New Locomotives a Boon to Erie

Aid materially in effecting transportation and maintenance economies—Net increases sharply

IN 1927 the Erie retired 367 old locomotives and bought 50 new freight and 30 switching locomotives. For the first six months of 1928 its freight cars per train averaged 66.2, an increase of 13.4 per cent over the first six months of 1927; gross tons per train averaged 2,445, an increase of 10 per cent; train speed showed an improvement of 6.1 per cent and gross ton-miles per train-hour rose to 29,937, an increase of 17.4 per cent.

During the same period of 1928 gross ton-miles increased 2.8 per cent, yet this additional movement was handled with a decrease of 6.6 per cent in freight train-miles and of 9.6 per cent in locomotive-miles. Pounds of coal consumed per 1,000 gross ton-miles declined from 133 to 126, or 5.3 per cent, and average miles per locomotive per day increased 7.8 per cent. Comparative figures for the six months' periods are given in Table 2.

Great Increase in Operating Efficiency

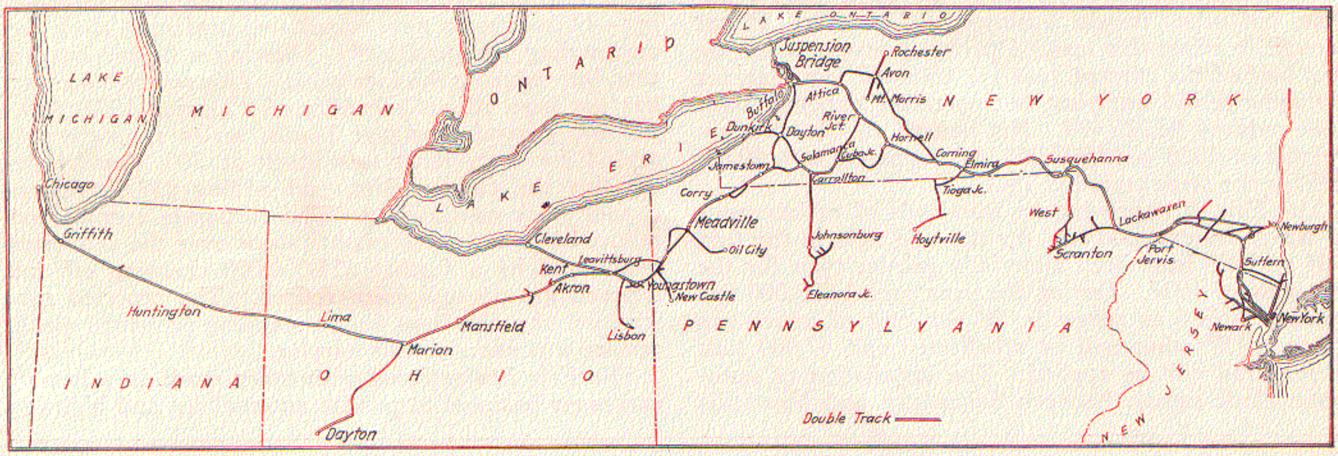
As a result of this great improvement in operating performance, with a decline of 1.3 per cent in total operating revenues for the first six months of 1928, the road was able to reduce its operating expenses 5 per cent, compared with the same period last year; and net railway operating income for the first six months of the current year was $7,977,536—29 per cent better than the same period in 1927. The operating ratio declined from 81.9 to 78.8 and the ratio of transportation expenses to total operating revenues, from 39.7 to 38.8.

Naturally, not all this improvement has resulted from supplanting obsolete power with more modern and efficient locomotives; yet this phase of the management's policy has probably been the most important single factor in the improvement.

And the improvement, incidentally, effected by all phases of the Erie's aggressive rehabilitation policy, is so great that the first six months' total of net railway operating income, $7,977,536, is the best showing made for that period since 1923, when the total was only $2,183 greater; and the 1928 six months' total has been achieved with operating revenues 11.7 per cent less than they were in the first six months of 1923.

Scrap Old Equipment and Concentrate Shop Facilities

Of the savings made in operating expenses, that in maintenance of equipment is most striking—$1,911,631 for the first six months of 1928, as compared with the same period last year. This saving, moreover, has not been made by lowering maintenance standards; indeed it may safely be said that the road's equipment, generally speaking, has never been in better condition. In fact, on June 30, 1928, the run-out mileage on locomotives was 45 per cent, as against 55 per cent a year ago, and the number of serviceable locomotives stored was greater. The retirement of obsolete power and rolling stock—367 locomotives, 249 passenger train cars, 7,298 freight train cars and 886 units of work equipment—did away with units which were disproportionately expensive to maintain. Their partial replacement, also, by new equipment has given the road for its most active power, units on which maintenance costs will be relatively low for several years to come.



The Erie Railroad

In addition, a revision of shop methods has contributed importantly to lower maintenance of equipment expenses. Prior to the present regime shop work was scattered widely over the system, classified repairs being given in many places which were little more than roundhouses. This work has now been concentrated at two shops—Meadville and Hornell—which have been equipped with modern machinery, materially reducing repair costs. Moreover, classified repairs have been made strictly on mileage schedules, which heretofore had not always been closely adhered to.

To Extend Use of 2-8-4 Locomotives

The Erie's new 2-8-4 freight locomotives are now operating between Marion, Ohio, and Hornell, N. Y. Thirty-five more will be added in September, and then these locomotives will operate as far eastward as Port Jervis. Bridges are being strengthened between the latter point and Secaucus (New York Terminal) and when this work is completed the new power will be in use over the entire main line where grades are in excess of 0.2 per cent, i.e., from Secaucus westward to Marion, Ohio. Sidings are being lengthened along this section of the line to take care of 125-car trains.

The maintenance of equipment ratio to operating revenues for the first half of 1928 was 22.11, as compared with 25.01 for the same period in 1927. The transportation ratio, as previously stated, was 38.76 and 39.70 respectively for these periods. When the use of the new locomotives is still further extended, further improvement in the transportation ratio may be expected. The fuel efficiency of the new power is admittedly much greater than that of the locomotives, also comparatively modern, which it has replaced. This greater fuel efficiency, it is estimated, is as high as 40 per cent on some divisions.

Shedding further light on the economy made possible by retiring the older power, it is worth while to note that at the beginning of 1927 the Erie had 83 types of locomotives. Now with only 40 classes it has been able to reduce its stores inventory by about $2,000,000, which reduction must, in large measure, be credited to improved locomotive conditions. The total number of locomotives owned has been reduced by almost 300.

Traffic Volume Maintained

The Erie's traffic is holding up well during the current year, in all probability due to an energetic and successful policy of solicitation, combined with efficient handling of business offered. Revenues from the transportation of coal for the first six months of 1928 have shown some decline from the same period last year, but other freight business has increased almost enough to offset this loss. Operating revenues for the first half of the current year are $803,467 less than for the same period last year, but operating expenses have been reduced $2,525,479. Net income for the first six months of 1928 is $2,807,063, as compared with $937,156 for the same period in 1927.

The Erie is improving its standards of maintenance of way. Its expenditures for ties and rails in the first half of 1928 have been materially greater than for the first half of 1927. During the year over 1,000,000 ties will be applied as renewals, 98 per cent of which are treated; 157 miles will be reballasted and 47,000 tons of new rail will be applied. The installation of automatic block signals between Salamanca and Meadville is being completed, this being the only section of the main line not so equipped.

Altogether, it appears that the Erie, while it has already begun to secure favorable results from the policies put into effect by the management, should continue for some time to realize growing benefits from the further carrying out of these policies—uniform high grade power, centralization and systematization of equipment maintenance, fuel saving, heavier train loading, increased train speed, longer engine runs, etc.

Table 2—Comparison of Selected Freight Operating Statistics

First Six Months of 1928, Compared with Same Period in 1927

	6 Mos. 1928	6 Mos. 1927	Per cent of change Inc.	Dec.
Mileage operated	2,317	2,317	..	..
Gross ton-miles (thousands)	13,074,519	12,715,856	2.8	..
Net ton-miles (thousands)	5,395,084	5,493,109		1.8
Freight train-miles (thousands)	5,348	5,724		6.6
Freight locomotive miles (thousands)	6,336	7,009		9.6
Freight car-miles (thousands)	353,971	334,392	5.9	
Freight train-hours	436,731	498,719		12.4
Car-miles per day	38.2	32.4	17.9	
Net tons per loaded car	24.4	26.1		6.5
Per cent loaded to total car-miles	63.6	64.1		0.8
Net ton-miles per car day	592	542	9.2	
Freight cars per train	66.2	58.4	13.4	
Gross tons per train	2,445	2,222	10.0	
Net tons per train	1,009	960	5.1	
Train speed, miles per train hour	12.2	11.5	6.1	
Gross ton-miles per train-hour	29,937	25,497	17.4	
Net ton-miles per train-hour	12,353	11,014	6.1	
Lb. coal per 1,000 gross ton-miles	126	133		5.3
Loco. miles per loco. day	65.0	60.3	7.8	
Per cent freight locos. unserviceable	21.3	22.1		3.6
Per cent freight cars unserviceable	5.2	7.5		30.7

The improved prospects of the road have, in fact, given rise to reports that there may be some refinancing—exchanging a new cumulative preferred stock for outstanding non-cumulative, allowing a higher interest rate, but reducing the face value. This report, however, has not been officially confirmed. During 1927, $19,317,400 general mortgage bonds, series D, were presented for conversion into stock at 200, thereby decreasing the funded debt, and adding $38,634,800 to capital stock outstanding. The corporate surplus was reduced by the excess of this stock over the converted bonds and by a further $15,000,000 charging off full depreciation on equipment retired. The reported substitution of a new issue for outstanding preferred would restore a portion of this surplus.

The Erie has suffered with other roads in a loss of passenger business to private automobiles and highway

Table 1—Operating Results, Selected Items

Years ended December 31, 1920 to 1927

	1920	1921	1922	1923	1924	1925	1926	1927
Average mileage operated	2,259	2,309	2,309	2,325	2,325	2,323	2,317	2,317
Total operating revenues	$122,163,099	$113,428,076	$106,874,103	$132,978,455	$119,090,856	$118,543,456	$125,473,504	$122,478,355
Total operating expenses	133,014,159	106,117,042	100,101,523	108,070,145	95,784,775	93,238,535	99,173,496	100,264,697
Net operating revenues	Def. 10,851,060	7,311,034	6,772,580	24,908,310	23,312,081	25,304,920	26,300,008	22,213,658
Railway tax accruals	3,804,226	3,729,593	3,863,226	4,260,003	4,521,873	4,750,791	4,868,271	4,821,270
Railway operating income	Def. 14,690,442	3,531,754	2,860,993	20,539,117	18,698,549	20,509,435	21,386,470	17,359,776
Net equipment and joint facility rents—Dr.	2,303,676	2,369,860	2,216,082	2,218,704	1,626,372	2,978,815	3,333,748	4,399,076
Net railway operating income	Def. 1,319,953	1,161,893	644,911	18,320,413	17,072,177	17,530,619	18,052,723	12,960,700
Dividend income	3,842,942	9,191,700	11,095,150	6,027,537	7,002,537	3,177,537	5,913,995	4,200,702
Gross income	*18,516,983	*16,815,729	11,854,444	23,111,730	24,781,924	21,698,418	24,927,371	18,461,588
Interest on funded debt	10,610,358	10,701,403	10,771,533	10,532,553	11,079,862	10,945,520	10,781,715	11,237,924
Net income	4,438,586	2,694,425	Def. 3,132,770	8,435,273	9,601,629	6,729,307	10,113,393	3,512,650
Sinking and other reserve funds	976,015	1,099,171	946,047	1,217,065	1,238,262	1,146,915	1,368,901	1,378,887
Surplus for year	3,462,570	621,452	Def. 4,078,817	7,218,208	8,363,367	5,582,391	8,744,493	2,133,763
Revenue ton-miles (thousands)	11,137,692	8,574,212	8,277,801	11,363,377	9,880,513	9,469,280	10,407,368	10,161,506
Rev. pass. miles (thousands)	740,129	683,422	648,421	680,537	666,139	672,065	650,594	636,400
Rev. per ton per mile (cents)	0.862	1.065	1,021	0.957	0.966	1.000	0.980	0.982
Total revenue tons	46,467,928	34,692,317	36,301,364	50,437,718	43,104,928	42,894,577	46,680,845	46,846,984
Tonnage of bituminous coal	12,036,731	6,959,744	7,797,689	11,534,424	8,343,217	8,334,899	8,856,584	9,249,752
Per cent of total	25.90	20.06	21.48	22.87	19.36	19.43	18.97	19.74
Tonnage of anthracite coal	9,988,829	9,973,687	6,079,508	11,557,800	10,026,306	7,392,567	10,178,531	9,992,427
Per cent of total	21.50	28.75	16.75	22.91	23.26	17.23	21.80	21.33
Transportation ratio	56.60	46.53	45.46	38.59	38.69	38.52	38.45	39.79
Operating ratio	108.88	93.55	93.66	81.27	80.43	78.65	79.04	81.86

* Includes standard return and guaranty.

motor coaches. Passenger-miles in 1927 were 2.18 per cent less than in 1926 and gross revenues 5.6 per cent less. The greater decline in earnings is due to the fact that the Erie has a large volume of low-rate suburban traffic, which business it has retained, while full-fare passengers have been lost to competing transportation agencies. Passenger train revenues in 1927 were 15.7 per cent of total operating revenues.

The road has large investments in coal properties and its dividend income from all sources in 1927 was $4,200,702—a decrease of $1,713,293 from the preceding year. Non-operating income in 1927 totaled $5,500,888, or 29.8 per cent of gross income. As the net railway operating income continues to grow as a result of improved operating performance, there should be less and less necessity for reliance on dividend income as a source of net income.

Freight Car Loading

WASHINGTON, D. C.

REVENUE freight car loading in the week ended August 18 amounted to 1,056,905 cars, a decrease of 9,923 cars as compared with the corresponding week of last year and a decrease of 24,598 cars as compared with 1926. Loading of grain and grain products, ore and miscellaneous freight, however, showed increases, as did the totals for the Central Western and Southwestern districts. The summary, as compiled by the Car Service Division of the American Railway Association, follows:

Revenue Freight Car Loading

Week Ended Saturday, August 18, 1928

Districts	1928	1927	1926
Eastern	242,561	243,943	249,328
Allegheny	215,455	216,017	217,863
Pocahontas	55,758	62,951	58,656
Southern	139,521	152,055	149,395
Northwestern	163,752	163,958	168,516
Central Western	158,732	150,572	159,200
Southwestern	81,126	77,332	78,545
Total Western Districts	403,610	391,862	406,261
Total All Roads	1,056,905	1,066,828	1,081,503
Commodities			
Grain and Grain Products	61,170	54,045	50,874
Live Stock	25,521	29,534	29,888
Coal	160,720	173,443	185,721
Coke	9,138	9,390	11,377
Forest Products	66,011	69,931	70,194
Ore	64,228	62,902	75,062
Merchandise L. C. L.	255,832	261,356	260,406
Miscellaneous	414,285	406,227	397,981
August 18	1,056,905	1,066,828	1,081,503
August 11	1,044,442	1,049,639	1,102,660
August 4	1,048,622	1,024,038	1,075,392
July 28	1,033,976	1,044,697	1,095,997
July 21	1,033,816	1,012,585	1,078,193
Cumulative total, 34 weeks	31,550,005	32,575,306	32,740,905

The freight car surplus for the week ended August 15 averaged 241,258 cars, a decrease of 15,954 cars as compared with the previous week. The total included 123,461 box cars, 74,795 coal cars, 21,261 stock cars and 12,734 refrigerator cars.

Car Loading in Canada

Revenue car loadings at stations in Canada for the week ended August 18 totalled 68,731 cars, an increase over the previous week of 2,483 cars and an increase of 5,348 cars over the same week last year.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada		
August 18, 1928	68,731	39,886
August 11, 1928	66,248	38,268
August 4, 1928	68,477	38,380
August 20, 1927	63,383	36,528
Cumulative Totals for Canada		
August 18, 1928	2,136,397	1,285,717
August 20, 1927	2,005,555	1,249,511
August 21, 1926	1,899,711	1,226,121

Santa Fe Authorized to Acquire Orient

WASHINGTON, D. C.

ACQUISITION by the Atchison, Topeka & Santa Fe of control of the Kansas City, Mexico & Orient Railway was approved by Division 4 of the Interstate Commerce Commission in a report made public on August 28 which expresses the opinion that the acquisition will be advantageous to the Orient, which has never been able to finance itself, to shippers because of the assurance of a regular, dependable and permanent service, and to the Santa Fe.

The price is $414.50 a share, or a total of $14,507,500, or somewhat in excess of the commission's valuations as of 1919 but the report points out that additions and betterments to date would raise the total of the amounts shown in the valuation reports to a sum in excess of the price which the Santa Fe is to pay and that the valuations do not include anything for the properties in Mexico.

The Orient was incorporated on April 1, 1925, for the purpose of effecting a reorganization of the Kansas City, Mexico & Orient Railroad Company, whose properties were in the hands of a receiver. The commission authorized the Orient to acquire and operate the line of railroad formerly of the Kansas City, Mexico & Orient Railroad and of the Kansas City, Mexico & Orient Railway of Texas by purchase of capital stock, to issue not exceeding 35,000 shares of capital stock without nominal or par value and to assume obligation and liability in respect of a note for $2,500,000 given by the receiver of the Orient to the Secretary of the Treasury.

The Santa Fe owns subscription rights to 14,561 shares of the Orient's capital stock, and proposes to acquire the remaining 20,439 shares, pursuant to a contract entered into with W. T. Kemper on May 19, 1928. The price paid for the subscription rights and to be paid for the stock is $414.50 a share. The capital stock has no ascertainable market value. The total consideration to be paid for the stock, which represents all the property of the Orient, including cash and current assets sufficient to pay all its debts, is $14,507,500. The Orient owns all of the bonds of its Texas subsidiary, and 9,840 shares of its 10,000 outstanding shares of stock, with certain rights in other shares held by directors of that company to qualify them as such. The commission valuation for rate-making purposes of the properties of the Orient owned and used and owned but not used, as of June 30, 1919, was $6,453,528, and the final value for rate-making purposes of the Texas subsidiary, as of the same date, was $6,744,673. Additions and betterments to date would raise the total of these amounts to a sum in excess of the price which the applicant proposes to pay, the report adds and these valuations do not include any amounts for the 320 miles of line in Mexico.

Construction of the Orient's railroad was commenced in 1902 and most of its existing lines were completed by 1910. Construction was carried on in separate sections and exhaustion of funds resulted in a receivership in 1912. A reorganization was effecttd in 1914 and a second receivership followed in 1917. The properties have been in receivership since 1912, with the exception of two years.

"The Orient has never been able to finance itself," the report says. "On two, and possibly three, occasions abandonment of the line was seriously threatened.