

NEW ZEALAND RAILWAYS IN 1973

Booming Traffic Recorded in 1974 Report

FOR THE first time in the history of New Zealand Railways, the total traffic moved in one year topped 6,000 million gross ton-miles during the twelve months from April 1973 to March 1974. For the first time on record, the tonnage of goods carried by rail in New Zealand rose above 13,000,000 tons. For the first time ever, the tonnage of goods carried by rail in New Zealand rose by more than a million tons in just one year.

THESE are just a few of the figures that help to illustrate the tremendous pressure placed on NZR resources since early 1973. Regrettably, however, the way in which railway men and women coped with the remarkable upsurge in business is not reflected in the financial results, simply because railway rates and fares have been held at the November 1971 level while wage rates and prices of stores, fuel and materials have continued to rise step by step. Consequently, although revenue rose by more than \$17,000,000 or 12.7 percent as a result of the increased business, total expenditure rose by more than \$22,000,000 or 16.3 percent.

When it is considered that higher wage rates alone (to keep the earnings of railway staff approximately in line with those of the rest of the community), and associated costs such as the superannuation subsidy, raised

expenditure by more than \$11,000,000, it seems clear that there must have been a significant improvement in the efficiency with which the business of the railways was conducted.

To help readers obtain some idea of the state of New Zealand Railways today, we present the following extracts from the annual report that was tabled in Parliament early in June 1974 in respect of the year that ended on 31 March. We also offer a series of tables giving 10-year summaries of significant figures showing the trends that have developed since 1963. This will be the last time that imperial measurements like tons and miles will appear in these statistics. Next year tons and miles will give way to tonnes and kilometres, and ton-miles to tonne-kilometres. Further details of 1973-74 railway statistics will be found in the annual report, and in due course in



Photograph: G. T. Radcliffe.

Not a tropical scene. This is New Zealand Railways in 1974 as 2,750 h.p. diesel-electric "Dx" 2613 pulls out from the crossing loop at Levin with northbound freight on 30 March.

the *New Zealand Official Year Book* and *New Zealand Transport Statistics*, the latter two being publications of the Department of Statistics.

RECORD REVENUE

A 12.7 percent increase in the gross revenue earned by New Zealand Railways during the year ended 31 March 1974 to a record total of \$152,179,091 was reported by the Minister of Railways, Hon. T. M. McGuigan, in his introduction to the Department's latest annual report. He said this increase resulted primarily from the substantial growth in tonnage hauled.

Gross expenditure, however, rose by 16.3 percent with the result that the operating deficit for the year was \$8,652,983 compared with \$3,349,822 for 1972-73. This was in reality, the Minister said, a very satisfactory result when the higher wages and stores and materials costs, and the substantial increase

in tonnage hauled, were taken into account. Excluding the cost of carrying the increased tonnage, wages costs rose by \$9.8 million due to higher wage rates, other personnel costs directly related to the higher wage rates rose by \$1.3 million, and fuel costs rose by \$400,000. There was also a substantial increase in the cost of stores and materials directly attributable to higher prices, but this was partly offset by abolition of the payroll tax from 1 October 1973.

"If these additional costs had been recovered", the Minister said, "a surplus of about \$3 million would have been shown for the year compared with the deficit of \$3,349,822 in 1972-73".

After adding interest charges on the loans from the International Bank for Reconstruction and Development and on overseas credits for capital equipment, the net cost on the whole undertaking for the year was \$11,039,018. In accordance with Govern-

FINANCIAL RESULTS 1963-1974

From All Services †

Year	Gross Revenue \$ (million)	Gross Expenditure \$ (million)	Net Revenue \$ (million)
1963-64	79,477	78,399	1,078
1964-65	85,318	82,948	2,370
1965-66	87,552	84,184	3,368
1966-67	88,756	87,878	0,878
1967-68	85,832	84,660	1,172
1968-69	90,015	86,495	3,520
1969-70	99,729	94,121	5,607
1970-71	105,242	112,827	*(7,585)
1971-72	122,368	126,696	*(4,328)
1972-73	134,990	138,340	*(3,350)
1973-74	152,179	160,832	*(8,653)

* Figures in brackets indicate excess of expenditure over revenue, or the "working deficit". Rates and charges have been "frozen" since November 1971.

† Including Road Services and Cook Strait Rail Ferries.

ment policy this amount was covered by a transfer from the Stabilisation Vote.

Mr McGuigan commented that, in present-day conditions, it was especially important the fullest possible use be made of the national railway system, and that modern equipment be available so that attractive, efficient services could be provided in the national interest. "The leeway to be made up," he said, "is considerable. The achievements of the Department over the past year have shown what can be done to carry an increased quantity of goods; much more can be accomplished as modern rolling stock is provided and out-moded techniques eliminated."

NEW FREIGHT RECORD

The total quantity of goods carried by New Zealand Railways in 1973-74 rose by more than one million tons — the first time such a large annual increase had been recorded. Gross tonnage carried by rail in the year to 31 March 1974 was 13,167,104 tons, 1,039,893 tons or 8.6 per cent greater than that hauled in 1972-73.

"The record volume of freight handled by New Zealand Railways is evidence of the buoyancy and confidence of the economy," the Minister commented. "These figures

reflect great credit on railway staff generally, and show just what can be achieved by railway transport."

In his introduction to the report, Mr McGuigan said the rise in the tonnage of goods carried was accompanied by an increase in the average length of haul, from 154 miles to 168 miles. The combination of increased tonnage and longer hauls raised net ton-miles by 18.4 percent to a record 2,218.4 million.

NEW TRAINS MORE POPULAR

"The patronage accorded all the newer passenger services over the past year has continued to show significant increases," the Minister of Railways, Hon. T. M. McGuigan, said in his introduction to the 1974 report of New Zealand Railways. Long-distance rail passenger journeys increased by 6.0 percent to 1,732,444, and the corresponding revenue by 6.6 percent to \$4,534,564.

"This evidence," the Minister said, "strengthens my personal conviction that the community does respond to modern, efficient and economical rail travel of the type already in service. Unfortunately, despite protracted efforts to obtain earlier deliveries, some essential equipment from overseas to complete the upgrading of the

TRAFFIC VOLUME AND ROUTE MILEAGE 1963-1974

YEAR	Gross All Trains	Ton-miles Passenger Trains †	Average Route Miles Open
	Millions	Millions	
1963-64	4,439.9	788.4	3,264
1964-65	4,693.5	771.9	3,256
1965-66	4,753.9	764.6	3,254
1966-67	4,777.9	764.3	3,212
1967-68	4,508.4	683.2	3,194
1968-69	4,670.9	672.1	3,072
1969-70	4,980.9	653.5	3,063
1970-71	5,182.4	645.5	3,055
1971-72	5,086.9	656.1	2,987
1972-73	5,453.3	656.5	2,986
1973-74	6,080.6	688.6	2,982

† Included in total for all trains.

NZR GOODS TRAFFIC

Year	North Island		South Island		ALL LINES		Ton-miles
	Revenue	Total Tons	Revenue	Total Tons	Revenue	Total Tons	
	\$(million)	(000)	\$(million)	(000)	\$(million)	(000)	millions
1963-64	41.6	7,396	18.8	3,694	60.3	11,090	1,303.0
1964-65	45.3	7,949	20.3	4,022	65.5	11,971	1,406.8
1965-66	46.8	7,995	20.5	3,893	67.3	11,888	1,473.1
1966-67	47.1	7,830	20.3	3,704	67.4	11,534	1,483.9
1967-68	45.6	7,357	19.2	3,224	64.8	10,581	1,405.1
1968-69	47.6	7,676	19.8	3,122	67.5	10,798	1,502.9
1969-70	54.2	8,376	21.5	3,217	75.7	11,593	1,676.6
1970-71	57.1	8,606	22.0	3,235	79.1	11,850	1,756.7
1971-72	66.3	8,328	25.7	2,983	92.0	11,311	1,698.2
1972-73	74.0	8,990	28.7	3,137	102.8	12,127	1,874.4
1973-74	82.9	9,799	32.9	3,368	115.8	13,167	2,218.4

Northerner express trains for the overnight Wellington-Auckland run is not expected to reach New Zealand until about the end of this year, or later. The work of thoroughly overhauling and refitting the 16 passenger cars and preparing the three dining cars involved has therefore been delayed and the new Northerner service is now expected to be ready about September 1975 instead of later this year as originally planned.

"When the work is completed, the new Northerner trains, which will replace the present ordinary expresses between Wellington and Auckland, will supplement the popular Silver Star overnight and Silver Fern daytime services and will offer a much improved service for people travelling to and from intermediate towns along the route."

The Department's report added that suburban rail passenger journeys in 1973-74 increased by 1.7 percent to 17,211,969 and the corresponding revenue by 1.6 percent to \$2,966,121. The loss on railway suburban services was reported as \$3,121,000.

IMPROVEMENTS AND NEW WORKS

Capital expenditure of more than \$16,000,000 during the year ended 31 March 1974 on new works and equipment for New Zealand Railways was recorded in the Department's annual report tabled in Parliament by the Minister of Railways, 79 percent being funded from railway depreciation reserves, and 21 percent from loan funds.

A total of \$7.5 million was spent on works including new buildings, the reconstruction and strengthening of bridges, the improvement of signalling and communications, and the provision and renewal of warning devices on level crossings.

Expenditure on new rolling stock amounted to \$6.6 million. The total of 750 new goods wagons placed in service comprised 113 "Ks" class box wagons, 238

GOODS TRAINS 1963-1974

YEAR	Total Miles Run	Average Weight of Trains	Average Load per Train	Average Rate of Movement †
	(000)	tons	tons	m.p.h.
1963-64	9,084	399	157	13.6
1964-65	9,547	407	162	14.0
1965-66	9,648	411	167	14.6
1966-67	9,614	415	171	14.8
1967-68	8,735	433	177	15.2
1968-69	8,465	467	190	15.2
1969-70	8,616	496	207	15.5
1970-71	8,957	499	207	15.8
1971-72	8,810	496	207	16.3
1972-73	9,090	520	222	16.7
1973-74	9,632	554	242	16.9

† Terminal to terminal, including time spent at intermediate stations en route.



Photograph: D. M. Cole.

Probably the NZR's finest and most popular passenger service today, the air-conditioned "Silver Fern", worked on 22 December 1973 by "Rm" 1, races northward towards Paraparaumu on its 11-hour 681 km journey from Wellington to Auckland.

"Lpa" and six "Rp" class highside wagons, 218 "Us" and 100 "Un" class flat-top wagons, and 68 "Uk" and seven "Ukb" class container wagons. At the close of the year the number of wagons under construction and authorised to be built or purchased totalled 4,429.

In his report Railways General Manager Mr T. M. Small noted that the increase in traffic imposed great pressure on railway staff and marshalling yards in several localities. "It is evident," he said, "that if the demand for rail transport continues to develop at the same rate in future — and

if the lessons emerging from the energy crisis and the need to protect the environment are heeded this trend must continue — then considerable additional capital will be urgently needed to improve marshalling yards in areas where the current rate of economic growth is placing pressure on existing facilities.

"In the meantime every effort is being made to see that rail transport resources are used to the fullest and most effective extent possible in order to give commerce and industry the service it requires and expects."

RAIL PASSENGER TRAFFIC 1963-74

YEAR	Number of Passenger Journeys		
	Suburban	Non-Suburban	TOTAL
	(000)	(000)	(000)
1963-64	22,660	3,074	25,734
1964-65	22,328	2,809	25,137
1965-66	21,234	2,654	23,888
1966-67	21,209	2,514	23,723
1967-68	20,122	2,064	22,186
1968-69	20,300	1,962	22,261
1969-70	19,183	1,849	21,031
1970-71	18,873	1,911	20,784
1971-72	18,335	1,780	20,115
1972-73	17,060	1,505	18,565
1973-74	17,212	1,732	18,944

RAIL PASSENGER REVENUE 1963-1974

YEAR	Suburban Revenue		TOTAL
	Suburban Revenue	Non-Suburban Revenue	
	\$(000)	\$(000)	\$(000)
1963-64	1,865	3,999	5,864
1964-65	1,922	3,838	5,760
1965-66	1,976	3,921	5,897
1966-67	2,005	3,909	5,914
1967-68	1,947	3,347	5,294
1968-69	2,052	3,367	5,419
1969-70	2,181	3,491	5,672
1970-71	2,210	3,620	5,830
1971-72	2,794	4,216	7,010
1972-73	2,919	4,255	7,174
1973-74	2,966	4,535	7,501

Next stop Hastings! "Da" 1498 with the Wellington-Napier "Endeavour" accelerates through Opapa as "Da" 1468 waits patiently in the crossing loop with a down goods. 23 October 1973.

Photograph: G. T. Radcliffe.



NZR STAFF STATISTICS * 1963-1974

YEAR	Number at 31 March		Average Number Through Year	Appoint- ments to Permanent Staff ‡	Separa- tions †
	Permanent Staff	Temporary Staff			
1963-64	16,423	7,745	24,515	986	1,538
1964-65	16,340	7,642	24,107	957	1,552
1965-66	15,868	7,495	23,672	878	1,626
1966-67	15,683	7,548	23,381	925	1,349
1967-68	15,877	6,681	22,910	585	870
1968-69	15,309	6,103	22,154	580	1,391
1969-70	14,653	6,080	21,082	719	1,671
1970-71	14,741	6,291	20,814	1,071	1,326
1971-72	14,884	5,804	20,688	794	1,071
1972-73	15,259	5,640	20,799	889	1,163
1973-74	15,327	5,606	20,835	1,241	1,675

* Includes staff in Road Services and Catering Services Branches, but excludes staff employed on sea-going ferries.

† Retirements, resignations, deaths, dismissals, etc.

‡ Permanent staff is also augmented by transfers from temporary staff.

RAILWAYS AND THE ENVIRONMENT

Greater use of New Zealand Railways would mean fewer environmental consequences and more economy in energy use, the Minister of Railways, Mr McGuigan, said in commenting on the Railways Department annual report. He said statements by Railways General Manager, Mr T. M. Small, concerning the inherent advantages of rail over other forms of transport merited serious attention.

"There is no question that railways use less energy for the amount of service provided than do other forms of transport," Mr Small stated. "Recent studies of energy consumption by independent overseas organisations have found that, on the basis of average fuel use, railways use 680 British thermal units (BTUs) for all classes of operations compared with 1,870 for road trucks and a massive 27,000 for air carriers."

Other studies, based on tractive power and energy efficiency expressed in terms of ton-miles per gallon, showed the advantage of rail over road to be in the ratio of about 4 to 1.

On the environment, Mr Small pointed out that railways were a relatively small contributor to atmospheric pollution, principally because diesel-electric locomotives used less fuel per unit of work performed and therefore emitted less exhaust, and in electric locomotives exhaust gases were not generated.

Railways and highways also differed markedly, he added, in the amount of land they used. Railways already entered most towns and cities along routes that intruded relatively little into the environment, mainly because these towns and cities had grown around the railway. Fuller utilisation of the existing system would not change the landscape, and in turn would reduce the need for future road building.

"No industry," Mr Small concluded, "at this time in our country's development, can undertake any endeavour without considering its effects on the fuel crisis, the air we breathe, the water we drink, and the total surroundings in which we live. Whatever decisions are made by the Government or the Department regarding future rail operations must be made with this in mind."