

SYDNEY NEWSLETTER



ENGINEERS
AUSTRALIA

RTSA

Railway Technical Society of Australasia
Sydney Chapter
Mail: PO Box 6238, Kingston, ACT, 2604

JULY 2007

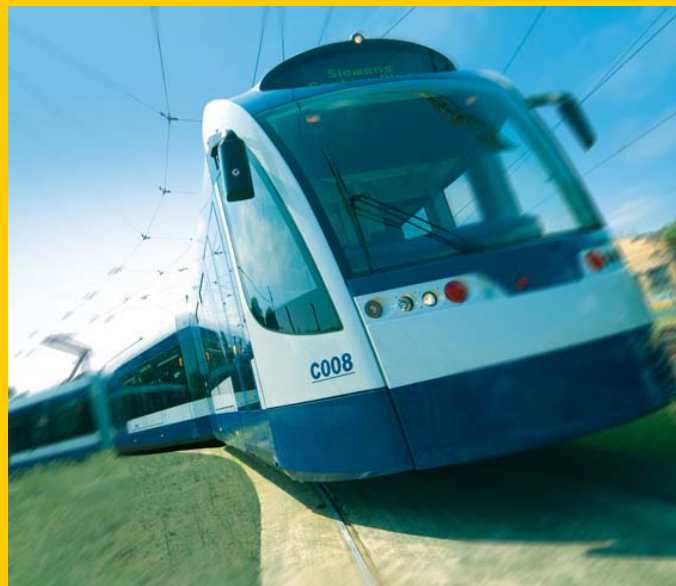
NEXT RTSA SYDNEY CHAPTER MEETING

Tuesday 7th AUGUST

at 12.00 in the
CENTRAL STATION CONCOURSE MEETING ROOM

(opposite the end of platform 2)

SUPER COMBINO TRAMS



Siemens claim fame as the creator of the very first tram, in 1881. They are still at it and the 'D' series cars in Melbourne are one example of their Combino design. Now Siemens have an enhanced Combino range – the Combino Plus.

Recently a Combino Plus tram set, borrowed from an order for Lisbon, was demonstrated in Melbourne. Here was a German (standard) design for a Portuguese tramway running in the streets of Melbourne with minimal adjustment – an interesting commentary on international standardisation. This particular car was four section 100% low floor and it attracted quite a bit of attention while running scheduled services on Route 16 (Kew via St Kilda).

Brian Luber from Siemens Transportation Systems will provide a presentation on the Combino Plus, giving us the opportunity for a heads up on the latest in tramway technology.

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THE VOICE FROM THE CHAIR

I welcome members to this month newsletter. The committee is firming up this years meeting program; we hope the program develops along technical aspects of rolling stock and infrastructure, as well as some operational aspects (as well as possibly passenger information systems). Along with our colleagues in the PWI and the IRSE there should be plenty of opportunity to find stimulating topics. Also we are trialling lunchtime at Central Station for the RTSA events in the belief that this would be more acceptable to our members. A warm welcome is extended to all, particularly to our young engineers, to attend these talks.

I also welcome thoughts and ideas from members on possible technical tours or inspections for NSW RTSA.

One of the RTSA National Executive's initiatives is a half-day symposium on Professional Development Program in Victoria and NSW. The purpose of this initiative is to understand and facilitate a common approach from different organisation on the development of rail engineers – particularly from graduate status and through the VET system. The Victorian symposium will be held on the 19 September, whilst the Sydney one is planned for the middle of October. Further details and communications to rail organisation will be developed in the month ahead.

The Commonwealth Government produces a number of reports on productivity. Rail productivity has been typified with low capital depth as well as low labour skills. As well, multi-factor productivity (MFP) that uses both capital and labour (say computers in business re-engineering) to do things smarter, has also been low in rail. Arguably capital investment in infrastructure, rolling stock, plant and equipment for maintenance is now occurring within the Sydney and interstate systems. The challenge is to look at human capability and to lift multi-factor productivity within the rail sector. The initiative from the National Executive is therefore timely – MFP cannot increase unless and until technical skills

and competencies increase. The Symposium hopes to identify from different organisations the various learning and development pathways from undergraduate or trade to competent professionals, and thereby facilitating effective skills development.

(Andrew Honan; Chairman, NSW Chapter)

FUTURE MEETINGS

The list of coming meetings is now in tabular form as the second last page of the Newsletter. This allows for more information and is more easily updated as events unfold. Basil Hancock has taken charge of this aspect of our services, and it can be seen he has been very busy in the last few weeks filling voids well into the future. The tabulation has those topics that have been confirmed shown in black while the topics that are somewhere between a good idea and confirmation are in red

Anyone with inspirations or bright ideas for future meetings should contact Basil at Basil.Hancock@railcorp.nsw.gov.au. Railways are an integrated mix of technology, operations and business, so potential topics from any or all of these disciplines would be most welcome.

It will be noted that we will have our regular meeting at Central on Wednesday 7th November, and a joint event with IEE at Chatswood on Thursday 8th. In effect this is a bonus that comes from our move to Central. It is hoped that those members who are interested in both topics will be able to get a 'leave pass' – after all it is all part of professional development (and can be claimed on your CPD record).

MEETING VENUE – HOW TO GET THERE

The new time and place for our meetings is designed to make these more accessible to members and friends – for the remainder of this year we have the Large Meeting Room at Sydney Central (Sydney Steam Station to our older

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members!) which can be found in the North West corner of the main concourse opposite platform 2. From September we plan to have meetings at 12.00 on the first Wednesday of the month. When joint meetings and special events are at different locations, suitable advice will be given in advance.

COMING EVENTS

AusRAIL Plus 2007 will be back at the usual Darling Harbour location in Sydney from Tuesday 4th to Thursday 6th December 2007.

CORE 2008 will be held in Perth between 7th and 10th September 2008. Themes will be around high volume bulk freight and the integration of rail as part of the export supply chain, and rail in an urban environment and the issues of integrated planning of land use and transport as the core of successful public transport. Register your interest by going to www.CORE2008.org

LAST MEETING

Unfortunately neither the editor nor his loyal alternate reporter was at the July meeting so we are unable to bring a report to you in this case. However, given that this was the first of our lunchtime meetings at Central, it was gratifying to find nearly 50 members and friends were in attendance.

THE OBSERVATION POST

On our recent overseas travels we intentionally traveled by rail for all our European travel and for much of our city travel. The only significant exception was in Hawaii (Oahu) where there is no rail (other than a couple of part time tourist lines) but there is a very commendable bus service. One of the features of all the city transport that we traveled on was the excellent information systems employed – ranging from signage and active displays that got you to the station or stop, to onboard information displays and announcements

that were helpful, accurate, comprehensive and importantly not irritating.

The buses in Hawaii had voice calls identifying each stop, with newer vehicles having a scrolling display as well. Announcements included the significant 'attractions' that could be accessed from key stops, and must have been transponder or GPS driven, given that the stops are only a block or so apart. Interestingly there is a \$2 flat fare on these buses (which includes one transfer) which allows as much as a four hour circumnavigation of the Island. Intelligent fares, good information equals ease of access.

In New York, London, Paris, Barcelona, Madrid and Hong Kong the metro's (subway, underground: what's in a name?) all had varied but useful information systems, with the European examples relying more on visual than audible messages (given the plethora of languages voice messages could exceed the time available between stops – for instance Barcelona has Catalan and Spanish as their native languages quite apart from French, German, Italian and English to assist their numerous visitors).

In New York, which has a really complex system (unlike here where it is not a complex system but rather a system made complex by poor and inappropriate management and politics over a long period of time) there is clear distinction between lines, so that trains are dedicated to routes and have on board diagrams with illuminated dots showing the remaining stops for that train and importantly a voice message in a pleasant male voice "Please stand clear of the closing doors" at the appropriate moment. Newer trains had scrolling screen information in them as well, but given that New York Subway (there is also MetroNorth, Long Island and PATH additionally) has around 5000 cars it may take some time to roll the fleet over to the newest standards. Incidentally New York Subway carries over 4 million passengers a day in a city that is around 2 and a bit times larger than Sydney.

In Barcelona, where the trains run on overhead power from a rail rather than suspended wiring, the

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'next train due' indicators on platforms count down in minutes and seconds – none of this five minutes is near enough stuff - if only because the next train is never more than 4 minutes away. In my experience the arrivals were with 10 seconds or so of their indicated time.

In Hong Kong the whole operation is beyond anything we are familiar with. The airport train not only has all the information you need but on the moving dot diagram shows the progress between stations as well as station information. Of course one car of these trains is a baggage car to accommodate baggage of passengers who check in for their flight at Hong Kong or Kowloon stations rather than at the airport. The metro (non airport) trains in Hong Kong have moving dot maps in them but indicating the line that has been covered rather than that to come as in New York – possibly because (like most metro's) all trains have the same stopping pattern. The common feature of all the metros we sampled was high frequency (the longest headway was 5 minutes in Paris on a public holiday), simple fare structures (mostly a single price trip or time based ticket), easy access and interchange (provided you don't mind stairs), comprehensive often multi-lingual information and trains dedicated to set routes, allowing route maps, moving dot diagrams and route specific fittings and systems to be used.

As you can imagine I looked at our railway here in Sydney a bit differently when I arrived back – I had changed rather than it. So I became more aware of things like information and how it was delivered, and I have to admit that there are some things that didn't look good.

For a start the Tangara trains, which must have been in service now for 20 or more years and represent a good proportion of the fleet, have never had operating destination signs, even though they were originally fitted. Tangara trains cannot tell you where they are going while most of the remaining fleet, including the 600 plus old cars that are now a threatened species, do. Then there is Central (electric) station where two different announcements can run concurrently on opposite sides of the same island platform, creating what is

little more than audible pollution – it certainly is of no assistance to waiting passengers. There is also the habit at Central of an announcement for a train yet to arrive on one side of an island platform when there is a train at the opposite side waiting to depart – a mischievous habit that must have misdirected more than a few intending passengers.

There are also the little but either confusing or erroneous bits of information that are routinely given out. The 17.13 train from Bondi Junction to Wollongong each night is advertised at city stations as 'All Stops' whereas it in fact misses 14 stations altogether, before Hurstville and after Thirroul. Not quite all stops by a reasonable margin. At Artarmon recently in the early peak the dulcet tones came over the tannoy suggesting that the next train was going to Riverstone, stopping at ... blah-de-blah-de-blah .. then Seven Hills and all to Richmond. Is it a fish or is it a fowl? I don't know and nor does my timetable since there was no Richmond Branch train shown around that time.

Then there is what presumably is simply 'make work' information. Take for instance the back platform at Canterbury – the one facing the goods lines. This platform never has passenger trains now and half of it's length is one track width away from any train in any case. Yet the whole platform has those little blue 'Mind the Gap' signs painted along it – a days work for some diligent soul. If you couldn't see that the track was missing and/or there was no train I doubt if the Mind the Gap sign would save you.

Overall CityRail has a reasonable but inconsistent information system. There are the glaring gaps (like Tangara headboards and Central station babble) and the minor issues (like the 17.13 Wollongong and the Richmond train) which are, I would suggest, really a result of an excess reliance on technology and too little on quality control from the perspective of the customer (the passenger). Perhaps CityRail could encourage its not insubstantial number of employee / travelers to observe during their daily travels as if they were infrequent paying passengers, trying to comprehend the system they are travelling on from the information delivery. The employees, in effect,

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could become one piece of a quality control system.

BEFORE AND AFTER – AN EXPLANATION.

Last month we published an interesting 'before and after' pair of pictures – the before shot showing some pretty ordinary main line track with a mix of strangely spaced sleepers.



One of our readers (but significantly not from NSW – come on locals, where are your voices, or don't you see anything unusual this situation?) has responded with a lucid explanation. Our man in South Australia offers the following comments:

" From a track point of view, the sleeper spacing is of interest. The steel and centre sleepers are in their correct position. The timber sleepers either side of the centre timber sleeper have moved - Why?

The left timber sleeper has rail anchors while the right timber sleeper has Pandrol clips. The high clamping force to the rail means that as the rail creeps, it drags the sleeper with it through the ballast.

The centre timber sleeper has no longitudinal restraint [its hogback shape would preclude this in any case. Ed] and the steel sleepers have a higher longitudinal restraint than the fastenings, i.e. the rail creeps through the fastenings without moving the sleepers. It shows that a high longitudinal restraint force (at least greater than that of between the sleeper and ballast) between the rail and the sleeper is not necessarily a good thing."

And now for something else in the way of 'unwell track' – this time from CSX in America (courtesy of the net). This would seem to be a rather extreme case of not watching behind when trying to start a heavy train. Other pictures (not reproduced) show similar burns on both rails matching the wheel positions of a four axle locomotive, so presumably it wasn't just an isolated axle that ran away! The loco wheels may not have been worth much more than this bit of rail after this little episode.



LOCAL GOVERNMENT AND TRANSPORT

Australian Local Government Association
National Local Roads and Transport Congress,
Newcastle 8 – 10 July 2007.

Reporter: member Ian Gray, Assoc Prof, Sturt
University and contributor at the Wagga Regional
Rail Symposium earlier this year.

An indication of growing interest in railways was apparent in this year's ALGA transport conference. At the end of the two days, delegates discussed a communique in which rail was mentioned twice: once in terms of an appeal to state governments to take cost-shifting into account when deciding the future of grain lines, and more broadly in a call for the 'revitalisation of rail in regional Australia' (see <http://www.alga.asn.au/policy/transport/congress/2007/04.communique.php>). The title of the

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conference is significant. This series of annual conferences started in 2000 with a focus on roads and has now broadened, with 'and transport' added to the title.

Professor Peter Newman of Murdoch University, well known for his work on urban transport and planning as well as co-authoring a book with our Philip Laird, planted the conference firmly in sustainable transport territory. He offered analysis of the potential impacts of climate change and spoke in favour of public-transport oriented urban development. Other speakers were consistent with this perspective, though not necessarily favouring rail development explicitly. Representatives of the Australian Greenhouse Office explained their urban travel programmes. Mark McKenzie of Rare Consulting explained the issues related to a range of alternative fuels. I left the conference with no doubt that rising oil costs could easily become a bigger economic and social issue than climate change.

The rail industry certainly wasn't universally seen as the solution. NTC Chairman Michael Deegan chastised local government for, in some instances, denying heavy vehicles permission to use short distances of roadway, thereby preventing them from reaching favoured destinations. He explained why B-triples really are safe and efficient. Towards the end of his talk, he offered the short qualifier: 'where rail isn't viable'. Several members from both sides of Federal Parliament spoke. Delegates were keen to obtain assurances of continuing Federal funding for local roads. Assurances were generally forthcoming. I was disappointed, however, that when Deputy Prime Minister Vaile was asked about rail funding, he referred to the continuing problems of differing operating practices among the states and made no commitment other than the scoping study for the Melbourne-Queensland inland route. He also referred to the potential which B-triples have for removing semi-trailers from roads.

It is significant that, given the traditional absence of rail from the concerns of local government, questions about rail were asked. I found that many delegates were worried about possible branch line

closures, and did see rail as a long-term and relatively safe transport option which was insufficiently utilised. Fear of closures in Western Australia was expressed several times. Frustration with the speed of progress towards the Melbourne-Queensland inland line was also indicated. Concerns were expressed about road safety, especially in the light of the projected doubling of the nation's freight task. However, there was also reaction to perceived anti-truck sentiment. One delegate spoke of her community's reliance on trucking to provide for local industry.

I was asked to speak about regional rail issues. The invitation arose from my work on passenger services for the NSW Local Government and Shires Association in 2004 and the RTSA/CSU Symposium on regional rail held earlier this year. I suggested to delegates that they consider the Saskatchewan shortline model and look to their communities for support in re-establishing railways. I *may* have been taken seriously – five people approached me after my talk. Some had particular interests in the Melbourne-Queensland route, but two were generally concerned to do something to save or resurrect their local/regional lines. I spoke to one delegate whose council had come close to taking over a branch line some years ago. I left with the feeling that what I said had made sense; the idea that local government could take a useful interest in local or regional railway systems could gain wider support. Translating local interest into active participation in, or at least active support for the rail industry remains a challenge for its supporters.

[We should thank Ian for his interest in this subject and for representing a wider view at ALGA than just road. It is important that local government be on side if short lines are ever to become a reality in this country. Ian's attendance and presentation at ALGA is a good example of how any (all) of us can contribute to the development of our industry]

MODEL RAIL SAFETY – HAVE WE FORGOTTEN THE LITTLE GUYS?

The Pareto Principle, as every good engineer and economist knows, relates to the 80:20 rule – 80%

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of any output will require 20% of the input and vice versa. In the short note below Andrew Honan voices his concern that the numerically strong but minor players in the train running industry may have been forgotten in the Model Rail Safety Bills that are currently being enacted across the country.

Those who attended the Wagga Symposium earlier this year will be aware that the Saskatchewan model takes specific account of the individual circumstances of each short line when making the safety and other regulation settings for those enterprises, the result of which is that Saskatchewan has a flourishing (and safe) short line industry. We on the other hand have very few – unless B-Double substitutes on adjacent roads are counted as short lines?

“The NTC is currently promoting a Model Rail Safety Bill across Australia.

Rail operates in a number of markets; commuter passenger, interstate passenger, tourist operators, interstate mainline freight, grains and branch-line freight. Developing a consistent rail safety system across Australia is no easy task, including a general Duty of Care. The NTC is to be commended.

The implementation of this Bill, particularly the administration of regulations should however ensure it does not stymie small-medium enterprise rail. The ‘regulatory impact statement’ (accompanying the legislation) should test the regulatory impact not just on existing rail operators but also on emerging operators. Unintended consequences could be barriers to emerging SME rail. The capability of organizations to develop rail safety is related to their operating markets and community expectations affected by those operations. Interpreting and giving affect to these community expectations is reflected in the administration of safety regulations. The concern is to ensure that regulators have the capacity and ability to maintain fit-for-purpose safety but in a framework that balances safety and rail development (in its various markets).”

AND YOU THOUGHT WE WERE HUMOURLESS

The Washington Post has published the winning submissions to its yearly neologism contest, in which readers are asked to supply alternate meanings for common words.

The winners are:

1. Coffee (n.), the person upon whom one coughs.
2. Flabbergasted (adj.), appalled over how much weight you have gained.
3. Abdicate (v.), to give up all hope of ever having a flat stomach.
4. Esplanade (v.), to attempt an explanation while drunk.
5. Willy-nilly (adj.), impotent.
6. Negligent (adj.) describes a condition in which you absentmindedly answer the door in your nightgown.
7. Lymph (v.), to walk with a lisp.
8. Gargoyle (n.), olive-flavoured mouthwash.
9. Flatulence (n.) emergency vehicle that picks you up after you are run over by a steamroller.
10. Balderdash (n.), a rapidly receding hairline.
11. Testicle (n.), a humorous question on an exam.
12. Rectitude (n.), the formal, dignified bearing adopted by proctologists.
13. Pokemon (n), a Rastafarian proctologist.
14. Oyster (n.), a person who sprinkles his conversation with Yiddishisms.
15. Frisbeetarianism (n.), (back by popular demand): The belief that, when you die, your Soul flies up onto the roof and gets stuck there.
16. Circumvent (n.), an opening in the front of boxer shorts worn by Jewish men.

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FUTURE MEETINGS PROGRAM

Meetings shown in black are confirmed; those in red are tentative.

DATE	SPEAKER	TOPIC	LOCATION	TIME
Tuesday 7 August 2007	Brian Luber, Siemens Transportation Systems	Siemens Combino Plus Tram in Melbourne	Central Station Concourse Meeting Room	12.00
Thursday 23 August 2007	Michael O'Rourke and Kerry Christie of John Holland Rail	Turnouts & Innovations	Masonic Centre, Liverpool and Castlereagh Streets	16.00 for 16.30
Joint Meeting with PWI and IRSE	Rob Smith, ARTC Train Control Project Manager	ARTC Train Control Consolidation in NSW		
Wednesday 5 September 2007		Hunter Valley Flood Damage and Track Repairs	Central Station Concourse Meeting Room	12.00
Wednesday 3 October 2007		QR National Electronically Controlled Braking in the Hunter Valley	Central Station Concourse Meeting Room	12.00
Wednesday 7 November 2007	Morgan Noon Logistics Manager – Sydney Ports Corp.	Port Botany Container Rail Shuttle Services	Central Station Concourse Meeting Room	12.00
Thursday 8 November 2007 (IEE joint mtg)	Jerry Jirasek Downer EDI Rail	25 kV Electrification in Queensland and Western Australia	IEAust, 8 Thomas Street Chatswood	17.30 for 18.00
December 2007	No meeting due to AusRail Conference in Sydney			
January 2008	No meeting			
February 2008	Michael Cain, RailCorp	XPT Refurbishment		
March 2008		AK Test Cars		
April 2008		Earthing and Bonding		
May 2008		Metropolitan Rail Expansion Program		

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John Watsford	Committee	Tomas Magyla	Committee

CONTRIBUTIONS TO THE SYDNEY NEWSLETTER

Part of the function of RTSA is to keep members in touch with what is going on in the industry and with each other and to that end we are only too happy to publish items of interest. Articles or editorial comment for Newsletter are very welcome. We have several hundred members locally some of whom have stories, events or developments of interest that could make an interesting item for Sydney Newsletter.

Contact details are –

The Editor, Max Michell, e-mail to samrom@bigpond.com, phone 02 9331 5662 or post to P.O.Box 279, Potts Point, NSW, 1335.

For all other matters relating to RTSA Sydney Chapter contact Bill Laidlaw (Secretary) or Andrew Honan (Chairman) as above.

CPD CREDITS

Engineers Aust members who attend RTSA meetings and events will qualify for CPD credits as per the Engineers Australia criteria. Members are responsible for recording their own CPD for audit.

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