

TTA NEWSLETTER

Train Traveller's Association Newsletter

61 Leila Road Ormond 3163

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EDITORIAL

Around a week after the March Newsletter was released to the Minister and the press, the Transport Minister announced that a task force was being set up to investigate the causes of delays in the metropolitan rail system.

We like to think that the editorial in that issue was in some way instrumental in galvanizing some action.

However, while the action was welcomed, some facts belatedly came to our attention which palled somewhat. . .

The first was that a private consulting firm was "... to investigate and overcome train delays". Great, but the firm "... has two months to produce a strategy for minimising train delays".

Secondly, the task force has "... been given two years to improve train services, using the consultant guidelines".

Is this to be just another toothless committee whose raison d'être is to make it seem that something is happening?

The public wants action now. It wants the computer system working ASAP, or even sooner. It wants an end to the routine halts in the yards. It isn't due to the weather, or old trains, track, points, or any other excuse like the ones they have come up with. It's one of timely synchronisation of trains, the essence of any railway operation.

To re-iterate, the public doesn't want another PR stunt, or snow job. It wants action RIGHT NOW!

To expect the public to wait for up to two years for improvements is stretching credibility to the limits.

HELP WANTED

The TTA needs help in typing the Newsletter. At the same time, we have the opportunity of purchasing a typesetting keyboard which would enable a volunteer to work in the comfort of his/her own home.

To be feasible, it would mean that a volunteer would do about four hours' work for an issue of the newsletter (that is, four hours in two months). Those hours would be put in over a period of a week, so that the machine could be used by each of the other volunteers.

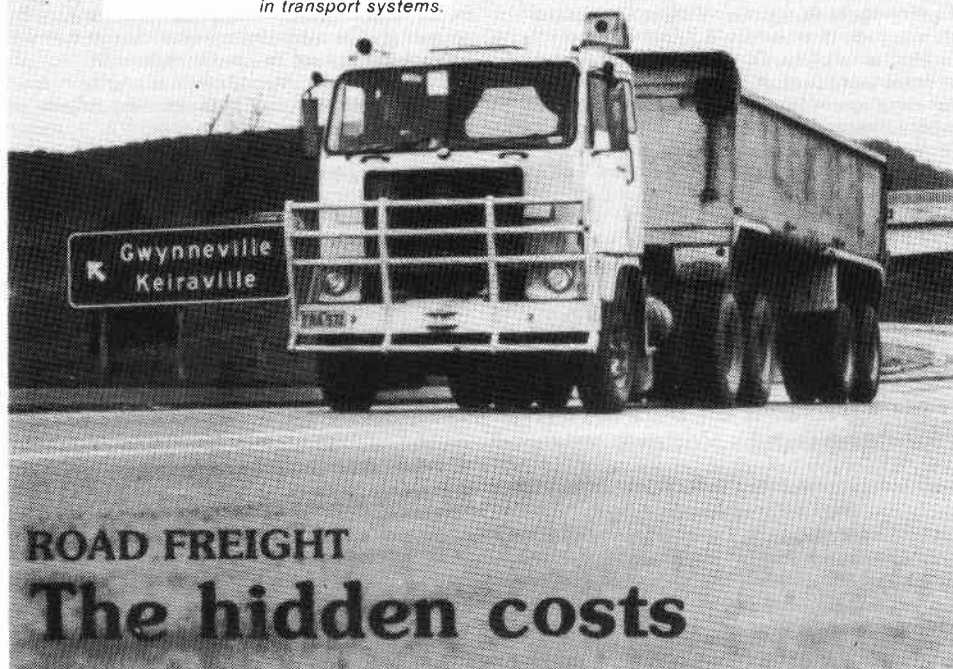
The purchase of the machine would mean that the standard of presentation of the Newsletter would be maintained.

What's that — too difficult, you say? No special knowledge is required to operate the machine. A few minutes' demonstration are all that are needed to get going! Don't worry about making mistakes! They are so easy to correct, and anyway corrections can't be seen! What more could you want?!

Yes we do . . . we really do need volunteers to help type the Newsletter. If you can help with even *one* newsletter, please write to the Secretary, TTA, [redacted], Ormond 3163.

by Philip Laird

Dr. Laird is Senior Lecturer in Mathematics at the University of Wollongong. He has a special interest in transport systems.



A coal truck on the outskirts of Wollongong, New South Wales. Picture courtesy Department of Main Roads

A national inquiry is now underway into Australia's road freight industry. Only a few years ago the New South Wales Government also held an inquiry into its road freight industry. While public interest tends to focus on the severe problems facing operators in the industry there are a number of other aspects which deserve close consideration — not the least of these being the cost to the taxpayer of the road freight industry. In this article* Dr Laird looks at the industry from the point of view of the ordinary motorist, the people who live near main roads, and the taxpayer. While the article focusses principally on NSW the problems discussed are not unique to that state.

*This article is an updated version of one published in New Zealand's Rail Transport Journal *Rails* in April, 1983.

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Although people now generally accept land freight 'deregulation', or freedom of choice in whether goods are sent by rail or road, this has not always been the case.¹ In 1931, to protect the railway system from the effects of increasing road competition, the State Transport (Co-ordination) Act was introduced in NSW. Among other things, this allowed the State Government to tax road freight which competed directly with rail services by 'co-ordination charges'. After the Second World War there was a marked increase in interstate trade and transport. Following a series of court decisions a Privy Council ruling in 1954 exempted all forms of interstate transport from regulation although interstate truck operators could be required by the States to help pay for the wear and tear of the roads they used. In NSW, the Road Maintenance (Contributions) Act of 1958 levied a charge of 0.17 cents per tonne kilometre of assessed weight on all heavy trucks with a carrying capacity exceeding four tonnes. As we shall see later, these charges were never indexed

ROAD FREIGHT: THE HIDDEN COSTS (Cont.)

for inflation, were increasingly widely evaded and finally abolished in 1979.

Throughout the sixties freight movements within NSW were subject to co-ordination charges whereas interstate traffic was not. However, in the early seventies more and more categories of road freight were exempted from these charges and by 1974 all freight transport in NSW was effectively deregulated. The rationale behind this policy was explained by the then Premier of NSW, Sir Robert Askin, in 1973:

The Government is confident that the removal of co-ordination charges will contribute to the rationalization and development of a more economic transport system throughout the State which will ultimately benefit all members of the community.²

Ten years later, it can be seen now that Sir Robert's confidence was misplaced. For whilst deregulation has benefited some sectional interests, the longer-term costs are beginning to mount.

The most obvious result of deregulation in NSW has been the increase in the numbers of heavy trucks on the roads. This increase has been most pronounced in the numbers of large articulated trucks which increased from about 11,100 in 1971 to 15,400 in 1979 — or 4300 big new semitrailers in eight years.³

Increasing numbers of cars and heavy trucks, combined with a tendency for cars to get smaller and trucks to get bigger, have had an adverse impact on the New South Wales road toll.

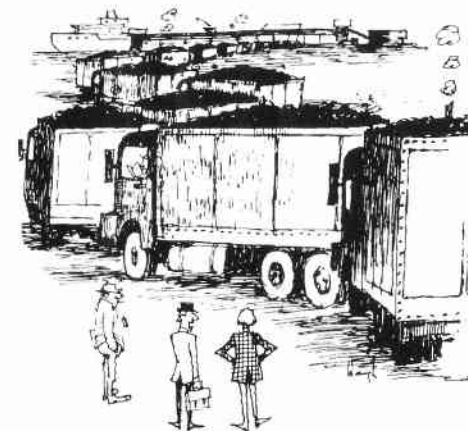
Although heavy trucks form a small fraction of all vehicle registrations, their involvement in fatal road accidents is high. For example, articulated trucks were involved in 119 fatal crashes in 1982 when the road toll was 1115 — yet they only constitute about 0.6 per cent of all vehicles on the NSW register.⁴ Moreover, as noted by the NSW Department of Motor Transport the involvement of big trucks in crashes is increasing: 'In 1976, 13.1 per cent of all vehicles involved in fatal

crashes were heavy trucks; in 1980, this number had increased to 18.6 per cent.'⁵

In some locations, the incidence of fatal accidents involving heavy trucks is even higher. According to the National Roads and Motorists Association of NSW⁶ the police believe that speeding trucks contribute significantly to the Hume Highway crash toll. On some winding sections trucks are involved in about 50 per cent of all fatal crashes, with trucks to blame for about half of these. The NSW police openly admit that they cannot adequately control truck speeding. Another safety problem is on roads used by trucks to haul export coal to Port Kembla. In the past, this has reached levels of five million tonnes a year and has been accompanied by up to ten fatal crashes a year. Indeed, during one week in May 1979 six persons lost their lives on one road in two accidents involving coal trucks. Local residents responded with a 40,000-strong petition calling in part for the authorities to get coal trucks off public roads. The Government response included a round of safety checks for coal trucks. These showed that in 1979 one coal truck in three had serious defects, mostly in the braking systems.⁷ Recently, the NSW State Government announced that special Government safety testing of all heavy vehicles would commence in 1984.⁸

As the report of the Commission of Enquiry into the NSW Road Freight Industry concluded, truck operations can have a significant effect on people and the environment.

There was much evidence presented to the Commission about the impact of truck operations on the environment, which they widely effect, often in complex ways. Congestion on roads; aggravated noise; fumes



'Thank God the policy is to send as much as possible by rail!' Cartoon by Jack Waugh, Jamboreo

1 See, for example, the Bureau of Transport Economics *Estimates of Freight travelling to and from Sydney along the Hume and Pacific Highways*, Australian Government Publishing Service, Canberra, 1982. This information paper also gives figures that show how from 1972-73 to 1977-78, there was an increase of some 12 per cent in interstate road freight and some 88 per cent in intra state road freight. During this five year period, the total NSW rail freight traffic increased slightly by about 7.4 per cent with gains in coal and wheat being offset by losses to road of some general freight.

2 *Sydney Morning Herald*, September 26, 1973.

3 Australia Bureau of Statistics, *Motor Vehicle Census, NSW*, 30 September, 1979, Catalogue no. 9301.1.

4 Traffic Authority of New South Wales, *Road Traffic crashes in New South Wales, Statistical Statement to 31 December, 1982*.

5 Department of Motor Transport, NSW, *Heavy Vehicle Inspection results: year ending 30 June, 1982*.

6 National Roads and Motorists Association of NSW, *Open Road*, September, 1982.

7 Commission of Enquiry into the NSW Road Freight Industry, *Report*, January, 1980.

8 *Sydney Morning Herald*, October 20, 1983.

ROAD FREIGHT: THE HIDDEN COSTS (Cont.)

and noxious smells; physical vibrations; the fear of large hurtling machines; all these and more are generated by heavy commercial vehicles.

Some of these problems, together with property depreciation and case studies from the Hunter Region of NSW, were discussed in a 1977 report 'Trucks in Suburbs'.⁹ The former NSW Planning and Environment Commission¹⁰ has identified the following problems resulting from large-scale road haulage of coal: noise, damage to road surfaces, coal spillage from trucks, traffic hazards, and loss of amenity so that people are discouraged from using commercial and community facilities.

Container trucks travelling to and from Port Botany have also been identified as a problem:

*While container trucks travelling to and from the port will form only a very small proportion of total road traffic volumes generated by, or passing through, the industrial areas of South Sydney, Botany and Marrickville, the movement of containers is nevertheless an important environmental issue in the particular localities likely to be worst affected by increased numbers of trucks.*¹¹

The adverse effects of moving large quantities of coal by truck to Port Kembla, and large numbers of containers to and from Port Botany by truck have led to firm State Government proposals to shift some of this traffic to rail.^{10, 11} We shall see later that these proposals have met with strong resistance, and have yet to be implemented.

Road freight deficits

Most people are aware that many Governments now pay annual subsidies towards the operation of their rail systems. Often these include an allowance for a rail freight deficit. On the other hand, relatively few people realize that most Government's subsidize private road freight industries by providing roads. Whereas rail freight deficits are calculated and published annually, the cost to the taxpayer of heavy truck operators using public roads are not quite so easy to establish and are not regularly published. These costs, less certain revenues to Government from trucks, may conveniently be called 'road freight deficits'.

A recent attempt to calculate the size of the road freight deficit for NSW was made for the financial year 1977-78 by the recent McDonell Commission of Enquiry into the NSW Road Freight Industry. Many of the Commission's calculations were based on estimates of pavement damage caused by various categories of trucks based on loading, the number of axles and whether rigid or articulated. These 'unit costs' of a certain type of truck passing over one kilometre of average road were provided by an earlier Australian Economics of Road Vehicle Limits Study (ERVLS) and in turn went back to the fourth power law. This empirical

law relates pavement damage to the fourth power of the axle loading and gives rise to the rule of thumb that a fully laden heavy truck does ten thousand times the damage to a road as a medium-sized car.¹²

a fully laden truck does ten thousand times the damage to a road as a medium-sized car

Total pavement costs due to all trucks operating on NSW roads were calculated using the unit pavement costs, the numbers of trucks in the various categories and their respective annual average distances travelled. Other allowances were also made for the larger roads, extra passing lanes, grade easements and wider bridges needed to accommodate increasing numbers of heavy trucks. The total 1977-78 road system costs using ERVLS figures was estimated at \$262 million. On the revenue side the Commission allowed all fuel taxes and sales taxes paid by truck operators along with registration fees and the road maintenance taxes. The excess of costs over revenues, as found by the Commission using ERVLS estimates of annual average truck usage was about \$65 million for 1977-78.

However this figure bears re-examination. It is argued by many,¹³ including the Federal Treasury, that not all fuel taxes or sales taxes relating to cars and trucks can properly be assigned to road works. Making an allowance for this, and increasing the costs to include the Commission's conservative estimate of an additional \$38 million to cover road accidents involving heavy trucks, the excess of truck costs over revenue, or the road freight deficit, was about \$204 million. (It should be noted that this estimate makes no allowance for social costs such as road congestion, noise, vibration and air pollution caused by heavy trucks.) On the basis of these modified calculations

9 Datex Co-operative Limited, *Trucks in Suburbs*, Newcastle, 1977.

10 NSW Planning and Environment Commission, *Draft Illawarra Regional Plan*, Wollongong, 1979.

11 NSW Department of Environmental and Planning, *Draft Sydney Regional Environmental Plan (Botany Bay)*, Sydney, 1983.

12 The fourth power law (discussed in Volume IV of reference 7 above) is recognised throughout the world and was accepted by the Commission of Enquiry into the NSW Road Freight Industry.

13 See, for example, Robinson J. F. and Rattray A. L. 'The recovery of public costs due to road freight transport'. *Seventh Australian Transport Research Forum Papers*, p. 211-229, 1982, and reference 15 below.



Roadside ritual: the weight is checked at a weighing station. During 1981-82 no fewer than 8104 vehicles in NSW were found to be overloaded

the road freight deficit for 1977-78 exceeded the rail freight deficit of \$144.5 million. Application of the methodology employed by the McDonell Commission as modified above to 1978-79 data shows that the NSW Road freight deficit for that year was about \$255 million.¹⁴ This again exceeds the rail freight deficit which for that year was \$154 million. The Commission of Enquiry's finding that in NSW the road freight industry is making less than equitable contributions towards road construction and related costs is a real understatement.

The fact that the road haulier in NSW can avoid a fair charge for the use of the State's highways and thus undercut the railways takes a lot of business away from the railways. While freight deregulation is only one of many reasons for growing railway deficits, it is worth recalling that railways have not always run at a loss. In fact, NSW railways showed an operating surplus in each of the years 1969-1972. However from 1972-73

there has been a growing deficit¹⁵ reaching \$448 million for 1982-83.

In the 1981 *Report on Rail*,¹⁶ it is noted that 'better cost recovery from heavy commercial road vehicles is an important part of a strategy to obtain improved cost recovery by rail from general freight'. Wilson notes that road freight rates from Sydney to Melbourne were \$20 per ton in 1956 with the same rate being quoted in 1978, and concludes: 'It seems probable on efficiency grounds interstate road hauliers should be charged substantially more for road maintenance than they were paying at the end of the 1970s'.¹⁷

14 Laird, P. G. 'The Assessment of NSW Road Freight Deficits' *Eighth Australian Transport Research Forum, Papers*, Vol. 1, p. 287-303, Australian Government Publishing Service, Canberra, 1983.

15 Shaw, A. J. 'Transport Finance and Cost Recovery'. Bureau of Transport Economics, *Transport Outlook Conference 1981, Papers*, Vol. 2, 305-334.

16 Australian Railway Research and Development Organization, *1981 Report on Rail*, Melbourne.



Truck drivers at Wollongong objecting to the tax on diesel fuel in July 1982 Illawarra Mercury picture

Unfortunately, for political reasons, the present NSW Government under Labor Premier Wran has found considerable difficulty in getting trucks to even start paying their way for the roads they use. As noted earlier, the road maintenance tax was never adjusted for inflation and, as successive annual reports of the NSW Department of Main Roads have shown, this tax was increasingly widely evaded throughout the seventies, with annual receipts reaching a maximum in 1974-75 at about \$21 million. Efforts by the State Government to ensure full payment of this tax by truck operators, including thousands of court actions, led to a blockade of trucks at Razor Back Mountain on the Hume Highway in April 1979. For some reason, NSW along with other State Governments chose to give in to the blocking truckies' demands to lift the road maintenance tax. Although quickly replaced in three other States by a tax on diesel fuel, it took the NSW Government until July 1982 to introduce a diesel tax of five cents per litre. Following further blockades and

negotiations by the Transport Workers' Union (NSW Branch), the State Government reduced this tax to 3.57 cents per litre.¹⁷ Even at five cents a litre the diesel fuel tax, which goes directly into roadworks, was expected to amount to only \$40 million in 1982-83.

Cost recovery in transport is not a new idea, as shown by the Bureau of Transport Economics report¹⁸ and the 1979 Seminar on Transport Pricing and Cost Recovery¹⁹. However, successive State and Federal Governments in Australia of

17 R. K. Wilson, *Australia's resources and their development*, University of Sydney, 1980, p. 321.

18 See, for example, Milton Cockburn's article 'The influence of Harry Quinn', *Sydney Morning Herald*, October 5, 1983. This article also notes that the Transport Workers' Union (NSW Branch) donated \$14,000 to the Australian Labor Party before the 1981 NSW election.

19 Bureau of Transport Economics, *Cost recovery in Australian Transport 1974-75*, Australian Government Publishing Service, Canberra 1977.

20 Commonwealth Department of Transport, *Transport Pricing and Cost Recovery Seminar*, Australian Government Publishing Service, Canberra, 1980.

ROAD FREIGHT: THE HIDDEN COSTS (Cont.)

both political persuasions have consistently declined to avail themselves of the opportunity to recover from the road freight industry a reasonable proportion of the costs it imposes on the community.

It is well known that competition in the road freight industry is fierce and that many firms and individuals are operating at very low levels of profitability. To save costs many operators are prepared to break the law. An example is truck overloading. Despite the raising of some truck load limits in 1979 following the truckies blockades, it appears that truck overloading is on the increase.²¹ During the 1981-82 financial year, 8104 heavy vehicles were reported in NSW for being overloaded — the highest number since 1977-78. Yet, in real terms, the average penalty imposed by the Courts in 1981-82 (\$286) was the lowest in real terms since 1977-78. The NSW Department of Main Roads noted one vehicle as being loaded at 76 tonnes, which is double the legal limit, and conservatively estimates the cost of overloading to NSW at \$32 million a year. As mentioned earlier, the police in NSW openly admit that they cannot control truck speeding.

Problems such as these led the Commission of Enquiry into the Road Freight Industry to argue for a Hauliers' Registration Tribunal. The NSW Government did not, however, accept this recommendation. Indeed the Government seems unable or unwilling to take any firm action to mitigate the adverse side effects of road haulage in built-up areas. Legislation to implement a widely supported plan for the compulsory railing of containers from a new port at Botany Bay to depots in the western suburbs was withdrawn in March 1982 following pressure from the Transport Workers Union.²²⁻²³ The Government has also failed to honour a longstanding agreement to substantially reduce road haulage of coal to Port Kembla following the commissioning of a new coal loader in November 1982.²⁴

Another factor that needs to be taken into account when considering the efficiency of the road haulage industry is energy usage. An Australian Transport Advisory Council report notes that rail is about four times more energy efficient compared to road for long distance freight.²⁵ Moreover, rail has oil substitute options such as electrification.

21 Commissioner for Main Roads, *1981-82 Annual Report*, Department of Main Roads, New South Wales.

22 *Financial Review*, March 5, 1982, who noted that Mr Quinn of the Transport Workers' Union had said 'We have forced the Government to withdraw its proposed legislation'.

23 Kirby, D. S. *Report of the Commission of Inquiry into the Akenagh-Chullora Road*, Government Printer, Sydney.

24 Milton Cockburn 'Coal not bound for Botany Bay', *Sydney Morning Herald*, August 17, 1983.

25 Australian Transport Advisory Council *Transport and Energy Overview*, Australian Government Publishing Service, Canberra, 1979.

Concluding remarks

Following interstate freight deregulation in Australia in the mid 'fifties, a Commonwealth Parliamentary Committee investigating standardization of railway gauges stated:

*A great part of railway costs relates to the construction and maintenance of the permanent way, whereas the heavy interstate road trailer not only gets its road free, but destroys it and puts the burden of its repair upon the rest of the community.*²⁶

However, by the early 'seventies, all freight traffic in NSW was effectively deregulated and the

the heavy interstate road trailer not only gets its road free, but destroys it and puts the burden of its repair upon the rest of the community

consequences, according to a former West Australian Minister for Transport, were disastrous:

*The NSW Government made the mistake of deregulating its freight service almost overnight, making millions of dollars in (rail) assets now worthless. It's [the rail system] eating its head off. They've got all the manpower without the freight to be carried, so you can imagine what's happening to the costs.*²⁷

And the present Federal Minister for Transport, Hon. Peter Morris, MHR discussing problems in the road freight industry, recently observed:

*It is clear from the high level of bankruptcies in the industry and billion dollar deficits in the railways, that something is dramatically wrong.*²⁸

Deregulation of freight transport in NSW has been a complete and costly disaster. More freight on the roads has cost the State hundreds of millions of dollars each year in road damage and under-utilized rail assets. It has also led to more dangerous roads, policing problems and loss of amenity for most of the population living near roads used by increasing numbers of heavy trucks.

Whether the forthcoming National Inquiry into the Road Freight Industry can solve these problems is another matter.

26 Wentworth, W., *Report of the Rail Standardization Committee*, Parliament of Australia, Canberra, 1956.

27 *Sydney Morning Herald*, December 11, 1982 quoting Hon. E. C. Rushton.

28 Hon. Peter Morris, MHR, address to Australian Road Transport Federation, 16 September, 1983.

SOMETHING OLD, SOMETHING NEW

This is the second article on this topic in which we take a look at commuter facilities past and present.

What's New

I recently looked over the first of two prototype articulated trams (LRV or Light Rail Vehicle) undergoing fitting in MTA workshops. Though without seats, the tram's shell was complete, and it was thus possible to get a good idea of the finished product.

The tram is mounted on three bogies, with a flexible joint above the middle bogie. Each of the two body components is similar in length to existing Z-class trams, so it is as long as two Z-class trams squashed together and minus two drivers' cabins. The flexible joint above the middle bogie contains a large accordion-type bellows surrounding a large internal doorway, the opening of which does not extend to the edge of the vehicle.

Both the new trams (the A-class covered in January, and the articulated tram) have a rather squarish look. The roof too is essentially flat. Could this be a mistake? Take a look at the shape of the roof of an old green tram. The roof is curved for a reason. Water runs quickly off the roof and down the side of the tram. With a flat roof, runoff is minimal, and as the tram comes to a stop, a layer of water could cascade down on pedestrians and intending passengers, as it also could when the tram is negotiating curves.

Each side of the articulated tram has two large doorways (one in each car) and a narrow door up front. The entrances have a retractable platform that can be raised or lowered depending on whether the tram is to pick up from street level, or to pull into a railway platform.

As the double doors extend only to floor level (that is, platform level), there is a large gap underneath the door when the steps are in the lowered position – sufficiently large for a person to fall through.

This would appear to mean that when the LRV is operating in the street, the platform steps are lowered at each stop. If so, it might cause some problems if someone is standing on the platform when the stop is reached. Just how it is to work is unclear. If the steps are lowered for each stop, what happens if they are raised as someone is alighting or boarding? Will the door close first before the steps are raised? Can limbs be pinned under the door? In my opinion, it would be unsafe to operate from the street with the steps permanently lowered, and yet raising and lowering them at each stop would add to the time that it takes to pick up and to set down passengers. These difficulties would not have arisen had the door been full-length!

In many respects, the LRV is like the A-class tram which in turn is based on the existing Z-class trams. However, the drivers' cabins (one at each end) are completely partitioned off. The partition extends the width of the vehicle, and on the near-side is in perspex or similar material. The driver can open a small window in the entrance door in the partition, but otherwise is excommunicado from the conductors and passengers. Partitioning would appear to be unnecessary.

Like the A-class tram, there is no route number pod. It is thought that the vehicles would be heated, but how this is to be achieved with a large gap under the doors remains to be seen.

Inside, the tram has an attractive patterned ventilated white metal ceiling.

Seating capacity is 76, and crush capacity is some 182. Top speed is to be the same as the A-class tram, namely 72 km/h.

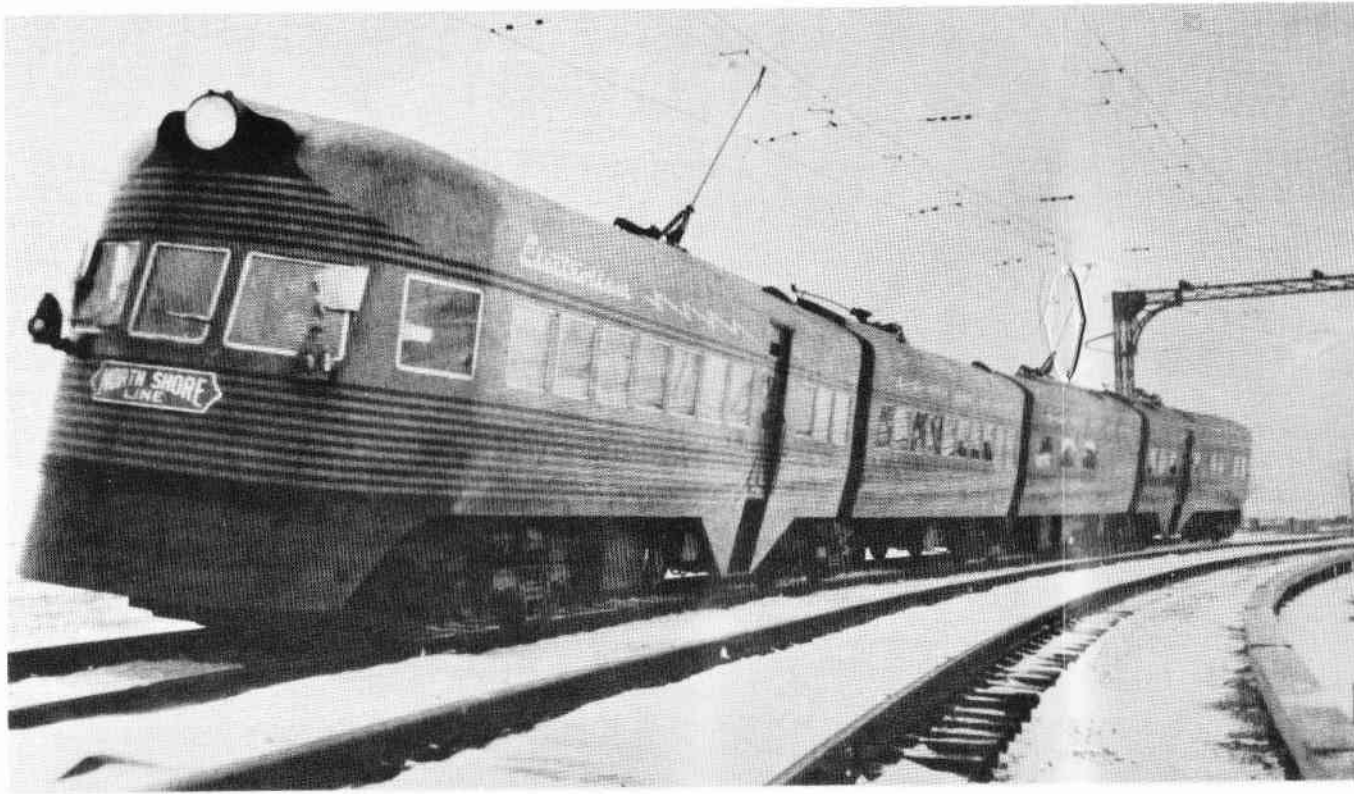
The first LRV is expected to be fitted with both poles and pantograph. The Ministry's reason for changing to pantographs is given that poles could not carry the current (Age 2/9/82 and MOT Newsletter No.), but this is demonstrably false. (see below) The real reason is that the MTA's pole equipment is unreliable at intersections, either being of poor design or being inadequately maintained. Whatever the reason, poles on Melbourne trams are easily de-wired. Pantographs and bow collectors do not suffer from this problem. [This is



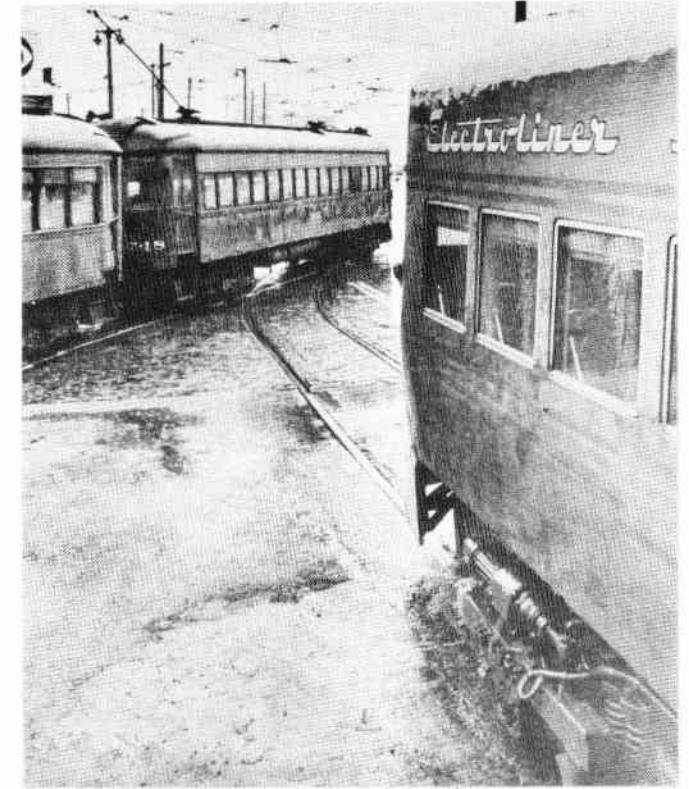
Top: A front view of the first of two articulated trams being fitted out at MTA workshops at Preston. Like the A-class tram below, its square lines make it appear wider and taller than green trams (note the green tram in the background). This tram is to be fitted with poles and pantograph. [Robin Vowels]



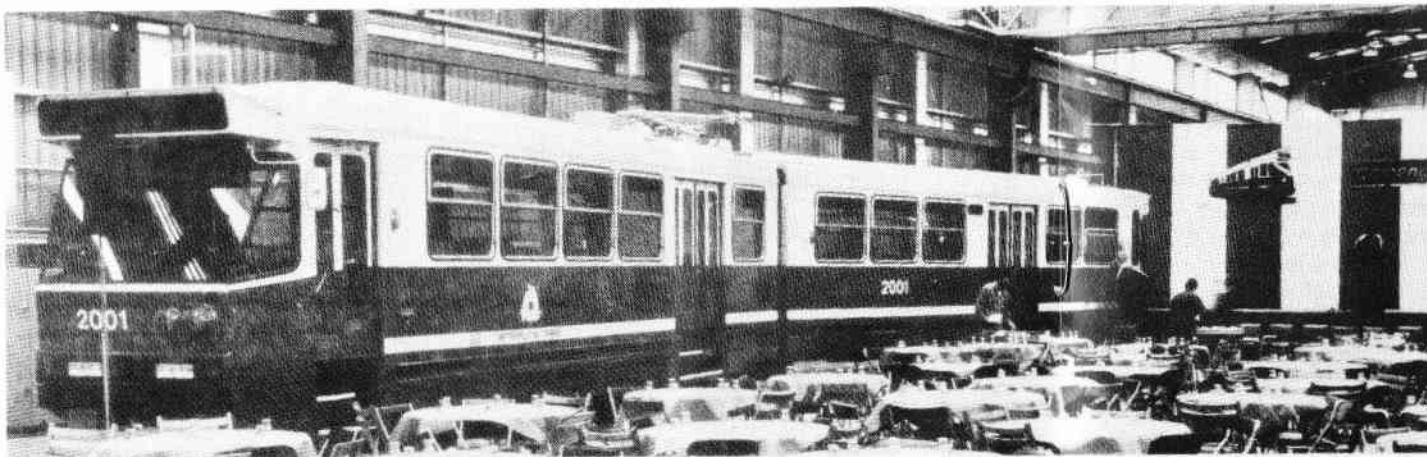
Below: An A-class tram flanked by a green tram (W-class) and orange tram (Z-class), being completed at Preston workshops. Though the same height, the square lines of the A-class tram make it seem much wider and taller. [Robin Vowels]



An orange and green articulated Electroliner near Kelly's Junction, about 51km from Chicago. [Courtesy *Trains*, Oct. 1982]



An Electroliner putting in some street running in Milwaukee. [Courtesy *Trains*, Nov. 1982]



Left: Take a tram to lunch — well, not literally. This photograph of the new articulated tram was taken at Comeng workshops along with the dining tables when it was handed over to the MTA last December. However, it did not arrive at MTA Preston workshops until a few months later. [Photo courtesy MTA]



A close-up of the articulated tram's unusual moving steps, shown in the lowered position. The "short" double doors clearly show the gap that exists beneath them when the steps are lowered. In the raised position, the steps become a platform that is level with the floor and with the bottom of the door. (One of the doors has been placed in the closed position, the other open, for the purpose of taking the photograph. They do not normally operate like that.)

[Photographs on this and facing page courtesy R. Vowels]

another example of that old chestnut that characterizes Melbourne's transport scene, namely that "it can't be done".]

Something Old

The *Electroliner* was the name given to a class of articulated vehicle capable of far superior performance to the MTA's light rail vehicle. They were built for service between Chicago and Milwaukee, on the shores of Lake Michigan. (Centre page, top)

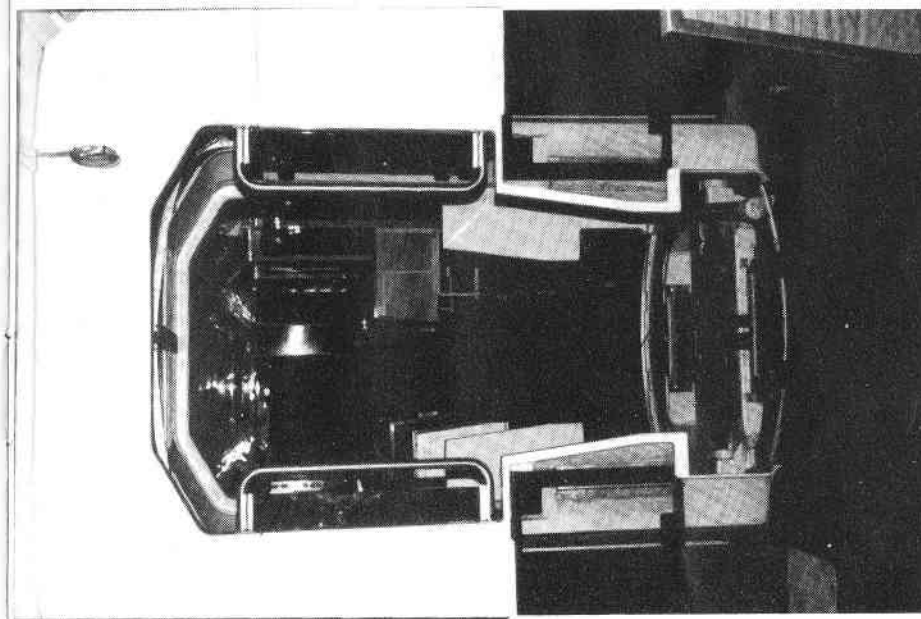
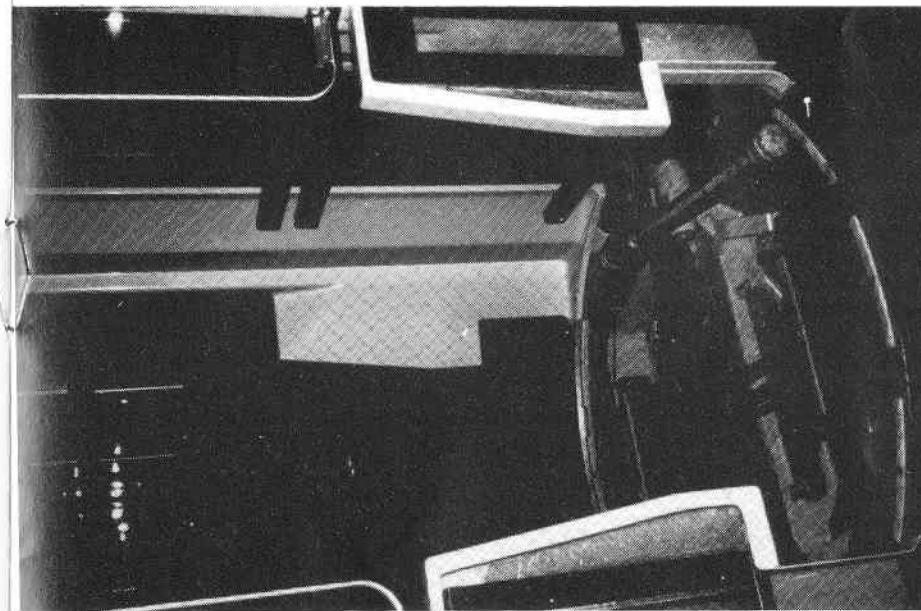
Its top speed was an impressive 168 km/h (105 mph), was tested at 177 km/h (111 mph), though it operated in regular service at a maximum speed of 136 km/h (85 mph).

It seated 133 in relative luxury (two abreast each side of a spacious aisle; 2.7 metres wide (9 foot); air conditioned), and appointments included a lounge, bar, and toilets.

In spite of the high speed, it used contact poles† (one per pair of cars), and the overhead was 600 volts. In Chicago itself, a third contact rail was used, and the vehicle was changed from contact pole operation to third rail operation and vice versa without stopping.

Within three years of commencing operations, the electroliners put in "500,000 miles without a single delay attributable to equipment failure". In 1947, one electroliner completed 166,250 miles without missing a single trip.

† In 1982, the Ministry was adamant that poles couldn't carry the current, even with one pole per car, and discussions brought out that it was impossible, they said, to have two poles in an articulated vehicle. Yet here it was done in 1939!



Left: An interior view of the articulation joint (bellows) between the fore and aft sections of the articulated tram. The outline of the roof is just visible at the top and gives a perspective of the doorway's height and width. Handrails are provided in the doorway. The platform above the bogie was not yet in place, revealing cabling. In the right-hand foreground and in the middle background left and right, can be seen the guides for the entrance and exit stairs.
Right: A close-up of the top of the centre bogie, again with the walk-platform removed, gives depth to the bellows. (The bar on the floor is a worker's fluorescent lamp.)

SOMETHING OLD, SOMETHING NEW (Cont.)

These vehicles roamed the streets of Chicago and Milwaukee, the termini of this high speed inter-urban articulated vehicle. Route distance was 141 km (88 miles), covered in 1 hour 43 minutes running express, and 1 hour 58 minutes with 21 intermediate stops. Start to stop average speeds were 82 km/h (express) and 72 km/h (21 stops).

The lower average speeds (compared to high top speed) were the result of sedate suburban and street running (15 minutes in Milwaukee, and 30 minutes in Chicago), since part of the route was operated like a tramway and part like a railway. In Chicago, the Electroliner interworked with "all stops" locals. Between the two cities, cruising speeds of 160 km/h were realized routinely.

While this kind of vehicle might be in a different class compared to Victoria's LRV, it could well do the Geelong - Melbourne (if electrified) and the Traralgon - Melbourne runs*, and the proposed Doncaster route along the Eastern Freeway.

[Source: Trains, Oct. & Nov. 1982]

— Robin Vowels

* The Electroliners' average speeds compare with the Geelong train of 63 km/h (7 stops) and 65 km/h (4 stops) over a distance of 73 km. Suburban running accounts for 15 minutes of this 70 minute trip. Corresponding speeds for the Traralgon train are 59 km/h (14 stops) and 68 km/h (7 stops).

THE ROAD ACCIDENT PROBLEM

Road accidents in 1982 resulted in 709 fatalities, over 8,000 persons admitted to hospital, over 20,000 reported injuries and over 100,000 property damage accidents. This represents an estimated cost of at least \$500 million to the Victorian Community (RoSTA 1983).

A brief resume of the basic facts related to road accidents in Victoria illustrates the major problem areas, and those to which the implemented countermeasures have been mainly addressed:

- 70% of all reported casualty accidents occurred in the Melbourne Statistical Division (MSD).
- 60% of all reported casualty accidents in the MSD occurred at intersections compared with 37% of such accidents in the rest of the State.
- 64% of all reported casualty accidents in the MSD were vehicle to vehicle collisions, 15% involved pedestrians and 15% involved striking a fixed object or parked car.
- 47% of all reported casualty accidents in the rest of the State, excluding the MSD, were vehicle to vehicle collisions, 7% involved pedestrians and 15% involved striking a fixed object or parked car, whilst 12% ran off the road without striking an object.
- 51% of fatalities occurred in the MSD and 49% in the rest of the State.
- 51% of fatalities in the MSD were vehicle occupants, 32% were pedestrians, 13% were motorcyclists and 4% were bicyclists.
- 77% of fatalities in the rest of the State, excluding the MSD, were vehicle occupants, 9% were pedestrians, 10% were motorcyclists and 4% were bicyclists.

Although not specifically related to the 1982 data, studies have shown that:

- Probationary licenced drivers have a significantly higher casualty accident rate per licensed

THE TROUBLE WITH TRUCKS

Apart from a mild expose in the National Times a few years ago, little else has been said in the Australian media about the state of the trucking industry.

If the same yardstick were applied to many of the individuals and operators of road transporters as Mr Crabb's rationale for closing down the railway freight centres, a large proportion of trucks would simply disappear from the roads.

The industry is rife with bankruptcies, mental and physical breakdowns, drug abuse and horrifying accidents.

The damage to property, the health and well-being of residents, and the enormous expenditure on roads to cater for these rubber-tyred monsters is incalculable.

Ray Walford of Traffic Action has dug up the results of a survey conducted by a West Australian University.

The survey indicates that concern among West Australians about public transport, freeways and, we assume, truck damage, is low on their list of priorities. It seems, however, that nuclear issues and the slaughter of whales and kangaroos were to be found near the top of the list.

Nobody would try to argue that these should not be issues of importance and a high priority for every thinking person.

But what would be the result of a similar survey in Melbourne?

Would we also show a similar lack of concern for what is happening to our built environment and the people who use it?

Is it because one can practise a certain detachment about straight conservation issues without seriously confronting one's own values?

Moving heavy and often dangerous loads along suburban streets with such an unfriendly device as a truck makes no sense at all except for the big operator or the client who tells the truckie where the cargo is to go.

Consuming enormous quantities of fuel, energy and resources to shift one and a half persons per car is even more irrational.

For some people, a rapidly approaching future of frantic efforts by the fix-it-up chappies to replace oil with coal-to-oil or fuel from crops is about as cheerful a prospect as an afternoon tea with an undertaker.

Perhaps as we take the last seat on the last steam train to the city we will have time to reflect on how we came to so rapidly dissipate this gift from the ground, and begin to assess the cumulative violence that man has done to himself and his environment in the name of progress.

— Rod Bryant

THE ROAD ACCIDENT PROBLEM (Cont.)

driver than full licence holders, with the rate of first year drivers being four times higher (Deutsch et al 1981). Probationary drivers are involved in 25% of casualty accidents, yet hold only 11% of licences issued (Healy 1982).

- Motorcycle learner permit holders are over-involved in casualty accidents, their rate being twice that for probationary drivers of both cars and motorcycles, three times that for motorcycle license holders and 22 times that of car learner permit holders (Swann 1982).

- Drink drivers have twice the risk of accident involvement at a blood alcohol level of 0.05% compared with sober drivers, the risk rising to at least ten times at 0.15% (Borkenstein et al 1964, McLean et al 1980). Forty per cent of drivers killed and 18% of drivers attending hospitals during 1982 had illegal blood alcohol levels (RoSTA undated).

— Extracted from the *Interim Report on Road Safety In Victoria*, Social Development Committee, Parliament of Victoria, Melbourne, 1982-83.

TRANSPORT NEWS FROM

TRAIN SAFETY – PARIS STYLE

In the November 1983 issue of our Newsletter, we covered the issue of safety on trains and called on the rail management to introduce locking systems on trains to prevent trains from starting from stations while the doors are open. It may be recalled that there have been some fatal and near-fatal accidents in Melbourne because of this shortcoming in the door locking system.

At a meeting with the then VicRail managers, we called upon them to study and implement rail systems overseas.

We have written to overseas railways for information. Reproduced below is France's response. The reply is from Mr G. Coget, Head of the Division of Construction, Societe Nationale Des Chemins De Fer Francais (SCNF) Paris.

We thank Mr Coget and the SCNF Paris for their courtesy in furnishing the information.
(KPM)

Train Travellers' Association

By letter dated May 17, 1983, you requested of 'Transport 2000 France' information concerning the doors of suburban SCNF trains. This letter was transmitted to us on August 10, 1983, and we submit herewith a description of the main characteristics of the doors of recent vehicles.

All the doors, of two panels with linked movements, run by pneumatic motors. They are usually sliding, either internal or external, and sometimes folding†, when the needs of maximum vehicle dimensions require it. We also have some vehicles in service equipped with doors with electric motors of a French design which work to our complete satisfaction.

In all these cases, the designer has sought above all that travellers cannot hold on to the outside of the train by the exterior handles and controls when the train leaves and the doors have been closed. To achieve this, the control from the outside is push-button, or by small latches, and the handles are designed so as to render grasp difficult, indeed impossible. Exterior sliding doors possess a covering over the bottom slide which renders impossible any traveller standing upon it once the door is closed.

Door closing is automatic and is commanded by the driver or by a second agent when there is one on the train. The doors are locked and blocked from opening beyond a threshold of speed which is set at around 5 km/h.

The side serving a given station is selected by triggers on the track at the entry of the station which then authorises the possibility of opening the doors on the side of the platform.

The possibility of traction is subject to closure of all the doors and, furthermore, of light signals: one in the driver's cabin and others on the exterior of each vehicle indicating if the doors are open and permitting identification of any one which may not have closed.

Note moreover that a system of platform surveillance and consequently of surveillance of the movement of travellers by television is in place on most of our suburban lines. The cameras and screens were until recently placed on the platform, but we are now putting into service vehicles which include the television screens in the driver's cabin, which improves noticeably the driver's working comfort.

We hope to have answered all your questions and to have given you satisfaction.

*Yours [etc],
[signed:] G. Coget,
Head of Division of Construction*

† or reciprocating [Translator's note].

Kindly translated from the French by Dr C. Sowerwine.

AROUND THE WORLD



PROGRESS IN HIGH-SPEED TRAINS

The development of high-speed rail travel has, in recent years, been marked by the inauguration of the French high-speed line between Paris and Lyon (TGV), but other rail lines are working toward significant increases in average speeds for commercial service.

For the moment and for the foreseeable future, France holds and will continue to hold the prize by any standard. Some 300kms of the new line between Paris and Lyon see service at a 270 km/h maximum. In regard to the average speed from point to point, which is the best single measure of the train's service, the TGV is also far and away the champion. At present, 41 trains a day make the Paris to Lyon run at an average speed well over 200 km/h, twelve trains making an overall average of 213 km/h. Such an average speed over the existing rail line between Sydney and Melbourne would mean an elapsed time of 2¼ hours for non-stop trains between the two cities!

Other countries are, however, working on getting the best out of their existing systems. Japan is at the head of these, where new lines are being put into service with bullet trains squeezing the best results out of the system. The bullet train tracks have a speed limit of 210 km/h (as against 270 for the TGV), but by intensive effort, average speeds are raised quite high. The trains from Nagoya to Yokohama make the trip at an average overall speed of 178 km/h; Tokyo to Osaka 162.8 km/h.

Third place in this competition goes to the UK where despite the failure of the Advanced Passenger Train, British Rail has managed to obtain some very good performances out of the High-Speed Train. At least one line has some sections of 200 km/h speed limit (Peterborough-Stevenage) on which two trains a day manage an overall average of 162.6 km/h and another 48 trains manage 159 km/h. (Similar averages are also achieved by several French lines, particularly Paris-Bordeaux, a large section of which is also authorised for a speed limit of 200 km/h, but we'll leave the French out since they've already won with the TGV.)

Fourth place is, I think, tied between West Germany and the USA: it depends on how you judge. The 38 best metroliners (high-speed trains between New York and Washington) manage an overall average of 143 km/h on the 110km of track between Wilmington and Baltimore (the speed limit here is 193 km/h). This is ahead of the German DB Hanover-Dortmund Service, where despite a higher speed limit (208 km/h), 40 trains manage an average speed of 134 km/h. If, however, we discount the Metroliners' performances by including the whole of the service which counts for most users of the train, that is, New York to Washington, the US falls behind Germany. The overall average of the same 38 best trains taking the whole trip from New York to Washington is 127 km/h (the trains make the 362km trip in 2hrs49 minutes.)

It might even be fair to include Canada here, since ten trains a day manage an average of 127 km/h on the 81km between Ottawa-Toronto and Brockville-Kingston, with a speed of 153 km/h. But from here on, we begin to touch a number of rail systems, including Italy (122 km/h for trains on the Direttissima to Rome line), Sweden (122 km/h for trains on the 114km line between Skövde and Alingsås), Holland (121 km/h for trains between Amersfoort and Zwolle, 66km), and Austria (120 km/h for trains between Saint-Pölten and Amstetten, 64km).

These sorts of averages have been technically possible on straight lines in Victoria, such as Melbourne-Geelong, for twenty years. What next V/Line? Or should we ask the Minister?

– C. Sowerwine

THE XPT CONNECTION, or What a Way to Run a Railway

A fortuitous set of circumstances enabled me to undertake a trip that had been my desire for some ten years, but I had been thwarted because of lack of connecting trains.

A trip from Moss Vale to Sydney via Wollongong and the coast had been in my mind's eye ever since taking a car trip down the coast and inland from Wollongong — affording magnificent views.

A railmotor each day plies this stretch of track, but at departure times necessitating a long wait at Moss Vale — it never connected with either the Aurora or Daylight. (It does connect with the Spirit.) However, on Saturdays only, it connects with the XPT to Sydney, and as I had to do a pickup at Yass in daylight hours on Christmas eve — a Saturday — it was opportune to take in both the Wollongong trip and the XPT.

I booked on the 6.45pm to Albury, for the 23rd December, arranged an overnight stay at Brady's Railway Hotel there, and a seat on the 8.00am XPT to Moss Vale or so I thought.

The ex Melbourne train was about 15 minutes late into Albury. As the hotel normally closes at 11.00pm, and the train was scheduled to arrive at 10.45pm, there was no margin for late running. Fortunately, the hotel was late in closing up, and in any case I had taken the precaution of advising the hotel manager prior to leaving Melbourne.

The hotel provided a special breakfast for the early departure — only \$3, excellent value.

Plans Undone

Well-made plans started to fall apart, however, when I arrived at Albury station for the 8.00am start. No train was in sight. An enquiry at the ticket office elicited the fact that the XPT was timetabled to depart at 8.40am, and had done so since November. (The NSW Government Travel Bureau had, just three days prior to the trip, assured me that the 1982 timetable was still current.)

The Moss Vale connection — formerly a generous 36 minutes — was down to a critical 4 minutes.

Expressing concern, I informed the ticket seller that I was booked right through on the connecting train at Moss Vale, and requested that it be held. The ticket officer claimed that not only was it *not* a connecting train, but also that it was *not* running that day. She agreed to check, nevertheless, with Moss Vale Station Master. She discovered that it did run, and asked how long the Wollongong train would wait. (Note: she did not request it be held.) The reply was that that they would hold it 10 minutes only.

I requested a current timetable. None was for sale.

At the ticket office window there was a pile of booklets entitled *Christmas & New Year Holidays — Southern Line*. I picked one up. It clearly showed that the XPT *did* connect with the Wollongong train. I pointed this out to the ticket officer who said that she had already phoned the station master at Moss Vale. Moss Vale was in a different geographical area, she said, and she couldn't have the train held. She added that I would have to see the conductor on the XPT.

This I did, and requested that he contact the director of the Moss Vale area, as suggested by the ticket seller, to inform him that we were booked on the connecting train, and to request it be held if the XPT were late. The conductor replied that he couldn't guarantee the connection, and that his job was to look after the comfort of passengers, and that if I needed anything

He said I "should relax and enjoy the trip. The XPT had never been late, and the connection had never been put to the test." (famous last words.)

(Subsequently I approached the conductor and again requested that the Station Master at Moss Vale be requested to hold the train.)

THE XPT CONNECTION (Cont.)

The XPT Impresses

Right from joining the XPT, one cannot help but be impressed with the luxury of the appointments in the coaches — spacious and comfortable reclining seats, curtains, carpets and air conditioning. From the moment of departure, the quietness and lack of perception of movement impressed. The train just glided out. One moment we were moving at a usual speed, keeping pace with cars on the main highway, and the next minute we were overtaking them as if they were standing still. The Albury to Junee section is relatively straight and flat, and this part of the trip is usually the fastest. (In its inaugural run, the XPT reached 183 km/h in this region — an Australian record — though it is presently restrained to a sedate 160km/h.)

Some sections of the journey were covered quickly, but at times the XPT had to slow down — usually at curves. The average for the Albury to Culcairn section was 117 km/h. The sensation was like that of flying at very low altitude. If you have seen *Superman I*, you'll know what I mean. After Culcairn, which was left on time at 9.05am, the XPT was timed at consistently covering each kilometre in 23 seconds (156km/h), yet the average to Wagga was only 106 km/h, owing to the need to take some sections at reduced speed.

We left Wagga at 9.48am, arriving at Junee at 10.14 (average speed 78 km/h) where Father Christmas boarded the train and distributed presents to all the children on board. (Courtesy Junee Lions.) We arrived at Cootamundra at 10.59, putting in an average speed of 86 km/h for the section. (These speeds compare with the Albury to Melbourne Daylight of 90 km/h; the Daylight Albury to Sydney of 71 km/h, and the average for the XPT itself for the Albury to Sydney journey of 87km/h.)

Our arrival at Moss Vale at 2.30pm was 11 minutes late (speed 81 km/h).

A Comment On the XPT

The XPT was fast on level track, but as soon as we had to climb, it was quite apparent that the train was underpowered — evidenced by the lowering of average speeds as the journey progressed into the hillier regions. Only on a relatively short part of the Albury to Sydney journey can it reach and maintain its cruising speed. One can quite easily match the XPT by car.

It's a shame the catering wasn't up to the same standard as the speed. Only a choice of two hot meals and a few sandwiches, and the roast beef I had was rather dry with congealed gravy on it.

Although the XPT was running late, our entreaties had not gone in vain, for shortly before reaching Moss Vale, the conductor announced that the connecting train would be made.

And So To Wollongong . . .

The Wollongong train — perhaps more appropriately called the anxiety train — departed at 2.41pm (16 minutes late), and about 10 passengers made the transfer.

The first stage of the trip is relatively flat and straight, and the fully-air-conditioned (windows wide open) dual rail car moved on at quite a pace (80 km/h) — but nothing like the XPT, of course. The area was lush farmland, but sparsely populated.

After Robertson, the line begins to descend slightly through substantial and lengthy cuttings no doubt laboriously hewn from stone. After summit, the line begins a much steeper descent of the escarpment. The coastal region on which Wollongong is situated is approached from inland along a plateau some 740m above sea level. A sheer cliff drops about 640km, and the rail car negotiates its way to the bottom on a single track cut out along the face of the cliff. In this part the descent is slow, not because of poor track, but for — I presume — safety reasons. The descent from Mt Murray is covered in 50 minutes — an average of 37 km/h. The low speed gives plenty of time to enjoy the scenery — long views up and down the coast.

The coastal plain is heavily industrialised and covered at good speed. Moving north,

OFFICE-BEARERS FOR 1983-4

President:

Dr Charles Sowerwine

Vice-President

Ivan Powell

Secretary

Ken McIntyre

Treasurer

David Bowd

Public Relations

Patrick O'Connor

Council

John Alexopoulos

Alex Boyne

Rod Bryant

Barry Gray

Rob Murphy

Chris McConville

Doreen Parker

Dr Doug Sherman

Robin Vowels

Ray Walford

after hours

THE XPT CONNECTION (Cont.)

again along the coast, the train enters dense virgin bushland and with extensive views, for much of the distance to Waterfall, the outskirts of suburbia. The rail car ran semi-express, stopping at 12 intermediate stations.

Curiously, this untapped tourist service increases the distance to Sydney from Moss Vale by a mere 8km.

It is a trip well worth taking, and arrives at a respectable time in Sydney (5.43pm).

If you want an uneventful trip, don't travel by rail – it's anything but ordinary.

– Robin Vowels

LETTERS LETTERS LETTERS

LETTERS LETTERS LETTERS

Sir,

My son travels daily to Haileybury College in Keysborough, by train from Drouin to Dandenong, and then by bus for the remainder of the journey.

Although he has a student's Neighbourhood Pass (\$39 per term) which allows him to travel within the metropolitan area, he is not allowed by V/Line to purchase his rail ticket from Drouin to Pakenham, which is his nearest metropolitan station. In order to comply with the terms of a concession ticket, we are compelled to purchase his rail ticket from Drouin to Dandenong which is the station nearest the school.

This means that he is paying twice for the privilege of travelling between Pakenham and Dandenong each day, a privilege that is costing us almost \$27 per term, or \$77 per year.

To add insult to injury, the price of the term concession ticket between Drouin and Dandenong has risen from \$60 per term last year, to \$97.50 per term this year, a rise of 55%.

We have tried to reduce the cost of travel by purchasing daily return tickets to Pakenham and using the Neighbourhood Pass for the rest of the journey. However, as he has to leave Drouin at 6.45 am to get to school on time, he does not qualify for off-peak rates (\$1.15 per day) and this would, at \$1.90 per day, work out at \$123.50 per term.

As the conveyance allowance is no longer paid to these country students attending metropolitan schools, we are now paying \$439.50 per year for his travel, an increase of almost 400% on the \$90 we paid last year.

If you can assist in any way to rationalise the system, we would be most grateful.

Yours sincerely,
Gillian Mitra,
Drouin.

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NOTICE OF MEETING

ANNUAL GENERAL MEETING

The Annual General Meeting of the Train Travellers' Association will be held on Wednesday 18th July at 5.30p.m. in the BANQUET ROOM of the Victoria Hotel, 215 Little Collins Street Melbourne (between Swanston & Russell Streets).

A distinguished guest speaker has been invited to address the meeting.

After the Speaker's address, questions will be invited from the floor.

Subsequently, at about 6.30 p.m., the formal business of the Association will be conducted, which includes the election of Office Bearers and presentation of Annual Reports. A motion to change the name of the Association will also be put, and should ensure some animated discussion.

Ken McIntyre,
Secretary

The TTA functions through the efforts of willing members on the Council. If you feel you have something to contribute, please consider nominating for one of the office bearer or for one of the Council Member positions. (All these positions will be declared vacant.)

Your nomination in writing must reach the Secretary on or before Wednesday 4th July 1984.

Please use the tear-off slip to nominate candidates for office in the TTA for 1984/85:

I, , of (address)
..... hereby nominate
..... for the position of
..... at the election of office bearers for the TTA
for 1984/5.

Signed:

Date:

NOTICE OF MOTION

CHANGE OF CONSTITUTION AND NAME

At the Annual General Meeting, the following motion will be moved by Dr Douglas Sherman and will be seconded by Mr Ken McIntyre:

"That Section 1 of the Constitution of the Train Travellers' Association be replaced by the words given below under the heading "Proposed New Section 1", and further that wherever the the initials "TTA" appear in the Constitution they be replaced by the word "Association"."

Existing Section 1.

1. Name

The name of the Association shall be the Train Travellers' Association of Victoria, hereinafter referred to as the TTA.

Proposed New Section 1

1. Name

The name of the Association shall be the Public Transport Association, hereinafter referred to as the Association.

At the same meeting, the following Amendment to the abovementioned motion will be moved by Mr Patrick O'Connor, and will be seconded by Mr Robin Vowels:

"That the name of the Association referred to in the Proposed New Section 1 be "Public Transport Users' Association"."

Ken McIntyre,
Secretary

How do you feel about the way public transport is going?

This being an election year in that a state election must be held within the next twelve months and probably will be held before next April, come to the Annual General Meeting and make your opinions known.

This meeting could also be a milestone in the TTA's history. The very important question of a new name for the Association is to be discussed and voted upon. As the recent survey showed, the vote was very close between the front runners of the contenders for this.

Motions to adopt a new name have been framed in such a way as to leave the final choice to you. Be there and seal it.

Dear Member,

The year 1984/5 will be important for public transport and the TTA as we all will be facing a State election in 1985. With the betrayal of its major transport policies on which it was elected, the State Government has betrayed the trust and support that public transport users placed in it. More damage is in the pipeline, and it is imperative that your Association is made stronger with a greater number of members, and more funds to persuade the Government to protect and advance the interests of public transport users.

We call upon your continued support and request that you attend the Annual General Meeting.

Ken McIntyre,
Secretary