

# NATIONAL NEWSLETTER

## No. 9 - October 2000

The Railway Technical Society of Australasia

[www.ieaust.org.au/RTSA](http://www.ieaust.org.au/RTSA)

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### **FROM THE EDITOR**

If we wish to pay greater attention to our “Learned Society” role, we could consider applying ourselves to matters beyond the arrangement of regular meetings, fixtures and events. We may wish, for example, to aim to be “**The definitive technical body for the Rail Industry**”. If so, we would need to give full and proper consideration to the major technical issues facing the Rail Industry.

A “Think Tank” approach has been suggested and is being discussed in Victoria. This could

meet regularly (say quarterly) to consider and develop policies and positions on matters of importance. In this way we might be able to be pro-active rather than reactive, and we may be able to lead (or at least influence) opinion and thus policy determination. The Think Tank would also have to be prepared to meet at short notice to pick up and run with emerging issues as they arise.

We should not leave all the hard work to the few of us who have carried this load alone to date.

The Think Tank would obviously need to have senior and experienced people, capable of objective and analytical thought, and able to influence the press and senior rail executives and business people. This tends to suggest senior technical people, and these may have to be enticed into the forum.

Your thoughts would be useful.

Out thanks to contributors to this issue and as usual we request articles, some news, and your opinion on this or any other railway industry matter. Letters or E-mails ([davidferris@bigpond.com](mailto:davidferris@bigpond.com)) are most welcome.

David Ferris (Editor)

### **CHAIRMAN’S MESSAGE**

Membership of the Society remains steady at 608 members. A reduced membership fee of \$20 for new members is still available for the remainder of this year. So please let any prospective members in your organisation and clients and customers know of the benefits of being a member of the RTSA.

The railways have been very much in the news with particular attention being focussed on the Alice Springs to Darwin railway, the Speedrail proposal for Sydney to Canberra, upgrading of country Victorian rail lines and, of course, the ability of the Sydney system to cope with moving the Olympic masses. Railways are certainly capturing the headlines and continue to play a large part in the Australian community.

In the time since the last newsletter all of our sub-committees have been busy and I encourage you to read their reports contained in this newsletter. In addition the IEAust has gone some way down the track to introducing a new National Structure and Organisational Arrangements. Of particular impact on the RTSA is the proposed "Board of Engineering Practice" to which the RTSA has nominated to report to, instead of the Mechanical College to whom we report to at present. The RTSA has also supported the formation of the College of Transport Engineers, however I will keep you informed on the progress of this proposal in subsequent newsletters.

The National Committee will be meeting in Melbourne on the 28<sup>th</sup> of October and if you have any items that you would like us to consider could you please forward them to Ms Cindy Huber for inclusion in the Agenda.

In the meantime I encourage you all to become involved in the activities of your local Chapter and keep thinking of new ways to ensure the meetings and site visits are of benefit and of interest to your fellow members.

Robert Schweiger  
National Chairman

## **NATIONAL NEWS**

### **Membership of ARA**

The RTSA became an Associate member of the ARA in July 2000. Information regarding the ARA is available on the ARA website at: "<http://www.ara.net.au>".

## **Fix the Rails**

The RTSA has produced six 'Fix the Rails' brochures with the assistance of GRMS Media in Adelaide. The State specific brochures have been sent to all politicians in the relevant State Governments. The numbers of replies are indicated.

No.1	March 1999	Outline of Neville Report	
No.2	June 1999	Victoria	3
No.3	September 1999	SA and WA	5
No.4	January 2000	NSW	26
No.5	April 2000	Queensland	15
No.6	September 2000	Australia	

NSW and Queensland Federal politicians were also sent brochures, with replies from 14 NSW and 10 Queensland MPs. These are also appreciated. The Queensland brochures included a post card, of which several hundred found their way back to Canberra.

The April 2000 Federal Government response to three major rail reports was very limited and the May 2000 budget actually cut funding to upgrading existing tracks. As a result, the National Council at its May meeting decided to produce a further brochure, and postcard. **You can do much to help get the message over by completing the postcard, providing a 45c stamp, and posting it off.**

The Government Relations committee made a submission to the **Defence review 2000** currently underway. This submission may be viewed on the RTSA web site.

## **Proposed Rail Projects and Existing Rail Track**

Three mega rail proposals have received the interest of the Howard Government. These are the Alice Springs – Darwin railway, the Sydney – Canberra Speedrail, and an inland Melbourne – Brisbane (ex Melbourne – Darwin) rail link. The Melbourne – Parkes – Brisbane link is by far the most promising in terms of hard economics and also has rural and regional Australia (RARA) appeal.

In addition, three major rail inquiries commissioned by the Howard Government have found a pressing need to upgrade the existing interstate mainlines, with particular attention to the Melbourne – Sydney – Brisbane links. Mainline track upgrading is needed to make interstate rail freight more efficient and competitive as opposed to more and heavier trucks on our highways.

RTSA supports the **proposed Alice Springs - Darwin railway** within the present level of public funding (\$480 million and Tarcoola - Alice Springs track arrangements) and hopes that financial and contractual close occurs in 2000. However, if the bankers require extra assistance, this should not be with more public money but by way of strengthening Melbourne - Adelaide (eg double stacking to make Victoria more relevant to the project), and, improved road pricing (which could be helped by the roads inquiry proposed by the Productivity Commission).

The Society has indicated its support to the Government for development of a **Melbourne - Parkes - Brisbane rail link** subject to open access and transparent arrangements. This includes the Federal Government releasing a summary of the prefeasibility study in exchange for \$300,000 of taxpayers' input.

With further regard to the proposed **Sydney - Canberra high speed passenger train**, Speedrail has long since passed the *"no net cost to the taxpayer"* as qualified in Parliament earlier this year on 13 April by Finance Minister John Fahey *"that it be at no cost to budget."* Meanwhile Queensland, having straightened and upgraded its Brisbane – Rockhampton line in the 1990s for faster and heavier freight trains has been providing a tilt train service since 1998. The new tilt train has been a runaway success with over 500,000 passengers to date.

The Sydney - Canberra options to the Federal Government include:

1. Announce full support of Speedrail and pay over \$1 billion of public money towards

the TGV version. This would be a luxury that not even the United States enjoys.

2. Pay Speedrail up to \$10 million to conduct a full Environment Impact Study on the grounds that Government needs to have all information before making a final decision. This would also raise questions, including those of potentially affected land owners.

3. Re-open all options and recall tenders, requiring each proponent to indicate how much Federal funding will be required.

4. Combined with the current national track study arising from the Government's April response to the Neville, Smorgon and Productivity Commission reports, make a commitment to straighten out Menangle - Mittagong (the Wentworth Route) and Goulburn - Yass for faster and heavier freight trains. Call tenders for the private sector to provide tilt train services on the upgraded Sydney - Melbourne track and construct a spur line off Goulburn - Yass new track to North Canberra (the 1981 NCRE proposal).

### State by State

The Society has commended the **Queensland** Government for the release earlier this year of a Draft Rail Strategy, and we now look forward to the final version.

In **New South Wales**, CityRail have coped well with the Olympics, with 1.6 million passenger movements reported on the first day. This is double their daily average, and a credit to all concerned in overcoming problems. Re FreightCorp Sale, we suggest that some the proceeds be invested in track upgrades to expand Action for Transport 2010. RTSA would also like to see some proceeds of the sale of **Westrail** go to track upgrades.

In **Victoria**, the RTSA has made a brief submission supporting residual gauge standardisation. The proposals to upgrade regional rail services look promising.

**South Australia** Premier John Olsen at an August Sydney rail conference, along with outlining the impressive scope of work for the

Alice Springs - Darwin railway, showed a good grasp of the options to improve Melbourne - Adelaide rail freight operations. As he said, it is a matter of the Federal Government accepting its responsibilities.

Philip Laird  
Chair, Government Relations Committee

### **QR gets \$1.6b boost**

Transport Minister Steve Bredhauer yesterday signed more than \$1.6 billion in contracts with Queensland Rail to improve infrastructure and long-distance train services across the state.

He said Queensland Rail was the national leader in the rail industry and the contracts - \$1.5 billion for infrastructure and \$124 million for the Traveltrain network - showed the Government's commitment to rail revival and the future of rural communities.

[Source: *Brisbane Courier Mail*, Friday, September 1, 2000]

{Ed Note: - The specific purpose of these funds is still very much a mystery to many within QR.}

## **NEWS FROM THE CHAPTERS**

### **SYDNEY DIVISION CHAPTER**

Membership in NSW now stands at 208 and this includes 4 in Canberra Division. Initiatives are being introduced to encourage existing and new members to attend meetings and partake in the organisation aspects of the Sydney Chapter.

#### **Young Engineers**

Kits were sent out to 300 young engineers as a sample target and there was minimal response. A new initiative is in place to address students at the UTS Careers Day in March 2001. Information on the RTSA will be made available at this meeting. If this meeting is successful more University Careers days will be attended.

### **Newcastle Division Membership**

A questionnaire for RTSA members in the Newcastle Division has been circulated and results are being analysed. There has been a suggestion of hiring a mini bus to bring Newcastle members to Sydney for technical meetings. Other ideas include the use of video recordings of the Sydney meetings being sent to Newcastle and Canberra for presentation there.

### **CORE 2002**

Caryn Morgan Associates (CMA) has been retained to organise the CORE 2002 Conference at the Novotel in Wollongong from 10-13 November 2002. The technical content of the Conference will be organised by GRMS Media (Mark Carter). Sponsorship money has been received from ARTC and has been placed into the Conference account. This will be used as seed money until registration and further sponsorship monies flow into the account. More sponsors are actively being sought.

### **Education**

Information covering the Engineering Passport scheme for the development of students and graduates has been forwarded to David Hood of the Institution and response is awaited. A letter has been prepared to be sent to CEO's regarding the passport scheme currently in progress.

### **Program 2000**

In June, we held a joint meeting with the Institution of Railway Signalling Engineers where Peter Brock presented an interesting paper on the Automatic Equipment Identification system used to track coal wagons in the Hunter Valley. The information is provided to various agencies for wagon loading and train allocation. It was pleasing to learn that National Rail use the same equipment, which is the AAR standard, for tracking their trains throughout Australia.

Another joint meeting with the Electrical Branch in July saw Nevel Chahoud from Mitsubishi Electric provide an informative paper on electric traction systems from the first rail vehicles to the latest AC drive and maglev.

It seems that the huge cost of maglev is ensuring that the steel wheel on steel rail has a promising future.

In August we were privileged to visit the Powerhouse Museum after hours and view a number of engines, including the 18C.Bolton and Watt beam engine, with its unique sun and planet gear flywheel, in steam and operating. Other rail exhibits, including Locomotive No. 1, used on the Sydney – Parramatta line in 1855, were also inspected. The Museum is well worth a visit to view the extensive range of exhibits covering all modes of transport.

### **Upcoming Meetings**

#### **Saturday 14 October**

Study Tour of BHP Steelworks Port Kembla.

BHP will transport the party around the site by steam train and vintage carriages. All are welcome

#### **Wednesday 15 November**

Site Visit to Technology Park, Redfern  
This visit will also include inspections of the StateRail Explorer and Endeavour Maintenance Centre and 3801 Workshop.

Visitors are always welcome. Call John Watsford or Les McNaughton 02 9330 7900

John Watsford, Chair, Sydney Division

### ***QUEENSLAND CHAPTER***

The Queensland Chapter is continuing to increase its membership, albeit slowly. The attendances at the technical meetings continue to remain healthy and the informal feedback following these meetings is encouraging.

Two technical meetings were held in the July-September quarter. In August, there was a presentation by John Keogh (General Manager Operations, Coal & Mainline Freight, QR) concerning the relatively recent derailment at Barabon on the Mt Isa Line. The presentation focussed on the actions taken following a derailment of a train carrying environmentally hazardous substances in a remote and

environmentally sensitive location. The presentation highlighted the logistics involved in minimising the damage in very severe adverse weather conditions. Some 35 RTSA members and guests attended the meeting.

In September, a half-day workshop was held jointly with the Queensland Chapter of the Institution of Railway Signal Engineers (Australasian Section). The purpose of the workshop was to provide a forum to discuss the requirements and current design approaches in Queensland for both the road and rail active controls and to debate whether these fairly meet the needs of all users of the crossing. Focus was intention was the technical design. Historically, the policy adopted has been that the road user always gives way for the train. With the “fattening of the rail network”, there are an increasing number of crossings in urban areas where closure times can be significant. The workshop questioned the fairness and safety of this design approach for all concerned, including the issue of road user frustration. There were presentations from QR and the Queensland Department of Main Roads and a Panel Session. The workshop highlighted a number of issues which would improve the interface and the need for closer liaison between rail and road design authorities. Some 60 delegates attended the workshop.

The program and topics to December 31 are as follows:

#### **6-8-Oct-00:**

Rockhampton by QR’s Tilt Train – Visits to QR’s Driver Training Centre and The CQU’s Centre for Railway Engineering’s Rail Vehicle Testing Laboratory.

#### **6-Nov-00:**

Extension of Tilt Train to Cairns – 18:00 on Monday at the Hawken Auditorium, Engineering House.

Please contact the Queensland Chapter through the Queensland Division Office for specific details eg time and venue.

George Nikandros

Chair, Queensland Chapter.

## **VICTORIA & TASMANIA**

At its September "Dinner Meeting", the Victoria Chapter enjoyed a rather provocative talk on economic matters from well known journalist and now Editor of "*Dissent*" magazine, Kenneth Davidson. Kenneth dealt with matters such as the Balance of Trade, Savings and Investment (or lack thereof) and entertained questions from the floor.

A visit to the Heritage Newport Workshops Site is planned for Wednesday 25th October at 6:00pm, meeting at the Steamrail Depot. We will be viewing restoration work carried out in the West Block and the possible site for a heritage display (Museum) in the East Block. Contact David Ferris for more details.

We are arranging an open forum for our January Meeting (January 24, 2001) and our Annual General Meeting will be on Wednesday, 21 February 2001, both at 21 Bedford Street Nth. Melbourne (subject to final confirmation).

Meanwhile, we are looking forward to our first RTSA Tour in Tasmania next month (see later notice in this issue – Ed.)

The Victorian and Tasmanian Chapter of the RTSA has recently established an electronic mailing list to allow the committee to disseminate information quickly to members, particularly important for or our often neglected regional colleagues who may not be able to attend the formal gatherings.

To have your email address added to the list simply mail:

[RUSSELL.BOWEY@ENG.MONASH.EDU.AU](mailto:RUSSELL.BOWEY@ENG.MONASH.EDU.AU)

requesting to be included. Instructions will be emailed to you explaining how it all works once you've been added to the list.

David Ferris  
Chapter Chair

## **SOUTH AUSTRALIA**

It has been a case of the calm after the storm for the SA Chapter. Following the euphoria surrounding the successful CORE2000 in May proceedings are back to some normality.

Apart from a presentation by our conference keynote speaker, Mike Franke, immediately after the conference there has been only one meeting. On 24 July our Vice-Chairman, George Erdos, Manager Technical Services, TransAdelaide, gave a very interesting look into the future utilisation of alternative fuel technologies with his talk entitled "National Sustainable Energy Policy".

Our next meeting is a joint meeting with the SA Section of the Permanent Way Institution to be held at the Festival Lodge Motel, Bank Street, Adelaide at 5.30pm on Thursday, 12 October. Charles Duncan, Project Manager for Adrail, will present a talk on the Engineering and Environmental Aspects of the Alice Springs-Darwin Railway Project". This is particularly timely as a start to construction is anticipated very shortly.

Our second Annual General Meeting is to be held as a dinner meeting on Thursday, 30 November at Scales Restaurant, Walkerville. Final details have not been completed but it is hoped that a dinner sponsor to make a presentation can be attracted.

As this will be my final Newsletter contribution as SA Chairman I must say how much I have enjoyed steering the new Chapter through its establishment period over the last 2 years. I must thank my hard working committee for its support, particularly being immediately thrust into the situation of having to organise in short time a major engineering conference, CORE2000.

John Adams  
SA Chapter Chairman

## **WESTERN AUSTRALIA**

Details of the Western Australia Chapter's planned activities follow:

### 23 November 2000

5:30 for 6:00pm  
Speaker to be arranged.  
Topic: Communications.

### 25 January 2001

5:30 for 6:00pm  
Annual General Meeting.  
IEAust, 712 Murray Street West Perth.

## **AWARDS SUB-COMMITTEE**

You will all recall that there are two Railway Engineering Awards made by RTSA, an Annual Individual Award and a Biennial Industry Award. This year the two awards were presented, so 2001 is the year of the next Individual Award.

Promotion of this award will commence shortly but dates for closing of submissions and the presentation will be finalised at the forthcoming national Council meeting on 28 October.

Meanwhile, I would ask all members to consider worthy individuals within the railway industry with outstanding achievement and discuss recommendations with their Chapter Chairman. Watch later Newsletters, the Web Page or Publications for further details in due course.

John Adams  
Chairman, Awards Committee

## **WHAT'S HAPPENING IN RAILWAY STANDARDS?**

In an earlier Newsletter we reviewed the three types of standard which had relevance to Australian railways. These were Railway Safety Management Standards, National Codes of Practice and railway hardware Standards. Today we look at developments in all these areas.

### ***Railway Safety Management Standards***

The AS4292 series have been developed by Standards Australia Committee ME/79. These standards set out the principles and particular requirements to be met in any railway safety management system.

AS4292 Parts 1 to 6 have been available since the end of 1997. What was to have been Part 7, *Railway Safety Incident Investigation* has completed the public comment stage and may now be published separately.

## ***Codes of Practice***

As result of agreement between Commonwealth and State Transport Ministers an independent unit within the Commonwealth Department of Transport and Regional Services was established. The Australian Rail Operations Unit (AROU), guided by the Industry Advisory Committee, has the task of finalising and implementing the National Codes of Practice for Railways in conjunction with the Australian railway industry.

The codes covering General Requirements and Interface Management (Volume 1), Operations and Safe-working (Volume 3) have been through the second round of public comment. Volume 2 is a Glossary of terms used in the Codes and Volume 3 includes Part 1 – Rules and Part 2 – Route Standards. A draft Regulatory Impact Statement covering volumes 1 to 3 has also been out for comment. These documents now move to finalisation.

The Track, Civil and Electrical Infrastructure Code has been with Standards Australia for editing and should be available for a second round of public comment before the end of this year. Work done on the Rolling-stock Code should see it available for its second round of comment at the end of 2000. More information can be found on the AROU website at <http://www.arou.gov.au>.

### ***Railway Hardware Standards***

The AS 1085 series of standards is produced by Standards Australia Committee CE/2. It covers many of the track structure components including rails, fastenings, plates, joints, concrete and steel sleepers and welding materials.

As result of some new standards and industry interest, the R.T.S.A. and Standards Australia have arranged a series of half-day seminars on Railway Track Standards during November this year. The seminars will be held in Brisbane (16<sup>th</sup>), Sydney (23<sup>rd</sup>), Adelaide (28<sup>th</sup>) and Melbourne (29<sup>th</sup>).

Each seminar will cover Standards on Rails, Sleepers, Fishplates, Sleeper Plates, Insulated Joint Assemblies, among others. New projects on Screw Spikes, Resilient Fastenings and Welding of Rails will also be discussed.

The seminar will be an opportunity for participants learn about the latest Standards, but also to share their opinions with those responsible for the Standards (Committee CE/2 – Railway Permanent Way Materials).

For further details about the seminars contact:  
Richard Weller, Standards Australia on  
(02) 8206 6727 or Email:  
[richard.weller@standards.com.au](mailto:richard.weller@standards.com.au)

John Broadley, Standards Sub-Committee.

## CONFERENCE NEWS

### *STORE trip to Northern Tasmania*

The Victorian Chapter is running a short STORE trip to Northern Tasmania on November 17, 18 & 19. Cost is around \$800, all up. There may still be some opportunity for late entrants. Contact David Ferris (Victorian Chapter Chair for more details).

## TWO EVENTS IN 2001

### **7<sup>th</sup> International Heavy Haul Conference and AusRAIL 2001**

**Brisbane Convention & Exhibition Centre  
Brisbane, Queensland, Australia  
10 - 15 June 2001**

Two high-profile rail industry conferences, which will be run as a combined event in Brisbane, Australia.

The **7<sup>th</sup> International Heavy Haul Conference** with the theme of "Confronting the Barriers of Heavy Haul Technology", is

being sponsored by the International Heavy Haul Association (IHHA) and the Railway Technical Society of Australasia (RTSA).

**AusRAIL 2001** with the theme "Pushing the Boundaries", is hosted by the Australasian Railways Association (ARA). ARA is the peak industry body for the rail sector in Australia and New Zealand. AusRAIL 2001 will have an outward-looking focus, featuring topical speakers and exhibits that will capture the industry's imagination.

**7<sup>th</sup> IHHA Conference** will be an exciting and diverse event focussing on innovative but practical solutions to the barriers of heavy haul technology. Keynote speakers from overseas have been invited to address the Conference theme, and in excess of 107 papers have been offered from 20 overseas countries covering a broad range of relevant topics including: Track and Infrastructure; Rollingstock; Wheel / Rail Interface; Maintenance; Signalling and Communication; Research and Development; Asset Management; Railway Operation and Management; Strategic Issues.

During the Conference, the Railway Technical Society, will present its "Railway Engineering Award" to recognise recent significant contributions to Railway Engineering in Australasia by an individual or group.

A pre Conference technical tour of the BHP Iron Ore facilities at Pilbara Region in Western Australia will be available if the demand exists. A perfect opportunity exists for pre / post Conference holidays exploring the Great Barrier Reef, Kakadu National Park or Ayers Rock.

To register your interest for these important international railway events or explore exhibition or sponsorship opportunities, please contact the Conference Secretariat either by

Fax 07 3235 1055 or Email  
[ihha.conference@qr.com.au](mailto:ihha.conference@qr.com.au)

Wardina Oghanna  
Chair, Technical Committee