

RTSA SA CHAPTER NEWSLETTER

November 2010



NEXT MEETING: AGM and Annual Dinner – The Lion Hotel, North Adelaide

Tuesday 30th November 2010

The 2010 Railway Technical Society SA Chapter annual dinner meeting is not about railways, and is not technical. Instead, our guest speaker will enlighten us on all things zoological



Adelaide Zoo is home to over 1,800 animals and almost 300 species of exotic and native mammals, birds, reptiles and fish. Wang Wang and Funi, the Zoo's much-loved Giant Pandas, recently celebrated their six month anniversary in Australia.

Join us for a fascinating insight into this iconic Adelaide attraction, and its world conservation and breeding programmes, presented by zoo representative John Ryan.

Once again, the generous support of our sponsors has helped make this event great value for members and partners – all welcome!



TECHNICAL PRESENTATION

VENUE:

The Lion Hotel
161 Melbourne St
North Adelaide

DATE:

Tuesday 30th November
2010

TIME:

7.00pm (for 7.30pm start)

COST:

\$45 per person

**FULLY INCLUSIVE OF
DINNER and
REFRESHMENTS**

**REGISTRATION IS
ESSENTIAL!**

See Payment Form
attached to this
newsletter.

The Railway Technical Society of Australasia (RTSA)

PO Box 6038, Kingston ACT 2604

Tel: 02 6270 6569 Fax: 02 6273 2358

Email: nsw-chair@rtsa.com.au

www.rtsa.com.au



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CONTENTS

News	3
Coming Events	3
Chairman's Chatter	4
Port Adelaide Viaduct	5

CHAPTER MEETINGS 2010/11

Thursday 3rd February 2011

Ben Leske, ARTC

'ARTC East-West Productivity Projects'

Thursday 7th April 2011

Tim Ryan, ARTC

Topic title to be confirmed

Thursday 3rd March 2011

Daniel Martucci and Scott Elaurant

'RISSB Rail Access Standards'

Thursday 5th May 2011

Julie Bullas and Karen Dowling, NRSR

'Progress on National Rail Safety Regulation and Investigation'

Thursday 2nd June 2011

Speaker to be confirmed

Adelaide 'Rail Revitalisation'

Thursday 7th July 2011

Peter Jaehne and Duncan McLeod

'Flood Damage to Tarcoola to Alice Springs Line'

Publisher

This newsletter is a publication of the South Australian Chapter of the Railway Technical Society of Australasia. Opinions expressed within are not necessarily those of the Chapter, Society or Editor.

Contributions

Contributions, including news, opinions, or letters to the editor, are always welcome. Send material by e-mail to saeditor@rtsa.com.au

Continuing Professional Development

Engineers Australia members are reminded that attendance at RTSA technical meetings contributes towards CPD requirements. Each RTSA technical meeting generally has a value of 1 CPD point.

RTSA Website

The RTSA website www.rtsa.com.au has details of RTSA activities, including future meetings and reports from past meetings, for all Chapters. Membership information for potential new members and an application form may be found at www.rtsa.com.au.

Chapter Contacts

Chairman – Daniel Martucci	Ph: 8204 8213
Secretary – Alice Weatherford	Ph: 8217 4224
Treasurer - Michael Forbes	Ph: 8217 4127
Newsletter Despatch - Steve Torok	Ph: 8264 2552
Newsletter Editor - Lucie Mitchell	Ph: 7129 8284

Newsletter Dispatch

Despatch of the newsletter is undertaken by Steve Torok. Contact Steve on storok@tge.com.au if you have any problems receiving this newsletter electronically or in hard copy, or to change your e-mail address.

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NEWS

At last month's meeting we were pleased to welcome Guillermina Perelmuter of DTEI who gave a presentation on the Port Adelaide Viaduct Upgrade project. For those of you who were unable to make this event, an edited version of her presentation is included at the end of this newsletter.

An additional highlight of the meeting was a presentation made to **Duncan McLeod** in recognition of his valued contribution to the rail industry through his activities as past SA Chapter Chair. Congratulations Duncan!



COMING EVENTS

The Annual Dinner and AGM is rapidly approaching!

If you haven't already done so, **register now** for what will be a great evening at The Lion Hotel in

North Adelaide! Please see the special flyer for more information and we hope to see you there!

Also, if you are interested in sponsoring this event please contact robert.schweiger@ihg.com.au

LETTERS TO THE EDITOR

No new correspondence to raise this month, but if you have a comment or observation you would like to raise, the SA Editor would be pleased to hear from you at saeditor@rtsa.com.au

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CHAIRMAN'S CHATTER

HAVE you registered for our AGM yet? This is the last newsletter for 2010 - another busy and successful year with many highlights, punctuated by the Wellington CORE.

This year saw us move our meetings to new premises within the city and involved a full calendar of ten technical seminars / field trips, with healthy attendances throughout. We have also continued our close working relationships with sister organisations, holding joint meetings with the Permanent Way Institution, Institution of Railway Signal Engineers, and the Mechanical Joint Technical Programme.

As I said in the Annual Report I owe a particular thankyou to the Chapter Committee for their assistance, consistency and behind-the-scenes work pulling all this together. New processes and procedures were involved in the venue-change, which they all took in their stride. We also welcomed Carlyne Southern onto the Committee after she was co-opted to represent Professional Development matters.

SPEAKING of new faces, Lucie Mitchell will be retiring as Newsletter Editor owing to a transfer back to Interfleet's Sydney office at the end of this year. This produces big shoes for your Committee to fill, but word has it that in typically-thorough fashion Lucie is hopeful of including certain publishing duties into her successor's job description!

Lucie will be missed for her great company and hard work every month. I wish her all the very best in her next step, and likewise wish her replacement the best of luck with meeting Lucie's high standard...

New faces of another kind have already joined us this year. Nineteen new members from SA joined the RTSA in 2010, the second-highest annual intake since the RTSA began. I welcome the following to the Chapter:

Lindsay Haeusler	Thomas Castor
Darren MacDonald	John Middleton
Keith Searle	Thomas Birdseye
Stuart Glynn	Daniel Richter
Gary Evans	Matthew Reedman
Erik Svilans	John Furness
Mark Skanes	Christian Fischer
Simon Kokar	Robert Stopp
Aidan Symons	Tony Ward
Doug Gillott	

IN other news, the Monday Advertiser proclaimed that "Transport Minister Pat Conlon today said final negotiations were underway with Bombardier Transportation Australia to provide the new electric railcars."

For the rest of this interesting story, refer:

<http://www.adelaidenow.com.au/news/south-australia/new-electric-train-chosen-for-adelaide/story-e6frea83-1225953691506>

See you at the AGM!

Daniel Martucci – Chair, RTSA SA Chapter

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Port Adelaide Viaduct Upgrade Rejuvenation of the Adelaide Suburban Railway System in South Australia



The South Australian Government has embarked on the rejuvenation of the Adelaide suburban railway system

A critical component of key infrastructure upgrade was the rejuvenation of the Port Adelaide Viaduct, at Port Adelaide



What options did we explore?

- | | |
|---|--|
| Option 1 – closing the Outer Harbor Line beyond Alberton | Options 1 and 2 - contrary to existing government policy |
| Option 2 – the demolition of the Viaduct and the return the track to ground level | Option 5 – prohibitive budget, poor value-for-money |
| Option 3 – the reconstruction of the Viaduct superstructure | Cost effectiveness analysis to compare options 3 and 4 |
| Option 4 – the upgrade of the Viaduct superstructure | Option 4 - best value for money and hence, adopted |
| Option 5 – the rebuild of the entire Viaduct | |



the Viaduct in the 1900s

Scope of the Project

- Repair of the structural steelwork to extend the life of the Viaduct for a further 30 years
- Renewal of the steelwork corrosion protection
- The renewal of the track structure
- General maintenance works at the Port Adelaide Station
- Provisions for future electrification of the Outer Harbor line



What procurement strategy did we use?

- Project delivered by the Rail Commissioner
- Design and Construct (D&C) Contract
- Expressions of Interests and Tender
- Contract awarded to Baulderstone Pty Ltd / Transfield Services Pty Ltd Joint Venture (JV) with Worley Parsons as Lead Designer
- Partnering arrangement between Rail Commissioner, TransAdelaide and the JV



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October 2010 EDITION

our major risks...our major challenges

- Inability to deliver within available timeframe and budget due to extent of steelwork repairs required
- Disruption to community travel patterns with a long term detrimental impact on patronage



The Port Adelaide Viaduct ...Heritage Listing

- The Port Adelaide Viaduct is a listed Local Heritage Place as per the City of Port Adelaide Enfield Development Plan consolidated 17 January 2008
- During construction, management measures were implemented to minimise potential impact to these heritage items



a Precast Concrete Deck was installed... ...an innovative solution for a ballasted track



- Similar cost to baseline solution
- Continuity of ballasted track across the viaduct
- Significant reduced maintenance requirements



precast concrete deck

we repaired the structural steelwork...



- Assessment of the steelwork repairs requirements before construction
- Non-destructive testing and visual inspections
- Identification of thickness loss of more than 33%
- 1970 steel repairs performed



jacking system

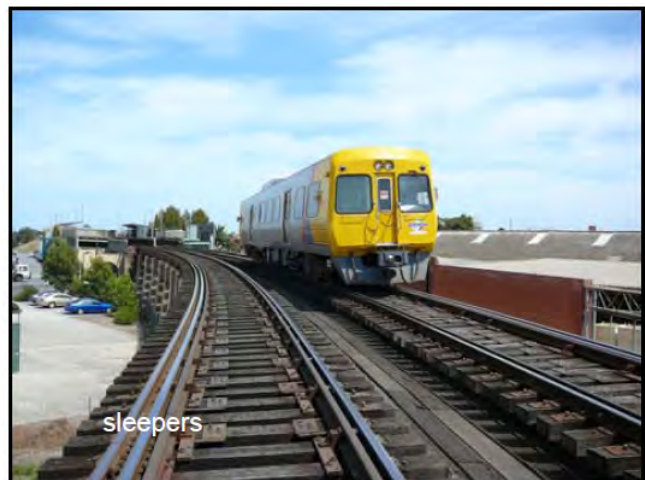
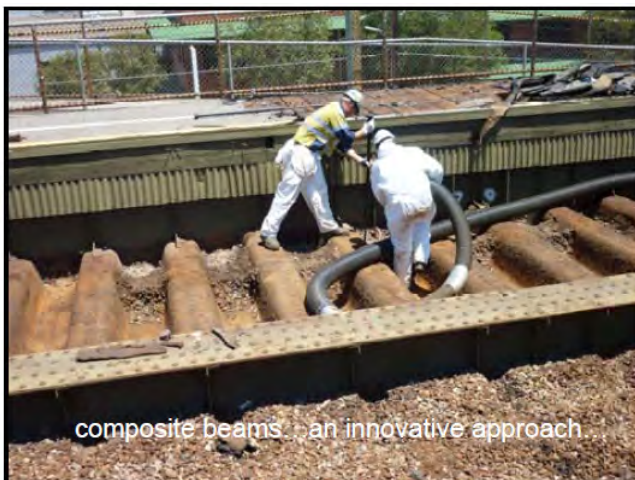
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... the sequence of works...

- Grit blast
- Application of initial coat of primer
- Re-blast and re-clean, as necessary
- Repair steelwork
- Application of final coat of primer
- Application of intermediate coat
- Application of final coat



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