, 1943.

Table 2, not printed herewith, lists the mileages of automatic block signaling on the various roads with figures classified as to the use of semaphores or light signals. Semaphores are used on 32,860.9 miles of road, 45,429.5 miles of track, as compared with light signals on 33,575.1 miles of road and 51,158.2 miles of track. The total miles of track equipped with automatic signaling increased from 98,369.5 to 98,878.3 the number of block sections increased from 81,024, to 85,485.

Table 3, not shown herewith, lists

the mileages on the various roads, separated as to the methods and apparatus used with manual-block signaling. Telegraph is used on 16,576.9 miles, telephone on 27,367.5 miles, electric bells or lights on 231.2

CHANGES DURING YEAR 1943

Name of Railroad	Automatic		Nonautomatic	
	Miles of road In- crease	Decrease	Miles of road In- crease	Decrease
A. G. S.	1.5	—	—	3.1
A. T. & S. F.	4.3	—	—	—
A. C. L.	—	5.7	1.0	—
B. & O.	—	—	—	—
Eastern Lines	71.6	—	—	136.1
Central Lines	—	.1	—	.4
Bam	6.6	—	—	—
B. & Aro	18.2	—	—	—
B. Ry. of Chi	13.1	—	—	—
B. & L. B.	1.1	—	—	.2
B. & G.	.4	—	—	—
B. & M.	.7	—	—	—
C. R. & I. C.	2.4	—	—	—
C. C. T.	.8	—	—	—
C. & O.	.1	—	31.3	—
C. & N. W.	1.7	—	—	—
C. B. & Q.	—	—	16.4	—
C. M., St. P. & P.	2.0	—	—	—
C. T.	.1	—	—	—
D. L. & W.	.1	.1	—	—
D. & R. G. W.	1.7	—	1.7	—
D. & S. L.	27.7	—	—	—
D. & T. S. L.	6	—	—	—
D. M. & I. R.	17.1	—	1.0	—
E. J. & E.	3.3	—	—	—
Georgia	22.8	—	—	—
G. N.	.2	—	—	—
G. M. & O.	5.8	—	7.0	—
I. C.	4.2	—	—	—
L. & Wyo. V.	1.2	—	—	—
L. V.	3.2	—	90.3	—
L. & N.	56.0	—	—	—
M. C.	.9	—	—	—
Milw. Elec.	.8	—	—	—
M.-K.-T.	9.2	—	—	—
M. P.	10.1	—	17.9	—
H. B. & T.	.2	—	—	—
N. C. & St. L.	—	—	.4	—
N. Y. C.	—	—	—	—
Eastern L.	45.7	—	—	—
C. C. C. & St. L.	12.0	—	13.0	—
I. H. B.	.1	—	—	—
N. Y., N. H. & H.	1.6	—	1.7	—
N. P.	—	—	1.3	—
W. W. V.	—	—	3.5	—
N. P.	.1	—	—	—
O. T.	2.5	—	—	—
P. E.	3.2	—	5.7	—
Penn.	70.2	—	397.8	—
P. & P. U.	—	—	.4	—
Read.	.8	—	—	—
St. L.-S. F.	.9	—	—	—
St. L. So.	.1	—	—	—
S. D. & A. E.	.8	—	—	—
S. A. L.	—	—	41.6	—
S. P.	2.9	—	120.6	—
T. & N. O.	.2	—	41.7	—
St. L. M. B. T.	1.9	—	1.1	—
T. & P.	2.1	—	—	—
T. P.-Mo. P. T. N. O.	9.2	—	—	—
Virg.	2.0	—	—	—
Wabash	37.5	—	37.5	—
W. M.	4.3	—	—	—
Total	391.2	58.0	48.8	968.4

miles, controlled manual on 62.4 miles and train staff on 32.8 miles, these figures applying to miles of road. A total of 5,177 block-signal stations are in service.

Table 4, not printed herewith, lists the practices in operation of manual block. Permissive signaling is forbidden for all trains on 1,660.2 miles, and is allowed for all trains on 20,-291.1 miles, but permissive signaling is allowed for all except passenger trains on 22,220.4 miles, these figures applying to miles of track. Rear-end protection only on single track is in effect on 3,558.0 miles of road.

Table 5, printed herewith, lists

TABLE No. 1. AGGREGATE LENGTH OF LINES AND PARTS OF LINES ON WHICH THE BLOCK-SIGNAL SYSTEM WAS IN USE ON JANUARY 1, 1944

Name of Railroad	Automatic			Nonautomatic			Miles of road	Miles of track	Total Passenger lines operated	Percentage block signaled Miles of track
	Miles of Road Single track	Miles of Road Two or more tracks	Miles of track	Miles of Road Single track	Miles of Road Two or more tracks	Miles of track				
Aliquippa & Southern ¹	—	—	—	1.9	.6	3.2	—	—	—	—
Alton	172.0	249.4	670.8	114.8	8.5	131.8	786.7	1,083.4	74.1	—
A. A.	13.3	4.2	21.7	—	—	—	292.2	293.4	7.4	—
A., T. & S. F. ²	2,972.5	1,716.7	6,414.3	8.9	106.7	151.0	8,861.4	10,512.8	62.4	—
A. & W. P.	61.1	30.0	121.1	—	—	—	91.1	121.1	100.0	—
W. of Ala.	85.6	.9	87.4	—	—	—	133.4	134.3	65.0	—
A. C. L.	229.1	604.9	1,439.0	13.3	—	—	3,712.9	4,401.7	33.0	—
Balt. & Ann.	16.2	7.5	31.3	—	—	—	30.8	33.3	94.0	—
B. & O. System:	—	—	—	—	—	—	—	—	—	—
Eastern Lines	106.9	458.7	1,140.4	1,050.1	86.6	1,278.9	1,566.3	2,136.3	96.6	—
Central Lines	174.7	719.5	1,647.1	327.9	57.5	458.1	1,214.0	2,030.9	95.1	—
Western Lines	663.6	196.1	1,079.1	753.9	2.6	759.1	1,827.2	2,049.2	90.5	—
N. Y. Term.	—	22.4	46.3	—	—	—	22.5	46.5	99.5	—
B. & O. C. T.	—	4	30.5	57.0	—	—	—	18.4	36.8	99.0
Bamberger	5.4	1.2	7.8	—	—	—	—	36.3	54.9	14.2
Ban. & Aro.	18.2	—	18.2	—	—	—	—	538.0	567.8	3.4
B. & L. E. ³	10.5	39.3	88.6	46.2	102.0	250.2	141.5	248.5	99.1	—
B. & M.	387.1	582.5	1,568.6	6.8	—	—	6.8	1,456.0	1,995.4	79.8
B., A. & P.	9.4	—	9.4	—	—	—	—	26.0	26.0	36.1
Camas Prairie	—	—	—	14.1	—	—	14.1	257.9	257.9	5.4
C. P.	105.2	—	105.2	—	.3	—	—	262.3	262.3	40.2
C. Calif. T. ⁴	4.5	—	5.3	—	—	—	—	—	—	—
C. of G.	215.0	27.8	270.6	—	—	—	—	1,587.0	1,624.4	16.6
C. of N. J.	90.4	204.6	610.7	—	—	—	—	321.1	627.0	97.3
N. Y. & Long Br.	1.2	38.4	78.0	—	—	—	—	39.6	78.0	100.0
C. V.	17.3	—	17.3	—	—	—	—	363.0	363.0	4.8
C. & O.	452.8	776.4	2,052.2	1,489.6	29.2	1,548.0	2,748.0	3,600.2	100.0	—
C. & E. L.	123.9	155.2	434.3	90.9	32.2	155.3	720.1	907.9	64.9	—
C. & I. M.	33.1	—	33.1	—	—	—	—	77.0	78.6	42.0
C. & N. W.	466.9	908.7	2,357.4	1,365.2	6.1	1,377.4	7,328.1	8,343.4	44.7	—
C. & W. I.	28.0	—	60.4	—	—	—	—	28.0	60.4	100.0
C. & A. & E.	26.2	16.9	58.4	—	—	—	—	49.9	73.8	79.1
C. & B. & Q.	1,302.8	823.1	2,992.7	6,103.6	180.6	6,453.1	8,410.1	9,445.8	100.0	—
C. G. W.	468.8	56.0	580.8	—	—	—	—	1,298.2	1,354.2	42.9
C. I. & L.	390.9	—	390.9	—	—	—	—	410.3	410.3	95.2
C. M., St. P. & P.	1,156.6	779.8	2,720.1	2,095.2	42.5	2,180.2	7,385.3	8,210.5	60.0	—
W. S. S. & V. P.	—	—	—	19.3	—	—	19.3	19.3	100.0	—
C. N. S. & M.	.8	42.3	84.1	—	—	—	—	108.6	216.4	38.8
C. R. I. & P.	1,355.3	430.0	2,231.5	—	—	—	—	5,846.0	6,253.5	35.7
C. R. I. & G.	129.3	1.2	131.7	—	—	—	—	561.9	564.6	23.2
C. St. P. M. & O.	73.6	167.7	407.3	—	—	—	—	1,083.7	1,267.7	32.0
C. S. S. & S. B.	51.9	15.8	83.2	—	—	—	—	75.5	95.6	87.1
Clinchfield	14.3	—	14.3	—	—	—	—	276.8	276.8	5.2
C. & S.	40.2	—	40.2	—	—	—	—	613.5	764.8	5.2
Coop. Tran.	31.3	—	31.3	—	—	—	—	45.5	50.4	68.7
D. & H.	185.1	258.0	721.8	—	—	—	—	522.1	740.9	89.0
W.-B., Conn. ¹	2.5	4.3	11.1	—	—	—	—	—	—	—
D. L. & W.	262.4	525.0	1,438.0	6.2	—	—	6.2	924.9	1,372.5	90.0
D. & R. G. W.	534.6	131.1	796.7	101.3	—	—	101.3	1,371.4	1,576.7	57.0
D. & S. L.	78.1	4.7	87.6	—	—	—	—	231.6	236.4	37.0
D. & T. S. L. ¹	12.2	22.8	43.2	—	—	—	—	—	—	—
D. M. & I. R.	—	—	—	.8	—	—	.8	293.2	694.1	2.5
D. S. S. & A.	34.7	25.4	63.5	—	—	—	—	440.0	440.0	100.0
E. J. & E. ¹	163.0	1,101.2	2,371.0	544.9	41.0	607.1	1,387.8	2,468.8	100.0	—
N. J. & N. Y.	20.7	—	20.7	—	—	—	—	20.7	20.7	100.0
F. E. C.	27.6	318.7	665.5	—	—	—	—	656.4	975.7	68.2
Ft. W. & D. C.	95.3	1.6	98.5	—	—	—	—	770.8	776.3	12.6
G. H. & H.	1.4	—	1.4	—	—	—	—	50.0	50.0	2.8
Georgia	22.8	—	22.8	—	—	—	—	301.6	308.8	7.4
G. T. W.	7.7	347.7	702.9	—	—	—	—	836.2	1,194.0	58.8
G. N.	1,921.9	633.9	3,189.7	—	—	—	—	5,597.9	6,015.9	53.0
G. M. & O.	66.0	—	66.0	—	—	—	—	1,546.2	1,546.2	4.7
H. & M.	—	7.8	16.7	—	—	—	—	8.5	16.9	100.0
I. C.	1,233.5	841.8	3,105.6	3.8	—	—	3.8	4,051.1	5,077.9	51.3
P. & I.	14.8	—	14.8	—	—	—	—	14.8	14.8	100.0
V. & M. V.	111.1	.5	112.1	—	—	—	—	1,485.3	1,493.9	7.5
I. T. S.	128.4	3.0	134.4	—	—	—	—	374.0	379.3	35.5
K. C. S.	13.9	—	13.9	—	—	—	—	804.4	817.0	1.7
K. C. Term.	—	10.1	20.5	—	—	—	—	14.7	51.5	39.9
K. & I. Term.	—	—	—	7.9	7.7	23.3	—	10.3	18.0	100.0
L. & Wyo. V.	1.0	16.1	33.1	—	—	—	—	18.9	36.9	90.0
L. S. & I.	—	.5	1.0	—	—	—	.3	15.0	15.0	100.0
L. S. Term. & Tran.	—	—	—	—	3.7	—	—	111.6	111.6	3.3</td

TABLE NO. 1. AGGREGATE LENGTH OF LINES AND PARTS OF LINES ON WHICH THE BLOCK-SIGNAL SYSTEM WAS IN USE ON JANUARY 1, 1944

Name of Railroad	Automatic			Nonautomatic			Total Passenger lines operated		Percentage block signaled
	Miles of Road Single track	Miles of Road Two or more tracks	Miles of track	Miles of Road Single track	Miles of Road Two or more tracks	Miles of track	Miles of road	Miles of track	
L. & J. Bridge 1				3.5		3.5			
M. C. ⁸ ⁹	12.8	336.6	686.0	421.1	3.0	427.2	804.7	1,146.5	83.8
P. & E.		2.5	5.0	199.0		199.0	201.5	204.0	100.0
Troy Union	.5	1.5	3.5				2.0	3.5	100.0
N. Y., C. & St. L.	309.7	176.3	662.3	1,127.9	49.7	1,235.1	1,224.3	1,458.1	99.9
N. Y. N. H. & H.	1.6	485.9	1,161.5	1,233.7	62.7	1,382.1	982.5	1,622.0	100.0
N. Y. Conn. ¹⁰	12.7	25.4					4.6	9.3	100.0
N. Y., O. & W. ¹¹	38.3	93.0	224.1	55.8		55.8	262.8	355.6	78.7
N. Y., S. & W.	1.5	18.6	33.8	21.7			21.7	112.6	126.3
Norfolk & Western	851.4	625.5	2,115.7	174.5		174.5	1,661.9	2,302.4	96.2
Northern Pacific	1,820.4	649.9	3,117.6	32.6		32.6	4,643.9	5,270.6	59.3
Northwestern Pac.	8.9		8.9				261.9	264.6	3.3
Oahu Ry. & Land	3.7	10.0	23.7				70.4	80.4	29.4
Oklahoma	2.2		2.2				77.7	77.7	2.8
Pacific Coast R. R.	10.0	8.9	27.8				18.9	27.8	100.0
Pacific Electric	14.3	49.3	123.3	19.9		19.9	215.9	398.5	36.0
Panama	48.0		48.0				48.0	48.0	100.0
Pennsylvania ¹²	484.5	2,566.1	6,729.4	2,562.1	416.4	3,423.5	6,030.8	10,157.5	99.9
P.-R. S. L.		132.6	269.8	183.5		183.5	316.1	453.3	100.0
P. & P. U.		7.1	14.2	2.1		2.1	11.0	19.9	82.0
P. M.	263.3	96.0	455.4				858.8	952.2	48.0
P. & W. V. ¹	1.0	2.3	5.7						
Portland E. P.	19.5		19.5				25.9	32.0	60.8
Reading	44.3	476.9	1,155.1	255.7	27.3	310.3	780.5	1,386.7	88.7
R., F. & P.		113.7	227.4				113.7	227.4	100.0
Rutland				366.1	.3	366.7	331.3	331.6	91.9
Sacramento N.	43.4		43.4				39.0	39.0	89.8
St. L.-S. F.	1,326.2	125.7	1,577.6	8.0		8.0	4,785.3	4,925.7	32.0
Birmingham Belt ¹	1.1		1.1	.3		.3			
St. L. S. F. & T.	2.5		2.5				106.6	106.6	2.3
St. L. Southwestern	40.7	15.1	70.9				968.2	983.3	7.2
S. D. & A. E.	1.1		1.1	118.9		118.9	103.9	103.9	100.0
S. A. L.	518.0	33.6	587.1	2,710.1	29.9	2,769.9	3,291.6	3,357.0	100.0
M., D. & S.				92.3		92.3	92.3	92.3	100.0
Southern	1,271.2	745.9	2,763.0	122.8	1.2	125.3	5,073.8	5,840.1	49.4
A. G. S.	197.7	97.9	393.5				295.6	393.5	100.0
C., N. O. & T. P.	93.7	241.8	577.3				335.5	577.3	100.0
G., S. & F.	253.1	3.5	260.1				390.8	393.6	66.0
N. O. & N.	175.6	15.5	206.6				193.4	209.8	98.4
St. J. R. Term.	.6	2.4	5.5				3.0	5.5	100.0
S. I. & M. Bridge	.2	4.3	8.8				4.5	8.8	100.0
Southern Pacific:									
Pacific Lines	3,994.3	830.9	5,659.0	3,297.8	12.7	3,323.1	5,276.5	6,113.5	100.0
T. & N. O.	1,448.4	88.3	1,625.0	2,231.8	9.0	2,249.8	3,312.9	3,409.9	100.0
S. P. & S.	36.8	7.0	50.8				493.0	504.7	10.0
United Ry. Co.	1.6						48.9	48.9	3.0
T. R. R. Assoc. of St. L.		7.0	14.1		1.1	2.2	15.2	30.5	54.0
St. L. M. B. Term.		8.9	17.9				9.8	18.8	95.5
T. & P.	1,053.9	97.1	1,261.6				1,892.6	2,014.6	62.7
T. P.-Mo. P. Term. of N. O.	1.8			1.8			1.8	1.8	100.0
Union ¹		16.9	33.0	3.4	1.5	6.6			
U. P.	3,040.4	1,239.5	5,521.8	.4		.4	7,297.8	8,611.5	64.1
Utah ¹	3.5	.5	4.5						
Virginia	60.5		60.5				440.5	469.5	12.9
Wabash ¹³	590.8	359.8	1,271.0	1,042.9	2.3	1,047.5	1,618.4	1,968.2	99.6
W., C. F. & N.	6.1		6.1	.5		.5	87.9	90.0	7.3
W. M. ¹⁴	171.9	36.9	244.7	17.7	35.5	88.7	320.4	372.0	54.2
W. P.	193.5		193.5				921.8	921.8	21.0
W. & L. E.				11.3		11.3	139.1	143.0	.78
Y. & N. ¹				3.3		3.3			
Total	40,283.0	27,336.9	98,878.3	42,631.7	1,619.9	45,910.7	165,659.5	199,064.0	

¹Operates no passenger trains.²Includes sections of multiple track in automatic territory which are equipped with non-automatic signals.³Includes 58.3 miles of road used for freight service only.⁴Figures shown include freight lines comprising 103.4 miles of road equipped with automatic signals and 358.9 miles of road equipped with nonautomatic signals.⁵In addition there are 31.2 miles of track used for freight service only equipped with non-automatic signals.⁶In addition there are 15.7 miles of road in "Time Interval" territory protected by automatic signals.⁷Operates 44.1 miles of road exclusively for freight service except 6.4 miles of road which are used and reported by the New York Central.⁸In addition there are 33.9 miles of track in nonautomatic and non-block territory equipped with automatic block signals.⁹In addition to the mileage shown in these tables there are 243.0 miles of double track in Canada equipped with automatic block signals and automatic train stop.¹⁰The mileage shown includes 8.0 miles of double-track road used exclusively for freight service which is equipped with automatic signals.¹¹In addition 2.8 miles of track in nonautomatic territory are equipped with automatic semaphore signals and 5.1 miles equipped with automatic color-light signals. Figures shown do not include 56.6 miles of track equipped with color-light signals used exclusively for freight service.¹²In addition to the figures shown 1,766.6 miles of road and 2,248.9 miles of track used for freight service only, or over which but one engine is operated are equipped with block signals.¹³In addition there are 48.7 miles of track in nonautomatic territory protected by automatic signals.¹⁴In addition there are 42.2 miles of track in nonautomatic territory protected by automatic signals.

the automatic train control and cab signaling in service as of January 1, 1944. There are 7,775.0 miles of road, 14,187.6 miles of track and 6,537 locomotives and motor cars equipped with automatic train stop or train control devices, with or without automatic cab signals, and in addition there are 2,912.6 miles of road and 6,536.3 miles of track, and 4,109 locomotives and multiple-unit electric cars equipped with automatic cab signals only without automatic train control devices. A total of 4,305.5 miles of road and 8,881.5 miles of track are equipped for operation of locomotives with automatic cab signals. Table 6, printed herewith, shows that on January 1, 1944, the railroads had 6,691 interlocking and 512 remotely controlled plants. Of the interlockings 389 are automatic, 1,448 electric, 421 electro-mechanical, 380 electro-pneumatic, 1,746 mechanical, 5 pneumatic, and 63 other types.

C.T.C. Increased

Table 7, which is reproduced herewith, lists the centralized traffic control installations in service January 1, 1944, on the various railroads, totaling 4,004.3 miles of road, 4,745 miles of track, 2,479 power switches, 7,526 controlled signals, and the 2,615 automatic signals in C.T.C. territory, as compared with 2,973.9 miles of road, 3,591.8 miles of track, 2,030 switches, 5,496 controlled signals, and 2,615 automatic signals as of January 1, 1943.

Table 8, not printed herewith, lists the mileages of train operation by signal indication without train orders. One-direction operation by signal indication is in effect with C.T.C. on 186.5 miles of track, by manual block on 2,686.8 miles, and controlled manual block on 9.5 miles. Either-direction operation is in effect with C.T.C. on 4,563.0 miles of track by controlled manual block on 255.4 miles, and by automatic block signals in both directions on 2,597.8 miles of track. Automatic block in one direction, with traffic locking in the reverse direction is in service on 437.1 miles of track.

Telegraph and Telephone

Table 9, not printed herewith, lists the use of telegraph and telephone for the transmission of train orders on the various roads. Comparing the figures for January 1, 1943, with those for January 1, 1944, the use of telegraph decreased from 77,374 to 77,224 miles, and the use of telephone decreased from 149,294 to 148,937 miles of road.

TABLE NO. 6—NUMBER AND KINDS OF INTERLOCKINGS IN SERVICE ON JANUARY 1, 1944

Name of railroad	Interlockings Maintained by Reporting Carrier									Name of railroad	Interlockings Maintained by Reporting Carrier									
	Interlockings on line of reporting carrier	Automatic	Electric	Electro- mechanical	Electro- Pneumatic	Mechanical	Pneumatic	Other types	Total		Interlockings on line of reporting carrier	Automatic	Electric	Electro- mechanical	Electro- Pneumatic	Mechanical	Pneumatic	Other types	Total	Remotely controlled
A. C. & V.	3					1			1	M. C. & C. L.	2									
A. T. & N.	2									Memphis U. S.	1				1				1	
Alton.	49	5	6		1	21			32	M. & B. R.	1								1	
A. & S.	10	4							4	M. V.	4									
A. & N. R.	1				1					M. & St. L.	43	4								
A. A.	13									M. N. & S.	3									
A. T. & S. F.	253	21	103	8	3	54		1	190	M. St. P. & S. Ste. M.	64	7	10						32	3
A. & W. P.	2									M. W.	1									
W. of Ala.	1									Miss. C.	2									
A. B. & C.	1		1							M.-I. B. & B.	1								1	
A. Term.	2		2							M.-K.-T.	39	1	4	4					22	3
A. & Y.	1									M.-K.-T. of T.	42	2	8	3	1	10			24	7
A. C. L.	127	5	8	32	2	42	1		89	M. P.	132	14	15		1	34			64	10
B. & O.:										B. S. L. & W.	2							2		
Eastern	92			28	8	6	40	1	82	H. B. & T.	9	1	5					8	2	
Central	74	2	9	1	9	29			50	I. St. M. & E.	1									
Western	98	2	20	4		30			56	I.-G. N.	22	1	4		1	10		12		
N. Y. T.	7		3		2	1			1	M.-I.	5									
B. & O. C. T.	28	5	2		2	8			17	N. I. & N.	1									
Bamberger	1									N. O. T. & M.	4	2							3	
Ban. & Ar.	2				2					O. & N.	1								1	
B. Ry. of Chi.	6		2			1			3	S. L. B. & M.	10		1			5		6		
B. & L. E.	1									S. A. U. & G.	1									
B. & G.	2									S. B. & R. G. V.	1									
Birm. Term.	1		1						1	Sugar Land.	2									
B. & H. S.	1									M. B. (St. L.)	3		1						1	
B. & M.	103	1	41	5	14	33			94	N. C. & St. L.	24		10	6	2	1		18		
Burl.-R. I.	2									N. & S. S.	2							1		
C. N.	7		3							N. J. I. & I.	1									
C. P.	2		2							N. Y. C.:										
Canton.	5		1			2			3	East.	169	3	72		3	75	5	161	16	
Car. & N. W.	1									West.	174	4	58	16		41	1	120	17	
Cen. Ind.	2									B. & A.	41		14				23	47	5	
C. of G.	14			2		2				C. J.	2					1				
C. of N. J.	67		7	6	23	19		5	55	C. C., C. & St. L.	205		57	17		62	1	137	38	
N. Y. & L. B.	12		2	2	1	7			12	I. H. B.	15		3			2		5	3	
C. V.	3									L. E. & E.	1									
C. C. W.	1									L. & J. B.	2		1					1		
C. & W. C.	4									M. C.	71		15	1				35	4	
C. S.	1		1							P. & E.	16	1	2			2		5		
C. & O.	93		27	24	10	11		2	14	P. & L. E.	16		9			7				
C. & E. I.	42	3	3	1		21		2	30	Troy Union.	3			1		2		3		
C. H. T. & T.	4									N. Y., C. & St. L.	122	6	27	10		15		60	12	
C. & I. M.	7		1							N. Y., N. H. & H.	98	3	33	5		55		96		
C. & N. W.	211	24	49	1	2	46			13	N. Y. & W.	9					3		3		
C. & W. I.	16		4		6	3				N. Y., S. & W.	8	1	2			3		6		
C. A. & E.	7				2	3				N. & P. B. L.	5					2		2		
C. B. & Q.	157	13	29	4	2	41		1	90	N. S. & W.	68		16	13	20	8		57	7	
C. G. W.	52	4	3			24			11	N. O.	9	1	1		1					
C. I. & L.	28		2			7		9	1	N. P.	104	14	15			24		53		
C. M., St. P. & P.	203	32	38	1	54	7			19	N. P. T.	1		1			5		1		
C. N. S. & M.	6		2		3			5		Northwestern P.	5					5		5		
C. R. I. & P.	125	24	20	1		23		4	72	Oahu R. & L.	1					1		1		
C. R. I. & G. P. T.	9	2	1		3					Oak. Term.	3		1	2					3	
C. St. P. M. & O.	42	2	6	3		4				Ola.	1									
C. S. S. & S. B.	6		1		1					O. C. A.-A.	1					1			1	
C. U. S.	2			2						O. L. & B.	2									
C. U. T.	2		1	1						Panama	2			2				2		
Clinchfield	1									P. E.	27	3	10		2	3		18	1	
C. & S.	6	2								Penna.	682	3	155	146	154	84	5	547	167	
Col. & Green	2									P.-R. S. L.	8			4	4			8		
Conemaugh & Blacklick	1			1		1				P. & P. U.	3		2		1			3		
Copper Range	2		1							P. M.	61		18	1		16		35	1	
Dayton Union	2		1																	

TABLE No. 6—NUMBER AND KINDS OF INTERLOCKINGS IN SERVICE ON JANUARY 1, 1944

Name of railroad	Interlockings Maintained by Reporting Carrier										Interlockings Maintained by Reporting Carrier										
	Interlockings on line of reporting carrier	Automatic	Electric	Electro- mechanical	Electro- Pneumatic	Mechanical	Pneumatic	Other types	Total	Remotely controlled	Interlockings on line of reporting carrier	Automatic	Electric	Electro- mechanical	Electro- Pneumatic	Mechanical	Pneumatic	Other types	Total	Remotely controlled	
D. & H.	35	2	13	1	12	1	1	1	26	7	P. & P. U.	3	2	1	1	1	1	1	3	35	1
D., L. & W.	88	1	13	2	19	31	1	1	67	7	P. M.	61	18	1	1	16	1	1	3	35	1
Delray Con.	1	3	4	1	1	1	1	1	10	1	P. & W. V.	1	1	1	1	1	1	1	1	100	5
D. & R. G. W.	17	2	4	1	1	1	1	1	10	1	Q. A. & P.	1	1	1	1	1	1	1	1	1	1
Denver U. T.	2	1	2	1	1	1	1	1	11	1	Reading	121	17	5	9	60	9	9	100	5	5
D. O. & E.	1	1	1	1	1	1	1	1	1	1	R. F. & P.	13	3	1	5	4	1	1	13	1	1
D. M. U.	1	1	1	1	1	1	1	1	1	1	R. T.	2	1	1	1	1	1	1	1	1	1
D. & M.	2	1	1	1	1	1	1	1	1	1	Rutland	10	1	1	1	6	1	1	6	1	1
D. & T. S. L.	11	5	5	3	5	5	5	2	11	1	S. N.	11	1	1	1	6	1	1	4	1	1
Det. Term.	5	2	2	1	1	1	1	1	6	1	St. L. & O'F.	1	1	1	1	1	1	1	1	1	1
D., T. & I.	36	2	2	1	1	1	1	1	11	1	St. L. & S. F.	85	21	4	5	24	1	1	54	1	1
D., M. & I. R.	12	1	2	1	1	1	1	1	8	1	B. B.	3	1	1	1	1	1	1	1	1	1
D., S. S. & A.	1	1	1	1	1	1	1	1	1	1	St. L. & S. F. & T.	6	1	1	1	4	1	1	2	5	1
D., W. & P.	5	1	1	1	1	1	1	1	5	1	St. L. S.	26	1	1	1	1	1	1	2	1	1
D. & S.	2	1	1	1	1	1	1	1	1	1	S. L. & U.	4	1	1	1	1	1	1	1	1	1
E., J. & E.	27	5	3	6	5	57	8	2	16	1	S. & A.	1	1	1	1	33	10	88	18	18	1
Erie	152	38	6	5	5	57	5	2	106	20	S. A. L.	122	9	21	15	33	10	88	18	18	1
N. J. & N. Y.	1	1	1	1	1	1	1	1	1	1	M. D. & S.	1	1	1	1	1	1	1	1	1	1
F., P. & E.	1	1	1	1	1	1	1	1	1	1	Southern	90	2	8	1	32	2	8	42	1	1
F. E. C.	12	2	6	1	1	1	1	1	9	1	A. G. S.	11	1	5	1	1	1	1	1	1	1
Ft. D., D. M. & S.	7	1	1	1	1	1	1	1	6	1	C., N. O. & T. P.	19	7	1	1	11	1	1	18	1	1
Ft. W. & D. C.	12	1	1	1	1	1	1	1	1	1	G. S. & F.	4	1	1	1	1	1	1	1	1	1
G. M.	1	1	1	1	1	1	1	1	1	1	H. & N.	1	1	1	1	1	1	1	1	1	1
G., H. & H.	9	1	1	1	1	1	1	1	1	1	N. O. & N.	7	1	1	1	5	1	1	6	1	1
G. & W.	1	1	1	1	1	1	1	1	1	1	N. O. T.	2	1	1	1	1	1	1	1	1	1
Georgia	1	1	1	1	1	1	1	1	1	1	St. J.-R. T.	2	1	1	1	1	1	1	1	1	1
G. & F.	1	1	1	1	1	1	1	1	1	1	S. I. & M. B.	2	1	1	1	1	1	1	2	1	1
G. A. S. & C.	1	1	1	1	1	1	1	1	1	1	S. P.: Pacific	102	3	39	12	19	3	76	18	18	1
Ga. N.	1	1	1	1	1	1	1	1	1	1	T. & N. O.	117	6	38	40	40	4	84	11	11	1
G. T. W.	52	5	22	1	24	2	2	31	107	1	S. P. & S.	4	3	1	1	1	1	1	1	1	1
G. N.	134	48	22	1	36	2	2	1	107	1	O. E.	1	1	1	1	1	1	1	1	1	1
N. Coal Co.	2	1	1	1	1	1	1	1	1	1	S. & S.	1	1	1	1	1	1	1	1	1	1
S. C. C. D'A. & P.	2	1	1	1	1	1	1	1	1	1	T. (III.)	4	1	1	1	1	1	1	1	1	1
G. B. & W.	6	2	3	1	1	1	1	1	1	1	T. C.	1	1	1	1	1	1	1	1	1	1
G. M. & O.	16	2	2	5	44	5	5	7	96	7	T. R. R. A. of St. L.	13	3	5	2	1	1	1	10	6	1
H. & M.	8	2	2	5	44	5	5	7	96	7	St. L. M. B. T.	6	4	1	1	1	1	1	1	30	3
I. C.	144	6	37	9	44	44	44	44	96	7	T. & P.	39	8	12	1	8	1	1	30	3	3
C. & I. W.	3	1	1	1	1	1	1	1	1	1	Abil. & S.	2	1	1	1	1	1	1	1	1	1
G. & S. I.	3	1	1	1	1	1	1	1	1	1	T. C. T.	1	1	1	1	1	1	1	1	1	1
V. & M. V.	11	1	1	1	1	1	1	1	1	1	T. P.-M. P. T. of N. O.	3	2	1	1	2	1	1	5	1	1
I. N.	5	1	1	1	1	1	1	1	1	1	T. P. & W.	12	2	1	1	1	1	1	1	1	1
I. T.	19	1	3	1	2	6	6	7	10	2	T. T.	13	1	1	1	5	1	1	1	1	1
I. U.	13	3	1	2	6	6	6	6	10	2	Union	5	1	1	1	5	1	1	1	1	1
J. T.	4	1	1	1	2	1	1	1	4	1	U. P.	116	18	39	1	21	1	1	79	8	8
J. W. & N.	1	1	1	1	1	1	1	1	1	1	U. T. Co. (Dallas)	2	1	1	1	2	1	2	2	1	1
K. C. K. V.	1	1	1	1	1	1	1	1	1	1	U. T. Ry. (St. Joseph)	2	1	1	1	1	1	1	1	1	1
K. C. S.	27	6	2	8	3	11	11	8	107	1	Utah	2	1	1	1	1	1	1	1	1	1
K. C. T.	12	1	1	1	1	1	1	1	1	1	U.-I. C.	1	1	1	1	1	1	1	1	1	1
K. O. & G.	5	3	3	3	3	3	3	3	10	1	Virginian	10	1	2	1	6	1	10	1	1	1
K. & I. T.	3	1	1	1	1	1	1	1	1	1	Wabash	107	7	10	3	31	3	54	4	4	4
L. & W. V.	1	1	1	1	1	1	1	1	1	1	Wash. Term.	3	1	1	1	1	1	1	1	1	1
L. S. & I.	4	1	1	1	3	4	4	4	14	1	W. B. T. & S.	1	1	1	1	1	1	1	1	1	1
L. S. T. & T.	1	1	1	1	1	1	1	1	1	1	W. C. F. & N.	3	1	1	1	1	1	1	1	1	1
L. & H. R.	4	2	2	4	2	2	2	2	14	1	W. M.	6	1	1	1	2	1	1	3	1	1
L. & N. E.	5	1	21	1	21	11	11	11	32	1	W. P.	28	2	3	4	4	1	1	9	1	1
L. V.	55	23	14	3	18	60	11	2	14	1	W. & L. E.	15	1	1	4	4	1	1	6	1	1
L. & M.	6	1	1	1	1	1	1	1	1	1	W. F. & S.	1	1	1	1	1	1	1	1	1	1
L. I.	32	5	1	15	11	11	11	11	32	1	W. -S. S.	2	1	1	1	1	1	1	1	1	1
L. A. Jct.	1	2	2	1	1	1	1	1	1	1	Yadkin	1	1	1	1	1	1	1	1	1	1
L. & A.	4	2	2	1	1	1	1	1	1	1	Y. V.	1	1	1	1	1	1	1	1	1	1
L. & N.	85	23	14	3	18	60	11	11	14	1	Y. & N.	1	1	1	1	1	1	1	1	1	1
Me. C.	14	2	6	3	3	5	5	1	5	1	Total	6,691	389	1,448	421	380	1,746	5	63	4,452	512
P. T.	5	1	1	1	1	1	1	1	1	1											
M. & N.	1	1	1	1	1	1	1	1	1	1											
Mfrs. Ry.	1	1	1	1	1	1	1	1	1	1											

Table No. 7—CENTRALIZED TRAFFIC CONTROL INSTALLATIONS IN SERVICE JANUARY 1, 1944

Name of Railroad	Location	Miles of road	Miles of track	Number of switches controlled	Number of signals controlled	Number of automatic signals	Name of Railroad	Location	Miles of road	Miles of track	Number of switches controlled	Number of signals controlled	Number of automatic signals
Alton.....	South Joliet-Plaines.....	2.8	2.8	—	3	1	Madrid-Woodward, Iowa.....	3.6	3.6	2	6	2	
	Plainview-Rinaker.....	8.3	8.3	—	5	5	Indian Creek-Covington.....	7.1	7.1	—	—	7	
	Godfrey-Wann.....	7.5	7.5	—	6	6	Delmar-Tallmadge, Ill.....	6.0	6.0	—	11	2	
A., T. & S. F.	Kinsley-Dodge City, Kansas.....	33.9	41.5	22	46	24	Shore Acres-West Yard, Sioux City, Iowa.....	1.9	1.9	—	9	1	
	Sals-Belen, N. M.....	20.3	20.3	9	27	14	Manilla-Council Bluffs.....	60.0	60.0	—	50	23	
	Holliday-Olathe, Kansas.....	12.6	25.2	6	13	28	Beloit Jct.-Beloit, Wis.....	1.1	1.1	—	3	—	
	Bandini-D.T. Jct., Calif.....	2.0	2.0	2	6	2	Beloit Yard-Rockton.....	1.7	1.7	—	4	1	
	Rowe-Fox, New Mexico.....	5.1	5.1	—	10	2	Sturtevant-A68.....	6.3	12.6	8	12	5	
	Fullerton-Veneta, Calif.....	14.0	14.0	21	45	11	Mobridge-Moreau Jct.....	3.0	3.0	—	5	—	
	Santa Fe Jct.-Hale Jct., Texas.....	5.8	5.9	—	8	—	Tunnel City-Raymore.....	2.7	2.7	1	6	4	
B. & A.	Webster Jct.-E. Brookfield, Mass.....	13.4	13.4	8	22	12	Lawson Jct.-Moseby Jct.....	11.6	11.6	11	30	16	
	Athol Jct.-Int. 40, Springfield, Mass.....	2.0	2.0	4	10	2	LaCrosse-River Jct.....	2.2	2.2	3	10	2	
B. & L. E.	Meadville Jct.-Filer.....	49.9	88.6	13	58	—	Austin-Ramsey.....	2.2	2.2	—	6	2	
B. & O.	North Lima-Roachton, Ohio.....	54.7	54.7	33	73	34	Ottumwa-Rutledge.....	3.9	3.9	2	9	3	
	West End D.T., Fairport-Maynard.....	5.4	8.3	8	13	6	—	—	—	—	—	—	
	Gilkeson-Wheeling.....	42.5	42.5	23	69	38	C. R. I. & P.	—	—	—	—	—	
B. & G.	Fogarty Jct.-Bingham, Utah.....	16.0	16.0	3	47	52	Trenton, Mo.-Polo.....	46.3	56.7	11	44	47	
B. & M.	No. Chelmsford-Ayer, Mass.....	13.2	27.1	10	19	20	Polo-Birmingham, Mo.....	37.7	75.4	11	28	79	
	Wilmington-Lowell Jct., Mass.....	4.7	6.8	15	18	2	Hot Springs Jct.-Biddle, Ark.....	1.2	1.2	2	9	3	
	Dover-Rollinsford, N. H.....	3.0	6.0	23	30	1	Glenville-Albert Lea.....	8.5	8.5	5	26	7	
	Rollinsford, N. H.-Rigby, Me.....	70.2	101.0	51	34	92	Briar-Hulbert, Ark.....	4.3	4.3	—	5	4	
	Wilmington-No. Woburn Jct., Mass.....	1.7	2.9	11	14	1	Blue Island-Joliet, Ill.....	24.1	48.3	4	10	40	
	Beverly-Salem, Mass.....	1.7	1.7	6	12	1	Rockdale-W. of Morris, Ill.....	20.2	40.4	8	36	22	
	Rigby, Maine.....	1.4	2.2	9	9	—	Spring Valley-Bureau, Ill.....	12.8	25.6	15	57	15	
	West Cambridge-Hill Crossing, Mass.....	1.5	1.5	12	6	1	Little Rock-N. Little Rock, Ark.....	.8	.8	—	2	—	
	North Cambridge-Hill Crossing, Mass.....	1.1	1.1	—	1	2	Inver Grove-Newport, Minn.....	1.8	1.8	—	3	3	
	East Fitchburg-Westminster, Mass.....	8.7	17.5	56	38	Genesee-Silvis, Ill.....	14.7	29.4	5	31	18		
	Westminster-Tyter, Mass.....	29.2	64.1	54	69	57	—	—	—	—	—	—	
	Montague-E. Deerfield, Mass.....	3.6	7.2	17	28	3	D. & H.	No. Windsor-So. Windsor, N. Y.....	2.1	5.4	3	7	8
	E. Deerfield-Soapstone, Mass.....	29.6	60.6	41	42	58	Center Village, N. Y.-Lanesboro, Pa.....	14.7	20.3	8	16	21	
	E. Deerfield-Deerfield Jct., Mass.....	1.0	1.0	4	2	Point Crane-Binghamton, N. Y.....	2.2	4.4	5	7	8		
	Soapstone-E. Portal, Mass.....	2.1	6.1	20	21	South Jct.-Valcour, N. Y.....	1.9	2.8	2	6	3		
	E. Portal-Spragues, Mass.....	6.2	13.5	5	10	Delanson-Central Br., N. Y.....	22.5	48.9	26	32	44		
	Hoosick Jct.-Eagle Bridge, N. Y.....	3.3	6.6	13	14	Dante-Schenevus, N. Y.....	6.6	13.2	34	40	18		
	Winchester-Montvale, Mass.....	1.8	3.6	20	13	Watervliet Jct.-Albany, N. Y.....	—	—	—	—	—		
C. P.	McAdams, N. B.-Vanceboro, Me.....	.3	.3	—	1	—	W.-B. Connecting....	South Hudson Yard-Plains Jct., Pa.....	2.0	2.0	2	5	1
C. of G.	Ames-Oklmulgee.....	4.8	4.8	4	12	4	D. & R. G. W.	Provost-East Roper, Utah.....	39.6	47.7	20	77	18
	Macon Jct.-Payne.....	4.1	4.1	—	5	2	Agate-Maxwell, Utah.....	125.1	125.1	51	210	58	
	Terra Cotta-Echeconnee.....	8.6	8.6	—	14	6	Dotsero-DeBeque, Colo.....	73.8	73.8	29	115	39	
	Echeconnee-Carman.....	15.0	15.0	2	24	11	Tennessee Pass-Deen, Colo.....	6.8	9.4	2	19	4	
C. of N. J.	North Branch-White House, N. J.....	4.4	17.6	4	10	DeBeque-Grand Jct., Colo.....	33.3	33.3	20	67	20		
C. & O.	"AR" Cabin-Highland Park, Va.....	1.4	1.4	1	5	—	D. M. & I. R.	{ Wolf-Keeman.....	11.9	18.0	16	48	11
	"HY" Cabin-MP 282, Va.....	1.5	1.5	9	9	{ Iron Jct.-Sparts.....	—	—	—	—	—		
	East End Fulton-"R" Richmond, Va.....	2.0	2.0	2	8	Erie.....	Olean-College Crossing, N. Y.....	2.0	2.0	—	1	—	
	Limeville, Ky.-Edginton, Ky.....	3.5	3.5	1	3	Atlantic-Stoney Point, Pa.....	5.8	5.8	3	20	2		
	Brighton-Cheviot, Ohio.....	5.0	5.0	4	12	Lanesboro, Pa.-Guil Summit, N. Y.....	6.5	6.5	2	2	4		
	"WH" Cabin-NG" Cabin, W. Va.....	11.0	11.0	2	6	Amasa, Pa.....	1.2	1.2	1	4	—		
	W. Peach Creek-Peach Creek, W. Va.....	1.1	1.1	2	5	Lackawaxen-Tusten, Pa.....	9.4	18.8	4	9	12		
	Strathmore-Shores, Va.....	1.0	1.0	2	6	Leavittsburg-Pymatuning.....	28.6	28.6	2	33	11		
	"OX" Cabin-Tuckahoe, W. Va.....	9.5	18.0	19	30	Hubbard, Ohio-Coles, Pa.....	3.6	3.6	1	5	—		
	Joshua Falls-Tyree, Va.....	8.0	8.0	2	9	Waterboro-Randolph, N. Y.....	5.2	5.2	—	3	—		
	Talcott-Hilldale, W. Va.....	2.9	5.8	5	13	Lackawaxen-XJ" Wyoming Div., Pa.....	1.6	1.6	1	4	—		
	"OX" Cabin-"A" Cabin, Va.....	8.5	17.0	16	25	Elmira-Southport, N. Y.....	.2	.4	6	12	—		
C. & N. W.	Kickapoo-Limestone, Ill.....	1.2	1.2	1	4	Buffalo, N. Y.-L. V. Jct.....	.7	.7	—	1	—		
	Green Bay-Duch Creek, Wis.....	4.0	4.0	4	14	Red House, N. Y.....	1.3	2.6	1	4	—		
	Chadron-Dakota Jct., Neb.....	4.4	4.4	1	7	Hackensack Br.-"HB" Jct., N. J.....	1.9	1.9	1	5	2		
C. B. & Q.	Block 104-MP 108.18.....	4.7	4.7	4	8	Sedley-Valparaiso, Ind.....	5.2	5.2	—	4	7		
	Aurora-Steward Jct.....	39.9	39.9	9	36	G. T. W.	Iselin Jct.-Iselin Yard.....	1.0	1.0	2	4	1	
	Steward Jct.-Flag Center, Ill.....	8.6	17.2	12	30	I. C.	Illinois, Ill.-Ballard, Ky.....	1.6	1.6	2	18	—	
	Graham-Galesburg, Ill.....	3.1	6.3	6	13	Otto-Ashkum, Ill.....	12.2	24.4	17	4	38		
	Block 36-Armour, Mo.....	6.5	6.5	2	9	Ashkum-No. Gilman, Ill.....	6.3	12.6	11	4	16		
	Mark-West Quincy Mo.....	4.4	4.4	12	29	No. Gilman-Gilman, Ill.....	1.4	2.8	10	11	2		
	Ray-Pottsboro, Texas.....	3.5	3.5	3	14	South Jct.-Decatur, Ill.....	1.1	1.1	1	6	—		
	Eureka-Houston, Texas.....	3.4	3.4	—	6	Clinton-Kenney, Ill.....	8.0	11.3	1	15	6		
C. G. W.	Winston-Rice, Ill.....	1.5	1.5	2	6	West Waterloo, Iowa.....	1.3	2.6	3	10	—		
	So. Des Moines-Burch, Iowa.....	1.2	1.2	1	7	P. & I.	Paducah, Ky.-Metropolis, Ill.....	14.8	14.8	13	30	4	
C., M., St. P. & Pac....	Island Siding-Indio, Minn.....	3.5	3.5	2	6	L. & N. E.	Lansford-Hauto, Pa.....	1.3	11.3	3	9	—	
						L. V.	Mountain Top-Conway, Pa.....	11.0	11.0	2	8	7	
						L. & N.	Henderson, Ky.-Vaughans, Ind.....	4.6	4.6	—	3	7	
							S. Patio-Irvine, Ky.....	23.8	23.8	6	10	16	
							Brentwood, Tenn.-Athens, Ala.....	92.0	92.0	22	92	52	

Sibert-Miles, Ala.	56.3	56.3	16	73	41		Woodman, Ky.-Home Creek, Va.	18.8	18.8	18	66	10		
Combs-No. Hazard, Ky.	.8	.8		6	1		Walton-Bluff, Va.	3.2	6.4	3	10			
Welka-Garland, Ala.	49.0	49.0	13	60	27		Tug-Farm, W. Va.	3.4	6.8	9	15			
Glidden-Popeville, Ky.	1.0	1.0		3	2		Iaeger-Hull, W. Va.	4.4	13.2	4	22	12		
M-K-T	Chase-Muskogee, Okla.	4.2	4.2	1	15	3		Pasco-Kennewick, Wash.	2.1	3.1	1	3	11	
M-K-T. of T.	Staley-Ray, Texas	3.9	3.9	1	9		Pasco-Ainsworth Jct., Wash.	4.7	4.7	1	3	5		
Beeville-Skidmore	10.3	10.3	4	25	4		Quarry-Cresswell, Pa.	30.7	35.1	9	30	13		
Ennis-Garrett	1.2	1.2	1	6	2		Red Bank (Brady)-Conemaugh, Pa.	42.9	42.9	8	20	18		
Harrisburg-Tower 86	3.8	3.8	3	7	8		Hunter-West Vandala, Ill.	11.6	13.4	6	10	6		
Miller Yard-T. & P. Jct.	3.9	3.9	9	17	3		West Vandalia-Smithboro, Ill.	12.7	14.4	1	3	10		
Nacogdoches-Bonita Jct.	2.9	2.9	1	6	3		Huntley-Sterling Run, Pa.	4.6	4.6	2	6	4		
Tower 26-Niles	1.9	1.9		16			Clare-Rendcomb Jct.	2.5	5.1	10	17	2		
M. P.	Kirkwood-H. I. Jct., Mo.	.5	.5	1	3		Rendcomb Jct.-Valley	1.0	1.0	2	2	2		
H. I. Jct.-H. D. Jct. (Boles)	35.4	67.3	15	56	54		Hudson-Arlington	11.5	11.5	4	15	4		
G.G. Jct.-R.R. Jct. (Myrick, Mo.)	3.8	7.6	2	18	9	E. Henry-Gem, Indiana	17.4	25.5	18	31	11			
No. Cypress-Edgewater Jct., Kansas	1.6	1.6	7	24		Terre Haute, Ind.-7th St.	.4	.4	2	5				
Kaw Point-Edgewater Jct., Kansas	1.5	1.5	4	13		Norwood Hts.-Old River	19.7	19.7	23	13	10			
Edgewater Jct.-Atchison, Kan.	42.0	42.0	27	107	27		New River-Glen	39.1	39.1	15	27	24		
Atchison-Shannon, Kansas	7.9	7.9		9	20		Red Bank-B. & O. Conn. E. Norwood	4.0	4.0	3	14	4		
Leeds, Mo.-Stillwell, Kansas	22.7	22.7	8	37	13		Sw. 1 Oakley-Sw. 2 Oakley	.6	.6	1	4			
Stillwell-Paola, Kansas	20.7	20.7	11	47	13		Sw. 3 Oakley-Norwood Heights	1.6	1.6	3	12			
Paola-Osawatomie, Kansas	6.4	6.4	4	15	6		Broad-Foley	2.2	2.2	6	8			
Osawatomie, Kansas	1.6	3.2	9	13			Hubbard-Lake, N. Y.	21.9	21.9	5	15	10		
Osawatomie-Lane, Kansas	8.3	8.3		5	9		Oil City, Pa.-MP 120	9.4	9.4		2	4		
Dearing-Coffeyville, Kansas	5.8	5.8		10	8		Bloomville-Coleman, Ohio	11.1	11.1	9	12	6		
Poplar Bluff, Mo.	1.9	3.8	2	6	4		Davis-Limedeal, Ind.	32.5	36.7	12	34	16		
Poplar Bluff, Mo.-Walnut Ridge, Ark.	56.8	63.0	26	95	38		Limedale-Brazil, Indiana	16.9	20.8	14	19	10		
Walnut Ridge-Hoxie, Ark.	4.9	9.9	6	12	6		Macksville, Ind.-W. Casey, Ill.	34.2	36.1	17	44	24		
Hoxie-Grand Glaise, Ark.	45.6	60.1	18	98	34		Farrington, Ill.-TH&P Br.	1.2	1.2	2	3			
Grand Glaise-Bald Knob, Ark.	14.3	16.2	5	30	10		Louisville-Boyd, Ky.	5.7	8.3	33	48			
Benton-Curtis, Ark.	54.0	56.0	22	88	41		Kentucky Street Branch	.6	.6		2			
Curtis-Bierne, Ark.	6.9	13.9	2	13	13		Peoria-Pekin, Ill.	7.1	14.2	20	31			
Bierne-Prescott, Ark.	14.9	14.9	4	16	8		P. M.	Mt. Morris-Bridgeport	19.8	19.8	8	33	12	
Little Rock-E. Little Rock, Ark.	.9	.9		7			Lake Odessa-Seymour	28.0	28.0	2	22	17		
N. Little Rock Cent.-N. End Ark. River Br.	1.1	1.1	1	4	1		Grandville-Hudsonville	5.8	5.8	1	7			
N. End Ark. Riv. Br.-Little Rock U.D. Yd.	.4	.4		1			Coloma-Riverside	3.9	3.9		3			
Little Rock (Rock St.)-N. Little Rock, Ark.	.3	.3		5			Vine-Stevensville	2.9	2.9	1	4			
N. Little Rock, Cent. Div. Conn.-Sig. 3444	XO Jct.						New Buffalo-Porter	21.5	21.5		20			
Benton, Ark. H.S. R.Jct.-MP 369	.7	.7		3			P. & L. E.	Wampum-W. Pittsburgh, Pa.	3.1	6.3	20	11	4	
Osage-A R Jct., Mo.	12.5	23.2	12	33	25		Reading	Ewing-West Trenton, N. J.		2.7	3	6	1	
Gasconade-K K Jct., Mo.	.2	.2	3	13			St. L.-S. F.	Springfield-Nichols, Mo.	3.5	3.5		2	4	
Nevada-Nassau Jct., Mo.	2.2	2.2		5			Turrell-Clarkdale, Ark.	4.5	4.5	1	2	4		
Butler-Monteith Jct., Mo.	3.3	3.3		4	2		Critco, Ark.-Memphis, Tenn.	6.4	6.4	1	10	7		
Rich Hill-Rich Hill Jct., Mo.	1.7	1.7	2	10			Dillon-Swedesborg, Mo.	47.0	47.0	22	94	38		
Van Buren-Greenwood Jct., Ark.	6.1	6.1	3	14	4		Birmingham Belt	1.1	1.1		2			
Greenwood Jct.-Ft. Smith, Ark.	4.8	4.8	1	11	4		St. L. S.	Lufkin Jct.-Tyler, Texas	3.3	3.3	1	4	3	
Howardton-Halsey, Ill.	4.5	4.5	1	5	4		Ancell-Dexter, Mo.	44.9	60.0	16	80	32		
Flinton-Raddell, Ill.	28.9	30.5	23	75	14		S. A. L.	Richmond, Va.	.8	1.6	5	19	2	
Municipal Bridge	St. Louis, Mo.-East St. Louis, Ill.	3.4	6.8	30	32			Richmond-Cochran, Va.	63.9	72.1	39	95	48	
N. C. & St. L.	Cowan-Sherwood, Tenn.	7.6	8.4	5	14			Youngville-Meuse, N. C.	10.9	10.9	8	25	7	
	Hills Park-Junta, Ga.	42.8	43.4	29	102			Savannah-Blossom, Ga.	1.5	1.5	1	1		
N. Y. C.	Berwick-Stanley, Ohio	40.9	44.2	33	75	28		Savannah-Thalmann, Ga.	64.6	64.6	27	95	44	
N. Y. C. & St. L.	K. G.-N. P. Ashtabula, Ohio	.9	.9	1	6	4		S. P.	El Pinal-Polk, Calif.	39.7	42.2	23	96	74
	K. M. Kishmans-H. O. Kimball, Ohio	21.6	21.6	10	32			Redding-Black Butte, Calif.	80.5	80.5	50	217	101	
	Hadley-So. Whitley, Ind.	19.9	19.9	6	18			Bena-Tehachapi, Calif.	32.3	32.3	28	111	35	
	Maumee-Toledo, Ohio	5.2	10.2	20	16			Santa Margarita-San Luis Obispo, Calif.	16.8	16.6	16	60	26	
	Brocton-W. E. Pa.	24.7	24.7	8	24	10		Colton-Indio, Calif.	37.4	37.4	29	100	35	
N. Y. O. & W.	High View, N. Y.-Mamakating	1.5	1.5	2	2			San Jose-Lick, Calif.	4.9	5.4	1	17	12	
	Fallsburgh-Woodridge, N. Y.	3.6	3.6	2	2			Virginia Point-Island	2.3	4.6	58	25		
	N. Y. C. Jct.-Fulton, N. Y.	2.1	2.1	1	6	3		Alpine-Paisano	12.7	12.7	6	34	8	
	East Br.-Cadosia, N. Y.	8.7	8.7	1	2	3		T. & P.	Edgard-Johnson La.	4.5	4.5		5	4
	Olyphant, Pa.	.5	.5		2			West Bridge Jct.-Avondale, La.	1.0	1.0		2	1	
N. Y. S. & W.	No. Hawthorne-Riverside, N. J.	1.5	1.5		3			Longview-Willow Springs, Texas	4.1	4.1	2	10	3	
N. & W.	Poe-Jack, Va.	8.9	8.9		15			Donaldsonville-Donaldsonville Yard, La.	.5	1.0	4	10	8	
	Grand Crossing-Herrington	5.1	5.1	1	6	2		Dallas-Ft. Worth, Texas	31.8	63.6	21	76	38	
	Sullivan-N. LaCrosse	1.1	1.1	7	7	3		Ft. Worth-Hodge, Texas	3.2	3.2	2	9	2	
	Prescott, Wis.-St. Croix, Minn.	3.0	5.8	9	12			Cut Off Jct.-Cedar Grove, La.	2.7	2.7		5	5	
	Plattsburgh, Neb.-Pacific Jct., Iowa	4.9	4.9		5	4		Texarkana-Longview, Texas	88.5	88.5	32	169	72	
	Red Oak-Balfour, Iowa	25.3	27.8	20	62	8		Alexandria-Alexandria Yard, La.	1.7	1.7		14	2	
	Greenwood-Waverly, Neb.	5.4	5.4	5	18	4		Union Pacific	La Grande-Motanic, Ore.	14.5	14.5	10	38	9
	Halpin-Maxon, Iowa	5.8	5.8	12	29	4		Yermo-Daggett, Calif.	3.5	3.5	1	13	2	
	Shannon-Charlton, Iowa	7.5	15.0	2	15	9		Las Vegas-Yermo, Calif.	170.7	170.7	67	288	91	
	Akron-Derby, Colo.	105.3	105.3	40	167	50		Virginian	Mullens-DB Tower, W. Va.	57.8	57.8	16	66	52
	Brickyard-Gaines, (Hastings) Neb.	3.1	6.2	7	28			Wabash	Lafayette Jct.-State Line, Indiana	37.0	37.0	13	56	26
	Burlington, Iowa-Illinois Jct., Ill.	.6	1.2	8	9			Walbridge Jct.-Wanick Jct., Ohio	5.3	10.6	26	34	7	
	Pulaski-Radford, Va.	14.2	14.2	16	54	6		Total	288 Installations	4,004.3	4,745.5	2,479	7,526	3,277
	No. Roanoke-Stuarts, Va.	84.2	94.7	39	146	54								
	Phoebe-Forest, Va.	20.0	20.0	3	34	12								
	Bentonville-Shenandoah, Va.	33.6	33.6	13	52	18								

Name of Railroad

	Miles of road equipped	Miles of track equipped	Number of equipped locomotives and motorcars
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TABLE No. 5A

Automatic Train-Stop and Train-Control Devices

Alton.....	113.8	203.5	67
Atchison, Topeka & Santa Fe.....	175.4	355.0	94
Atlantic Coast Line ¹	297.3	586.1	178
*Florida East Coast.....			4
*Norfolk & Western.....			4
Baltimore & Ohio ²	169.3	343.0	271
Boston & Albany.....	208.0	504.5	169
Boston & Maine.....	5.1	10.2	9
Chesapeake & Ohio.....	123.4	123.4	83
Chicago & Eastern Illinois ³	141.5	283.0	130
*Elgin, Joliet & Eastern.....			15
Chicago & North Western.....	506.3	1,031.6	283
*Chicago, Burlington & Quincy.....			2
*Chicago, St. Paul, Minneapolis & Omaha.....			4
*Union Pacific ⁴			15
Chicago, Rock Island & Pacific.....	42.0	84.0	90
Cleveland, Cincinnati, Chicago & St. Louis.....	235.2	384.5	312
Erie.....	242.2	484.4	158
*Delaware & Hudson.....			2
Hudson & Manhattan.....	8.5	18.0	322
Illinois Central.....	219.6	343.5	179
Lehigh Valley.....	283.2	648.0	276
Long Island.....	7.7	15.2	765
Louisville & Nashville.....	297.9	309.2	103
Michigan Central ⁵	315.5	631.0	254
New York Central.....	1,027.2	3,305.2	936
*Boston & Maine.....			2
*Canadian Pacific.....			4
*Cleveland Union Terminal.....			22
*Pennsylvania.....			46
*Toronto, Hamilton & Buffalo.....			3
New York, Chicago & St. Louis ⁶	139.1	157.6	71
*Chesapeake & Ohio.....			36
Pennsylvania.....	6.2	18.2	14
Pere Marquette ⁷	135.0	146.0	133
Pittsburgh & Lake Erie.....	64.0	217.2	104
*Erie.....			7
Richmond, Fredericksburg & Potomac.....	109.7	219.4	72
*Seaboard Air Line.....			15
Southern System ⁸	2,719.0	3,493.0	860
*Carolina & Northwestern.....			12
*Gulf, Mobile & Ohio.....			22
*Illinois Central.....			21
Southern Pacific ⁹	98.9	186.4	307
Union Pacific.....	84.0	86.5	61
Total. Table 5-A.....	7,775.0	14,187.6	6,537

TABLE No. 5B

Cab Signals in Connection with Automatic Wayside Signals, Without Automatic Train Control

Boston & Maine ¹	99.2	202.8	190
Central R. R. of New Jersey.....	115.7	172.2	103
Chicago, Milwaukee, St. Paul & Pacific.....	206.3	406.4	115
Chicago, Rock Island & Pacific.....	132.9	265.8	92
Delaware, Lackawanna & Western.....	256.6	523.2	216
Long Island.....	44.1	85.1	345
*New York, New Haven & Hartford.....			28
New York, New Haven & Hartford.....	162.8	358.7	246
Norfolk & Western.....	238.7	251.6	79
*Chesapeake & Ohio.....			2
Pennsylvania System ²	1,242.8	3,456.4	2,673
*Hudson & Manhattan.....			72
*Lehigh Valley.....			3
Pennsylvania-Reading Seashore Lines.....	82.4	162.6	17
Reading.....	45.7	91.3	169
Union Pacific.....	225.0	450.0	161
Totals. Table 5-B.....	2,852.2	6,426.1	4,511

Includes 4 steam and 6 Diesel-electric locomotives equipped with intermittent inductive automatic train stop in addition to cab-signal equipment.

² Includes 5.7 miles of road and 17.3 miles of track shown in Table 5-A and 33.0 miles of road and 88.7 miles of track on the B. & O. equipped for operation of cab-signal locomotives of P. R. R.

Note:—Table 5-B includes 402 locomotives and motor cars also equipped with automatic train stop, shown in Table 5-A.

TABLE 5-C

Cab Signals without Automatic Wayside Signals and without Automatic Train Control.

Central R. R. of New Jersey.....	10.6	10.6	Shown in 5-B
Pennsylvania.....	49.8	99.6	Shown in 5-B
Totals. Table 5-C.....	60.4	110.2	
(Cab Signals without Automatic)			
Totals. (Train-Control, Tables 5-B and 5-C).....	2,912.6	6,536.3	4,511

TABLE 5-D

Cab Signals in Connection with Automatic Wayside Signals and Automatic Train Control.

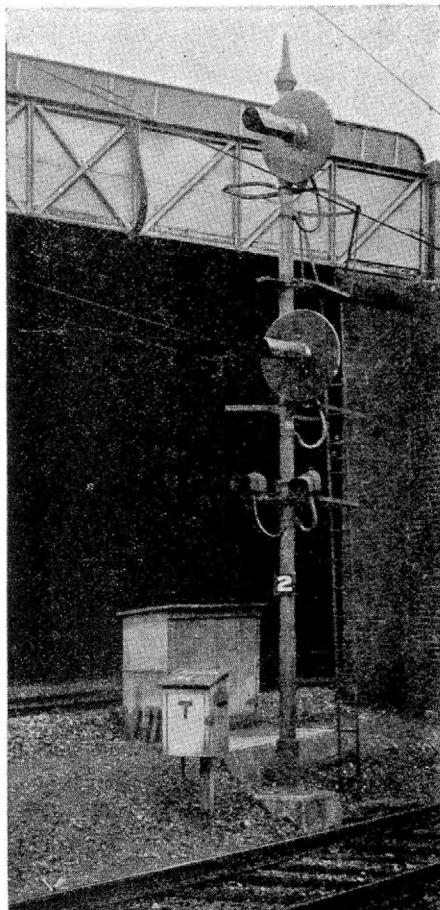
Chicago & North Western.....	24.9	65.9	283
Louisville & Nashville.....	297.9	309.2	103
Richmond, Fredericksburg & Potomac.....	109.7	219.4	72
*Atlantic Coast Line.....			30
*Florida East Coast.....			4
*Seaboard Air Line.....			15
Union Pacific.....	84.0	86.5	61
Totals. Table 5-D (Included also in Table 5-A).....	516.5	681.0	568

TABLE 5-E

Cab Signals in Connection with Automatic Train Control, Without Automatic Wayside Signals.

Atchison, Topeka & Santa Fe.....	175.4	355.0	94
Chicago & North Western.....	481.4	965.7	283 ¹
*Chicago, Burlington & Quincy.....			2
*Chicago, St. Paul, Minneapolis & Omaha.....			4
*Union Pacific ²			15
Illinois Central.....	219.6	343.5	179
(Except 15 U. P. locomotives)			
Totals. Table 5-E (Included also in Table 5-A).....	876.4	1,664.2	577
Totals. Cab Signals with or without Automatic Wayside Signals and Automatic Train Control Tables 5-B, 5-C, 5-D and 5-E.....	4,305.5	8,881.5	5,373
Totals. Automatic Train-Stop, Train-Control, and Cab Signals, (Tables 5-A, 5-B and 5-C).....	10,687.6	20,723.9	10,646

Notes applying to Table No. 5A

¹ Thirty of these locomotives also equipped to operate over R.F. & P. installation.² Seventy of these locomotives also operate over P. & L.E. installation and 19 are Diesel-electric equipped also to operate over Alton installation.³ Forty-five of these locomotives also equipped to operate over C.C.C. & St. L. installation.⁴ These locomotives also equipped to operate over S.P. and U.P. installations listed in this table.⁵ Includes locomotives operating over 481.3 additional miles of equipped track in Canada.⁶ Twenty-three of the N.Y.C. & St. L. and 56 of the P.M. locomotives shown, also operate over N.Y.C. installation.⁷ Includes 4.6 miles of road and track on L. & N. continuous territory, also

Searchlight signals on the Victorian Government Railways in Australia fitted with 24-in. hoods to effect anti-sun-dilution

equipped with intermittent roadway apparatus for operation of Southern Locomotives.

⁸ Includes 6 locomotives equipped only with whistle and acknowledger.⁹ Equipped locomotives and motor cars of this carrier operate over installation listed next above.

Notes applying to Table No. 5B

¹ Shown also in Table 5-D.² Diesel-electric locomotives equipped with cab signals, speed control and automatic train stop, also included in Table 5-B.