

Chairman's Report

Well another year is quickly coming to a close, one that has finally seen the start of the long awaited construction of the railway between Alice Springs and Darwin. With a number of other rail projects also commencing it will surely place a large amount of strain on the limited Australian railway expertise available. This is good for those people already employed within the industry but shortages of experienced railway personnel will continue to be felt and make our ageing compatriots put off retirement for a few more years. It is therefore imperative that ongoing training programs and continuing exchanges of information be carried out amongst those working in our industry.

The RTSA has been involved in running a pilot graduate exchange program along the lines of the Engineering Passport Scheme operating in the UK. We are currently negotiating with the IEAust to see if this scheme can be included in their Graduate Development Program. In addition an active program of CPD activities has been offered over the past year including technical presentations, site visits and study tours through each of our five state chapters.

We can all remember the excellent presentation given by Braam le Roux as our eminent speaker in conjunction with the Heavy Haul conference held in Brisbane this year. In addition just recently there was a presentation by Mr. Tony Roche on "Changing Trains". For all of those that managed to attend these lectures I am sure you not only learned a lot but were also entertained by these knowledgeable speakers.

The Government Relations committee under the chairmanship of Dr. Philip Laird has had a very busy year again. Publication of "Up to Speed" and "On Track" brochures in 2001 supported the Society's ongoing representations to Government at both Federal and State level on rail infrastructure. The "On Track" brochure supports the major findings of the Australian Rail Track Corporation (ARTC) Interstate Rail Network Audit that was released in May 2001.

In summary, the Track Audit recommended optimised investment of \$507 million with a combined benefit cost ratio of 3.2 with most of the work required within NSW. The Track Audit identifies present terminal to terminal times of 13h 30m for Melbourne - Sydney, and 21h for Sydney - Brisbane. These transit times are un-competitive with road transport and would be expected to be reduced to 10h 30m and 17h 30m respectively on completion of the optimal capital works. Completion of these works will allow transit times to be reduced as above, in turn increasing rail's modal share. There would also be a reduction of some 128,000 truck trips per annum with appreciable environmental and social benefits.

QR's Brisbane to Rockhampton electric tilt train has continued to perform well, and in early 2002 will have carried its 1,000,000th passenger. A diesel tilt train now under construction should be operating north of Rockhampton to Cairns in mid 2003. The present East Coast Very High Speed Train network \$20 million scoping study, now being undertaken for the Federal Government, has been asked to fully examine the option of upgrading existing tracks and using passenger tilt trains.

In addition to publication of brochures, submissions were made by the RTSA to the Productivity Commission's National Access Regime Inquiry, the NSW Legislative Council regarding the Privatisation of FreightCorp and the current Fuel Taxation Inquiry. These submissions are available on our web site at www.rtsa.com.au.

CORE 2002 in Wollongong with the theme of 'Cost Efficient Railways through Engineering' will be the major rail conference in Australia next year and I encourage you to put November 10 -13 2002 firmly in your diary. A new exciting railway award for engineering students will also be offered for the first time. (see also p12)

I encourage all new members of the RTSA (we now have 861 members) to become involved in the Chapter activities and also maybe join a committee and give suggestions as to how meetings can become more relevant and attractive to the majority of the members. Be involved in your society and make it work even better.

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On a personal note I would like to wish you all a merry Christmas and a happy and safe New Year. I look forward to seeing you all next year and continue in working together to make our Society a successful and influential medium in the railway industry.

Rob Schweiger
RTSA National Chairman

POINT OF VIEW

by **Max Michell**

This year has been one more of anticipation rather than action. The long awaited sale of National Rail and FreightCorp finally lurched into action around mid year, but on current indications will not be finalised until well into 2002. This single event is one of two that has the capacity to profoundly change the face of Australian railroading (sorry – but railwaying doesn't have the same sense), the other being possible changes to the ARTC national network currently under review with NSW.

What ever happens with these two issues, there will be major changes in the way the rail network is managed and operated that will carry a long way into the future. The NR/FC sale will create the biggest single freight operator in the country, but one that will have two relatively distinct entities within it – long haul interstate and short haul bulk, with the Hunter Valley coal haul being the dominant aspect of the latter.

Regardless of who becomes the new owner there will undoubtedly be 'clients' of the existing railway(s) that will be looking for an alternative operator in both these arenas; either to gain a commercial or strategic advantage, or to distance themselves from an owner/competitor. The outcome may well see the emergence of an alternative national rail operator and an alternative bulk haul operator.

In fact the latter almost eventuated a few years ago with Westrail's potential involvement in the Hunter Valley, while in a fashion there are already two established operators other than NR who are running east-west in hook and pull services. It should be observed though that both of the hook and pull operators are inter alia contracted to the Toll train Melbourne to Perth. However, all three parties involved in this arrangement are also competing bidders for the main prize of NR/FC. Inevitably there will be a restructuring of this arrangement after the sale as former 'partners' restructure themselves as competitors.

The track issue is less clear at this stage – ARTC have to submit a proposal in March 2002, in time for a July 2002 change over to whatever new arrangements (ownership, lease, management) are agreed between the various Governments. There is no doubt that there is a strong feeling toward change from rail users in NSW, but that alone will not justify a change or necessarily carry the day.

In the end the outcome will depend on a valid business case by ARTC, the strength of Government attitude on this issue (and their willingness to reach an agreement), with that agreement being one that will outwardly improve the position for rail as a whole.

Long established practices in NSW such as the subsidisation of certain routes and train services are having the effect of confusing both the NR/FC sale and the track issue. There can be little doubt that those who control the purse strings in NSW would rather be rid of these trappings of the past, but achieving that may involve rather more difficulty that would seem at first glance.

Whatever else may happen in 2002, it stands to be the year in which two of the most substantial changes in the rail industry will, or will not, be made.

RTSA Government Relations Committee

Recent actions include:

- Sending a copy of the RTSA brochure "Getting Rail Back On Track" to each NSW Federal and State MP. The overall response from State MP's has been very positive, which complements the extra NSW funds for NSW tracks.
- Giving a brief presentation in October to the local Government Association of NSW at its Annual Conference in Wollongong on the success of the Queensland tilt train; the potential benefits of such trains to NSW, and why this option with track upgrading should be considered by the East Coast Very High Speed Train study now under way.
- Following up on the RTSA submission to the Fuel Taxation Inquiry. This inquiry has received about 270 submissions, which can now be viewed on their website at <http://fueltaxinquiry.treasury.gov.au>. This site also has an issues paper, that inter alia raises the question as to the extent to which the community considers that fuel taxes are an appropriate mechanism to address external costs (spillover costs).

- Drafting a 2002 pre-budget submission for the Federal Treasury. The 2001 pre-budget submission is on our website www.rtsa.com.au; any suggestion for the 2002 submission to plaird@uow.edu.au would be most welcome.
- Following up RTSA proposals for a national rail project benefit cost manual.

Philip Laird

Chair Government Relations Committee



The RTSA's own dedicated web site.

Regularly updated with news of RTSA activities

<http://www.rtsa.com.au>

CORE2002 Wollongong November 2002

Current information can be found at

<http://www.core2002.on.net>

Chapter Reports

Western Australia

The WA Chapter has enjoyed a relatively successful year with a total of eight technical meetings being held. These proved to be quality presentations with the emphasis on current engineering developments in the railway industry. The presentations have delivered the commitment for engineers to continue with their professional development.

Over the past period the presentations have included;

September: "Tunnelling in Urban Environs" Mr Anthony Umney, Maunsells UK

October: "The New Prospector" Mr Brian Duncan, Goninans

November: "The Changing Face of Australian Rail" Mr David Tasker, John Holland

The Annual General Meeting will be scheduled for early February 2002 at which time the new office bearers will be elected.

Membership in WA has increased by 10 to 74 over the year. Meetings have been generally held at midday and

member feedback regarding the suitability of this timing would be welcomed.

It is proposed to continue with the technical presentations next year with the likelihood of site visits to local projects being arranged. A study tour to the Pilbara railways is being investigated and a Conference of Railway Engineering (CORE) is proposed for 2004.

The promotion of railway engineering is being arranged through the introduction of financial awards for students at the key Western Australian universities. Students will be assessed for the awards based on the submission of a study paper related to a railway orientated project. The awards will be made towards the middle half of 2002 in time for national assessment to be made prior to the CORE to be held in Wollongong in November.

Communication to members will continue to be maintained through e-mail facilities and all members are urged to advise of any changes to addresses. In addition the RTSA web site conveys all current news and WA Chapter programs. This can be accessed at www.rtsa.com.au.

John Syers, WA Chapter Chair

Victoria & Tasmania

Gail Moody, Deputy Executive Director of the Victorian department of Infrastructure, addressed the November chapter meeting. Gail gave an interesting presentati

on about the many rail infrastructure projects currently planned or under way. There were some details of the upgrading of country passenger train speeds, the possible Airport Rail link and The Spencer Street Station Upgrading Projects. All who attended were impressed, and pleased to learn that this long awaited attention to Victoria's rail infrastructure was finally in progress.

There will be no December Chapter activity, but the Chapter Committee is meeting to prepare a plan for chapter activities for 2002. With new rolling stock being constructed, site visits to manufacturer's works have been suggested.

The Committee intends to pursue the development of proposals for another Study Tour.

Chapter members will be advised by mail of the next activity, scheduled for late January 2002. Details will also be placed on our website.

David Ferris, Chapter Chair

New South Wales

Membership

Membership in N.S.W. and the A.C.T. is 278 including 9 in the A.C.T. This is an increase from 212 including 4 from A.C.T. twelve months ago.

Engineering Passport Scheme

Following the success of a pilot arrangement where a graduate engineer from Interfleet Technology visited Australia from the UK, we have had discussions with the Institution with a view to initiating and administering a nationwide Passport Scheme in Australia. The discussions were very encouraging and we look forward to future developments.

Meetings

The Committee wishes to thank members for their support during the year. The ten meetings, which were held monthly, had good attendance with a high of 73 and an average of 39 attendees.

Our September joint meeting with the Civil and Structural Panel covered the new Parramatta to Chatswood rail link currently being planned for commencement next year. The link which will increase the long term capacity of the system and ease congestion on the Western Line was presented by the Project Director, John Barraclough.

Westinghouse Train Braking Systems were featured by Lindsay Day at our October meeting. At our joint IRSE meeting in November, Raymond Balck of Bombardier, presented Interflow, a communication based train control and signalling system.

The planned Study Tour of Newcastle has been postponed until next year .

Program for 2002

Our program for 2002 is prepared and includes in our monthly schedule, a number of joint meetings with IRSE and the PWI and culminating with CORE 2002 in November.

Presentations on a wide range of topics including the Alice Springs Darwin Railway, the upgrading of the XPT engines and a fast freight shuttle train are scheduled together with a number of eminent speakers.

Our first meeting for 2002 will be held on Thursday 21 February where a paper on the Engineering Aspects of the Zig Zag Railway will be presented. The meeting will also

be our AGM and nominations for the Committee will close on 18 January.

We look forward to a busy year and good attendances at our meetings, which are held in the Institution's Harricks Auditorium at Milsons Point.

John Watsford, NSW Chapter Chair

CORE2002

We are pleased with progress of the organisation of CORE2002 and the program is running to plan. Our two professional organisers have been very helpful with ideas and action.

- The following arrangements for the conference have been made.
- The Novotel at Wollongong has been booked for the 3 days of the Conference 10th - 13th November 2002. Other accommodation in Wollongong will be booked nearer the conference date.
- Activities for each evening have been planned and include an evening of entertainment on Monday night and a gala dinner on Tuesday.
- Discussions have taken place with RTAA and a preliminary program agreed to by both parties has been arranged.
- The program requires a maximum number of 57 technical papers, running in 3 streams on Days 1 & 2 and a single stream on Day 3. On Day 3, a stream for company presentations throughout the day will be arranged.
- On Days 2 & 3 there will be an exhibition of railway vehicles and frequent buses will convey delegates to the location.
- On Day 3 there will also be limited technical tours.
- Partners Tours will be over the 3 days.
- Positioning of 45 exhibition booths, size 3m x 2m., has been planned by Novotel
- Letters to prospective sponsors has been written for distribution, letters have been handed out to prospective exhibitors.
- Approaches have been made for the keynote, after dinner and plenary speakers.
- The Technical Committee is progressing the planning of the Technical aspects of the Conference including the readers for papers and forming these into the streams.
- At cut off point 73 abstracts had been received.

Queensland

The scheduled activities for the quarter involved a technical meeting and site visit to QR's Redbank Workshops and the Institution of Mechanical Engineer's 12th George Stephenson Lecture (5 November).

Redbank Workshops Site Visit

The site visit to QR's Redbank Workshops on 23 October included a technical presentation on the "Re-Engineering the Brisbane EMU Fleet" by John Lane, Operations Manager. The delegates were informed of the extent of the improvements to a fleet that is now some 20 years old ranging from video surveillance for passenger and train security, improved air-conditioning, to changes to the front cowling to prevent trespassers riding on the front and rear couplers.

Following the technical presentation there was a tour of the extensive workshops facility to inspect the other major activities e.g. re-engineering of various locomotive classes to increase power and improve the driver's cab environment, building new coal wagons and the prototyping of a long distance passenger vehicle. The delegates were warmly welcomed and were provided with generous hospitality for the evening visit. The meeting was attended by 26 members.

The RTSA-Qld Chapter gratefully appreciates the generous hospitality provided to the delegates by QR.

12th George Stephenson Lecture

The RTSA-Qld members were invited to attend this lecture by Tony Roche, President of the Institution of Mechanical Engineers, UK. This lecture, on 5 November, was the last port of call of Tony's national tour. The attendance of 35 delegates to the lunchtime presentation although by no means poor was somewhat less than expected. The RTSA-Qld committee also provided contact names to enable Tony to meet with QR's Senior Executive prior to his lecture.

2002 Technical Program

The technical program for 2002 has yet to be finalised. Judging by the number of interesting topics that have been proposed, the chapter committee is hopeful of a successful year. The meetings will generally be held at the Hawken Auditorium, Engineering House on the 4th Monday of the month from February to November (inclusive). However alternative venues may need to be sought depending on availability of speakers. As has been the practice to date, a

"flyer" will be issued prior to each meeting confirming the topic, speaker, time and venue.

Queensland Rail News

The Queensland Government has approved an additional \$80m upgrade to complement the concrete resleeper being undertaken by QR between Rockhampton and Townsville - over 27 % done - full completion due by December 2003. The additional work will include steel resleeper between Townsville and Cairns, flood mitigation, and the Aminungo Deviation near Mackay.

It is anticipated that diesel tilt train services will be carrying passengers in 2003 with the first train estimated for delivery at the end of 2002 for initial test runs.

Queensland Transport has recently appointed consultants for the conduct of an Impact Assessment Study for a new rail corridor from Caboolture to Landsborough.

George Nikandros, Queensland Chapter Chair

Cooperative Research Centre for Railway Engineering and Technologies

The Cooperative Research Centre for Railway Engineering and Technologies, Rail CRC, started operations on 1 July 2001. The centre has six universities and six rail organisations participating in a joint venture to deliver decision-making tools, knowledge and technologies necessary to address industry's needs for effective rail management, operation, maintenance and development of the industry generally.

Recently, the Rail CRC Board approved \$5 million cash funding for a range of projects in five research themes. Further funding will be approved in March 2002 for projects that will run for the next three years for a total commitment, cash and in-kind, of more than \$28 million. These initial projects include:

Theme 1 "Smart Trains" will develop a nationally recognised centre for simulation, modelling and derailment investigation that will make a comprehensive set customised simulation tools available to the Australian Railway Industry. Integrated longitudinal and vehicle models will allow new studies in train/vehicle/track interaction. Systems that are capable of dynamically assessing the condition of the trains, the track and the associated systems will be placed on-board the train and will interact with train management systems.

Theme 2 "Infrastructure" will run extensive programs to evaluate ballast and sub-grade performance and new techniques for ballast recycling and control of ballast

performance. On-board wheel wear detectors will have the capacity to evaluate in real time wheel wear incurred over track sections just 100 metres in length. New track maintenance scheduling systems will allow short-term allocation of equipment and possession time with consideration of the overall condition of the network consistent with variations in operating requirements. Detailed studies of the mechanisms at the wheel rail interface that produce such undesirable features as rail corrugation will improve the understanding of the interface under Australian conditions.

Theme 3 “Scheduling” will develop in-cab systems for improving timekeeping and reducing energy consumption on long haul lines. Decision support tools for assessing network performance and reliability will enhance network planning by analysis of local capacity and operations and the effect of congestion on reliability to expose the vulnerability of network sections. An integrated train scheduling system will integrate train, crew, locomotive and maintenance scheduling. Dynamic rescheduling will be improved on long haul networks by real-time dynamic systems that continually revise the network operating plan to recover in an optimal way from disruptions to the plan. An essential feature will be communication standards for Australian rail networks with the necessary digital protocols and security to be assessed.

Theme 4 “IT Systems and Standards” will identify types of e-business systems and practices for more efficient management of supply chains, more effective service and better intermodal response. TRAPS track analysis and performance systems will benchmark maintenance activities allowing comparisons across districts and sections to be made. An integrated system will optimise container transfers at multi-modal terminals at Australian ports. Australia wide energy efficiency and environmental sustainability performance of railways will be published annually to highlight the energy efficiency of rail in comparison with road transport.

Theme 5 “Rollingstock” will investigate new steels for wheel and vehicle components. Wayside systems that report on rollingstock performance and condition will be integrated for better utilisation of these data. The essential data will be identified and deficiencies in the current systems will be identified and corrected. Design and assessment of light weight and durable vehicle structural components will enhance the assessment of bogie and vehicle structural performance. The performance of diesel locomotive fuel additives will be assessed in a new engine test facility that may be use for a range of engine efficiency tests in future planning.

Theme 6 “Education and Training” has the mission of addressing the current and future education needs of the

rail industry in the areas of technology transfer, promotion and adoption. In order to achieve this goal, several preliminary project proposals have been submitted in a 3-pronged attack:

- the development of a web site and knowledge base on current and future railway technology;
- the development of postgraduate courses for the education and training of specialists and practising professional engineers; and,
- the stimulation of pathway opportunities from trade to postgraduate studies and beyond.

These projects will draw on partnership with learned societies such as RTSA and IRSE, as well as CRC partners. The longer-term vision is to see the development of a virtual Australian Institute of Railway Engineering and Technology that comprise the CRC partners, to offer high quality technical courses developed by experts under the guidance of industry steering committees.

These preliminary project proposals and the Theme 6 business plan will be circulated to key employers of railway engineers for evaluation and comments in early December. After receiving the initial feedback, a project development workshop has been planned for early February 2002, in Sydney, aiming to finalise project submission by end of February 2002.

Further information on the development of Theme 6 is available from Assoc.Prof.Ken Kwong, leader of Theme 6. k.kwong@cqu.edu.au

Prof Dudley Roach, CEO Rail CRC

For further information contact:
e-mail railcrc@cqu.edu.au
phone +61 (0)7 49309597 fax +61 (0)7 4930 6984

Centre for Railway Engineering
Central Queensland University
Rockhampton Qld 4702

Perth to Mandurah Railway

The Western Australian State Government proposal to bring the new Southern Metropolitan Railway into the Perth Central District has received some criticism. Representatives of leading professional groups attended a forum conducted in Perth on Wednesday 17 October to present views on the new project.

Although the concept of routing the railway direct into the City was agreed there was a general consensus that the

proposed alignment within the City needed further consideration.

The railway was originally proposed by the Liberal Government in December 1994 and was included in the Metropolitan Region Scheme to serve the rapidly growing southern coastal metropolitan strip leading to the sea side region at Mandurah. Funding was approved in 1997 and planning commenced.

The route chosen passed northwards along the coast from Mandurah to Rockingham then northwards within the Kwinana Freeway reserve strip to Glen Iris. It then moved eastwards to link into the existing Perth to Armadale railway at Kenwick. This region has undergone heavy growth and the route was preferred to service this need. It covered 69 route kilometers of new railway and a total route length between Perth and Mandurah of 82 kilometers.

Planning for the construction of the new railway progressed with preliminary works including tunnelling at Kenwick proceeding in advance. Tenders for the design, construct, finance and maintenance of the railway were scheduled to be called in April 2001.

A labour government was elected in February 2001 and the railway route was subject to review. The new government preferred a direct route from the south into the City and the feasibility of continuing the route along the Kwinana Freeway to meet this objective was investigated. This route requires the railway to pass over the Canning River within the Mt Henry Bridge and to negotiate the Swan River at the Narrows Bridge.

The new route was announced in August 2001 and a revised Master Plan based on a confined timetable and budgetary provisions was commenced.

The proposed alignment approaching the City passed within the median strip of the Kwinana Freeway over a separate structure at the Narrows Bridge. A short distance beyond the bridge the railway is proposed to move within the existing freeway structures to William Street then enter a tunnelling system passing below the roadway northwards to Wellington Street where it would curve to the west to meet the Northern Suburbs railway. New stations would be located at the Esplanade, within the central William St area and at the junction with the Northern Suburbs railway at Northbridge.

The proposal would require some elevated structures along the Swan River foreshore and a cut and cover construction along the length of William Street. The project has been hailed as the major future construction work for the State at an estimated cost of \$1.2 b.

Although the concept of developing a route direct from the south to the City was generally accepted by the community, considerable comment was raised regarding the route within the City. As a result the multidiscipline forum was arranged and sponsored by a group of professional bodies to debate the proposal.

The group included representation from the Aust. Institute of Urban Studies, Aust. Property Institute, City Vision, Institution of Engineers (Aust), Local Government Planners Assoc., Property Council of Aust., Royal Aust. Planning Institute and the Royal Institute of Architects. Views of the Railway Technical Society were presented by the Institution of Engineers representative.

The issues of concern were associated with lack of consultation during the feasibility phase and the general poor aesthetic view of the new railway along the City foreshore and entering the tunnelled section below William Street which would be severely disrupted during the cut and cover construction of the work. The Property Council raised the concern of properties in the vicinity of the existing Central Station being disadvantaged as passenger movements would be shed to other station locations.

A more futuristic vision for the City was favoured to prepare Perth for a sound metropolitan public transportation system into the next century. One concept for the system within the City to be based on an underground circle route around the periphery with all main line routes linking into this arrangement was favoured. Planning of the new Mandurah Railway could be introduced as the first stage of the plan.

At the conclusion of the Forum a Communiqué was presented for Government consideration. In essence the Forum commended the WA Government's initiative in improving the rail transportation in the Perth Central Business District but identified major concerns with the likely impacts on the city centre. It called on the Government to investigate all possible alternatives for the railway entering and servicing the City.

As a result of the Forum the State Government has moved to create a Perth City Railway Advisory Committee with terms of reference to;

1. Develop criteria, evaluate options for and provide recommendations on -
 - a) the alignment of line through the Central City area, and
 - b) station locations in the Central City
2. Recommend management requirements to ameliorate the impact of the rail in construction and in operation.

The Committee comprises a blend of key community and professional representatives with the former Director General of Transport Mr Stuart Hicks as Chairman. The Committee must report by February 2020 .

John Syers

Road and Rail – A Case Study

In 1819 a road from Camden to Picton over the Razorback Range was completed and became the first part of the Great Southern Road. By 1833 a deviation was being constructed to ease the climb facing heavily laden carts taking produce to the Sydney markets. This deviation is cut into the side of the Apps Creek valley and replaces most of the original hill on the Picton side of the range.

An entirely new road over the range took a less direct route that has easier grades in both directions. In the late 1960s this part of what had become the Hume Highway was widened to provide extra lanes. The most significant changes were again on the South side of the hill and were designed to ease some sharp curves. At that stage the main interstate highway through Picton had existed for about 150 years and had followed two different alignments over the range with various modifications to each.

The present interstate road follows an entirely different alignment that avoids Camden, Picton and the Razorback Range. At the start of the 21st century it is the latest in road technology and allows cars, trucks and buses to operate at their maximum potential within legal speed limits.

The early years of rail follow a somewhat similar path with construction reaching Picton in 1863. Between Campbelltown and Picton a couple of hills were eased but there has not been any further improvement to the alignment on this part of the interstate rail network and it has remained the same since 1892. It is effectively at the stage that the Great Southern Road reached in 1833 and it is a serious impediment to train performance.

Some parts of the rail network have fared a little better with local changes to the alignment that were designed to ease gradients. Curves are far too small and numerous for high-speed passenger trains and many curves even inhibit the performance of much slower heavy freight trains. On the present ancient alignment rail cannot compete with road across all sectors of the transport market.

There have been many proposals to modify the rail alignment between Melbourne and Sydney to make rail more competitive. These have generally proposed local changes to remove the most severe restrictions to current train performance. Some have included quite significant deviations to avoid particularly difficult terrain but have

not suggested anything remotely akin to the freeways with which rail must compete. The VFT was one exception but it was primarily aimed at passenger transport rather than the entire market.

A new rail freeway that may be used by high-speed passenger and fast freight trains is the ideal solution. Paradoxically the alignment standards that could be adopted for a universal railway would reduce the cost of construction when compared with the original VFT. The new line should replace rather than duplicate the existing line and this would provide further cost savings from less land acquisition. The greater potential income from the larger market may be sufficient to justify private sector investment in the new infrastructure.

A railway for the 21st century should be given a higher priority than upgrades that only allow rail to compete with the roads of the 1970s. The way forward cannot rely on old methods or on the ancient alignment that has been inherited from the era of the steam train. A new rail alignment is an essential tool to allow rail to compete for all of the available traffic and patching up the outmoded infrastructure is a waste of money.

Real competition between modes cannot occur unless they meet on equal terms and matching infrastructure standards is a first step. Given the non-cash benefits such as less pollution and reduced road trauma, rail should not be a second class citizen in a country that is so dependent on transport.

Colin F G Butcher, F.I.E.Aust.

The Good News.....1

\$80 million for NSW Upgrades

On 14 November 2001, NSW Premier, Bob Carr advised the Legislative Assembly that following a return of \$80 million in unspent money from an Olympics Games contingency fund, the Government's budget committee had asked this question: *Where could we spend this money to get the biggest impact on jobs in rural and remote communities?*

Mr Carr continued "We decided to put the whole lot into an immediate investment in upgraded country rail."

"The allocation for country rail track improvement during this and the next financial year is already \$415 million. The money we announce today is over and above that. ... The \$80 million is a bonus, all going into rural and remote New South Wales. ... The money will provide still better and safer passenger services and still more competitive and reliable freight rail. The projects include 55,000 new

sleepers over 140 kilometres of track between Parkes and Broken Hill.

Other projects include:

- 30,000 new sleepers over 80 kilometres of track between Junee and Albury
- replacing three old timber bridges with new concrete bridges between Parkes and Warrinya
- 350 kilometres of resurfacing between Lithgow, Broken Hill and Nyngan;
- 12,000 new steel sleepers and track resurfacing between Muswellbrook and Moree
- a new concrete rail bridge at Gunnedah and another between Moree and Narrabri
- upgrades to remove speed restrictions on 15 bridges between Taree and Grafton;
- 15,000 new concrete sleepers over a 10-kilometre section between Kempsey and Glenreagh.

General freight volumes on the New South Wales rail network have grown by 19 per cent over the past two years. This funding increase will lead to even greater competitiveness in freight rail.

A related press release noted funding allocations of \$33 million for the Main South line, \$22 million for western lines, \$13 million for North West lines and \$12 million for the North Coast line.

The Good News.....2

Bombardier Awarded \$410 Million Fast Train Contract

Up to 860 jobs will be created under a \$410 million contract to build and maintain 29 high speed trains for the Regional Fast Rail Project in Victoria.

The trains, capable of travelling at 160 kilometres per hour, will be built by manufacturer Bombardier at its Dandenong factory, as part of a deal with the State Government and National Express.

According to Victorian Premier Steve Bracks it will involve 160 new manufacturing jobs, including 40 apprentices, at the Bombardier factory and another 700 jobs created in supply industries.

“Overall, this project will inject more than \$200 million into the local and Victorian economies, including \$125 million of work under local content provisions written into the contract by this Government,” he said

“The jobs and investment have been secured by our required minimum of 55 per cent local content in the trains’ manufacture, and a minimum of 80 to 90 per cent in their maintenance.”

Local construction will include the trains’ bodyshell, fabricated metal parts, air conditioning, interior (wall panels, fittings), seating, and the wheel and axle sets.

Transport Minister, Peter Batchelor, said the Government was supporting the purchase of the trains by National Express through the existing franchise agreements.

“The 29 new two-car trains for the Fast Rail Project are the first to be built to operate at high speed in Victoria and will travel at up to 160kmh,” he said.

“The new trains herald a new era of regional rail travel and will give regional Victorians the public transport services they have long deserved.”

“They will enable fast rail links between Melbourne and Geelong, Ballarat, Bendigo and the Latrobe Valley.

Mr Batchelor said the Regional Fast Rail Project was the centrepiece of the Government’s *Linking Victoria* strategy, which will more closely link key regional centres with Melbourne and create thousands of jobs during construction.

“At \$550 million, the Regional Fast Rail Project is the biggest investment in regional public transport since the 1880s,” he said.

The Good News.....3

First Alice Darwin Rails Head North

The first load of rails to leave OneSteel’s Whyalla Steelworks and destined for the Alice Darwin Railway project ran on 14 November.

After official speeches at Whyalla, the train carried the Premier of South Australia, Mr Rob Kerin and other invited guest to Port Augusta where another short ceremony was held to christen the first of the new ballast hoppers for the project. Australia Southern Railroad (ASR) then hauled the train carrying approx 2,000 tonnes of rail north to Roe Creek (Alice Springs).

ASR was recently awarded by contracts worth over \$40 million for the provision of all rail and associated logistics services during the construction phase of the project. The contracts also include the movements of the rail from OneSteel to the project work sites at Katherine and Tennant Creek.

At Roe Creek the 27.5 metre length rails will be transferred onto specially designed road trailers provided by Katherine-based road operator, Slingshot Haulage. The rail will then be transported to Katherine and Tennant Creek for welding into longer lengths for use in the project.

Slingshot Haulage has also won a contract from ASR for the road transfer of all the construction-phase rolling stock from Alice Springs to the railheads. This includes 8 locomotives, 110 ballast wagons and other specialised wagons.

Slingshot is just one of several local companies that ASR has formed partnerships with to ensure the success of the logistics and transport task associated with the project.

The EDI Rail workshops at Port Augusta have benefited significantly from new contracts associated with the project. ASR is investing around \$7 million in 65 new multi-purpose hopper wagons which will be constructed by EDI Rail. These wagons will be used to transport ballast for the duration of the project, but afterwards will be used as general purpose wagons for grain and limestone by ASR.

This investment by ASR comes on top of the financial commitment to the project from the Federal and State Governments and the Consortium partners.

Rail leasing company CFCL Australia will also lease a further 45 ballast wagons to ASR for the duration of the project.



The first train of rail for the Alice Darwin project is seen nearing Port Augusta on its journey north.



The Railway Technical Society of Australasia

RTSA Office Bearers

National Chair: Robert Schweiger
Ph: 0413 128 775 email: rschweiger@jhg.com.au

Immediate Past Chair: Philip Laird
Ph: 02 4221 3421 Fax: 02 4221 4845

Deputy Chair & NSW Chapter Chair: John Watsford
Ph: 02 9330 7900 Fax: 02 9330 7902

Secretary: Chris Venn-Brown
Ph: 02 6556 7217 Fax: 02 6556 7024

Treasurer: Ravi Ravitharan
Ph: 03 9905 1986 Fax: 03 9905 1972

Queensland Chapter Chair: George Nikandros
Ph: 07 3235 1473 Fax: 07 3235 2747

SA Chapter Chair: George Erdos
Ph: 08 8218 4000 Fax: 08 8227 0992

Victoria & Tasmania Chapter Chair: David Ferris
Ph: 03 9620 3600 Fax: 03 9740 7917

WA Chapter Chair: John Syers
Ph/Fax: 08 9387 1946

RTSA Secretariat:
PO Box E303, Kingston ACT 2604
Ph: 02 6270 6548 Fax: 02 6273 2358

RTSA National Newsletter - Editorial Contact

Mark Carter
GRMS Media,
3 Bruce Street, Broadview, South Australia 5083

Phone: 08 8261 2292 Fax: 08 8261 2219
e-mail: grms@bigpond.com

Deadline for next Newsletter - 1 March 2001

“Further, examples throughout the world confirm that passenger rail is positively able to drive intensified land use and development within and around the infrastructure. Few busway examples can match this observation. Investment in such permanent infrastructure is able to encourage confidence in the private sector to invest capital in development projects adjacent to the corridor.”

Executive Summary of the Caboolture Maroochydore Corridor Study (CAMCOS) Final Impact Assessment Study and Land Use Transport Strategy Report. It should be noted that it is initially proposed to use buses on the new transport corridor; the challenge for the rail industry is to get the rail option up as soon as possible.

NEW RAILWAY ENVIRONMENT

DISTANCE LEARNING COURSE

Queensland University of Technology and the Australian Rail Research Institute are pleased to announce a new direction for railway education.

This joint venture between QUT and ARRI is directed at the Graduate Certificate level and is able to be taken by *business graduates, engineers, managers, operators and technical personnel*.

It's expected that participants will normally have a university bachelor's degree (in business, engineering, science, construction, etc). However, someone with an alternative qualification and a period of industry experience may apply for consideration.

There are presently two units in the course. All the study material has been written by widely recognised practising engineers and managers, who will also assist with the operation of the units and assessment of assignments.

Both units will be offered entirely by distance learning mode; that is, you will receive a quality bound set of comprehensive instructional material in the mail and will submit to QUT detailed assignments by mail.



The first unit is scheduled to begin in *late February 2002*, and is called Railway Business and Engineering. It comprises five modules as follows: railway business, railway access, project management, infrastructure, and rollingstock. The cost for this one unit is \$1540.

The course is particularly aimed at graduates working in the railway industry or in consultancies, but the units are also able to be taken by someone who is looking to move into railways. Most people working in the industry become very knowledgeable about their own area, and these units are intended to provide participants with a comprehensive overview of what happens in the many other areas of rail organisations.



The study material for both units has been prepared through QUT's Open Learning Unit, to established distance education quality control procedures, so that both units may be considered equivalent to Graduate Certificate level.

This short course is designed to give a “broad brush” approach to rail operations, management and infrastructure as a whole, with objectives including knowledge of the total rail transport system and increasing interactions between the various disciplines.

For further information and registration forms please contact
Martin Murray (QUT) Ph 07 3864 2513, email: m.murray@qut.edu.au or
Wardina Oghanna (ARRI) Ph 07 3376 0222, email: arri@powerup.com.au



RAILWAY ENGINEERING AWARDS 2002

Annual Individual Award

The Annual Individual Award recognises the outstanding achievement of an individual within the railway industry with the winner receiving a cash prize of \$2000 and a plaque.

Chapter Chairs are asked to promote the confidential nomination of an engineer who has made a significant contribution to, or had a distinguished career in, the railway industry. This may include a recent individual project or published technical paper.

Biennial Industry Award

The Biennial Industry Award recognises achievement worthy of public recognition. The winner of the award receives a plaque and individual team members receive a framed certificate.

All members and Chapter Chairs are asked to consider potential applicants for the Industry Award in their areas and promote a submission from likely companies.

Possible contributions include inventions, designs, projects, processes etc that the applicant(s) believes represents a significant railway engineering achievement and has been completed to the point of being demonstrably successful within the last two years. A single published paper may also qualify for the award.

The judges will consider the degree of originality, the significance of the contribution to railway engineering in Australia and the engineering ability displayed.

Applications/Nominations for both awards will be invited for consideration by the RTSA closing 30 June 2002 with awards to be presented at CORE 2002 in Wollongong in November 2002.

The 2002 RTSA Railway Engineering Student Thesis Award

A new award, the RTSA Railway Engineering Student Thesis Award will be awarded by the RTSA to the author of an outstanding final year project on a topic in railway engineering. The project will have been completed by a student in his or her final year of an undergraduate engineering course at an Australian or New Zealand University.

Nominations will close on 31 January 2002 and should be sent to the RTSA Administrator, PO Box E303, Kingston, ACT, 2604. on the prescribed form which will be available from the RTSA Administrator, or from the RTSA website www.rtsa.com.au

A prize of \$1000 and a plaque shall be awarded by the RTSA, together with free registration to the next Conference on Railway Engineering and one year's free membership of the RTSA. At its discretion the Committee may award a further prize of either \$500 or one free registration to the following Conference on Railway Engineering *together* with one year's free RTSA membership

Chapter Chairs are asked to assist by promoting the award with the Engineering Faculties of Universities in their area.

John Adams, Chairman, Awards Committee