

## **Chairman's Message**

This has been a successful and eventful year for the Railway Technical Society of Australasia. RTSA has continued to work closely with the rail industry to promote the science and practice of railway engineering and related technology. On behalf of the railway community, RTSA, through its Government Relations Committee and the efforts of various individuals, has made numerous submissions and representations to the various Federal Government inquiries that have been undertaken during the year in relation to the transport sector.

This year, the RTSA's chapters have organised more than 30 technical meetings around Australia and several industry field visits as well as joint meetings with other similar groups in the industry on topical railway issues. We also hosted the highly successful study tour (STORE) to regional areas in New South Wales which provided participants an excellent opportunity to see first hand the transport issues confronting rural producers in the face of the ongoing neglect of our regional rail networks

In May, the RTSA hosted its biennial, Conference on Railway Engineering (CORE) in Melbourne. Our CORE conferences have become a major event in the international railway calendar and CORE2006 attracted more than 650 delegates from around the world as far a field as Brazil, Hong Kong, China, Iran, Singapore, New Zealand, Italy, United States, United Kingdom, Switzerland, Denmark and South Africa.

RTSA's membership has steadily grown and now it is recognised as one of the largest Technical Societies within Engineers Australia.

The next year is promising to be an even more eventful one. Starting with the symposium on *Future Frameworks for Regional Rail* in February, RTSA has planned a busy program schedule for 2007. The most awaited Eminent Speaker Program will also take place in early next year. Ed Zsombor from Rail Projects Saskatchewan Highway & Transport Agency will be RTSA's Eminent Speaker and he

will be sharing the successful Regional Rail Initiatives undertaken in Canada at various Chapter meetings around Australia.

In addition to the chapter meetings, seminars and technical tours, RTSA will continue to play a major role and provide additional opportunities to its members for professional development. It is planning to organise symposiums to discuss the Professional Development Programs offered within the railway industry and assist the industry to identify possible improvements which will benefit the whole of the railway industry.

I would like to take this opportunity to wish all RTSA members and their families a safe and happy Christmas and New Year holidays.

***Ravi Ravitharan***

**National Chairman  
Railway Technical Society of Australasia**



# Rail Horizons

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ENGINEERS  
AUSTRALIA

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## ***Point of View***

**Max Michell**

There was a time long, long ago when the railway masters from all the colonies sailed around the coast to gather together and consider matters of great importance. And they would talk among themselves, and even argue, and if the stars were in proper alignment they would all agree on these matters, or failing that they would sometimes mostly disagree. Which in time became a sort of ritual for resolving issues that could be resolved, and for those issues that could not be resolved (and they, too, were many) they accumulated into fuel for the politicians who eventually said (a long way into the future) “let there be a national railway, and all sorts of other reform to sort out your differences”. But I digress.

At one great colonial railway gathering it was proposed that they invent containers, and that those containers be 8 ft 6 in high (or some similar now long forgotten measurement). And there was much wailing and gnashing of teeth when one of the colonial representatives said “but it cannot be for such a huge dimension will sweep the cobwebs from our tunnels and endanger the lives of pedestrians using footbridges”. And the other colonials

looked askance and said, truly bewildered “but what are tunnels?” But I digress.

The trackman from another colony responded quickly that such high containers would immediately increase the maintenance of the universe and everything by at least \$500,000. In the mean time the tunnel owning representative considered his options and in time announced that for the portly sum of \$5,000,000 (which doesn't sound like much if you say it quickly) he could have his track and surrounding objects people do something that would fix the problem. But he didn't have such a sum to spare. “Oh woe is me they” all collectively and independently wailed, and there the matter rested until they next booked passages on sailing ships to again meet.

At this next meeting the subject of inventing containers was again on the agenda, for some colonies were quite persistent. “What have you done to fix the problem we would like to invent” they sayest unto the others. And the representative with the tunnels was only too pleased to announce that the cobwebs were secure, and the pedestrians were safe, since it seems that the trackman's mates in the cobweb colony, with the extra maintenance money they had acquired in response to similar radical inventions, had actually spent the funds on a surfeit of ballast which they placed in the tunnel and under the footbridges so the tracks there would be stable and good and require very little ongoing attention.

So it came to pass that trackmen, having spent their budget on an excess of ballast, now had to remove much of it and place it into more deserving parts of the track. The trackman from another colony responded that such an action would immediately increase the maintenance of the universe and everything by at least \$500,000.

But no one took any notice this time since it wasn't his railway that had the problem, so his budget remained how it was, containers were invented and the measure of 8 ft 6 in became a fundamental industrial measurement until, much later, when the land and all who travelled in it were metricated, after which the number became the much more easily assimilated 2591 mm.

The story above is a somewhat frivolous creation loosely based on several interesting events that happened many years ago, at a time when everything was state or federally owned and most rail jurisdictions were quite insular. What it points to is the silly consequences that can arise from poor communication and coordination both within the entity and between entities.

While rail reform has moved the industry a long way from those heady provincial days there are still too many instances of dysfunctional activity within our industry. You only have to look at Victoria during the last five years or so to realise that in some cases the enemy is within.

The Productivity Commission, which seems to have found the happy question that matches the answer it would

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seem to have been given, has clearly signalled the underlying passion of the body politic and the bureaucracy for continuation of a (supposedly) vote winning roads and more roads strategy.

Apparently encouraged by this populist approach to policy advice developed by the PC, we now find the NTC is quite brazenly promoting the use of quad (four) axle bogies, tandem steer and B triples on our highways as a way to reduce the number of trucks on the road. As far as I know neither John Cleese nor Spike Milligan have been advising these organisations so I can only assume they really believe that they are serving the nation's best interests.

What is even more depressing that the politicians who advise and take advice from these august bodies also think the same way. Which leaves rail in a bit of a quandary?

We can recognise reality when we see it (however Pythonesque that may be) and decide that all our efforts should be put into doing whatever it is we need to do to create a future for ourselves regardless of what the outside events seem to say. This assumes that we have the power and financial strength to follow such a strategy, and that we would not risk becoming irrelevant by being even more remote from the decision makers and influencers.

Alternatively we can take up the cudgels, adopt the values, honesty and arrogance that the ATA has so successfully embraced, and start to do some real hard political lobbying. In the good old USA a few years ago the ARA (the American one, not our local equivalent) and industry groups successfully ran an interference campaign with the public against adoption of more liberal trucking rules. At the same time the American rail industry has strong ties to the wheelers and dealers of 'the Hill' which ensures that little gets through without at least a fair hearing and even more importantly that rail is able to initiate political debate and change to its own benefit.

In reality both these actions are necessary to advance our cause. A lot of work within the industry to bring a more cohesive entity is clearly needed, and until that happens we will always be vulnerable. Unfortunately the ARA is in a position of 'conflict of interest' in this – their membership is in part the same organisations that seem to work to their own agenda.

I don't pretend to know the answer here and don't envy Bryan Nye who must have to live in a perpetually precarious balancing position. At the same time there needs to be a more influential pro-rail posture, which suggests that more resources are needed to achieve worthwhile results.

The playing field has now been tilted, somewhat unexpectedly, which flags that we have entered a new period when we (rail) need to get even more grunt into our own best efforts just to stand still. Not the greatest reward for what has been a lot of hard work and pain to achieve an unprecedented level of economic reform in a bit over 10

years. I would hazard a guess that without the liberal provision of truck friendly highways the road industry would hardly have achieved any worthwhile reform in the same period – the taxpayer has essentially funded reform of road while rail has largely had to manage reform from within.

ATA, the Trucking Association, appointed as CEO an ex National Party MP, and with the Coalition's transport portfolio traditionally held by the National Party, this would seem to have had a rather interesting effect on access to the people who determine our futures. I am not suggesting that we should look to follow that strategy (which of course if there is (ever) a change of government could be rather counter-productive) but somewhere here or overseas there must be some models of influence that the rail industry could adopt. Maybe that should be the immediate priority.

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## Government Relations Committee

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At the recent RTSA National Council the Government Relations Sub-committee new Terms of Reference were endorsed. The purpose is to formalise the existing arrangements, provide wider and deeper coverage of individual state government issues as well as increase member participation in government issues. Nominations will be sought through each state chapter and candidates will support the local chapter as well as co-ordinating with the National Sub-committee. Details of nomination process will be finalised shortly between the Sub-Committee and the state chapter chairs.

### *Productivity Commission Inquiry*

RTSA has made a number of submissions to the Productivity Commission's *Inquiry to Road and Rail Freight Infrastructure Pricing*. Members will be wondering if the rail industry is going backward rather than forward following the draft recommendation from this report. The report made eight recommendations of which five were about how rail should improve its performance whilst three were about how road should improve its. There were no recommendations about how integration of modes at intermodal terminals could be improved.

On the fundamental question of mass-distance pricing of heavy vehicles the Productivity Commission did not make any recommendation to change existing arrangements. This issue goes to the heart of competitively neutrality between road and rail.

The RTSA supports mass-distance (and location) pricing as a legitimate instrument in road pricing - moving away from an input fuel tax to a direct user pays method. The

Productivity Commission could not see a viable alternative to existing heavy vehicle charging arrangements, and appeared to accept the cost apportionment models presented by the NTCs

The Productivity Commission lamented the lack of Tonnes-KM data on specific corridors and as such there was no evidence of heavy vehicle costs (on specific corridor pavements) and little basis for direct costs recovery.

The RTSA argued in its supplementary submission to the draft report that mass-distance pricing could be implemented in a light-handed manner to discover the road freight task on major corridors. This information, combined with local and overseas research on pavement damage, is the evidence necessary to move to full cost recovery of roads. The RTSA particularly highlighted the June of 2006 ECMT Conference on Road Charging Systems: Technology Choice and Cost Effectiveness (<http://www.cemt.org/topics/taxes/Paris06/Conclusions.pdf> Table 1) that demonstrates the cost effectiveness of mass-distance schemes.

Pacific National appeared to put forward an argument that if roads do not move to a user-pays system then rail could move back to an 'input' arrangement whereby all mainline rail infrastructure be financed in accordance with the NTC model and rail would pay the diesel fuel excise. Pacific National also believed that vertical integration of the mainline should be reinstated (the rail operator directly managing the track) and that 3<sup>rd</sup> party access could be achieved by regulation (to promote competition).

The RTSA advocates the strong links across the rail / wheel interface. Technical features of the track such as cant deficiency, loop length and axle loads/speeds are features that directly impact above-rail productivity. Although there is evidence that new rail infrastructure corridors (such as Alice Springs to Darwin) can be funded in partnership (with the private sector), there is also painful experience in Victoria and Tasmania where network-wide track infrastructure arrangements sold to private enterprises failed to live up to the expectation of governments and communities. The recent Victorian government announcement of repurchasing these assets is clear evidence of this unsuccessful experiment. The RTSA stated its belief that it is unrealistic to expect selling current under-invested government rail assets to the private sector will, in itself, change the viability of rail.

There is no evidence to suggest that any transactional costs (associated with vertical separation) would outweigh the moral hazard of governments selling existing under-capitalised interstate rail corridors.

The RTSA also put forward its concerns on sudden oil price spikes and their impacts on the economy. The RTSA is concerned that bottlenecks in rail capacity and capability will be quickly exposed due to spikes in demand, and the

lag to build additional capacity and capability will take several years to correct. The opportunity cost, manifesting itself in rapidly escalating and prolonged input transport prices is unknown, and could cause significant economic damage on the national economy.

Full details of this submission will be posted on the RTSA web site.

The Commission also sought comment on the frameworks for regional rail networks. The RTSA informed the Commission of the work it had done as part of the House of Representatives *Inquiry into the Integration of Regional Rail and Roads and their Interface to Ports* (Neville Inquiry). As a result of this inquiry and a recent study tour, the RTSA in conjunction with Charles Sturt University, is holding a symposium on Future Frameworks for Regional Rail on 1 February 2007 in Wagga Wagga.

## **Regional Rail Symposium**

Turning to the Regional Rail Symposium; attention is quickly focusing regional communities and governments' minds on regional transport. The RTSA felt it needed to identify with regional communities directly affected by transport issues. This symposium is a joint initiative with Charles Sturt University to discuss aspects of regional governance and capability within the local government areas, with links to regional rail in Australia and Canada.

With Victoria's announcement of repurchase of their regional track, Western Australia flagging changes to its regional rail network, and common carrier status for grain lines in NSW up for review in mid 2007, this symposium is likely to be highly contemporary and significant for regional transport. Places are filling up quickly and interested members are advised to register early to be assured of a place. **Registrations close 11 January 2007.**

Registration details are at [www.rtsa.com.au](http://www.rtsa.com.au)

**Andrew Honan**  
**Chairman, Government Relations Committee**

## **RTSA Constitution**

The amended Constitution of the Railway Technical Society of Australasia's Constitution was formally accepted by the RTSA National Council on 20 November 2006. A copy of the new constitution can be viewed on the Society's web site.

[www.rtsa.com.au](http://www.rtsa.com.au)

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# Railroaded in bias towards trucks

**Rail freight will be the loser if a Productivity Commission report is followed writes Philip Laird.**

THE recent draft report of the Productivity Commission on road and rail freight has more than 500 pages of facts, figures and opinions. Despite the attention to detail, including external costs such as accidents and pollution, the report is a recipe for more and heavier trucks on our roads.

Not surprisingly, the PC report was immediately welcomed by the Australian Trucking Association. Meantime, the Australasian Railway Association, representing the rail freight industry, faces its third whammy within six months.

The first setback was in March this year when Australia's transport ministers effectively overruled a considered judgment of the National Transport Commission that subsidies to B-double trucks through un-recovered road system costs should be reduced a little, in the interest of fairer competition for freight between road and rail.

Secondly, in his budget speech this year, the federal Treasurer, Peter Costello, announced concessions to the road freight industry worth \$1.2 billion. There was also a \$2 billion boost to road spending with a modest \$270 million for interstate rail track.

The third setback is the PC report on freight. Despite strong evidence, going back to the 1980s, that heavy road freight is in receipt of large annual subsidies, the PC found that the current charges are about right.

Indeed, the federal Bureau of Transport and Regional Economics in a 1988 report found hidden road subsidies to articulated trucks were exceeding \$1.2 billion a year. In addition, although the PC conceded that many B-doubles are subsidised, it felt that lower subsidies would not make much difference to road/rail competition. This is despite the strong growth in the numbers of the larger, nine-axle B-doubles on the nation's roads — up from about 700 in 1997 to more than 6000 now.

The PC has backed off the hard question of removing hidden subsidies to long-distance heavy trucks.

Although the PC was required to examine impediments to efficiency in land freight, and its draft report recognises the need for road upgrades, little is said about the substandard nature of the track linking Australia's three largest cities.

Trains going from Melbourne to Sydney turn 36 circles to the left and 36 circles to the right as they traverse "steam-age" aligned track with excessive curvature and extra length. The Sydney-Brisbane rail track is worse for curvature. Although the Australian Rail Track Corporation

is investing loan funds and government money to upgrade the track, there is not one kilometre of track straightening.

Compare this with the reconstruction of all but a few kilometres of the Hume Highway to modern engineering standards by 2010, achieved with full federal funding since 1974.

Little wonder that rail's modal share of intercapital Sydney-Melbourne land freight, which was about 40 per cent in the early 1970s, has now fallen to less than 10 per cent. On most nights there are now more than 3000 trucks moving freight between Melbourne and Sydney. Expect about 5000 such trucks by 2015.

One of the costs of line-haul trucking is fatal crashes involving articulated trucks. Although not usually the fault of the truck driver, more than 35 per cent of the fatalities in road crashes on the Hume Highway involve articulated trucks. This alone is a persuasive reason for a more balanced approach to rail and road freight than is now offered by the PC.

Hopefully their final report due by the end of the year will be much improved.

*Dr Philip Laird is an associate professor with the University of Wollongong who has written more than 60 land transport publications.*

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## Melbourne to Brisbane Inland Route

The following extract is from evidence provided on 1 August 2006 to the Neville Committee Inquiry into regional rail and road links, by former QR CEO Vince O'Rourke.

Regarding the Melbourne and Brisbane railway line proposal—and we all know there is a study about to emerge of corridors and demand, and there have been many studies over a number of years—let us build a new railway line, and a decent one. This is a position that I was advocating when I was in QR. Why don't we do something that the rest of the world does? There is an explosion of railways around the world and billions of dollars are being pumped into research. We see modern freight trains and passenger trains throughout Europe and the great railways of North America, CN and CP. We will patch up another railway and think we are doing pretty good to get along at about 80 km/h when we should be thinking about freight trains that will travel up to 160 km/h, which happens in other parts of the world.

We are suggesting that we should build a modern railway between Melbourne and Brisbane on the shortest corridor of about 1,600 to 1,650 kms west of the Great Dividing Range on the flat country with very low gradients, that it should cater for high speed freight trains up to 160 km/h and double-stack trains travelling at about 120 km/h. It should also have the capability for fast-tilting trains that would run between Brisbane and Melbourne and probably more importantly that would service the regional areas of southern Queensland and northern Victoria.

In terms of regional development, a modern railway line would cause an explosion of logistics and economic development in northern Victoria, New South Wales and Queensland. We have seen this with CN and CP in North America, where there has been a growth in what they call freight villages and economic developments right across the outback of the three states. I think it is time to make those sort of decisions. It is time to make a quantum leap in the capabilities of railways. The Rail CRC that I chair looks at modern railways of the future. The road industry is starting to mature. They have come a long way with B-Doubles and modern gear, but it is the railways where technology will take us into a new future.

We are doing too much patching. Why don't we build some really good railways? On a modern railway from Melbourne to Brisbane, freight trains could make their journey in 14 to 15 hours. It would be overnight. It is the just-in-time manufacturing inventory, logistics and integration with the ports that this nation needs. Rather than think we can do pretty well at 80 km/h, why don't we lift our minds, get into the future and start some innovative and creative solutions that the railway industry can give this nation?

## Reliance Rail wins CityRail \$3.6b rolling stock replacement

Downer EDI Limited (Downer EDI) announced in early December that financial close on Australia's largest public private partnership (PPP) for a new fleet of 626 train cars for Sydney's suburban rail network had been secured by the Reliance Rail consortium.

Reliance Rail is the successful proponent for the finance, design, construction and maintenance of 78 eight-car double deck sets and two spare carriages for the \$3.6 billion NSW Government's Rolling Stock Public Private Partnership (PPP)

The new cars will replace 498 non air-conditioned carriages and provide extra rolling stock capacity for the CityRail travelling public as they are delivered between 2010 and 2013. The design will incorporate many features of the Millennium series train supplied by also EDI Rail, which after initial teething problems have proved remarkably reliable in service.

The Reliance Rail consortium comprises sponsors and equity investors Downer EDI (49%), ABN AMRO Australia and Babcock & Brown Public Partnerships (12.75%), and equity investor AMP Capital Investors (25.5%).

Downer EDI Managing Director, Mr Stephen Gillies said, "Contractual and financial close means that EDI Rail can now proceed immediately to the railcar design phase, the design and construction of a new circa \$200 million purpose-built maintenance facility at Auburn (to be contracted to John Holland Group) and the \$20 million track, electrification and premises upgrade of EDI Rail's facilities at Cardiff. The development application for the Cardiff upgrade is scheduled to go to Lake Macquarie City Council in January.

Mr Gillies said that with a project of this scale, quality and timeframe, in an environment where the national economy is running at capacity and there is widely publicised and recognised acute shortage of skills, it was most important for Reliance Rail to effectively implement its robust delivery program based on international capability to meet the client's requirements.



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EDI Rail will utilise its Cardiff facility in the Hunter Region to complete manufacturing and undertake the testing and commissioning work required, and will outsource partial construction of the rail cars to Chinese rolling stock manufacturer, the Changchun Railway Vehicle Company (CRC).

Mr Gillies said that CRC has significant expertise in stainless steel car body construction and is currently building 540 stainless steel railcars for the Beijing Metro, including the airport line for the 2008 Olympic Games.

Reliance Rail says it will exceed the NSW Government's Local Content Requirement of 20% for the project, and up to 290 jobs will be created at the EDI Rail Cardiff facility. EDI Rail will be placing high priority on skills training and recruiting in the Hunter Region.

In addition to the ABN AMRO underwritten bonds, the financing also includes a wrapped bank debt component. Other financiers for the project are Westpac Banking Corporation, National Australia Bank, Mizuho Corporate Bank, Sumitomo Mitsui Finance Australia and Citibank. All debt (bank, bonds and swaps) has been guaranteed by Financial Guarantee Insurance Corp and XL Capital Assurance.

Reliance Rail will be supported by the following core contractors for the delivery of the PPP contract:

The EDI Rail - Hitachi Joint Venture – responsible for the design, manufacture and commissioning of the rolling stock and train simulators.

EDI Rail – responsible for the design and construction of the maintenance facility at Auburn. This project will be sub-contracted to the John Holland Group.

EDI Rail will create a special purpose vehicle company which will be responsible for the maintenance of the rolling stock (30-year contract), maintenance facility and train simulators.

### **Disquiet over imported content**

The decision to outsource the vehicle body construction to China has raised concerns about the future of local manufacturing of rail vehicles in Australia and the loss of skills with the AMWU suggesting the local content component stipulated by the NSW Government was extremely low.

In 1970 Comeng started delivering interurban EMUs of a local design to the NSW Govt Railways. They were the first ever double decked air conditioned EMUs in the world. Although these sets have since retired, the subsequent V sets have continued to serve NSW well. Other locally made or assembled trains sets have also served Australia well.

In February 2000 when orders for new rolling stock in Victoria appeared to be heading Overseas, the RTSA

issued a press release that took up what it saw as some issues of concern with this approach.

The RTSA suggested that the local rolling stock industry would be seriously damaged if the franchisees of Victoria's recently privatised railway system imported substantially complete vehicles in order to meet their obligations to provide new passenger rolling stock.

While the RTSA welcomed the uptake of new technology and supports the ongoing improvement of all aspects of Australian rail operations, the organisation also said it wanted to see the survival of a viable Australian rail manufacturing industry that could compete on a global market and maintain exports.

At the time, the then RTSA National Chairman, Philip Laird said, "Australian firms need to maintain a critical mass.

"This is not assisted by a wholesale reduction of Australian demand, which is the result of the foreign firms holding Victorian rail franchisees importing rolling stock. Perhaps they wish to take advantage of cheap labour or they wish to benefit the overseas manufacturing divisions of franchisee parent or associated companies.

"Railway manufacturing works provide valuable skilled jobs in many parts of regional Australia as well as in our major cities. We wish to avoid seeing further pressure put on rural and regional Australia. Closing these facilities would do just that. The negative long-term economic effects of such closures would far outweigh any perceived short-term financial savings."

The RTSA called upon the Government of Victoria to take the widest possible view and insist that Victorian rail franchisees use imports as a last resort.

### **Toll's Seeks to Renege on Rail Undertakings**

Toll Holdings (Toll), currently 100% owner of the Pacific National Rail business, has announced that it plans to restructure its overall business which involves the separation of its transport infrastructure assets from its network and supply chain business.

The strategic restructure creates two ASX listed companies -Toll Holdings and Infrastructure Co. Toll say this is aimed at maximising shareholder value and positioning both companies for enhanced future growth in a global market.

Toll Managing Director Mr Paul Little said the restructure was a unique opportunity to allocate the assets and resources of the company to the maximum advantage of shareholders, employees and customers.

"The restructure should be seen as the next generation of growth for both companies by allowing each business to expand faster into global markets, through strategic acquisitions and rapid organic growth.

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“It will also offer investors a clear choice of investment, designed to maximise growth potential with an overall lower cost of capital and improved flexibility,” Mr Little said.

Each company will have its own management team with the capability and operational and financial resources to pursue growth options both in Australia and offshore. Both businesses will be operated separately, with independent Boards of Directors.

The restructure would see Mr Paul Little retain his position as Managing Director of Toll Holdings while Toll’s current Executive Director, Mr Mark Rowsthorn would become the CEO of Infrastructure Co.

Toll has briefed the Australian Competition and Consumer Commission (ACCC) on the proposed restructure.

Toll has sought a waiver of its undertaking to the ACCC to sell 50% of Pacific National. and also sought a waiver of its obligations to make available the ‘Starters Kit’ of rail locomotives, rolling stock and train paths to a third party operator.

The ACCC has advised Toll that it would need to conduct market enquiries in relation to these matters. In particular, if its market enquiries do not raise issues of concern in relation to the Pacific National divestiture waiver, it would look favourably on that waiver.

The ACCC has stated its preference for structural solutions to address competition concerns, but believes that, in accordance with its normal practice, market enquiries need

to be made before it forms a view in this matter.

The restructure will see Infrastructure Co control two world class transport infrastructure assets, 100% of Pacific National and Patrick ports. The business will focus on investment opportunities in ports, rail, airports, toll roads and similar assets in Australia and offshore, lead by an experienced management team with no expensive management or performance fees born by shareholders.

The proposal for the restructure will be put to shareholders for approval via Schemes of Arrangement during the first half of 2007.

There have been murmurings in the rail industry that Toll might yet try to wriggle out of its ACCC undertakings or at least stall the process by engaging in lengthy litigation with the ACCC which would delay implementation of the undertakings.

The proposed split of the Toll business is causing concern for Melbourne based rail operator SCT. CEO Geoff Smith, reported in *The Australian*, says he is confident the ACCC would force Toll to make the kit of rail assets available. He also revealed that SCT had been chosen by Toll as its preferred bidder over other players for the starter kit and that SCT was still negotiating access terms when Toll revealed that it was seeking permission to walk away from the deal.

ACCC chairman Graeme Samuel has said he is concerned to ensure the process for the rail starter kit wasn’t delayed while the commission made market inquiries regarding Toll’s proposal.





中国轨道峰会  
**China Rail 2007**  
[www.ChinaRailCongress.com](http://www.ChinaRailCongress.com)

**3 & 4 April 2007, Shanghai, China**  
**5 April 2007 – Special Focus on Rail Freight in China**

*Metro, Mainline and City Rail – Emerging Opportunities,  
Rail Financing and Challenges in Chinese Rail*

*Simultaneous  
interpretation  
provided*

"China will invest US\$190 billion to increase the nation's rail network to over 90,000kms by 2010" reported China Daily on 23 November 2006.

The investment is described as China's biggest in history. Projects are planned and underway to upgrade China's existing and lacking infrastructure as the country struggles to get ahead of its traffic congestion and environmental concerns – all of which are effects from the explosion of its economy.

Beacon's 1<sup>st</sup> Annual China Rail Congress is not only timely, but also the **perfect balance between international and domestic participants** on one level playing field – discussing, networking, learning and sharing the latest developments in China's burgeoning rail market.

The programme is designed to focus on the key issues of concern facing senior rail decision makers; city transit authorities, industry suppliers, investors, vendors, manufacturers will examine the latest developments in the following areas:

- priorities and plans for railway development and city mass transit
- progress of privatization, restructuring, joint ventures and mergers
- latest technology in signaling, communications, fare structure, maintenance
- opportunities for private sector participation – PPP, BOT
- high speed rail development in the China and lessons learned from international case studies

**Endorsed by**

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RTSA is one of the supporting associations; members are privileged to 15% discount on the published fee by quoting the reference – 470RTSA.

Visit [www.ChinaRailCongress.com/pa/RH.html](http://www.ChinaRailCongress.com/pa/RH.html) for details and contact Beacon on Tel: +852 2219 0111 or Email: [info@BeaconEvents.com](mailto:info@BeaconEvents.com) for registration.

**Confirmed Operators:**

- Paul Lin  
Deputy General Manager, China Business  
**MTR Corp**
- Lu Xi Ming  
Director  
**Shanghai City Comprehensive Transportation Planning Institute**
- H W Chan  
Communications Systems Design Manager  
**MTR Corp**
- Mukul Saran Mathur  
Director, Transport Planning  
**Indian Railways**
- Sanjiv Garg  
Executive Director, IRTS, Project Planning & Development  
**Rail Vikas Nigam**
- **KCRC**
- **Shanghai Modern Rail Transit**

**Confirmed Key Industry Speakers:**

- Sam Chow  
Senior Associate  
**Booz Allen Hamilton**
- Dr Ian McFeat-Smith  
Managing Director  
**IMS Tunnel Consultancy**
- Dr S C Wiransinghe  
Professor of Civil Engineering  
**University of Calgary**
- Hugh Morris  
Principal  
**MRS Sydney**
- Brent Graham  
Project Director, Rail Group  
**SKM**

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# RTSA Chapter Reports

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## Victoria and Tasmania

The Chapter has had an extremely busy year with a number of highlights:

- CORE 2006
- Innovations in Rail – Seminar, August
- Dinner – Jim Betts, Director of Public Transport Victoria, September
- Tour of Southern Cross Railway Station – November
- A full program including 4 other meetings
- Future – Xmas function

### Public Events in Victoria

Public policy for rail in Victoria is healthy. Recent announcements by the Government and the Opposition that the state's regional network in all likelihood will be handed back to government, is seen as a positive development promising strategic investment.

The Victorian election campaign continues to bring up pleasantly surprising policy initiatives including:

- Free travel for full time students
- Extension of trams to Doncaster
- Extension of trains to East Cranbourne
- Other on-going commitments

### Future Program

The Chapter's committee has drafted a full program of meetings for next year to keep the momentum of this year's success (see page 13 for more details). The Chapter is also looking forward to the Wagga Wagga Regional Rail Seminar in February.

*Martin Baggott, Chapter Chair*

## Western Australia

As the year comes to an end the WA Chapter is looking forward to the next year with more interesting and informative presentations and technical visits.

Our final meeting for the year will feature an overview of the New Metrorail Project, the Southern Suburbs Railway delivered by Mr Andrew Cartledge to be held on Thursday 7 December. There will be a time lapse before the next meeting, which is scheduled for Monday 5 February 2007. This meeting will be a special presentation by Mr Ed Zsombor who will be visiting Australia as part of a Regional Rail Symposium being planned by the Railway

Technical Society to be held at the Charles Sturt University, Wagga on Thursday 1 February. Mr John Goodall will provide the Western Australian perspective in regard to regional rail matters at the symposium.

In 2007 the committee will be aiming for some presentations by our younger members. In addition The Council of Engineers Australia has declared 2007 as the Year of Women in Engineering and there are plans for this to be recognised with at least one female presenter during the year.

Planning for CORE 2008 has progressed with the engagement of a Professional Conference Organiser to manage the detailed planning for the event. This group will soon commence to prepare the budget and schedule of activities with a start in early 2007.

All members are invited to provide suggestions for future technical presentations or site visits for the Committee to consider and these can be forwarded to the Secretary, Bill Singleton ([bill.singleton@maunsell.com](mailto:bill.singleton@maunsell.com)) or the Chairman ([jsyers@optusnet.com.au](mailto:jsyers@optusnet.com.au)) for consideration.

Finally may I convey my best wishes for all members for a joyous and safe Festive Season, and we look forward to full participation in 2007 when more interesting railway oriented technical presentations will be provided.

*John Syers  
WA Chapter Chairman*

## New South Wales

During the year, the Sydney Chapter has held member meetings each month including an AGM and a special meeting to endorse the changes to the RTSA Constitution. The Executive normally meet prior to member meetings except when the meeting is a joint venture with another kindred organisation such as the PWI and IRSA. Several members of the Executive committee were committed to working on major rolling stock projects for State Rail in this last period and this has taken up a good deal of time this year, leaving the members less time for organising other RTSA activities.

Member Max Michell took on the role of Newsletter Editor and has endeavored to publish a Newsletter in the fortnight prior to each meeting with details of the speaker and the topic to encourage attendance. See the RTSA Website for those not already being sent a copy by e-mail.

In June the Sydney Chapter of Engineers Australia moved from Milsons Point to new premises at Chatswood, some six stations down the line, this greater distance to travel from the City has had an effect on attendance but this is slowly recovering with the additional publicity gained through the Newsletter.

Following the success of the STORE to the grain lines of the Western and Riverina areas of NSW in March, a one-

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day symposium has been organised and will be held in Wagga Wagga on 1 February 2007. See the separate article by Andrew Honan, Chairman of the Government Relations Committee for details.

As the Symposium is being held on the first Thursday of the month, which is the regular meeting night of the Sydney Chapter, it is proposed to hold the February monthly Chapter meeting in Wagga Wagga for the benefit of those members living and working in the area or attending the Symposium. The Victorian Chapter has been invited to attend, details are being finalised with two potential speakers speaking on events regarding the main southern Sydney to Melbourne line.

John Watsford and Bill Laidlaw attended the Steering Committee meetings for the AusRAIL 2006 Conference. The RTSA had one session with 4 speakers on the afternoon of day 1. CORE2008 and the Future Frameworks for Regional Rail Symposium brochures were included in the AusRail 2006 conference satchels. Four young engineers from each of the participating organisations were extended complimentary attendance at the conference sessions (however this invitation did not extend to attendance at the dinner). The Queensland Chapter was invited to select the four young engineers to represent the RTSA.

The following is an extract of the events for the last quarter of 2006, which are written up in more detail in the Chapter Newsletter, which may be found on the RTSA Website.

**5 October** - Discussion concerning the adoption of the new RTSA Constitution. The meeting voted to accept the proposed changes.

Ron Fraser, General Manager and Director of RailTrack Systems P/L provided an overview of the rolling stock wheelscan and rail profile measurement systems developed by the USA based KLD Labs Company. RailTrack Systems specialise in measuring rail and rolling stock together with the collection and tabulation of the resultant data. The focus is on track and rail geometry, clearances, rail profile and measurement of wheels. Combining some of these systems provides a means of determining track condition using the dynamic effect of a selected vehicle.

An additional review of the structures clearance laser system developed by the Swedish group L- Kopia/LKO (as used by ARTC) was provided as time permitted.

**2 November** - Mike Sowden from ARTC spoke on Wayside Detection and Wheel Profile Measurement. One of the most destructive and expensive disruptions to the operation of trains is derailments. This impacts heavily on both ARTC and the Operators, in direct costs and loss of reputation for safety and reliability. ARTC has concentrated on preventative rather than reactive detection, so as to give operators time to remove poorly acting rolling stock from service before it fails. The proposed modern

wayside measurement technologies, from an alliance of Teknis, Vipac, WID & KLD, not only segregates sub-performing rolling stock vehicle equipment but also helps to trace causal relationships between symptoms and defects, across the four sensor types.

Mike spoke on this next generation equipment and the strategically placed "Super sites" that are being established in collaboration with the operators. In this way ARTC aim to significantly reduce operating costs by early identification and intervention with problem wagons. Mike also gave a brief description of the newly installed wheel squeal monitoring equipment now being used in the Adelaide Hills.

Joint meetings will have their venue advertised in the monthly newsletter. To have the monthly newsletter sent to you please send a request to [billlaid@bigpond.net.au](mailto:billlaid@bigpond.net.au) with your contact details.

**Bill Laidlaw**  
**NSW Chapter Chair**

## Queensland Chairman's Comments

The Queensland Chapter have held two presentations during the quarter - one with an international guest speaker and the other held in Rockhampton in conjunction with our regional members.

As we approach the silly season once again, it has been quite a year for the rail industry! Unprecedented investment in the industry has lead to a hive of activity with no signs of it letting up in the short to medium term.

The Queensland Chapter looks forward to organising an exciting program of activities for 2007. I would like to thank the chapter committee for their efforts over the year and also like to wish everyone a safe Christmas break.

### Recent Meetings

**27 September 2006** - Professor Roger Lunden from Chalmers University in Goteburg, Sweden was in Brisbane attending the CM2006 International Contact Mechanics and Wear of Rail/Wheel systems Conference. He provided an interesting insight into the "Rail Research Activities of Chalmers University in Goteburg, Sweden". (*Attendees 35*)

**24 October 2006** - Clay Hack of EDI Rail provided a presentation on "Locomotive Adhesion Improvement". This was held in Rockhampton with a good attendance from local members. The presentation coincided with the QR Infrastructure Conference with some attendees at both bringing some lively discussion in the age-old "track versus train" debate. (*Attendees 36*)

**29 November 2006** - Unfortunately, the presentation from Marcus McAuliffe on Pacific National's operations in Queensland had to be postponed and will be re-scheduled for next year.

### Upcoming Events

The Queensland Chapter are currently putting together a program for 2007. This will commence with a presentation from Larry Matters of the ATSB on 28 February relating to the investigation undertaken on the "Lismore truck/train collision 25 May 2006".

Other planned presentations include Dennis Walsh discussing SEQIPP and the Trackstar Alliance, Marcus McAuliffe discussing Pacific National's operations in Queensland and a repeat of the highly successful AGM/Dinner/Trivia night extravaganza in July.

**Mark Wishart**  
*Queensland Chapter Chair*

## South Australia

This my last report as Chapter Chair as I have now completed four years in this position. I would like to thank the support I have received from the hardworking SA committee in making the RTSA relevant and beneficial to the Rail Industry members in SA. In particular all our thanks go to Malcolm Menadue for his valuable contribution over his time on the committee. We wish him all the best in his future endeavors.

I would like to congratulate the new SA Chapter Chair Duncan McLeod and I am sure that he will bring a revitalised energy to the position and I am sure his new committee will provide the continued support that he will need. So please come along to our Chapter meetings and support Duncan in his new role, and also benefit from the program that has been put in place for 2007 (see page 13).

**Robert Schweiger**  
*SA Chapter Chair*

## New Courses in Rolling Stock Engineering

**A new programme of courses in Rolling Stock Engineering has been developed under the guidance of the Rail CRC, with the support of the RTSA.**

Enrolment in the program, presented by the University of Wollongong, is OPEN NOW for commencement in February, 2007. The program is offered as distance delivery with one face to face workshop at the commencement of each subject. The entry requirement is a bachelor degree in engineering from a recognised tertiary institution, or equivalent.

The program consists of eight subjects, and is made up of:

**Graduate Certificate in rolling stock engineering:** (*Commencement in February, 2007*)

- Railway & rolling stock environment
- Rail motive power
- Rail vehicle design
- Rolling stock safety and brake systems

**Master of rolling stock engineering:** (*Proposed commencement in 2008*)

Graduate Certificate program, plus:

- Rolling stock dynamics and bogies
- Rolling stock construction, maintenance and design
- Dissertation in rolling stock engineering (equivalent to two subjects)

**Enquiries about the course can be directed to Lorelle Pollard at the University of Wollongong, [lorelle@uow.edu.au](mailto:lorelle@uow.edu.au), or phone (02) 4221 4247.**



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# RTSA Diary 2007

January to June

## National Activities

- 1st Feb 2007 Symposium on Future Frameworks for Regional Rail at Charles Sturt University, Wagga, Wagga  
TBC Symposiums to discuss the Professional Development Programs offered within the railway industry

## NSW Chapter

- 29th Jan 2007 Regional Rail Initiatives in Canada by Eminent Speaker Ed Zsombor, Rail Projects Saskatchewan Highway & Transport Agency  
01st Feb 2007 Joint Victoria/NSW Dinner Meeting - Sydney - Melbourne Corridor Improvement Programme (Wagga Wagga, NSW)  
01st Mar 2007 Current Advances in Steam Technology with examples of overseas research and trials  
12th Apr 2007 Presentation on Assessing Risk at Level Crossings (Joint meeting with IRSE)

## Victoria Chapter

- 01st Feb 2007 Joint Victoria/NSW Dinner Meeting - Sydney - Melbourne Corridor Improvement Programme (Wagga Wagga, NSW)  
7th Feb 2007 Regional Rail Initiatives in Canada by Eminent Speaker Ed Zsombor, Rail Projects Saskatchewan Highway & Transport Agency  
21st Mar 2007 Presentation on Railway progress in Victoria  
18th Apr 2007 Joint Meeting with Young Engineers, Australia  
18th May 2007 Dinner Meeting with Guest Speaker  
20th June 2007 Presentation on rail engineering consultancy in Australia

## Queensland Chapter

- 8th Feb 2007 Regional Rail Initiatives in Canada by Eminent Speaker Ed Zsombor, Rail Projects Saskatchewan Highway & Transport Agency  
28 Feb 2007 Presentation on Investigation undertaken on the "Lismore truck/train collision on 25 May 2006"

## South Australia Chapter

- 6th Feb 2007 Regional Rail Initiatives in Canada by Eminent Speaker Ed Zsombor, Rail Projects Saskatchewan Highway & Transport Agency  
1st Mar 2007 Presentation by Bombardier on the new Vlocity train introduced to the Victorian regional centres  
5th April 2007 Glenelg Tramline Switches – Joint with PWI SA Section  
3rd May 2007 Presentation by ATSB  
7th June 2007 Presentation on Port River Rail works current developments

## Western Australia Chapter

- 5th Feb 2007 Regional Rail Initiatives in Canada by Eminent Speaker Ed Zsombor, Rail Projects Saskatchewan Highway & Transport Agency  
8th Mar 2007 Maintenance of WA Tourist Railway Track Infrastructure  
12th April 2007 2007 Women in Engineering Topic  
18th May 2007 50 years of Railway Engineering – What Have We Learnt?  
28th June 2007 Public Transport Authority – Electronic Ticketing System

**Above program is subject to last minute changes. For more detailed information on all RTSA activities please visit the web site**

**[www.rtsa.com.au](http://www.rtsa.com.au)**

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# Future Frameworks for Regional Rail

**A joint initiative between Engineers Australia - Railway Technical Society of Australasia and Charles Sturt University**

A symposium to explore capabilities and frameworks for sustainable regional rail, recognising the benefits of an integrated and balanced approach between road and rail within regional logistics chains.

## Thursday 1 February 2007

**Charles Sturt University Agriculture Campus  
North Wagga Wagga, NSW**

### **How Canada Turned Around Regional Rail**

Ed Zsombor P. Eng. Director, Rail Projects Saskatchewan Highway and Transport Agency

### **Regionalism, Railways and Local Government.**

Ian Gray BA MA PhD Associate Professor School of Humanities and Social Sciences Charles Sturt University

### **Regional Governance: Lessons from the Australian Experience with Catchment management**

Allan Curtis BA Dip, PhD Professor of Integrated Environmental Management. Director of the Institute for Land, Water and Society

### **Evidence from Western Australia of an Integrated Grains Industry**

John Goodall CPeng. Principal Beyond Rail Solutions

### **The Factors and Behaviours that Drive the Hunter Valley Coal Alliance**

Speaker to be confirmed

### **A Victorian Perspective of Regional Rail and its Impacts on NSW**

John Hearsch Director John Hearsch Consulting Pty. Ltd.

### **Report on 'Integration of Regional Rail and Roads and their Interface to Ports'**

Mr Paul Neville MP (National Party of Australia, Hinkler, Qld) Chair Standing Committee on Transport and Regional Services (subject to Parliamentary sitting dates)

### **Views from an emerging Australian Short-line rail operator**

Speaker to be confirmed

- *A more detailed programme will be provided during December and details added to the RTSA web site.*

### **Registration Cost**

**\$120** per person      **\$80** per person for RTSA members

**Lunch and morning and afternoon teas are included in the registration.**

The symposium has received financial and in-kind support from the Railway Technical Society and the Institute for Land, Water and Society, Charles Sturt University.

A limited number of free registrations are available to non-profit community organisations. Please contact Associate Professor Ian Gray ([igray@csu.edu.au](mailto:igray@csu.edu.au)) for information.

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# Standards Report November 2006

## Standards Australia ME79 Committee

The now completed revised version of AS 4292 – Railway Safety Management is expected to be published before the end of 2006.

## Standards Australia CE2 Committee

The new CE2 committee administrator is **Sergio Detoffi**, Tel +61 2 8206 6727; Fax +61 2 8206 6015; E-mail [sergio.detoffi@standards.org.au](mailto:sergio.detoffi@standards.org.au).

Items discussed at the meeting of the CE2 Committee held in June 2006 were as follows.

1. New Standard  
AS1085.20 - Welding of Steel Rails, has been published which covers aluminothermic rail welding, flash butt welding and manual arc welding.
2. New Standards being developed
  - Standard on Rail Pads is in "Draft" format and is progressing well;
  - Dog screws and lock screws is in "draft" form and is progressing well;
  - Turnout and special trackwork committee is developing a new standard
  - AS1085.1 supplement detailing the history of steel rail development in Australia is ready to go to public comment;
3. Issues
  - Hydrogen in Rails that is not detectable by current ultrasonic techniques, to be investigated;
4. Standards Reviews
  - The committee is currently reviewing the AS1085.14 Prestressed Concrete Sleeper standard.
  - A supplement to AS1085.13 Spring Fastening Spikes for Sleeper Plates will have an amendment issued.

## RISSB

The Code Management Company of ARA has been renamed the **Rail Industry Safety & Standards Board** (RISRB). Details can be found at [www.ara.net.au](http://www.ara.net.au)

The current activities in relation to Rules, Codes, Standards and Guidelines are as follows.

### Rules

- Australian Network Rules and Procedures: - *A project to develop a suite of safe working rules that can be applied nationally.*

### Codes

- Volume 4: Infrastructure (DIRN): - *Currently reviewing amendments proposed by ARTC..*
- Security: - *Addresses industry wide requirements for security management in the rail industry, draft documents released for industry review late Dec 05.*
- Rail Investigations: - *Practical guidance on the conduct of rail safety investigations, document published.*

### Standards

- Rolling stock and Infrastructure: - *The development of a nationally applicable suite of rollingstock and infrastructure standards is being undertaken.*

### Guidelines

- Road Rail Vehicles: - *Safe operation of road rail vehicles, document published.*

## 2007 RTSA AWARDS

The closing date for 2007 awards nominations is approaching fast! Do not miss the opportunity to lodge a nomination for one of these prestigious awards.

In 2007, the RTSA will be offering awards in three categories, namely;

- ▶ the Railway Engineering Student award
- ▶ the Young Railway Engineer's award
- ▶ and the Individual award.

Nominations for these awards will close on **Friday 23<sup>rd</sup> February 2007** and further details of the process of application, together with the appropriate nomination forms can be found in the RTSA website [www.rtsa.com.au](http://www.rtsa.com.au)

**Do not leave it too late!**

*John Dring*  
*Chairman Awards Committee*



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**Immediate Past Chair:** George Erdos

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## RTSA Corporate Membership

The category of Corporate Membership within the RTSA is now available, providing an opportunity for Corporate Organisations to support the work of the RTSA

Corporate membership entitles companies to significant benefits that include:

- 3 individual nominees for membership
- 3 places at CORE and other RTSA events at membership rates
- corporate logo on the RTSA website and a link to company website
- One half page advertisement in Rail Horizons per annum
- extra copies of Rail Horizons and other RTSA publications.

**Cost is \$990 (inc GST) per annum**

Enquiries should can be directed to Nina Lenz in the RTSA Secretariat on **02 6270 6548**

