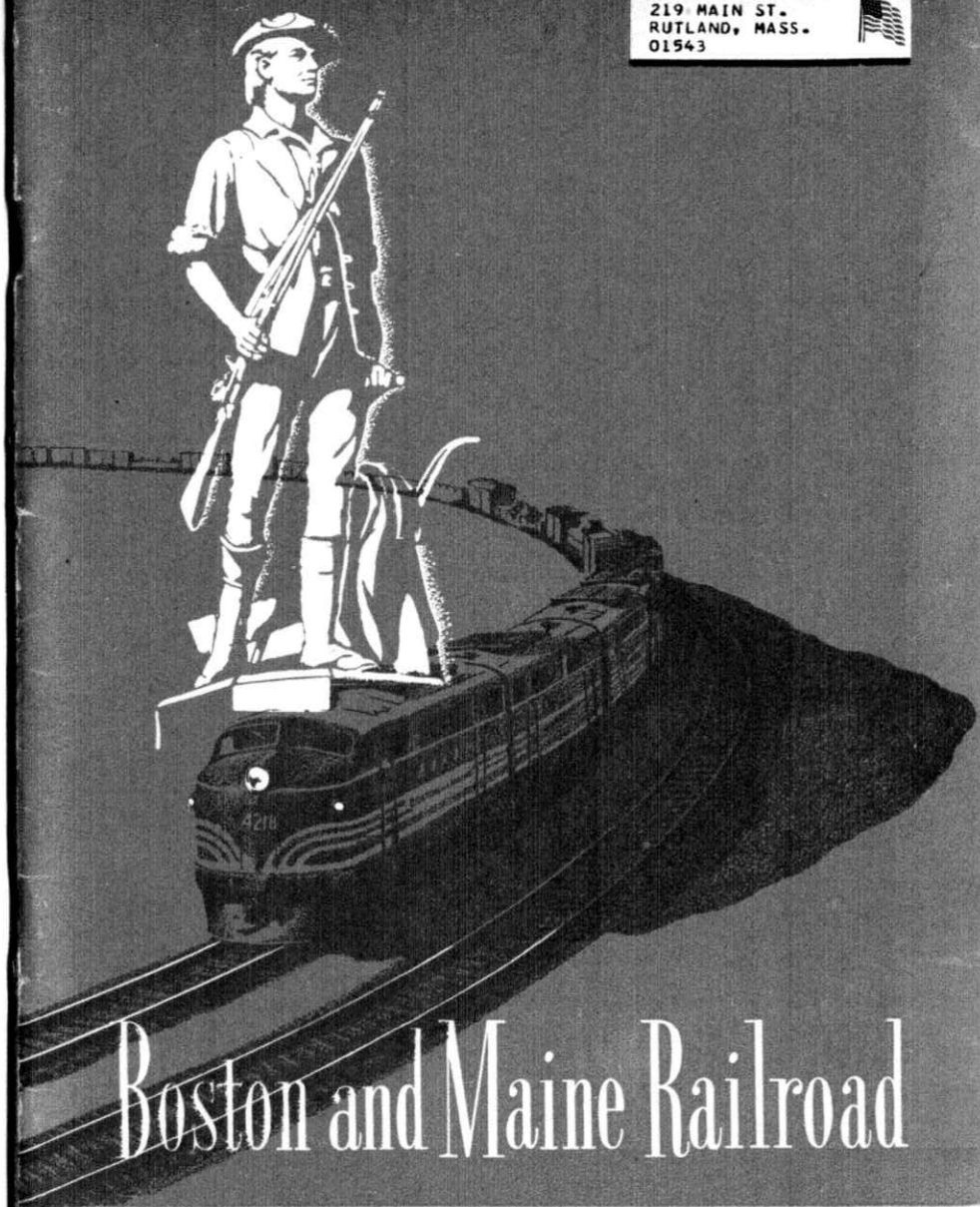


H. I. JUDKINS  
219 MAIN ST.  
RUTLAND, MASS.  
01543



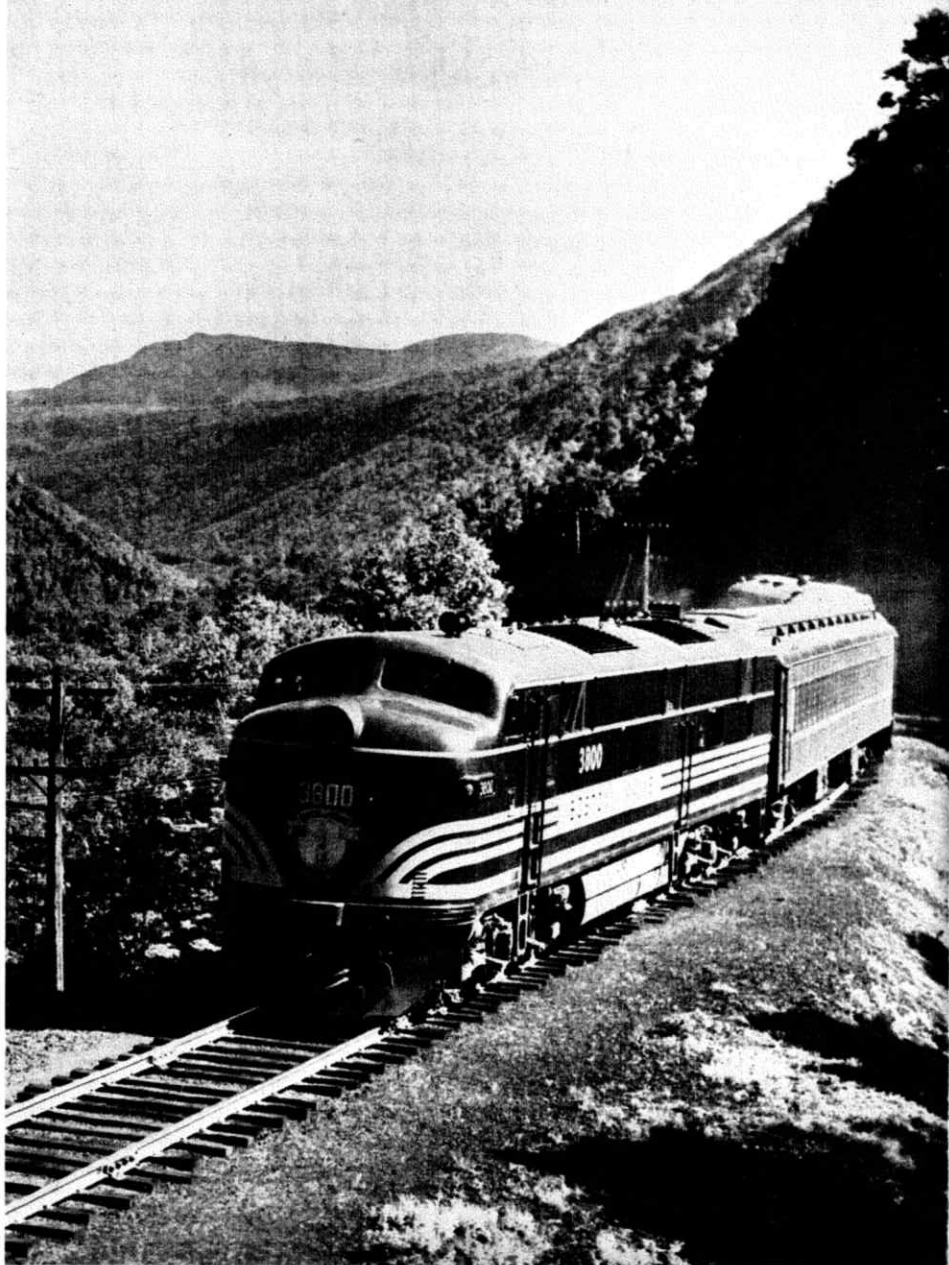
# Boston and Maine Railroad

## 114th ANNUAL REPORT

Year Ending December 31, 1946

MAINE RAILROAD COMPANY

The "Mountaineer" pulling through Crawford Notch on its daily Summer-time run to the White Mountains of New Hampshire



*To the Owners of  
the Boston and Maine Railroad:*

There is submitted to you in the following pages a brief résumé of your company's activities, and statements of the financial results of its operations, for the year 1946.

As it is the earnest desire of the management to have your comments or criticisms concerning the report, or to furnish information on any item of the report that may be of special interest, any communication from you along these lines will be welcomed.

It was stated in the Annual Report for 1945 that a Committee of your Board of Directors was engaged in a study looking to the development of a fair and equitable plan for the simplification of your company's capital stock structure. After much time and effort it is the Committee's unanimous conclusion that the development of such a plan at present is not possible, as the Boston and Maine is a solvent corporation and a recapitalization plan would have to be a voluntary procedure. Under the present laws favorable action on the part of each class of stock outstanding would be necessary, and even a small minority could prevent the consummation of a plan.

The Committee feels that the best and most feasible solution lies in the enactment of Federal legislation which would compel acceptance of a plan approved by a substantial majority of the stockholders and the Interstate Commerce Commission. It is hoped a bill with that object in view will shortly be introduced in Congress and that it may be acted upon favorably.

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# BOSTON and MAINE RAILROAD

## BOARD of DIRECTORS:

PHILIP R. ALLEN *	East Walpole, Mass.
ROGER AMORY . . . . .	Boston, Mass.
LOUIS M. ATHERTON *	Swampscott, Mass.
RICHARD L. BOWDITCH . . . . .	Cambridge, Mass.
HUGH J. CHISHOLM *	Portland, Me.
T. JEFFERSON COOLIDGE . . . . .	Brookline, Mass.
FAIRMAN R. DICK . . . . .	New York, N. Y.
BERNARD W. DOYLE . . . . .	Leominster, Mass.
HARRY H. DUDLEY . . . . .	Concord, N. H.
FREDERIC C. DUMAINE, JR. *	Weston, Mass.
RALPH E. FLANDERS † . . . . .	Springfield, Vt.
EDWARD S. FRENCH *	Springfield, Vt.
JAMES GARFIELD . . . . .	Cambridge, Mass.
ALDUS C. HIGGINS . . . . .	Worcester, Mass.
HARVEY P. HOOD . . . . .	Cambridge, Mass.
ERNEST M. HOPKINS . . . . .	Hanover, N. H.
AUGUSTUS P. LORING, JR. . . . .	Beverly, Mass.
JOHN R. MCLANE *	Manchester, N. H.
ROY L. PATRICK *	Burlington, Vt.
WILLIAM B. SKELTON . . . . .	Lewiston, Me.
J. DUNCAN UPHAM . . . . .	Claremont, N. H.

\*Member Executive Committee †Resigned January 1, 1947

# ANNUAL REPORT for the year 1946

## OFFICERS:

<i>President and Chairman of Executive Committee</i>	EDWARD S. FRENCH
<i>Assistant to President</i>	R. M. EDGAR
<i>Vice President — Finance and Accounting</i>	W. S. TROWBRIDGE
<i>Comptroller</i>	G. F. GLACY
<i>Treasurer</i>	E. J. GALLAGHER
<i>Director of Budget</i>	H. F. FRITCH
<i>Vice President — Operations</i>	J. W. SMITH
<i>General Manager</i>	F. W. ROURKE
<i>Vice President — Purchases and Stores</i>	A. W. MUNSTER
<i>Purchasing Agent</i>	H. M. RAINIE
<i>Vice President — Traffic</i>	J. W. RIMMER
<i>Freight Traffic Manager</i>	P. J. MULLANEY
<i>Passenger Traffic Manager</i>	C. F. PALMER
<i>Chief Engineer</i>	T. G. SUGHRUE
<i>Assistant Chief Engineer</i>	C. S. ROBINSON
<i>General Counsel</i>	R. J. FLETCHER
<i>Clerk of Corporation</i>	WM. J. BURNS

## TRANSFER AGENTS:

<i>For all classes of stock</i>	OLD COLONY TRUST COMPANY, 45 MILK ST., BOSTON, MASS.
<i>For common stock</i>	GUARANTY TRUST COMPANY, 140 BROADWAY, NEW YORK CITY

**INCOME  
ACCOUNT**  
*(Condensed)*

Operating Revenues . . . . .	Operating Expenses . . . . .	Net Revenue from Operations . . . . .	Railway Tax Accruals . . . . .	Railway Operating Income . . . . .	Equipment and Joint Facility Rents— Net Dr. . . . .	Net Railway Operating Income . . . . .	Other Income . . . . .	<i>Total Income</i> . . . . .	Deductions:	Rental Payments . . . . .	Interest on Debt — Fixed Interest . . . . .	Interest on Unfunded Debt . . . . .	Other Deductions . . . . .	<i>Total Deductions</i> . . . . .	Income after Fixed Charges (Available Net
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<sup>a</sup> Indicates decrease.

	1946	Increase or Decrease from 1945	Per Cent
Operating Revenues . . . . .	\$77,167,149 71	<sup>a</sup> \$5,065,799 41	6.16
Operating Expenses . . . . .	64,126,323 36	<sup>a</sup> 6,248,441 29	8.88
Net Revenue from Operations . . . . .	\$13,040,826 35	\$1,182,641 88	9.97
Railway Tax Accruals . . . . .	5,087,150 64	48,117 06	.95
Railway Operating Income . . . . .	\$ 7,953,675 71	\$1,134,524 82	16.64
Equipment and Joint Facility Rents— Net Dr. . . . .	3,456,701 08	198,227 53	6.08
Net Railway Operating Income . . . . .	\$ 4,496,974 63	\$ 936,297 29	26.30
Other Income . . . . .	1,371,145 12	83,016 75	6.44
<i>Total Income</i> . . . . .	\$ 5,868,119 75	\$1,019,314 04	21.02
Deductions:			
Rental Payments . . . . .	\$ 981,061 23	<sup>a</sup> \$ 75,855 88	7.18
Interest on Debt — Fixed Interest . . . . .	2,773,809 28	<sup>a</sup> 113,654 60	3.94
Interest on Unfunded Debt . . . . .	12,106 55	<sup>a</sup> 6,588 16	35.24
Other Deductions . . . . .	136,494 63	3,692 80	2.78
<i>Total Deductions</i> . . . . .	\$ 3,903,471 69	<sup>a</sup> \$ 192,405 84	4.70
Income after Fixed Charges (Available Net Income) . . . . .	\$ 1,964,648 06	\$1,211,719 88	160.93

Income after Fixed Charges (Available Net Income) has been allocated in accordance with Mortgage Indentures to the following purposes:

Sinking Fund for Redemption of Series RR Bonds . . . . .	\$ 679,102 00
Interest on Income Bonds Series A:	
Accrued for period, Jan. 1 to Dec. 31, 1946 at 4½% . . . . .	1,251,402 20
Sinking Fund for Redemption of Series A Bonds (see note)	34,143 86
<i>Total</i> . . . . .	\$ 1,964,648 06

NOTE. — Annual requirement of Sinking Fund for redemption of Series A Bonds amounts to \$482,870. Earnings were sufficient to allocate only \$34,143.86 for this purpose.

CAPITAL STOCK

The number of shares of Capital Stock of all classes outstanding December 31, 1946, including fully-paid negotiable receipts for subscriptions to Prior Preference Stock, was unchanged at 1,046,113 shares, of a par value of \$104,611,300.

CHANGES IN LONG-TERM DEBT

Long-Term Debt, exclusive of Equipment Obligations, outstanding in hands of Public on December 31, 1946 amounted to \$89,867,800, a decrease of \$5,229,200 since December 31, 1945.

DECREASE IN LONG-TERM DEBT

Funded Debt reacquired and Cancelled:		
Series RR 1st Mtge. 4% Bonds		
due 7/1/60 . . . . .	\$3,200,600.00	
Matured Funded Debt Paid Off:		
Series EE Gen. Mtge. 5% Bonds		
paid 1/1/46 . . . . .	6,000.00	
Increase in Treasury Holdings of		
Bonds (not cancelled) . . . . .	2,022,600.00	
<hr/>		
Decrease Funded Debt in hands of		
Public . . . . .		\$5,229,200.00
Increase in amount of Equip-		
ment Obligations account new		
equipment received during the		
year . . . . .	\$6,864,679.00	
Decrease in Equipment Oblig-		
ations account installment pay-		
ments during the year . . . . .	2,630,324.68	4,234,354.32
<hr/>		
Net Decrease in Long-term Debt		
in Hands of Public . . . . .		\$ 994,845.68
<hr/>		

NOTE. — Of the Long-Term Debt owned by the Railroad, there is pledged with Old Colony Trust Company, Trustee, in lieu of Mortgaged Property Sold . . . . . \$661,000.00

FREIGHT TRAFFIC



Freight revenue for the year was \$53,766,933.88, 3.2% below 1945, but 20.2% above 1941, the last year of conditions at all comparable to 1946.

Revenue tons of freight handled were 23,620,692, 6.7% below 1945, but 13.4% above 1941.

Average revenue per net ton was \$2.28, 4.1% above 1945 and 6.0% above 1941.

Despite the retarding influences of labor troubles, especially in the basic industries, almost constant car shortages and recurring embargoes, our freight revenue was the highest of any peacetime year in Boston and Maine history. Our freight volume in the first two months of the year was affected by strikes in the steel and other heavy industries, the effects of which were reflected in the output of almost every form of manufacturing. Volume increased substantially in the early spring and then was set back successively by the long bituminous coal strike, the rail strike and the short strike in the anthracite coal mines. During the summer it again gained momentum and the level throughout the fall was considerably above that of the previous year.

The return movement of war materials from the European theatre through the New England ports disappeared during the spring. The volume of all-rail coal was approximately the same as during the previous year, the loss in bituminous due to the long strike in the spring and the shorter strike in the fall being offset by a 16% increase in anthracite. Petroleum products, which resumed their normal movement from New England ports to the interior during the summer of 1945, moved in approximately the same volume as in the years immediately preceding the war.

During the spring the rail carriers throughout the country petitioned the Interstate Commerce Commission for a general increase in freight rates of 25%, with exceptions on certain commodities. On July 1st the Commission permitted an interim adjustment to become effective, increasing the base rates in this territory approximately 11%, with lesser increases interterritorially and on specified agricultural and animal products and certain bulk commodities. It is estimated that this re-

sulted in an over-all increase of about  $7\frac{1}{2}\%$  in our freight rate level during the last half of the year.

Further increases in freight rates were allowed to become effective on January 1, 1947 by the Interstate Commerce Commission's decision in Ex Parte 162-148. The amounts of these increases vary widely. An increase of  $25\%$  was authorized on most accessorial charges and on less-than-carload freight and carloads of high-grade commodities moving on class rates in Eastern territory. Lower percentage increases were authorized interterritorially and on agricultural products, animal products and low-grade commodities generally. These increases supplanted, and were not in addition to, those of July 1, 1946. The Commission estimated that the adjustment would raise the freight rates of the railroads in the entire country an average of  $17.6\%$  and those of the eastern railroads an average of  $17.9\%$  over the June 30, 1946 level.

The decision of the Interstate Commerce Commission prescribing a uniform basis of class rates for the entire territory east of the Rocky Mountains, and ordering into effect an interim adjustment of such rates, was described in the annual report for the year 1945. At the close of that year a proceeding to enjoin this decision was pending in a United States District Court in New York. In 1946 the District Court upheld the Commission's decision in its entirety, and an appeal was taken to the United States Supreme Court where the matter is now awaiting decision. In the meantime, the effective date of the Commission's order has been stayed.

#### INDUSTRIAL DEPARTMENT



The Industrial Department during 1946 had its most active year since its organization. It is expected that approximately 25,000 carloads per year will develop as a result of the establishment of over 150 new accounts on property served by B&M lines, including the construction of 39 new plants and additions to 18 existing plants. Also, engineering was completed on 27 other industrial projects which will probably be built during 1947. There were 79 sidetrack installations arranged for, involving construction of new sidings and extensions of sidings already in use.

#### PASSENGER TRAFFIC



Passenger revenue for the year was \$16,754,-982.83, a decline of  $13\%$  from 1945, but approximately double that of 1941, which indicates the extent to which we have held the civilian travel that came to us during the war years. There were some military movements over our line early in the year, but they ended in the spring with the closing of Fort Devens as a military post. The decline in revenue from civilian

travel was in long-distance movements, and became more severe as the year progressed. Commutation business actually increased despite a substantial reduction in Saturday commuting service, consistent with the more general five-day working week. During the year one train a day each way between Boston and Portland was discontinued, eliminating a round-trip which had been added during the war. A few lightly patronized trains in the Boston area were also discontinued.

The railroad strike in May and two coal strikes during the year affected passenger revenue adversely. On May 10 the Office of Defense Transportation ordered the cancellation of  $25\%$  of coal-burning locomotive mileage to conserve fuel. The restriction continued until May 31 and caused a substantial reduction in our passenger operations. The second coal strike resulted in another order to curtail coal-burning locomotive mileage, and ran from November 24 to December 9. This was accomplished with little reduction in service through reassignment of the Diesel locomotives which had been delivered to us during the summer.

Sleeping cars which had been discontinued in 1945 by government order were restored early in the year, following removal of the restriction.

Popular pre-war summer trains resumed operation in 1946. These included the daytime East Wind and the night Bar Harbor Express, operated jointly with our connections between Washington, New York, and State of Maine points.

The North Wind, a new fast daytime coach and parlor car train between New York and the White Mountains Region via the Connecticut River Line, operated during the summer season with gratifying re-



Interior of air conditioned coach undergoing complete overhaul at Concord Shops

sults. The Mountaineer, between Boston and the White Mountains, ran daily this summer with deluxe coaches and parlor-diner in place of the Streamline train previously used in this service. Use of this equipment greatly increased the seating capacity, resulting in a higher number of passengers for the season.

Race trains, football extras, and other special-event trains were operated and well patronized.

On December 1 the operation of our sleeping car between Boston and Chicago was discontinued. Schedule difficulties eastbound, and lack of patronage, led to this change, which made it possible to run the eastbound Minute Man from Troy to Boston on a schedule which improved the service to communities along this line.

Diesel locomotives have made faster schedules possible on some of our featured trains, and have improved the performance of others.

The 10% increase in basic passenger fares, granted by the Interstate Commerce Commission in 1942, was made permanent in the decision of the Commission in Ex Parte 162-148 issued on December 5, 1946, except for commutation fares on which the increase was suspended in 1943.

#### MILK TRAFFIC

Milk revenue was \$1,204,662.91, an increase of 3.7% over 1945, though the volume handled was 7.8% less than in the previous year. This was due to a change in the distribution of the traffic and higher rates during the last half of 1946.

Our volume was reduced considerably by the closing of Fort Devens and other military establishments where the per capita consumption of milk was high.

During the first eight months we handled the largest amount of milk and cream from the West in the history of the railroad, due in large measure to increased demand with the lifting of wartime restrictions. Reduced consumption late in the year made it unnecessary to move milk into New England from the West.

Milk rates were increased about 8% effective July 1, 1946 under the interim adjustment in Ex Parte 162-148, and this increase became 15% on January 1, 1947, as a result of the Interstate Commerce Commission's decision in that case.

#### EXPRESS TRAFFIC

Revenue from express traffic declined from \$1,238,352.04 in 1945 to \$286,288.11 in 1946.

Revenue from this source is derived from the railroad-owned Railway Express Agency. The Agency's payments to the railroads for hauling express depend upon the excess of its revenues over its expenses.

The wage increase of the employees of the Express Agency which was made retroactive to January 1, 1946, together with a general increase in other terminal costs, resulted in these expenses rising to almost the total operating revenue, leaving a very small amount to be paid to the railroads.

A general temporary increase in express rates, authorized by the Interstate Commerce Commission, became effective December 13 and averaged about 17½%. Permanent and probably greater increases will be sought, and in view of the manner in which payments to the railroads are made, if volume is maintained the increased rates should increase our revenue from this source in excess of the actual percentage amount of the rate increase.

#### PROPOSED PURCHASE BY RAILROADS OF THE PULLMAN COMPANY

In the annual report for 1945, the agreement of a number of railroads, including the Boston and Maine, to purchase all of the capital



One of our Fire Department Units at the Billerica Shop

stock of the Pullman Company was described, and it was stated that the offer contemplated by this agreement had been accepted by Pullman, Inc., and approved by the United States Circuit Court of Appeals for the Third Circuit. In 1946 this action by the Circuit Court of Appeals was appealed by the United States Government, and the case is now pending in the United States Supreme Court. Until a decision is rendered by that Court, the method of future operation of sleeping cars by the Boston and Maine is uncertain.

#### ACQUISITIONS AND DISPOSALS OF LINES

Continued progress has been made during the year in the acquisition of leased lines with resulting savings to the company and continued simplification of its corporate structure. The authorization of the Interstate Commerce Commission to purchase a portion of The Connecticut and Passumpsic Rivers Railroad Company was obtained and, pursuant to such authority, your company acquired the line between White River Junction and Wells River, Vermont. The portion of The Connecticut and Passumpsic north of Wells River, Vermont, together with its interests in Newport & Richford Railroad Company and various lines located in Canada, was sold by the Connecticut and Passumpsic to the Canadian Pacific Railway Company, which had been operating all of such lines for a number of years.

With the authorization of the Interstate Commerce Commission, the company completed the purchase of the physical properties and franchises of the Troy & Bennington Railroad Company, which purchase was authorized by the Boston and Maine stockholders at their 1946 annual meeting.

Application was made to the Interstate Commerce Commission for authority to purchase the physical properties and franchises of the Pemigewasset Valley Railroad, and such purchase was approved by the Commission in December, 1946. The completion of this purchase is expected to take place early in 1947.

During the year 1946 the reorganization proceedings of The St. Johnsbury & Lake Champlain Railroad Company were completed and all of the securities (consisting of first and second mortgage bonds and common stock) of the new Company, St. Johnsbury & Lake Champlain Railroad, were issued to the Boston and Maine in partial satisfaction of its prior claim on the assets of the debtor road. By subsequent transfer of the common stock to three individuals, control of that property is now in the hands of local interests.

A group of Barre manufacturers and quarry operators have purchased from the Sortwell Estate 60% of the outstanding stock of the Barre & Chelsea Railroad Co., your company's ownership in that property remaining at 40%.

#### OPERATING RESULTS

Gross ton miles, which represent the volume of work produced in freight train service and is one of the indices used to measure the efficiency of freight train operation, was under the corresponding figure for 1945 by about 10%, but while the last three years were considerably under the volume of 1943, the averages of train load, train speed and gross ton miles per train hour have held closely to the all-time peaks for these items.

#### CHANGES IN EQUIPMENT

During the year 39 Diesel locomotives were added to our previous ownership, increasing our Diesel ownership to 102 units as of December 31.

	Ownership Jan. 1, 1946	Added During 1946	Ownership Dec. 31, 1946
Road — 2700 H.P.	24	3	27
Road — 1350 H.P.	..	15	15
Road — 2000 H.P.	2	14	16
Yard — 1000 H.P.	11	3	14
Yard — 600-660 H.P.	18	4	22
Yard — 380 H.P.	8	..	8
	<u>63</u>	<u>39</u>	<u>102</u>
	13		



During the last few months of 1946 after all Diesel units had been delivered, 60% of the train miles and 80% of the gross ton miles in freight service were operated with Diesels. In passenger service, 30% of the train miles and 39% of the passenger train car miles were operated with Diesel units.

The extent of fuel savings alone by the transition from steam to Diesel power may best be illustrated by the statement that if the total gross ton miles and total passenger car miles for the full year had been operated entirely with steam locomotives, the operating expense account covering fuel for road locomotives would have been greater by about \$1,750,000.

Steam locomotive ownership is now 377, since 39 were sold or retired during the year.

Eight electric locomotives formerly used in Hoosac Tunnel were all retired and all through trains, both freight and passenger, between Mechanicville, Troy and Boston are handled by Diesel locomotives.

Revenue freight car ownership on December 31, 1946 was 6165. During the year 20 seventy-ton covered hoppers were added, while 264 cars were retired because of age and condition, 4 were accidentally destroyed on foreign lines, and 32 were converted to non-revenue service. There are on order for 1947 delivery 500 steel 50-ton box cars.

The application of A.B. brakes under Interstate Commerce Commission Order (completion date January 1, 1949) continued, 4590 cars, or 75% of the interchange ownership having been equipped by the end of the year.

Ownership at the close of 1946 was 1188 passenger cars. In August 63 steel coaches and 12 steel combination passenger and baggage cars were purchased from the Reading Railroad. This additional equipment plus 10 more of the combination cars to be acquired early in 1947 will make possible the handling of all through passengers in all-steel cars. Approximately 100 of the oldest coaches are to be retired from service, 36 having been scrapped in 1946. Others will be scrapped or converted for non-revenue service as they come due for repairs.

Twelve stainless steel DeLuxe cars for the Boston-Bangor service are on order and delivery is expected early in 1947. These, with 12 of the same type cars to be owned by the Maine Central Railroad will be operated as the "Pine Tree," "Flying Yankee" and "Kennebec."

Two new cranes and a snow-melting unit were added during 1946. Many of the older work units will be replaced during 1947 by suitable cars retired from passenger service.

#### WAGE INCREASES

On April 3, 1946 a wage increase of 16¢ an hour for non-operating employees and \$1.28 per basic day for certain of the operating employees, retroactive to January 1, 1946, was awarded by two Railway Labor Arbitration Boards. These awards were unacceptable to the Unions. A Fact Finding Board appointed to hear the demands of two remaining Operating Unions also recommended on April 18 an increase of 16¢ an hour. These two Unions, the Brotherhood of Locomotive Engineers and Brotherhood of Railroad Trainmen, were unwilling to accept the award and voted to strike, effective May 18. An appeal by President Truman secured a 5-day truce and he offered a compromise plan recommending the acceptance of the 16¢ an hour previously awarded, plus 2½¢ an hour, effective May 22, in lieu of any rule changes for a period of one year. The railroad managements and eighteen Unions accepted this proposal but the two above named Brotherhoods rejected it, resulting in a nation-wide strike on May 23, which was settled two days later on the basis of the President's recommendations outlined above.

The 18½¢ an hour increase is estimated to have added \$7,375,000 in wages, plus \$369,000 in payroll taxes to the Boston and Maine's payroll costs for the year.

#### MATERIALS AND SUPPLIES

Because of two shutdowns at the mines during the year, plus a short car supply, it was impossible to get all good quality coal and we were obliged to accept a substantial tonnage of stripping coal. Purchases of locomotive coal were 583,000 net tons as against 716,300 net tons in the previous year, while the average cost f.o.b. line of B. & M. road was \$6.02 per net ton in 1946, an increase of 33.6¢ per net ton over 1945 and an increase of \$1.22 per net ton over 1941.

Diesel fuel oil was in ample supply though the average price declined but slightly as compared with the 1945 average. Our purchases were 14,699,773 gallons in 1946 at an average of 6.33¢ per gallon as against 11,505,555 gallons in 1945 at an average of 6.65¢ per gallon.

The average weighted increases in the price of materials and supplies continued to advance during the year. On December 31, 1946 this weighted increase was 9.06% over December 1, 1946, 28.56% over November 1, 1945 and 53.91% over June 1, 1941.

The total purchases of materials and supplies, including coal but excluding new equipment, amounted to \$12,575,495 in 1946 as compared with \$13,477,105 in 1945.

## TAXES



Taxes deducted from 1946 earnings amounted to \$5,096,150.64 as compared with similar deductions in 1945 of \$5,047,949.58. No provisions for 1946 income tax payment were necessary, the small amount of taxable earnings being offset by deductible surplus adjustments covering property retirements, etc.

Railroad Retirement and Unemployment Insurance taxes paid to the Federal Government by the railroad with respect to 1946 payrolls amounted to \$2,800,366.85, an average of \$195.86 per employee.

Acting as a collection agency for the Federal Government the railroad withheld from employees or collected from others, including withholding taxes, transportation taxes on persons and properties, and proportion of Railroad Retirement taxes, a total of \$9,808,681.58.

The Crosser Bill, enacted by Congress and signed by the President on July 31, 1946, makes radical and extravagant enlargements and extensions of present benefits under the Unemployment Insurance and Railroad Retirement Acts, which were already highly preferential for railroad employees over systems set up for employees of other industries.

The Unemployment Insurance Act heretofore has provided benefit payments only if the employee was able and willing to work. The new law provides sickness benefits, including pregnancy and maternity payments for female employees. The number of weeks for unemployment benefits has been extended from 20 to 26 at increased daily benefit rates.

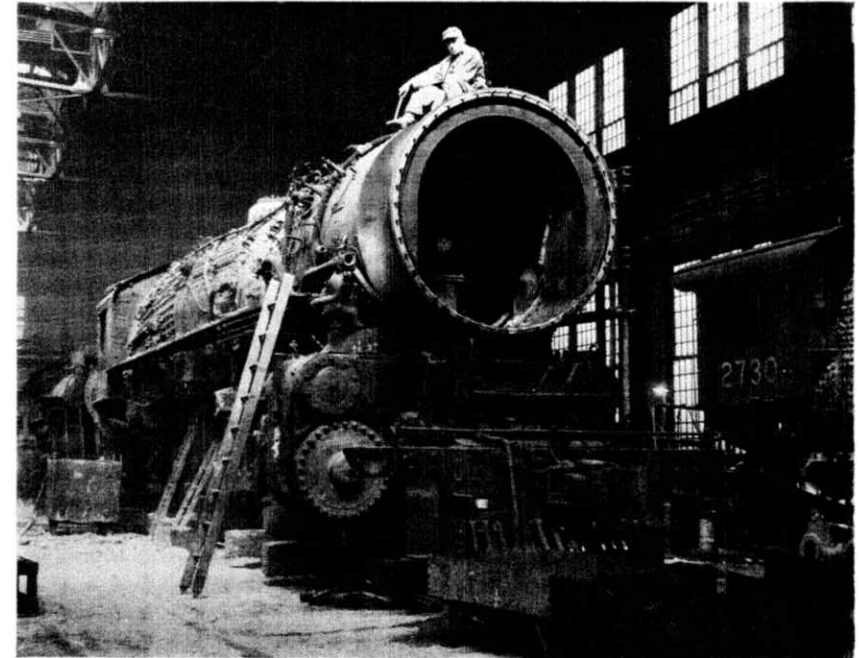
Under the Railroad Retirement Act coverage is extended to many individuals who are only indirectly connected with the railroad industry. Disability and minimum annuities have been increased, provision is made for a new system of annuities for survivors of employees, and retirement age for female employees is lowered. The carriers' tax under both Acts has been increased, effective January 1, 1947, from  $6\frac{1}{2}\%$  to  $8\frac{3}{4}\%$  of the pay of each employee up to \$300 per month, and progresses to  $9\frac{1}{4}\%$  in 1952. It is estimated that, based on 1946 payrolls, the increased costs to your company will be \$970,000 in 1947.

## ADDITIONS AND BETTERMENTS



Approximately 4000 tons of new 112 lb. rail were laid in the Fitchburg Division main line between Westminster and Ayer, Mass.; 11.2 single track miles of existing stone ballast were resurfaced; and by means of a modern ballast cleaning machine 217.5 single track miles of stone ballast were cleaned. By the use of a Rail Detector Car 1219 miles of main line track and important branches were inspected for hidden internal rail defects. About 9000 tons of riprap were installed at various locations to protect embankments.

Two track bridges were renewed and 3 others strengthened and improved; an underpass bridge at Hadley, Mass. was retired and replaced with a new grade crossing to relieve a dangerous highway condition; one overhead bridge was rebuilt and at Baldwinville, Mass. the State con-



Locomotive undergoing complete overhaul at Billerica Shops

structed a steel and concrete overhead highway bridge eliminating a grade crossing. Three other grade crossings were closed during the year.

To provide improved highway crossing protection there were installed: Automatic gates with flashers at 2 crossings; automatic flashers at 1 crossing previously unprotected; electric lights on manually operated gates at 4 crossings; and additional or improved warnings for gate tenders at 15 crossings.

A modern centralized traffic control system was installed extending from the East Portal of Hoosac Tunnel to Hoosick Junction, N. Y., and all electric zone facilities in the Hoosac Tunnel area have been retired, operations now being conducted with Diesel power. Modern color light signals respaced to provide adequate braking distances were installed between Mechanicville and Crescent, N. Y., replacing old semaphore type block signals.

Forty-one portable telephone sets were purchased to enable section car crews to communicate with Dispatchers.

New or improved automobile unloading facilities were installed in many locations and numerous other improvements were carried out throughout the system. Two hundred ninety-four new units of major work equipment were purchased.

Continuing a program of many years standing, approximately 11,000 cubic yards of filling material were placed in the Boston Terminal Areas.

#### RETURN ON INVESTED CAPITAL

In spite of the fact that in 1946 the freight revenues of the Boston & Maine were the highest of any peacetime year in its history, earnings were sufficient only to cover fixed charges, sinking fund requirements of the First Mortgage, contingent interest on the Income Mortgage Bonds, and a small balance toward the Income Mortgage sinking fund. No balance remained available for the stock. The reason for this unfavorable showing was obviously due to the failure of the Interstate Commerce Commission promptly to authorize adequate increases in rates as an offset to increased costs of labor and materials.

The earnings for the railroads as a whole for 1946 were only approximately  $2\frac{3}{4}\%$  on investment in road and equipment, less accrued depreciation. Such a level of earnings is wholly inconsistent with sound credit conditions, especially when it is recognized that over the last twenty-five years the railroad return on investment has averaged only

about  $3\frac{1}{4}\%$  as compared with over 8% in manufacturing corporations and 6% in public utility corporations.

The effect of such a long period of inadequate earnings on railroad credit is most serious. The railroads must be permitted to earn far more if they are to attract the capital necessary for the improvement and modernization of the railroad plant.

#### RETIREMENTS

During the year the policy of retiring unused or unnecessary structures has been continued. Five passenger stations were retired and small structures substituted therefor. In addition 28 miscellaneous buildings, 2 locomotive water facilities and 18 other items, platforms, retaining walls, cattle pens, etc., as well as unused sidetracks at various locations were retired.

Mr. Arthur B. Nichols, Vice President and Clerk of Corporation, reached retirement age on August 27, 1946. Having given to the Boston and Maine Railroad over fifty-two years of loyal and efficient service, the severance of his official connection with the company is a matter of real regret, but he has well earned the leisure which is now his.

It is again a pleasure for your Board of Directors to express its appreciation for the continued splendid support received from the customers of the Railroad, both freight and passenger, and to the officers and employees of the Railroad who have labored so loyally and efficiently in the interests of the Company.

*For the Board of Directors*



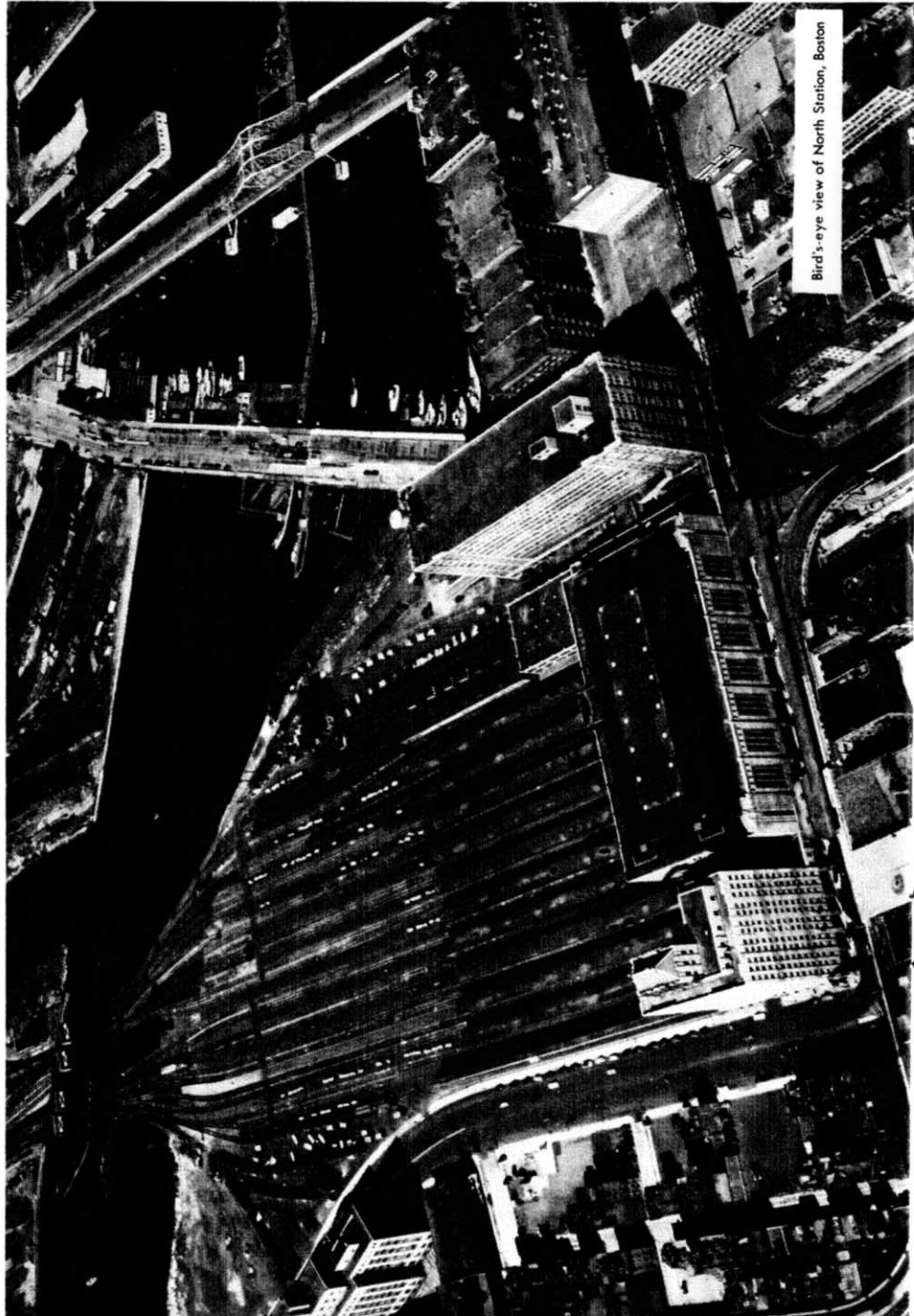
President

Boston, Massachusetts  
February 25, 1947

	Dec. 31, 1946	Dec. 31, 1945		Dec. 31, 1946	Dec. 31, 1945
<b>ROAD AND EQUIPMENT</b>			<b>CAPITAL STOCK</b>		
Investment in Road . . . . .	\$184,603,196 73	\$180,951,801 19	Common Stock — 395,051 Shares . . . . .	\$ 39,505,100 00	\$ 39,505,100 00
Investment in Equipment . . . . .	61,386,483 37	57,190,558 75	Preferred Stock — 31,498 Shares . . . . .	3,149,800 00	3,149,800 00
<i>Total</i> . . . . .	<b>\$245,989,680 10</b>	<b>\$238,142,359 94</b>	First Preferred Stock — 388,179 Shares . . . . .	38,817,900 00	38,817,900 00
Improvements on Leased Property . . . . .	13,942,729 69	15,424,298 85	Prior Preference Stock (Includes Negotiable Receipts) . . . . .	23,138,500 00	23,138,500 00
Acquisition Adjustment . . . . .	c 4,935,917 35	c 4,227,102 69	<i>Total Capital Stock</i> . . . . .	<b>\$104,611,300 00</b>	<b>\$104,611,300 00</b>
Donations and Grants . . . . .	69,997 60	69,352 26	Premiums on Capital Stock . . . . .	4,227,040 14	4,227,040 14
<i>Total Investment in Transportation Property</i> . . . . .	<b>\$254,926,494 84</b>	<b>\$249,270,203 84</b>	<i>Total Capital Stock and Premiums</i> . . . . .	<b>\$108,838,340 14</b>	<b>\$108,838,340 14</b>
Accrued Depreciation — Road and Equipment . . . . .	c 23,464,172 14	c 23,406,561 40	Stock Liability for Conversion . . . . .	\$ 1,200 00	\$ 1,400 00
Accrued Amortization of Defense Projects — Road and Equipment . . . . .	c 10,653,192 05	c 10,685,838 43	<b>LONG-TERM DEBT</b>		
<i>Investment in Transportation Property less Recorded Depreciation and Amortization</i> . . . . .	<b>\$220,809,130 65</b>	<b>\$215,177,804 01</b>	Funded Debt Unmatured . . . . .	\$ 94,536,600 00	\$ 97,743,200 00
Sinking Funds . . . . .	3,114 79	3,112 79	Equipment Trust Certificates . . . . .	522,000 00	696,000 00
Capital and Other Reserve Funds . . . . .	919,344 27	1,027,680 07	Lease and Purchase Agreements — Equipment . . . . .	11,121,520 19	6,713,165 87
Miscellaneous Physical Property . . . . .	403,288 80	393,420 46	<i>Total Long-Term Debt</i> . . . . .	<b>\$106,180,120 19</b>	<b>\$105,152,365 87</b>
Investments in Affiliated Companies . . . . .	7,514,620 85	6,928,277 47	<b>CURRENT LIABILITIES</b>		
Other Investments . . . . .	22,452 28	3,564,409 54	Traffic and Car Service Balances — Net Payable . . . . .	\$ 4,396,325 78	\$ 4,929,072 98
<i>Total Investments</i> . . . . .	<b>\$229,671,951 64</b>	<b>\$227,094,704 34</b>	Audited Accounts and Wages Payable . . . . .	2,777,250 65	2,910,401 77
<b>CURRENT ASSETS</b>			Miscellaneous Accounts Payable . . . . .	2,068,064 65	1,915,107 98
Cash . . . . .	\$ 6,710,489 94	\$ 10,254,924 59	Interest Matured Unpaid . . . . .	1,336,958 83	1,406,022 11
Cash in Transit — Agents' Remittances . . . . .	745,044 85	576,968 77	Dividends Matured Unpaid . . . . .	13,503 62	13,757 12
Temporary Cash Investments . . . . .	6,115,000 00	7,115,000 00	Unmatured Interest Accrued . . . . .	1,338,310 53	1,384,162 95
Special Deposits . . . . .	2,114,472 99	1,067,439 33	Accrued Accounts Payable . . . . .	530,105 05	1,191,409 68
Loans and Bills Receivable . . . . .	11,000 00		Accrued Tax Liability . . . . .	2,217,034 66	3,901,783 45
Net Balance Receivable from Agents and Conductors . . . . .	2,064,329 89	1,898,769 62	Other Current Liabilities . . . . .	49,496 79	95,950 39
Miscellaneous Accounts Receivable . . . . .	3,088,095 20	5,965,463 73	<i>Total Current Liabilities</i> . . . . .	<b>\$ 14,727,050 56</b>	<b>\$ 17,747,668 43</b>
Material and Supplies . . . . .	4,885,437 39	4,249,738 88	<b>DEFERRED LIABILITIES</b>		
Interest and Dividends Receivable . . . . .	136,902 23	121,660 86	Due to Leased Roads at Expiration of Leases . . . . .	—	\$ 209,988 70
Accrued Accounts Receivable . . . . .	449,453 10	1,208,606 74	New York State E. G. C. Projects . . . . .	\$ 349,933 65	358,507 36
Other Current Assets . . . . .	45,010 69	36,353 33	Other Deferred Liabilities . . . . .	46,776 08	25,674 37
<i>Total Current Assets</i> . . . . .	<b>\$ 26,365,236 28</b>	<b>\$ 32,494,925 85</b>	<i>Total Deferred Liabilities</i> . . . . .	<b>\$ 396,709 73</b>	<b>\$ 594,170 43</b>
<b>DEFERRED ASSETS</b>			<b>UNADJUSTED CREDITS</b>		
Working Fund Advances . . . . .	\$ 13,827 58	\$ 13,424 17	Insurance Reserves . . . . .	\$ 50,000 00	\$ 50,000 00
Insurance and Other Funds . . . . .	1,757,226 97	1,040,056 36	Accrued Depreciation — Leased Property . . . . .	523,079 07	397,956 67
Other Deferred Assets . . . . .	452,941 90	1,364,888 12	Other Unadjusted Credits . . . . .	510,569 69	419,341 81
<i>Total Deferred Assets</i> . . . . .	<b>\$ 2,223,996 45</b>	<b>\$ 2,418,368 65</b>	<i>Total Unadjusted Credits</i> . . . . .	<b>\$ 1,083,648 76</b>	<b>\$ 867,298 48</b>
<b>UNADJUSTED DEBITS</b>			<b>SURPLUS</b>		
Prepayments . . . . .	\$ 184,080 65	\$ 123,201 36	Additions to Property through Income since June 30, 1907 . . . . .	\$ 14,822,146 85	\$ 14,822,146 85
Discount on Funded Debt . . . . .	482,274 89	534,545 72	Funded Debt Retired through Income and Surplus . . . . .	15,890,805 53	14,532,653 97
Other Unadjusted Debits . . . . .	544,797 76	466,863 94	Sinking Fund Reserves . . . . .	37,309 09	682,214 79
Securities Issued or Assumed — Unpledged . . . . .	3,757,000 00	1,854,600 00	Miscellaneous Fund Reserves . . . . .	1,053,626 14	920,998 41
Securities Issued or Assumed — Pledged . . . . .	—	396,000 00	Appropriated Surplus — Purchase of Leased Line Bonds . . . . .	357,000 00	357,000 00
<i>Total Unadjusted Debits</i> . . . . .	<b>\$ 4,968,153 30</b>	<b>\$ 3,375,211 02</b>	<i>Total Appropriated Surplus</i> . . . . .	<b>\$ 32,160,887 61</b>	<b>\$ 31,315,014 02</b>
<b>Grand Total</b> . . . . .	<b>\$263,229,337 67</b>	<b>\$265,383,209 86</b>	Unearned Surplus . . . . .	598,088 04	598,088 04
			Earned Surplus (a) . . . . .	d 756,707 36	268,864 45
			<i>Total Surplus</i> . . . . .	<b>\$ 32,002,268 29</b>	<b>\$ 32,181,966 51</b>
			<i>Grand Total</i> . . . . .	<b>\$263,229,337 67</b>	<b>\$265,383,209 86</b>

c Indicates Credit Balance.

(a) Includes Surplus Earned by Lessor Companies before Consolidation.  
d Indicates Debit Balance.



Bird's-eye view of North Station, Boston

*Income Account*

	Year ended Dec. 31, 1946	Increase or Decrease	Per Cent
<b>TRANSPORTATION REVENUE</b>			
Freight . . . . .	\$53,766,933 88	d \$1,785,373 43	3.21
Passenger . . . . .	16,754,982 83	d 2,505,988 56	13.01
Excess Baggage . . . . .	17,297 16	d 774 35	4.28
Parlor and Chair Car . . . . .	58,030 65	d 18,506 57	24.18
Mail . . . . .	1,343,196 78	d 37,441 98	2.87
Express . . . . .	286,288 11	d 952,063 93	76.88
Other Passenger-Train . . . . .	274,772 93	d 39,913 47	16.99
Milk . . . . .	1,204,662 91	d 42,643 42	3.67
Switching . . . . .	625,551 05	d 34,814 26	5.89
<i>Total Transportation Revenue . . . . .</i>	<i>\$74,331,716 30</i>	<i>d \$5,107,893 71</i>	<i>6.43</i>
<b>INCIDENTAL REVENUE</b>			
Dining and Buffet . . . . .	\$ 253,205 42	d \$ 17,721 22	6.54
Station and Train Privileges . . . . .	184,851 56	d 8,027 95	4.54
Parcel Room . . . . .	49,754 30	d 13,370 30	21.18
Storage — Freight . . . . .	49,636 54	d 6,757 09	11.98
Storage — Baggage . . . . .	6,005 24	d 852 60	12.43
Demurrage . . . . .	456,760 93	d 109,942 87	31.70
Telegraph and Telephone . . . . .	40,715 94	d 2,411 91	6.30
Grain Elevators . . . . .	8,053 25	d 29,626 25	78.63
Power . . . . .	63,082 82	d 38 90	.06
Rents of Buildings and Other Property . . . . .	1,186,807 86	d 139,789 85	13.35
Miscellaneous . . . . .	340,244 61	d 88,863 90	20.71
<i>Total Incidental Revenue</i>	<i>\$ 2,639,118 47</i>	<i>\$ 102,942 32</i>	<i>4.06</i>
Joint Facility — Cr. . . . .	\$ 204,291 60	d \$ 61,307 74	23.08
Joint Facility — Dr. . . . .	7,976 66	d 459 72	5.45
<i>Total Joint Facility Operating Revenue. . . . .</i>	<i>\$ 196,314 94</i>	<i>d \$ 60,848 02</i>	<i>23.66</i>
<i>Total Operating Revenues</i>	<i>\$77,167,149 71</i>	<i>d \$5,065,799 41</i>	<i>6.16</i>
<b>OPERATING EXPENSES</b>			
Maintenance of Way and Structures . . . . .	\$12,990,322 19	d \$1,673,385 57	11.41
Maintenance of Equipment . . . . .	12,697,207 84	d 7,965,638 82	38.55
Traffic . . . . .	1,151,796 98	d 97,506 54	9.25
Transportation . . . . .	33,986,623 16	d 2,975,143 90	9.59
Miscellaneous Operations . . . . .	318,764 86	d 4,997 95	1.54
General . . . . .	2,981,608 33	d 322,930 61	12.15
<i>Total Operating Expenses</i>	<i>\$64,126,323 36</i>	<i>d \$6,248,441 29</i>	<i>8.88</i>
<i>Operating Ratio . . . . .</i>	<i>(83.10%)</i>	<i>(2.48%)</i>	
<i>Net Operating Revenue . . . . .</i>	<i>\$13,040,826 35</i>	<i>\$1,182,641 88</i>	<i>9.97</i>

d Indicates decrease.

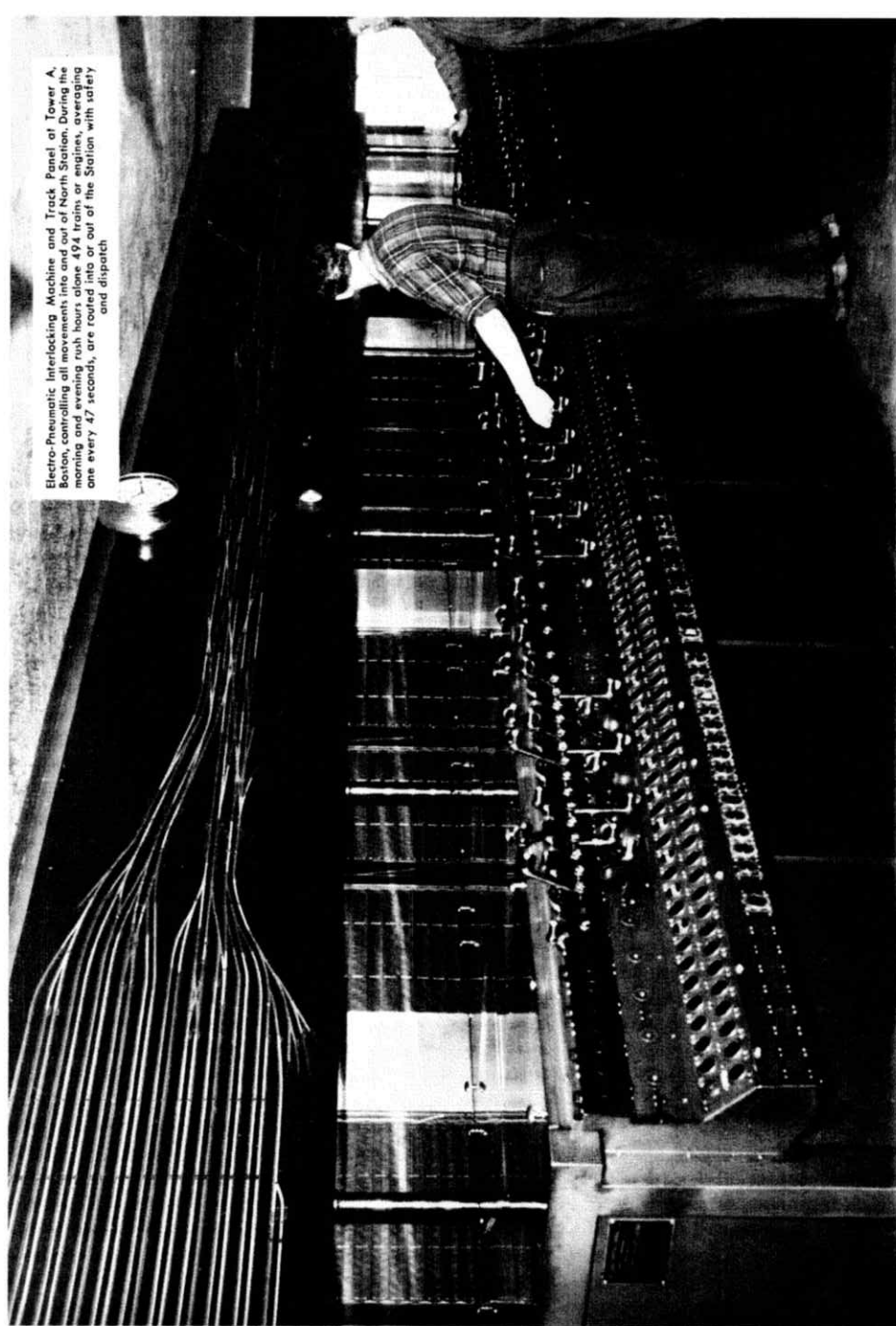
*Income Account (Continued)*

*Income Account (Concluded)*

	Year ended Dec. 31, 1946	Increase or Decrease	Per Cent
TAX ACCRUALS . . . . .	\$5,087,150 64	\$ 48,117 06	.95
<i>Operating Income</i> . . . . .	\$7,953,675 71	\$1,134,524 82	16.64
Rent from Locomotives . . . . .	\$ 58,483 17	\$ 16,495 27	39.29
Rent from Passenger-Train Cars . . . . .	650,825 70	d 180,364 39	21.70
Rent from Work Equipment . . . . .	15,461 63	d 1,796 40	10.41
Joint Facility Rent Income . . . . .	354,131 01	d 3,560 00	1.00
<i>Total Rent Income</i> . . . . .	\$1,078,901 51	d \$ 169,225 52	13.56
Hire of Freight Cars — Debit Balance . . . . .	\$3,273,325 82	d \$ 6,012 19	.18
Rent for Locomotives . . . . .	2,327 33	854 93	58.06
Rent for Passenger-Train Cars Rent for Work Equipment . . . . .	632,614 76	11,287 15	1.82
Joint Facility Rents . . . . .	2,218 19	1,958 33	753.61
	625,116 49	20,913 79	3.46
<i>Total Rents Payable</i> . . . . .	\$4,535,602 59	\$ 29,002 01	.64
<i>Net Rents Payable</i> . . . . .	\$3,456,701 08	\$ 198,227 53	6.08
<i>Net Railway Operating Income</i> . . . . .	\$4,496,974 63	\$ 936,297 29	26.30
OTHER INCOME			
Income from Lease of Road and Equipment . . . . .	\$ 270,811 83	d \$ 47,345 83	14.88
Miscellaneous Rent Income . . . . .	303,860 22	19,272 27	6.77
Miscellaneous Nonoperating Physical Property . . . . .	6,565 14	d 557 81	7.83
Dividend Income . . . . .	91,974 00	d 1,226 33	1.32
Income from Funded Securities . . . . .	421,447 88	d 28,212 55	6.27
Income from Unfunded Securities and Accounts . . . . .	159,896 64	101,769 74	175.08
Income from Sinking and Other Reserve Funds . . . . .	68,030 86	38,130 56	127.53
Miscellaneous Income . . . . .	48,558 55	1,186 70	2.51
<i>Total Other Income</i> . . . . .	\$1,371,145 12	\$ 83,016 75	6.44
<i>Total Income</i> . . . . .	\$5,868,119 75	\$1,019,314 04	21.02

	Year ended Dec. 31, 1946	Increase or Decrease	Per Cent
MISCELLANEOUS DEDUCTIONS FROM INCOME			
Miscellaneous Rents . . . . .	\$ 9,354 71	d \$ 466 98	4.75
Miscellaneous Tax Accruals . . . . .	9,000 00	84 00	.94
Miscellaneous Income Charges Income Applied to Sinking and Other Reserve Funds . . . . .	21,034 94	d 16,855 25	44.48
	76,111 48	21,740 98	39.99
<i>Total Miscellaneous De- ductions</i> . . . . .	\$ 115,501 13	\$ 4,502 75	4.06
<i>Income Available for Fixed Charges</i> . . . . .	\$5,752,618 62	\$1,014,811 29	21.42
FIXED CHARGES			
Rent for Leased Roads . . . . .	\$ 971,706 52	d \$ 75,388 90	7.20
Interest on Funded Debt — Fixed Interest . . . . .	2,773,809 28	d 113,654 60	3.94
Interest on Unfunded Debt . . . . .	12,106 55	d 6,588 16	35.24
Amortization of Discount on Funded Debt . . . . .	30,348 21	d 1,276 93	4.04
<i>Total Fixed Charges</i> . . . . .	\$3,787,970 56	d \$ 196,908 59	4.94
<i>Income after Fixed Charges (Available Net Income)</i> . . . . .	\$1,964,648 06	\$1,211,719 88	160.93
CONTINGENT CHARGES			
Sinking Fund — Series RR Bonds . . . . .	\$ 679,102 00	—	
Interest on Funded Debt — Contingent Interest . . . . .	1,251,402 20	d \$ 71,007 66	
Sinking Fund — Series A Bonds (see note) . . . . .	34,143 86	34,143 86	
<i>Total Contingent Charges</i> . . . . .	\$1,964,648 06	d \$ 36,863 80	
<i>Net Income after Fixed Charges and Other De- ductions</i> . . . . .	—	\$1,248,583 68	

d Indicates decrease.  
NOTE. — Annual requirement of Sinking Fund for redemption of Series A Bonds amounts to \$482,870. Earnings were sufficient to allocate only \$34,143.86 for this purpose.



Electro-Pneumatic Interlocking Machine and Track Panel of Tower A, Boston, controlling all movements into and out of North Station. During the morning and evening rush hours alone 494 trains or engines, averaging one every 47 seconds, are routed into or out of the Station with safety and dispatch.

## Operating Expenses

	Year Ended Dec. 31, 1946	Increase or Decrease
<b>MAINTENANCE OF WAY AND STRUCTURES</b>		
Superintendence . . . . .	\$ 775,078 65	\$ 81,729 58
Roadway Maintenance . . . . .	1,022,383 22	139,771 55
Tunnels and Subways . . . . .	29,172 27	d 11,323 34
Bridges, Trestles and Culverts . . . . .	307,114 63	176,670 60
Ties . . . . .	379,608 46	57,484 76
Rails . . . . .	275,048 66	d 147,040 36
Other Track Material . . . . .	443,983 84	d 242,221 66
Ballast . . . . .	68,877 92	d 8,663 58
Track Laying and Surfacing . . . . .	3,408,994 84	d 138,490 77
Fences, Snowsheds and Signs . . . . .	51,588 85	3,114 50
Station and Office Buildings . . . . .	634,971 76	73,148 09
Roadway Buildings . . . . .	58,847 30	d 4,480 01
Water Stations . . . . .	69,483 00	13,102 53
Fuel Stations . . . . .	49,170 38	d 6,635 15
Shops and Enginehouses . . . . .	\$ 506,045 98	d 60,267 59
Grain Elevators . . . . .	10,704 03	d 22,367 17
Storage Warehouses . . . . .	971 76	316 83
Wharves and Docks . . . . .	54,860 66	d 24,590 59
Coal and Ore Wharves . . . . .	45 63	d 4,322 60
Telegraph and Telephone Lines . . . . .	69,460 13	10,186 08
Signals and Interlockers . . . . .	902,527 94	36,970 04
Power Plants . . . . .	9,859 75	5,403 64
Power-Transmission Systems . . . . .	62,705 45	6,385 37
Miscellaneous Structures . . . . .	1,471 80	895 47
Road Property — Depreciation . . . . .	1,640,172 96	12,990 00
Retirements — Road . . . . .	149,969 60	d 746,843 84
Roadway Machines . . . . .	123,542 06	d 21,286 79
Dismantling Retired Road Property . . . . .	52,466 25	d 121,427 01
Road — Amortization of Defense Projects . . . . .	—	d 84,981 65
Small Tools and Supplies . . . . .	174,431 41	d 12,379 62
Removing Snow, Ice and Sand . . . . .	844,122 89	d 625,417 21
Public Improvements — Maintenance . . . . .	202,923 53	61,466 08
Injuries to Persons . . . . .	82,494 39	17,761 06
Insurance . . . . .	19,535 30	1,875 67
Stationery and Printing . . . . .	9,701 25	713 33
Other Expenses . . . . .	24,249 93	d 45,676 69
Maintaining Joint Tracks, Yards and Other Facilities — Dr. . . . .	560,492 03	d 187,482 94
Maintaining Joint Tracks, Yards and Other Facilities — Cr. . . . .	86,665 06	d 142,527 82
<i>Total Maintenance of Way and Structures . . . . .</i>	<i>\$12,990,322 19</i>	<i>d \$1,673,385 57</i>
<i>Ratio to Total Operating Revenues . . . . .</i>	<i>(16.83%)</i>	<i>d (1.00%)</i>

d Indicates decrease.

Operating Expenses (Continued)

	Year Ended Dec. 31, 1946	Increase or Decrease
<b>MAINTENANCE OF EQUIPMENT</b>		
Superintendence . . . . .	\$ 582,246 60	\$ 72,277 53
Shop Machinery . . . . .	319,116 52	d 14,102 49
Power-Plant Machinery . . . . .	49,447 26	2,631 51
Shop and Power-Plant Machinery — Depreciation . . . . .	97,164 00	3,630 00
Dismantling Retired Shop and Power- Plant Machinery . . . . .	440 78	330 89
Steam Locomotives — Repairs . . . . .	4,203,152 64	d 456,200 31
Other Locomotives — Repairs . . . . .	1,356,404 67	414,641 17
Freight-Train Cars — Repairs . . . . .	2,048,268 55	d 92,863 84
Passenger-Train Cars — Repairs . . . . .	1,883,025 38	36,970 81
Work Equipment — Repairs . . . . .	274,141 82	d 117,833 58
Miscellaneous Equipment — Repairs . . . . .	27,367 15	7,187 57
Dismantling Retired Equipment . . . . .	29,357 28	17,637 19
Retirements — Equipment . . . . .	1,400 00	97 17
Equipment — Depreciation . . . . .	1,514,646 25	38,255 85
Equipment — Amortization of Defense Projects . . . . .	25,561 88	d 7,868,325 13
Injuries to Persons . . . . .	75,143 41	2,291 47
Insurance . . . . .	37,716 83	10,191 99
Stationery and Printing . . . . .	9,834 95	d 244 39
Other Expenses . . . . .	16,900 08	d 25,640 54
Maintaining Joint Equipment at Termi- nals — Dr. . . . .	156,619 19	3,435 04
Maintaining Joint Equipment at Termi- nals — Cr. . . . .	7,947 40	6 73
<i>Total Maintenance of Equipment</i> . . . . .	<i>\$12,697,207 84</i>	<i>d \$7,965,638 82</i>
<i>Ratio to Total Operating Revenues</i> . . . . .	<i>(16.46%)</i>	<i>d (8.67%)</i>
<b>TRAFFIC</b>		
Superintendence . . . . .	\$ 434,977 10	\$ 49,013 89
Outside Agencies . . . . .	371,700 89	55,972 88
Advertising . . . . .	239,680 82	d 26,953 93
Traffic Associations . . . . .	47,753 40	6,901 86
Industrial and Immigration Bureaus . . . . .	17,050 31	2,056 85
Insurance . . . . .	20 88	d 2 40
Stationery and Printing . . . . .	40,613 58	10,517 39
<i>Total Traffic</i> . . . . .	<i>\$ 1,151,796 98</i>	<i>\$ 97,506 54</i>
<i>Ratio to Total Operating Revenues</i> . . . . .	<i>(1.49%)</i>	<i>(.21%)</i>

d Indicates decrease.

Operating Expenses (Continued)

	Year ended Dec. 31, 1946	Increase or Decrease
<b>TRANSPORTATION</b>		
Superintendence . . . . .	\$ 852,130 77	\$ 100,932 82
Dispatching Trains . . . . .	316,058 93	42,415 96
Station Employees . . . . .	5,907,794 37	1,056,469 12
Weighing, Inspection and Demurrage Bureaus . . . . .	21,671 24	3,684 76
Station Supplies and Expenses . . . . .	488,645 65	54,807 63
Yardmasters and Yard Clerks . . . . .	952,276 24	113,158 66
Yard Conductors and Brakemen . . . . .	2,018,044 47	266,103 32
Yard Switch and Signal Tenders . . . . .	303,099 20	17,514 95
Yard Enginemen . . . . .	647,776 87	41,822 59
Yard Motormen . . . . .	550,099 58	80,086 86
Yard Switching Fuel . . . . .	578,224 93	d 12,258 88
Water for Yard Locomotives . . . . .	17,359 26	d 1,485 36
Lubricants for Yard Locomotives . . . . .	22,963 38	2,089 70
Other Supplies for Yard Locomotives . . . . .	14,053 35	d 2,080 77
Enginehouse Expenses — Yard . . . . .	298,231 15	40,716 21
Yard Supplies and Expenses . . . . .	74,044 32	d 9,406 96
Operating Joint Yards and Terminals — Dr. . . . .	2,195,649 89	202,161 40
Operating Joint Yards and Terminals — Cr. . . . .	372,593 20	44,598 77
Train Enginemen . . . . .	2,364,020 07	d 40,126 23
Train Motormen . . . . .	833,574 87	385,529 87
Train Fuel . . . . .	4,025,643 52	d 689,236 15
Train Power Purchased . . . . .	72,446 36	d 20,437 42
Water for Train Locomotives . . . . .	138,509 80	d 17,344 21
Lubricants for Train Locomotives . . . . .	177,119 58	d 20,760 30
Other Supplies for Train Locomotives . . . . .	81,920 14	d 10,445 70
Enginehouse Expenses — Train . . . . .	1,571,246 31	160,080 91
Trainmen . . . . .	4,404,692 51	564,115 73
Train Supplies and Expenses . . . . .	1,950,203 03	249,342 42
Signal and Interlocker Operation . . . . .	577,200 80	33,238 58
Crossing Protection . . . . .	1,316,195 52	253,934 62
Drawbridge Operation . . . . .	40,105 37	8,852 48
Telegraph and Telephone Operation . . . . .	51,519 58	699 79
Stationery and Printing . . . . .	154,899 26	11,404 25
Other Expenses . . . . .	52,663 98	d 15,423 31
Operating Joint Tracks and Facilities — Dr. . . . .	35,590 12	4,917 35
Operating Joint Tracks and Facilities — Cr. . . . .	64,897 40	3,691 43
Insurance . . . . .	11,388 98	910 43
Clearing Wrecks . . . . .	64,239 93	6,776 66
Damage to Property . . . . .	27,527 56	d 23,770 98
Damage to Live Stock on Right of Way . . . . .	4,603 46	d 36 23
Loss and Damage — Freight . . . . .	812,567 71	183,358 40
Loss and Damage — Baggage . . . . .	8,706 08	1,019 76
Injuries to Persons . . . . .	389,405 62	101 37
<i>Total Transportation</i> . . . . .	<i>\$33,986,623 16</i>	<i>\$2,975,143 90</i>
<i>Ratio to Total Operating Revenues</i> . . . . .	<i>(44.04%)</i>	<i>(6.33%)</i>

d Indicates decrease.



*Operating Expenses (Concluded)*

	Year ended Dec. 31, 1946	Increase or Decrease
<b>MISCELLANEOUS OPERATIONS</b>		
Dining and Buffet Service . . . . .	\$ 299,814 50	\$ 16,327 45
Grain Elevators . . . . .	18,942 08	d 21,325 40
Other Miscellaneous Operations . . . . .	8 28	—
<i>Total Miscellaneous Operations . . . . .</i>	<i>\$ 318,764 86</i>	<i>d \$ 4,997 95</i>
<i>Ratio to Total Operating Revenues . . . . .</i>	<i>(.42%)</i>	<i>(.02%)</i>
<b>GENERAL</b>		
Salaries and Expenses of General Officers . . . . .	\$ 208,935 41	\$ 12,932 81
Salaries and Expenses of Clerks and Attendants . . . . .	2,042,982 12	284,430 27
General Office Supplies and Expenses . . . . .	146,805 81	d 2,960 49
Law Expenses . . . . .	168,081 76	10,876 27
Insurance . . . . .	777 89	d 46 91
Pensions . . . . .	175,618 51	3,868 54
Stationery and Printing . . . . .	62,161 00	2,301 28
Valuation Expenses . . . . .	34,810 84	5,898 15
Other Expenses . . . . .	120,699 00	4,162 77
General Joint Facilities — Dr. . . . .	20,735 99	1,467 92
<i>Total General . . . . .</i>	<i>\$ 2,981,608 33</i>	<i>\$ 322,930 61</i>
<i>Ratio to Total Operating Revenues . . . . .</i>	<i>(3.86%)</i>	<i>(.63%)</i>
<i>Total Operating Expenses . . . . .</i>	<i>\$64,126,323 36</i>	<i>d \$6,248,441 29</i>
<i>Ratio to Total Operating Revenues . . . . .</i>	<i>(83.10%)</i>	<i>d (2.48%)</i>

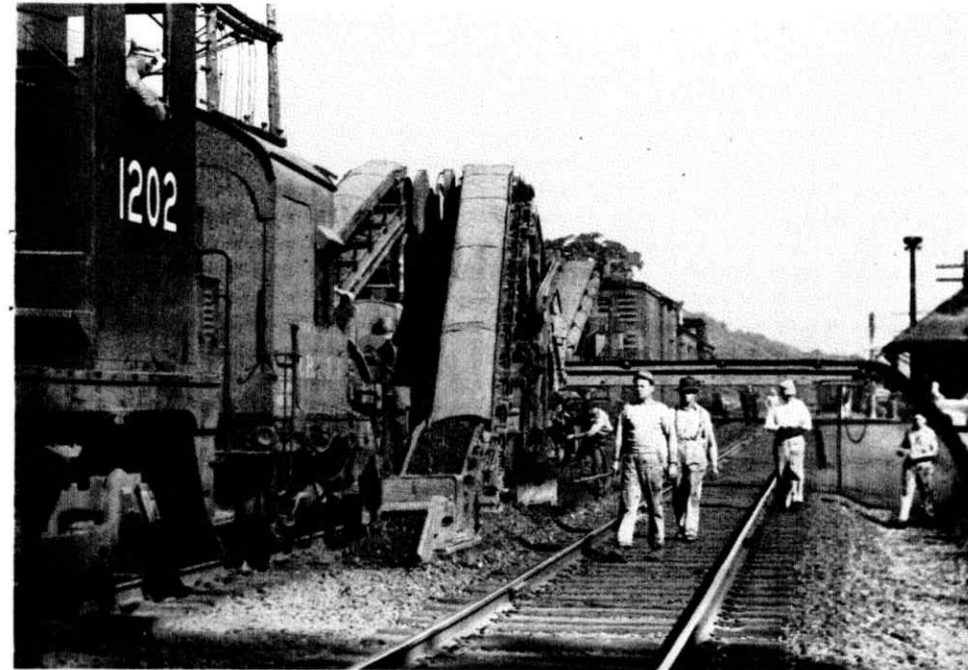
d Indicates decrease.



(Above) Cleaning ballast on the Boston and Maine. The ballast is picked up, the dirt sifted out and the ballast replaced in the road bed. (Below). Another view showing the dirt from ballast being expelled to one side



Caboose talking with head end by radio phone on a Boston and Maine freight train



CAPITAL STOCK	Amount Outstanding	Dividend Rate
Prior Preference . . . . .	\$ 23,136,000 00	7 %
Prior Preference Negotiable Receipts. . . . .	2,500 00	
First Preferred Class A . . . . .	18,860,000 00	5 %
“ “ “ B . . . . .	7,648,800 00	8 %
“ “ “ C . . . . .	7,917,100 00	7 %
“ “ “ D . . . . .	4,327,000 00	10 %
“ “ “ E . . . . .	65,000 00	4 1/2 %
Preferred . . . . .	3,149,800 00	6 %
Common . . . . .	39,505,100 00	
	\$104,611,300 00	

LONG-TERM DEBT	Amount Outstanding
Bonds secured by Mortgage dated December 1, 1919, supplemented as of July 1, 1940	
Series FF . . . . .	\$ 52,000 00
“ GG . . . . .	13,000 00
“ . . . . .	25,000 00
“ II . . . . .	1,237,000 00
“ RR . . . . .	59,202,600 00
“ JJ . . . . .	902,000 00
“ AC . . . . .	3,065,000 00
Income Mortgage “ A . . . . .	30,040,000 00
<i>Total Mortgage Bonds</i> . . . . .	\$ 94,536,600 00
Equipment Trust No. 6 Trust Certificates . . . . .	522,000 00
Lease and Purchase Agreements — Equipment . . . . .	11,121,520 19
<i>Grand Total Long-Term Debt</i> . . . . .	\$106,180,120 19

Cumulative Dividends Unpaid Since †Jan. 1, 1932—*Oct. 1, 1931	Amount in Hands of Public	Owned, Deposited with Trustee, or Held in Treasury or Insurance Fund **
†\$105 00 per share \$24,085,845 00	\$ 22,938,900 00	\$ 197,100 00
	2,500 00	
*\$ 76 25 “ “ 14,361,001 25	18,834,100 00	25,900 00
*\$122 00 “ “ 9,331,536 00	7,648,800 00	
*\$106 75 “ “ 8,444,245 25	7,910,300 00	6,800 00
*\$152 50 “ “ 6,593,947 50	4,323,900 00	3,100 00
*\$ 68 625 “ “ 44,606 25	65,000 00	
Non-cumulative	3,149,800 00	32,300 00
	39,472,800 00	
	\$104,346,100 00	\$ 265,200 00

Date of Maturity	Rate		
January 1, 1947	5 %	\$ 52,000 00	
April 1, 1947	5 %	13,000 00	
July 1, 1950	3 %	10,000 00	a \$ 15,000 00
May 1, 1955	5 %	1,237,000 00	
July 1, 1960	4 %	58,041,800 00	1,160,800 00
April 1, 1961	4 3/4 %	897,000 00	a 5,000 00
September 1, 1967	5 %	2,424,000 00	a 641,000 00
July 1, 1970	4 1/2 %	27,193,000 00	2,847,000 00
		\$ 89,867,800 00	\$4,668,800 00
June-Dec. 1, 1947-49	4 %	522,000 00	
Various	Various	11,121,520 19	
		\$101,511,320 19	\$4,668,800 00

\*\* No interest.  
a Deposited with and held by Trustee in Lieu of Mortgaged Property Sold, to release would require cash payment at par.

Item	Debit	Credit
Balance, December 31, 1945 (Credit)		(a) \$ 268,864 45
Adjustment to Par of Boston and Maine Railroad Bonds purchased during 1946		548,414 94
Collection of old balances previously written off as uncollectible		40,000 00
Profit on Retired Miscellaneous Property Sold		10,373 57
Balance of Book Value of Barre and Chelsea Railroad Company Note charged off	\$ 315,490 00	
To charge off balances in book accounts, representing property changes and material and supplies on line of The Connecticut and Passumpsic Rivers Railroad Company north of Wells River, Vt., which accounts are now cancelled by reason of the sale of all of the property and assets of The Connecticut and Passumpsic Rivers Railroad Company to the Boston and Maine Railroad and Canadian Pacific Railway Company	1,308,235 81	
Miscellaneous Debits — Net	634 51	
Debit Balance, December 31, 1946		(a) 756,707 36
	\$1,624,360 32	\$1,624,360 32

(a) Includes Surplus Earned by Lessor Companies before Consolidation.



Interior of the control cab on a B & M Passenger Diesel Locomotive

TITLE ACCOUNT	Gross Expenditures	Property Retired	Net Capital Changes
<b>ROAD</b>			
1 Engineering	\$ 164,789 92	\$ 46,922 45	\$ 117,867 47
2 Land for Transportation Purposes	107,104 21	61,587 84	45,516 27
2½ Other Right-of-Way Expenditures	2,128 00	210 00	1,918 00
3 Grading	803,264 30	225,085 60	578,178 70
6 Bridges, Trestles and Culverts	152,834 87	413,922 18	261,087 31
8 Ties	181,274 91	8,950 27	172,324 64
9 Rails	538,472 33	340,495 53	197,976 80
10 Other Track Material	350,529 91	367,308 49	16,778 58
11 Ballast	92,978 41	9,160 69	83,817 72
12 Track Laying and Surfacing	174,153 63	326 62	173,827 01
13 Fences, Snowsheds and Signs	26,892 77	4,773 59	22,119 18
16 Station and Office Buildings	307,523 10	117,510 35	190,012 75
17 Roadway Buildings	12,657 26	16,786 57	4,129 31
18 Water Stations	18,792 25	11,401 16	7,391 09
19 Fuel Stations	—	21,300 46	21,300 46
20 Shops and Enginehouses	150,684 56	7,640 82	158,325 38
26 Telegraph and Telephone Lines	8,040 75	8,550 13	509 38
27 Signals and Interlockers	492,148 97	118,233 96	373,915 01
29 Power Plants	11,821 03	2,257 41	14,078 44
31 Power-Transmission Systems	20,000 74	205,482 78	185,482 04
35 Miscellaneous Structures	—	559 60	559 60
37 Roadway Machines	79,823 46	20,386 27	59,437 19
38 Roadway Small Tools	5,777 78	971 96	4,805 82
39 Public Improvements — Construction	56,480 45	69,792 04	13,311 59
44 Shop Machinery	147,174 53	114,966 99	32,207 54
45 Power-Plant Machinery	—	49,184 34	49,184 34
Total Road	\$ 3,905,348 14	\$2,223,971 74	\$1,681,376 40
<b>EQUIPMENT</b>			
51 Steam Locomotives	106,402 89	1,425,349 59	1,318,946 70
52 Other Locomotives	6,286,958 23	390,760 63	5,896,197 60
53 Freight-Train Cars	312,675 05	696,504 83	383,829 78
54 Passenger-Train Cars	807,019 32	409,455 72	397,563 60
57 Work Equipment	165,582 17	186,617 25	21,035 08
58 Miscellaneous Equipment	10,432 17	2,692 19	7,739 98
Total Equipment	\$ 7,689,069 83	\$3,111,380 21	\$4,577,689 62
<b>GENERAL EXPENDITURES</b>			
71 Organization Expenses	—	34 00	34 00
72 General Officers and Clerks	13,155 81	2,953 00	10,202 81
73 Law	8,925 94	1,724 28	7,201 66
74 Stationery and Printing	700 43	220 00	480 43
75 Taxes	4,257 16	1,026 00	3,231 16
76 Interest during Construction	133,305 57	49,898 31	83,407 26
77 Other Expenditures — General	2,842 66	647 00	2,195 66
Total General Expenditures	\$ 163,187 57	\$ 56,502 59	\$ 106,684 98
Totals (See Note)	\$11,757,605 54	* \$5,391,854 54	\$6,365,751 00

\* DISPOSITION OF CREDITS

Account No.		
701	— Road and Equipment Property — Equipment Converted	\$ 67,354 16
702½	— Accrued Depreciation — Road and Equipment	3,380,363 44
708	— Cash — Land, Rail, etc. Sold	484,743 63
716	— Material and Supplies — Usable Material	175,270 49
531	— Operating Expenses	396,265 30
621	— Profit and Loss — Miscellaneous Debits — Net	887,857 52
	Total Amount credited to Investment in Road and Equipment	\$5,391,854 54

NOTE. — "Gross Expenditures" includes Journal Entries amount \$2,527,049.71 to conform with Interstate Commerce Commission accounting requirements in connection with the acquisition of the Troy & Bennington Railroad Company — \$311,858.66, and The Connecticut and Passumpsic Rivers Railroad Company, White River Junction, Vermont, to Wells River, Vermont — \$2,215,182.05.

CAPITAL STOCK	Amount Outstanding	Dividend Rate (Paid as rental)	Owned, Deposited with Trustee, or Held in Treasury or Insurance Fund
Stony Brook . . . . .	\$ 300,000 00	7%	\$ 26,000 00
Pemigewasset Valley . . . . .	541,500 00	3%	414,100 00
Northern . . . . .	3,068,400 00	6%	361,200 00
Vermont and Massachusetts . . . . .	3,193,000 00	6%	45,000 00
Vermont Valley . . . . .	1,000,000 00	—	1,000,000 00
Sullivan County . . . . .	a 500,000 00	—	
<i>Total Capital Stock</i> . . . . .	\$8,602,900 00		\$1,846,300 00

a All owned by Vermont Valley Railroad.

FUNDED DEBT	Bonds Outstanding	Date of Maturity	Rate	Held in Treasury
Sullivan County First Mortgage . . . . .	\$ 357,000 00	April 1, 1944	6%	* \$357,000 00
Vermont Valley First Mortgage . . . . .	**1,350,000 00	Oct. 1, 1955	4%	
<i>Total Funded Debt</i> . . . . .	\$1,707,000 00			\$357,000 00

\* These bonds have matured and are held by the Boston and Maine Railroad as an overdue obligation of the Sullivan County Railroad.

\*\* Funds are on deposit with the Trustee to call for redemption on April 1, 1947, \$968,000 principal amount of these bonds.

*Miles of Road Operated, December 31, 1946*

STEAM ROADS	Owned	Leased	Total
Main Lines . . . . .	830 58	187 20	1,017 78
Branch Lines . . . . .	635 82	26 49	662 31
Trackage Rights . . . . .	—	82 22	82 22
<i>Total Road Operated</i> . . . . .	1,466 40	295 91	1,762 31
Second Track . . . . .	463 85	a 114 17	578 02
Third Track . . . . .	4 11	b 5 44	9 55
Other Tracks . . . . .	913 13	117 99	1,031 12
<i>Total Track Operated</i> . . . . .	2,847 49	533 51	3,381 00

a Includes trackage rights 14.47 miles.

b Includes trackage rights .99 mile.



Interior of Diesel Repair Shop,  
Mechanicville, N. Y.

Operating Statistics

	Year ended Dec. 31, 1946	Increase or Decrease
<b>AVERAGE MILES OF ROAD OPERATED</b>		
Freight Service . . . . .	1,750.87	26.27
Passenger Service . . . . .	1,410.20	.90
<i>Total . . . . .</i>	1,763.11	26.27
<b>TRAIN MILEAGE</b>		
Freight service (with locomotives) . . . . .	3,826,603	282,340
Passenger service (with locomotives) . . . . .	6,769,381	164,018
Passenger service (without locomotives) . . . . .	268,477	4,842
Work service . . . . .	178,557	168,829
<i>Total train miles . . . . .</i>	11,043,018	620,029
<b>* LOCOMOTIVE MILEAGE</b>		
Freight service . . . . .	4,162,074	403,898
Passenger service . . . . .	7,087,050	269,925
Train switching . . . . .	293,160	5,874
Yard switching . . . . .	2,704,812	27,324
Work service . . . . .	228,223	164,589
<i>Total locomotive miles . . . . .</i>	14,475,319	871,610
<b>CAR MILEAGE</b>		
<b>Freight-Train Car Miles:</b>		
Loaded . . . . .	145,525,313	9,916,454
Empty . . . . .	56,825,773	11,195,628
Caboose . . . . .	3,952,873	293,771
<i>Total freight-train car miles . . . . .</i>	206,303,959	21,405,853
<b>Passenger-Train Car Miles:</b>		
Passenger coaches . . . . .	23,237,806	1,454,984
Sleeping and parlor cars . . . . .	3,877,083	462,485
Club, lounge, dining and observation cars . . . . .	322,992	58,987
Business cars . . . . .	8,359	2,993
Mail, express, and baggage cars, and combination cars other than passenger . . . . .	15,980,137	394,549
Combination passenger cars (mail, express, or baggage with passenger) . . . . .	4,453,931	177,342
<i>Total passenger-train car miles . . . . .</i>	47,880,308	1,508,396
<i>Total transportation service car miles . . . . .</i>	254,184,267	22,914,249
<b>AVERAGES</b>		
Operating revenues per mile of road . . . . .	\$43,767.63	\$2,188.48
Operating expenses per mile of road . . . . .	36,371.14	2,957.99
Net railway operating income per mile of road . . . . .	2,550.59	560.70
Operating revenues per train mile . . . . .	\$ 7.10	\$ .17
Operating expenses per train mile . . . . .	5.90	.32
Net railway operating income per train mile . . . . .	.41	.10
Total Freight cars per revenue train mile . . . . .	52.88	1.50
Loaded Freight cars per revenue train mile . . . . .	38.03	.20
Empty Freight cars per revenue train mile . . . . .	14.85	1.70
Total Passenger cars per train mile . . . . .	6.80	.05

\* Includes 48,403 Electric locomotive miles and 4,634,680 Diesel locomotive miles. Italics indicate decrease.

Traffic Statistics

	Year Ended Dec. 31, 1946	Increase or Decrease
<b>FREIGHT</b>		
Freight Revenue . . . . .	\$ 53,766,934	\$ 1,785,373
Tons of revenue freight carried . . . . .	23,620,692	1,693,982
Tons of company freight carried . . . . .	1,596,660	357,171
<i>Total tons of freight carried . . . . .</i>	25,217,352	2,051,153
Tons of revenue freight carried one mile . . . . .	3,715,327,958	511,102,482
Tons of company freight carried one mile . . . . .	143,486,640	21,697,845
<i>Total tons of freight carried one mile . . . . .</i>	3,858,814,598	532,800,327
<b>PASSENGER</b>		
<b>Passenger Revenue:</b>		
Monthly commutation ticket passengers . . . . .	\$ 1,026,154.54	\$ 178,878.21
All other commutation ticket passengers . . . . .	1,489,219.98	78,232.96
Single fare ticket passengers (not including interline) . . . . .	8,669,002.71	1,081,194.72
Interline ticket passengers . . . . .	5,570,605.60	1,681,905.01
<i>Total passenger revenue . . . . .</i>	\$16,754,982.83	\$2,505,988.56
<b>Number of Passengers Carried:</b>		
Monthly commutation ticket passengers . . . . .	4,556,631	688,770
All other commutation ticket passengers . . . . .	8,578,311	442,939
Single fare ticket passengers (not including interline) . . . . .	13,568,406	2,087,506
Interline ticket passengers . . . . .	2,710,676	1,203,692
<i>Total number of passengers carried . . . . .</i>	29,414,024	2,159,489
<b>Number of Passengers carried one mile:</b>		
Monthly commutation ticket passengers . . . . .	109,877,810	25,374,682
All other commutation ticket passengers . . . . .	84,265,419	10,617,186
Single fare ticket passengers (not including interline) . . . . .	418,038,975	69,106,257
Interline ticket passengers . . . . .	251,556,678	94,369,475
<i>Total number of passengers carried one mile . . . . .</i>	863,738,882	127,483,864
Number of passengers to and from Boston, including monthly ticket passengers . . . . .	25,365,867	843,050
<b>AVERAGES</b>		
<b>Freight:</b>		
Miles hauled — revenue freight . . . . .	157.29	9.67
Tons of revenue freight per train mile . . . . .	970.92	57.67
Tons of revenue freight per loaded car mile . . . . .	25.53	1.66
Revenue per ton of freight . . . . .	\$ 2.27626	\$ .08179
Revenue per ton per mile . . . . . (cents)	1.447	.133
Revenue per revenue train mile . . . . .	\$ 14.051	\$ .531
Freight revenue per loaded car mile . . . . . (cents)	36.947	1.209
<b>Passenger:</b>		
Average distance carried per passenger (miles) . . . . .	29.36	2.03
Number of passengers per train mile . . . . .	122.73	14.81
Number of passengers per car mile . . . . .	27.36	2.92
Revenue per passenger . . . . . (cents)	56.96	4.04
Revenue per passenger mile, monthly commutation ticket passengers . . . . . (cents)	0.934	.069
Revenue per passenger mile, other commutation ticket passengers . . . . . (cents)	1.767	.148
Revenue per passenger mile, single fare not including interline . . . . . (cents)	2.074	.073
Revenue per passenger mile, interline passengers (cents)	2.214	.118
Revenue per passenger mile, all passengers . . . . . (cents)	1.940	.003
Passenger Revenue per passenger car mile . . . . . (cents)	53.074	5.758
Total passenger service train revenue per train mile . . . . .	\$ 2.833	\$ .400

Italics indicate decrease.