

July 2017

# Railway DIGEST

West Coast Wilderness Railway  
The NSW Hunter Valley  
Daylesford update

Cunningar  
Data and the Internet of trains  
Finding the right innovation in Australia's rail industry

Published monthly by the Australian Railway Historical Society (NSW Division)



# 6<sup>th</sup> Rail Engineering & Maintenance Summit 2017

■ Main Summit: **23 & 24 August 2017**

■ Workshops: **22 & 25 August 2017**

■ Venue: **Singapore**

**Leading Platform for Rail Asset Operators and Contractors Aimed at Maximising Infrastructure's Operational Capabilities, Life Cycle, Reliability and Optimising Asset Management Expenditure**

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Head of Maintenance  
Modernisation  
Programme,  
**Transport for London**



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**MRT Corporation**



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Materials & Mechatron-  
ic Engineering,  
**University of  
Wollongong**

*And many more.....*

## WHO WILL YOU MEET?

### Heads/Directors/Managers/Masters/ Project managers/Project engineers:

- Track / Track maintenance / Maintenance
- Rail Asset Management (Asset Manager / Asset Management Policy)
- Permanent Way (Construction/maintenance/design)
- Project / Infrastructure programme
- Infrastructure management
- Reliability Engineering
- Reliability Improvement
- Signalling
- Systems Engineering
- Rolling stock
- Programme improvement
- Performance & reliability
- Quality
- Safety
- Risks

### From the following (but not limited to):

- Rail Assets Operators
- Rail Assets Developers and Owners
- Urban Transport Authority: Rail Transport, Roads and Land transport
- Ministries/Departments of Transport

*Equip Global's annual Rail Engineering summit provides excellent opportunity to deliberate among experienced decision-makers on problems and solutions envisaged by them. The summit contribution cannot be quantified!*

**Vipul Kumar**  
Executive Director - Civil Engg & Rail Track Technologist,  
**India Railways**

**Want More Information Or Like to Register on any of the mentioned events?  
Or Like to exhibit/sponsor at the summits?**

**Please contact us at 65. 6376.0908. or Email us at [enquiry@equip-global.com](mailto:enquiry@equip-global.com)**

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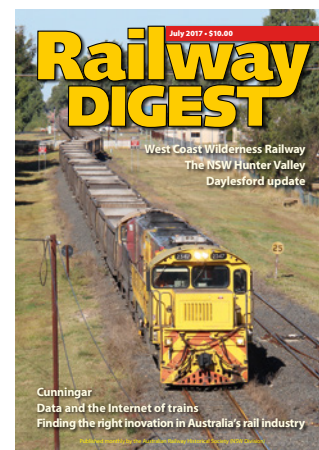
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 www.forrestfieldairportlink.wa.gov.au , www.fullyloaded.com.au

**Cover:** An Aurizon coal train, headed by Clyde/EMD units 2347D and 2390, rolls through the crossing loop at Chinchilla on the Western Darling Downs on its way to Yancoal's Cameby Downs mine near Miles on Wednesday, 31 May. The speed board at the right reminds drivers that there is a 25 km/h limit while passing through the trailable facing points, which are used at each end of the loop. Chinchilla was once an important locomotive depot in the steam era (complete with a coal stage) but just a crossing loop

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## Features

### The NSW Hunter Valley

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The Hunter Valley Coal Chain is the largest export operation in the world, but there's even more to this busy network than a coal train passing every few minutes. We present a selection of recent images taken along this extraordinarily busy corridor.

### Finding the right innovation in Australia's rail industry

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The Department of Infrastructure and Regional Development expects the rail freight task in Australia to double over the next 20 years, bringing huge opportunities, but also challenges, for the industry. Martin Chappell, of Motorola Solutions, has some ideas on how technology and innovation can play a major role in the future.

### Cunningar

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On 7 December 2015, GrainCorp announced that, as part of its *Project Regeneration*, the Cunningar Grain Receiving site, just north of Harden on the NSW Main South, would be upgraded at a total cost of \$8.1 million. As a regular visitor to the site, Buck Rogers has been monitoring the progress at Cunningar, and provides a timely update.

### Data and the Internet of trains

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Making transportation work means not just focusing on cars, trams and trains themselves, but on the systems that make sure that there's safety, power, and communication around all the movement of every transportation unit. Rail is especially important: It would be hard to imagine a big city operating efficiently without a functional rail system. Beyond the rolling stock and infrastructure, the answer lies in data specialists who monitor and analyse the billions of data points that a train sends out every year. Gerhard Kress, Global Head of Data Services, Siemens Mobility, has some interesting thoughts on the matter.

## Regulars

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and siding remain today – plus the station, which is used by the twice-weekly Brisbane–Charleville *Westlander*. There is, however, still a Queensland Rail track maintenance depot in the town.

John Hoyle

**Back cover:** On Thursday evening 1 June, during Sydney's Vivid Festival, CAF Urbos 3 Tram number 18 commences its journey to Dulwich Hill as a rail-themed display is projected onto the Sydney Station clocktower. Dominik Giemza

## QUBE acquires major rail freight forwarder

Qube has bought national rail freight forwarder Austrans Container Service for an undisclosed sum. The move comes 21 years after Austrans was founded in Melbourne, during which time it has grown to boast more than 60 staff, numerous subcontractors, facilities in Melbourne, Perth and Brisbane and a local transport fleet supported by a national container fleet of about 300 units.

The acquisition is “significant as it provides Qube Logistics the ability to deliver additional services to its customer base”, Qube Logistics director John Digney said. “Austrans is a market leader in the national rail freight forwarding market; it has built a substantial business by focusing on an excellent customer service culture combined with delivering efficient services for its customers.”

For Qube, the initial focus of the combined business will be to work with the management team to ensure service levels are unaffected and “new opportunities identified are delivered upon”.

Austrans owner and director Peter O’Shea will remain in the business to assist with the transition. “I am very excited for the staff and customers of Austrans” Mr O’Shea said. “Qube Logistics offers a great opportunity for all parties to be part of a growing national logistics business.”

Austrans CEO Peter Vertkas will continue to lead the business as part of the Qube Logistics management team. “I am delighted with the opportunity to continue to lead the business within a major national logistics provider, which will provide greater opportunity for our management and staff and a greater offering to our valued customers”, Mr Vertkas said.

There are no immediate changes forecast for the business. “Qube is committed to developing strong business units that deliver value for our customer base”, Mr Digney said. “Austrans provides a great platform for Qube in the domestic freight logistics market that will provide significant paths for growth.”

## Diversity drives female employment push

Transport for NSW has announced a new campaign to attract more women into transport careers, especially in senior roles.

“Transport has traditionally been a male dominated sector, which is an outdated hangover from an era when steam trains ruled the railways,” a spokesperson said in a Tuesday 16 May media release. “We’ve come a long way from the mid-1970s when the railways first offered traineeships for female engine drivers. “It’s time for us to move into modern times and recognise the benefits of increasing female representation across the board in our workforce, particularly at senior levels. “Transport’s so much more than blokes and big machines. It doesn’t matter what your gender is, if the job interests you and you have what it takes – we want to hear from you”.

At present, 25.5 per cent of senior roles across Transport for NSW are held by women. That’s up from about 21 per cent in January 2016 when an initial campaign commenced. Transport for NSW is now building on

this base with a campaign focussing on everything the organisation can offer women, including opportunities to develop career paths, flexible working arrangements to balance life and work, and the organisation’s focus on respect and equity.

As Deputy Secretary, Freight Strategy and Planning, Clare Gardiner-Barnes is one of the most senior executives in Transport for NSW. “When I first started with Transport for NSW a couple of years ago, it was amazing to see the breadth of projects being undertaken across the cluster,” said Ms Gardiner-Barnes. “It’s terrific to see the growing energy, passion and accountability being driven to grow the diversity of our workforce, particularly the importance of women in senior leadership positions. There is a real commitment by the senior executive to ensure that decisions are influenced by many senior women with diverse perspectives.”

More information about careers with Transport for NSW can be found at: <https://www.transport.nsw.gov.au/careers>

## Aurizon’s Harding sees coal as part of future energy security

Addressing the Melbourne Mining Club recently, Aurizon’s Managing Director and CEO, Andrew Harding, said Australia has a great economic opportunity in meeting the energy needs of rapidly-growing economies in Asia and the Indian sub-continent. Mr Harding said that the mining industry must remain focused on energy security, price and reliability to ensure that it keeps a lid on spiralling costs that are hurting, in equal amounts, Australian consumers and business and endangering living standards and jobs. Illustrating Aurizon’s important role in serving the mining industry he said the company had moved 230 million tonnes of coal and iron ore in Queensland, New South Wales and Western Australia out of a total freight haul of 270 million tonnes in 2015/16.

However, he said that until recently the industry had been failing to effectively prosecute its case against a well-funded, politically-savvy anti-coal lobby, determined to tie business up in knots through the legal system. Mr Harding said this lobby had effectively harnessed the power of social media in attacking those wanting to engage in sensible dialogue on climate change. The Aurizon CEO said the mining industry needed to make its case more effectively, using an evidence-based approach that shows the value of efficient supply chains and lower-emission coal energy. He said recent campaigns by the Mining Council had been useful but it was tough to get the message to stick.

Mr Harding said the industry needed to show how it can contribute to a realistic transition to more renewable energy resources and how new-generation coal-fired power, fuelled by high-quality Australian coal, can reduce emissions by 40 per cent or more compared to existing energy.

The Aurizon CEO said his company had become the target of

well-organised activists rallying against development of the Galilee coal basin in Queensland. This followed Aurizon’s application for a concessional loan from the Northern Australia Infrastructure Facility to facilitate construction of rail infrastructure for proposed Galilee mines. He said Indian company Adani had also applied for a government-funded loan for their rail project but Aurizon noted that its rail construction costs would be at least \$1 billion less than Adani’s standalone ‘greenfield railway’ running 380 kilometres from the Galilee Basin to Abbot Point export terminal.

Mr Harding said Aurizon had consistently advocated an open-access railway for all Galilee basin miners and rail operators, which was integrated into the existing network. This arrangement would significantly reduce the number of land acquisitions and have less impact on the natural environment and agricultural land. He said the current situation was that there was a proposal to build a new and expensive railway adjacent to an established network with spare capacity. The Aurizon and proposed Adani corridors would be so close that drivers could wave to each other as trains crossed. Mr Harding said it did not make a lot of sense to him and should it happen, incredibly, he might find himself siding with the activists, albeit for entirely different reasons.

Concluding his remarks on future energy security Mr Harding said Aurizon’s message would not change. The company acknowledged that climate change is human-induced, that action needs to be taken to reduce carbon emissions, and that a growing proportion of renewables will be part of that solution. However, for the foreseeable future, he said the world’s energy needs will be served through a baseload of coal and gas, supplemented with the intermittent power of renewables.



## GrainCorp's *Project Regeneration* update

GrainCorp's *Project Regeneration*, launched in 2014, was designed to create a more efficient network of storage sites across Australia's eastern grain belt and, in the process, improve the efficiency of rail transport for grain, especially in the area of train loading times. The east coast grain marketer says these sites offer:

- Higher volumes to maximise efficiency (inload and outload);
- More efficient turnaround times, meaning more loads per hour for growers; and
- Quicker train cycle times – reducing freight costs and unlocking better silo prices for growers.

By June this year GrainCorp had built or upgraded nine sites (see table at right) and indicated that efficiencies worth at least \$5 per tonne had been delivered to growers while assisting in providing an internationally competitive supply chain. A GrainCorp spokesman told *Railway Digest* that during the record 2016 harvest the benefits of those upgrades have started to accrue, with hundreds of thousands of tonnes of grain moving back to rail. These sites also handled a record amount of grain while offering growers industry-leading turnaround times. GrainCorp said this had been achieved through its strategy of developing a modern, efficient network through *Project Regeneration* which resulted in average receipts per site rising to 70,000 tonnes from 40,000 tonnes last harvest.

GrainCorp emphasised that it has worked closely with the Australian Government and the NSW and Victorian State Governments to highlight the broad benefits of its investments. It says these governments have recognised the wider community and economic benefits of a competitive grains industry and have agreed to upgrade targeted government-owned rail assets.

### Completed sites

	Location	Upgrade
<b>Victoria</b>	<b>Rainbow*</b>	Upgraded rail loading allowing loading a 40-wagon train in under three hours. This will cut the cycle time from 48 to 36 hours
	<b>Oaklands</b> (NSW but served by Victorian rail network)	Enhanced bunker system, new weighbridge and new traffic flow decreasing turnaround times. Upgraded rail prepositioning and rail loading capability, reducing the cycle time of a 40-wagon train from 48 to 36 hours.
	<b>Tocumwal</b> (NSW but served by Victorian rail network)	Increased private siding from eight-wagon capacity to 40 wagons. Upgrades will reduce rail cycle time of a 40-wagon train from 48 to 36 hours.
<b>NSW</b>	<b>Calleen</b>	New state-of-the-art site built near West Wyalong capable of loading a 40-wagon train in two hours with a 36-hour cycle time to Port Kembla. (See December 2016 <i>RD</i> , from page 28)
	<b>Ardlethan*</b>	Upgraded rail prepositioning and high-speed rail loading capability. The upgrades at Ardlethan will reduce the rail cycle time of a 40-wagon train from 48 to 36 hours.
	<b>Nevertire*</b>	Upgraded rail prepositioning and high-speed rail loading capability. Upgrades at Nevertire will reduce rail cycle time of a 40-wagon train from 48 to 36 hours.
	<b>Burren Junction*</b>	Retrofitted rail loading facilities improving rail loading times by 70 percent and below-rail works facilitating the loading of a full 40-wagon unit train. (see January 2017 <i>RD</i> , page 10)
	<b>June</b>	Significant site upgrades including enhanced bunker system and inbound capability improving turnaround times during harvest.
	<b>Red Bend</b>	Significant site upgrades including enhanced bunker system, new weighbridge and new traffic flow decreasing turnaround times.

\* Sites have been completed along with upgrades to government-owned rail assets.

### Projects under construction or planned for 2017

	Location	Upgrade
<b>Victoria</b>	<b>Murrayville*</b> (under construction)	Wide range of site upgrades including a significant upgrade to the rail loading speed and loading of a 40-wagon train.
	<b>Yarrawonga</b> (planned)	Installation of rail prepositioning and rail loading capability at the bunker site along with new rail siding. This will remove thousands of truck movements from the Yarrawonga CBD.
	<b>Warracknabeal</b>	
<b>NSW</b>	<b>Cunningar**</b> (under construction)	Upgrade and expansion to existing site, including new bunkers, rail loading and traffic management while loading a 40-wagon train. Train cycle time to improve from 48 to 24 hours.
	<b>Trangie</b> (under construction)	Upgrading the site's rail prepositioning and rail loading capability allowing loading of a 40-wagon train in approximately four hours.
	<b>Barellan*</b>	
	<b>Hillston*</b>	
	<b>Quandialla</b>	Upgraded rail prepositioning and rail loading capability allowing loading of a 40-wagon train in three hours.

\* These sites have been completed along with government funding of upgrades to government-owned rail assets to enable the full potential of the upgrades to be achieved.

\*\* The Cunningar site upgrade is funded by the local community, Australian Government (National Stronger Regions Fund) and Hilltops Council.

It says this assistance has been vital in enabling GrainCorp to realise the full potential of the upgrades.

However, the grain marketer says that there are currently no projects underway in Queensland. Originally GrainCorp was planning to build a completely new rail-served storage terminal at Yamala, east of Emerald, in Central Queensland, subject to some state government funding for a rail siding to serve the site. GrainCorp says it is working closely with rural lobby group AgForce to highlight the potential benefits of co-investment to the Queensland Government's Department of State Development. GrainCorp said a decision was expected around mid-2017 and the company was hopeful of a positive outcome.

GrainCorp said that in 2017 it is currently working on three sites with a further five expected to break ground this year (see table at left). The company says it is continuing to work with local communities and government to secure the relevant support and approval. At this stage, it expects *Project Regeneration* to continue through to 2020.

(See page 41 for details and photos of the Cunningar grain silo and rail upgrade.)



## Women in Roads, Rail and Transport Infrastructure

Expanded from its previously rail-centric focus, this year's 'Women in Roads, Rail and Transport Infrastructure' conference, with the theme of 'Building a Better Future', attracted over 150 delegates to the comfortable surrounds of the 4.5-star Novotel Darling Harbour, Sydney. The conference – or 'Leadership Summit, if you prefer – produced by Liquid Learning Group, spanned four days, from Monday 15 to Thursday 18 May, with pre-summit and post-summit workshops on the first and last days. However, I only attended the conference 'proper', held on the Tuesday and Wednesday.

Day One began at 8.55am with a Welcome to Country, and Opening Remarks from the Chair – the Chair, in this case, being Ann Turner of Ann Turner Consultants Pty Ltd.

Maryanne Graham, from Sydney Motorway Corporation, delivered the Opening Keynote Case Study, speaking of 'The balancing act' that industry leaders must continually perform to remain effective, and providing some interesting insights into her own career experiences.

Next, Andrew Lezala, MD of Metro Trains Australia, whose daughter works in the rail industry, explained how policies implemented by his organisation saw female participation rates climb dramatically – to well over 50% in the case of trainee train drivers.

After morning tea, HSE and Well-Being Professional, Louise Dubois, late of Asciano but now operating her own consultancy, gave a heart-felt address on 'Foundations of success – Advocating wellbeing', sharing her passion for creating a future where practicing healthy management style is embedded in the culture. A respected senior professional in her field, Louise had the audience captivated with a courageously frank account of her own battles with severe depression – now thankfully in the past.

Leatrice Grundy, General Manager, Qube Energy, spoke of the need for female leaders to develop their abilities, resilience and resources (and their negotiating skills) when rising through the corporate ranks.

Following an excellent buffet lunch in the hotel's restaurant, an interactive panel discussion got under way on the subject of 'Curating your work-life blend'. Helen Forster, from Jacobs Group, Keryn Foreman, from Sydney Trains, Jackie Aggett, from Laing O'Rourke, and Eliza Anning, from LINX Cargo care group, discussed 'Curating your work-life blend', providing some interesting thoughts on the ongoing juggling act of setting boundaries and managing expectations in the age of 24-hour communication.

Cecilia Haddad, formerly Head of Tactical Planning at Pacific National, now an independent consultant, looked at the best ways to build diversity within an organisation, and pointed out how something as simple as the terminology used in an employment ad can sometimes inadvertently send out the wrong signals. Cecilia also told the interesting story of her work within the blokey culture of the Pilbara, following her arrival from Brazil 10 years ago.

Final speaker on Day One was LinkedIn and Networking Consultant, the ebullient Sharon Luxford, who explained why it's just as important to utilise the power of our 'online' presence as it is to use our 'offline', when networking at a function.

The overwhelming gender-imbalance of the event produced an interesting situation at the conference room toilets. While the Ladies' suffered a lengthy queue at most break times, the Mens' remained eerily quiet. In my six or seven visits there over the two days (I was drinking a lot of water) only once did I encounter another presence, and that was a shadowy figure glimpsed in my peripheral vision as it moved swiftly to a cubicle and slammed the door shut. I suspect it may have been a female participant who, seeing the length of the queue next door, had decided to take a chance! As the conference continued, I noticed an increasing number of delegates ducking out between speakers, in order to avoid the wait later on.



**Top:** Cecilia Haddad, formerly Head of Tactical Planning at Pacific National, and now operating her own consultancy, spoke of the benefits of building diversity within an organisation.

**Centre:** A section of the hotel's restaurant, with its sweeping views of Darling Harbour and the Sydney skyline, was allocated to conference delegates to enjoy their excellent buffet lunch. A welcome change from the usual eat-standing-up protocol at most industry conferences.

**Above left:** The two coffee machines proved very popular (including with RD's delegate) and received plenty of use during the event.

**Above right:** The free neck massages were an unusual, though much-appreciated, feature for an industry conference.



## Leadership Summit 2017

Day two commenced with two industry 'heavy hitters' presenting case studies based largely around their own experiences.

Nicole Stoddart, Managing Director, Construction Services, ANZ, spoke about making the leap from a technical role to a strategic business leadership position, and entertained us with tales of her early career as a keen young engineer working on projects in The Philippines and Thailand.

Next, Louise Adams, Global Board Director and Regional Director Vic, SA, ACT, Aurecon, recalled how, faced with a logjam of great talent above her in the Adelaide office, decided to look for new opportunities elsewhere, putting her hand up to manage a new office in a place she'd never heard of, but thought might be somewhere in Queensland – Port Hedland! Her ultimate success there led to further challenging roles in other interesting locations, such as Great Britain and the Middle East, before returning to Australia with her family.

After morning tea, Scott Chapman, from ARTC, stood in for Jonathan Vandervoort, who was unable to attend. ARTC's recruitment drive in the NSW Hunter Valley, targeting females for traditional male-only infrastructure jobs, has been a spectacular success (earning ARTC the Workplace Diversity Award at last year's Rail Industry Awards). Jonathan told us of the fascinating story, and the facts and figures, behind this groundbreaking initiative.

Next, Kristen Hansen of EnHansen Performance gave a fascinating (and very entertaining) talk on 'The neuroscience of leadership', looking

at how the male and female brains each work most effectively, and how we can harness our brain power to help achieve our goals.

Following another excellent lunch, an Interactive Panel Discussion, featuring the talents of Stephen Troughton, Transport for NSW; Melinda Buttton, V/Line; Ron Azzi, John Holland; Emilie van de Graaff, Yarra Trams; and Kathy Lazanas, Transdev, discussed 'Fostering innovation and overcoming challenges when implementing change'.

Linda Martin, Founder and Executive Coach, The Possible Group, followed with an Expert Commentary address on the subject 'Changing the paradigm – Why men and women need to talk about female leadership'.

Following afternoon tea, came the final item; an Interactive Closing Roundtable on 'The road to success – Building your better future', facilitated by Summit Chair, Ann Turner. Each table formed a team and then came up with a list of ideas, which were presented in turn to the conference.

Then, at 4.30pm, there was 'Concluding Remarks from the Chair', and the Summit was over for another year.

I have to say that, in my seven years covering such events, this was one of the best conferences I've attended, with a diverse range of issues discussed within the overarching theme, and every presentation a winner. The atmosphere generated over two days by a room full of professional women (aided by a few token males) was quite remarkable. All in all, a great learning experience, and a lot of fun! *Bruce Belbin*



**Above:** Louise Adams (left) and Kristen Hansen (right) delivered very different, but equally engaging, addresses to the conference.

**Right:** Red wine and sparkling wine dominated at Tuesday evening's convivial networking drinks and canapes, held out on the terrace overlooking Darling Harbour.



### CENTENARY OF THE OPENING OF THE TRANS-AUSTRALIAN RAILWAY

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- GALLERY EXHIBITION • VINTAGE CARS ON DISPLAY
- COMMEMORATIVE 'OUTBACK RAILWAYS' BOOK LAUNCH
- RAAF FLYOVER • ROYAL AUSTRALIAN MINT COINS ON DISPLAY
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## Brookfield Rail upgrades South West radio communications network

Brookfield Rail has undertaken major upgrade works on its radio communications network on the South Western Railway line between Perth to Bunbury. The \$2.5 million project involved installation of nine radio communication towers, servicing the 190 kilometre rail line from Bunbury to Perth. The line transports approximately 23 million tonnes of alumina, bauxite, coal, caustic and lime from the region into Kwinana Port annually. The upgraded communications system will also service the line from Brunswick Junction to Collie.

General Manager Asset Management & Projects Paul Lowney said the project, would improve Brookfield Rail's communications coverage and performance in the region. "The South West is one of the busiest

sections of the freight rail network, and this upgrade will reduce the chance of radio black spots, improving communications and future proofing this vital connection from the region into Perth", Mr Lowney said. "The project is just one example of Brookfield Rail's long-term commitment to improving the safety, efficiency and reliability of the State's freight rail network."

In addition to installing a number of new towers, Brookfield Rail also took the opportunity to rationalise and replace aged infrastructure along the line between Brunswick and Collie with teams replacing copper cable with a new microwave radio system, ensuring infrastructure is up to date with the latest communications technology.

## METRON wins Sydney Metro design contract

The METRON consortium has won the Underground Station Design and Technical Services (USDTS) contract as part of Stage 2 of the Sydney Metro project.

Local architecture partner Architectus will work in collaboration with global architecture firm Foster + Partners and members of the METRON consortium on the project. The METRON design consortium is a joint venture led by Arcadis and Mott MacDonald, and includes local

architect Architectus, global architecture house Foster + Partners, and engineers Robert Bird Group.

With 31 stations and 66 kilometres of new metro rail, Sydney Metro is Australia's biggest public transport project. Stage 2 will include a 30 kilometre extension of metro rail under Sydney Harbour and through four new CBD stations and one at Waterloo, before joining and converting the Sydenham to Bankstown line to Metro operation.

# Railway people

## Vince Graham receives Order of Australia award

Vince Graham, former RailCorp (NSW) Chief Executive Officer from 2003 to 2008, has become a Member (AM) in the General Division of the Order of Australia in the Queen's Birthday honours for his service to public administration in NSW, particularly through reform of the rail and electricity sectors.

Prior to his RailCorp position he was Managing Director of National Rail Corporation between 1992 and 2002. Mr Graham was Chief Operating Officer, State Rail Authority (SRA) NSW from 1990 to 1992, Group General Manager, Freight and Country Passengers (SRA), 1988 to 1990 and General Manager, Freight Service (SRA) 1983 to 1986. He was Managing Director, Grain Handling Authority NSW (now GrainCorp) between 1986 and 1988.

After leaving RailCorp he was Chief Executive Officer of Endeavour Energy Australia from 2008 to 2012 and Chief Executive Officer, (Electricity) Networks NSW between 2012 and 2015. Mr Graham was appointed to the Australian Rail Track Corporation Board for a three-year term in March 2016. He commenced his career as a civil engineer in the NSW Railways in 1969.



Vince Graham

## Dean Dalla Valle appointed as CEO of Pacific National

Pacific National has announced the appointment of Dean Dalla Valle as Chief Executive Officer.

Dean joins Pacific National with a wealth of experience gained during a forty year career with BHP Billiton (beginning as an apprentice electrician at Wollongong) earning him a reputation as one of their longest serving and most respected leaders. Most recently Dean was Chief Commercial Officer of BHP Billiton with responsibility for marketing and distribution of commodities, the global Health Safety and Environment program, technology and the highly complex Samarco recovery project in Brazil. Prior to this, Dean was President of BHP Billiton's international coal business.

"With his depth of background in the successful management of large, capital intensive businesses, his knowledge of supply chain dynamics and his extensive hands-on operational knowledge and experience, Dean is an excellent fit for Pacific National", said Executive Chairman Russell Smith.

"As CEO, Dean will be extremely well placed to lead Pacific National as we continue to deliver on the company's plans to strengthen and

grow the business, leveraging the expected expansion in the national freight task over coming years."

Dean will commence at Pacific National on 17 July 2017. To ensure a smooth transition current Pacific National CEO David Irwin will step into an advisory role with the company, supporting the Board and Dean.

Mr Irwin is a current Director of the Australian Logistics Council and is a strong supporter of Inland Rail. He has made a significant contribution to Pacific National, and the Australian freight logistics industry, during his term as CEO.

"I would like to express my gratitude to David Irwin for his many years of service with Pacific National. The company is stronger for his leadership and I know we will continue to benefit from his deep knowledge of the freight and logistics sector in future", Mr Smith said.



Dean Dalla Valle

# Options revealed for stage two of Canberra light rail

The ACT government has unveiled two possible routes for the second stage of light rail to the southern suburb of Woden.

The options are:

- City – Commonwealth Avenue – Capital Circle – Adelaide Avenue – Woden Town Centre – Canberra Hospital (optional)
- City – Commonwealth Avenue – Barton – Adelaide Avenue – Woden Town Centre – Canberra Hospital (optional)

Releasing the route options for public comment on Monday 1 May, ACT Chief Minister Andrew Barr confirmed the ACT was asking for federal funding for the project as part of “city deal” negotiations. But he would not say whether the project depended on federal money to go ahead.

The main question for debate in the routes released is whether to go straight around Capital Circle from Commonwealth Avenue, or take a detour through Barton. The longer route would travel past Old Parliament House and cross Kings Avenue to National Circuit. It would loop along National Circuit past the Kurrajong Hotel, the Realm hotel and government office blocks to Canberra Avenue before

joining Capital Circle and on to Adelaide Avenue. The government is considering two endpoints - the Woden town centre or heading on to Canberra Hospital along Hindmarsh Drive.

Woden is a key growth area in Canberra with an employment population of more than 120,000. By 2041 almost 90,000 people are expected to be living within one kilometre of the Woden corridor. Light rail will support this growth, helping to revitalise parts of Woden and its surrounding southern suburbs.

Light Rail to Woden involves crossing Lake Burley Griffin before passing through the Parliamentary Triangle. National Capital Authority chief executive Malcolm Snow pointed to the possibility of a third bridge to carry the light rail tracks in the void between the two structures that make up the existing Commonwealth Avenue bridge. He said while he hadn’t seen the detail for Commonwealth Avenue Bridge, one option used the two existing bridge structures and another built an entirely separate bridge in the void between them. The void was wide enough, but each option had design challenges.

Mr Snow said the project fed into the authority’s own thinking about the future of Commonwealth Avenue, which “could be a different type of road environment of which light rail could be an integral part”, he said.

Mr Snow confirmed the trams must be catenary-free from the time they left the Northbourne Avenue terminus, until a point yet to be determined down Adelaide Avenue. “We have said quite clearly and said quite some time ago to the ACT government ... there would be no overhead catenaries,” he said. “...Would we really want wires around the entrance to the Lodge? Probably not.”

The National Capital Authority supported light rail, which was “another addition to the transport modes that a modern innovative city should expect”, and was open to either route.

ACT Transport Minister Meegan Fitzharris said the government would consider the stage 2 routes in terms of their patronage, cost, proximity to employment, entertainment and tourism spots, and options for urban renewal.

The government has not released its early costings. However, Ms Fitzharris said the cost was comparable to stage 1 between the Canberra and Gungahlin; around \$707 million. “We’ve said it’s going to be comparable, but there are some challenges,” she said.

Preliminary engineering work has given the government a high level of confidence about the ability to cross the bridge – using the southbound lane for the southbound tram and the northbound lane for the northbound tram.

“It is certainly not a barrier at all to light rail,” she said of the lake. “In fact, we know we can get across the lake with light rail without needing to build a brand new bridge.”

The government’s preferred route travels west around London Circuit, and Ms Fitzharris said the idea was to link into the western side of the city because any future stage would travel through the eastern side.

Mr Barr said the next leg after Woden would be an east-west crossing – from the city to the Russell area, possibly from Belconnen.

The route is expected to be finalised this year, with contracts signed before the 2020 election. Community comment on the proposal concluded on 11 June.

## Stage 2 Route Map: City - Woden





## Wagga Wagga transport hub attracts new players

The Riverina intermodal Freight and Logistics (RiFL) hub, located at an industrial area near Wagga Wagga is attracting new enterprises in addition to those already located at the adjacent Bomen Business Park.

Coupled with the announcement of significant Federal Government funding to support the Inland Rail project, the RiFL development is perfectly placed to cater for growth in rail freight on the eastern seaboard.

The existing Bomen Business Park includes companies Teys Australia, Heinz-Watties, Southern Oil Refinery, Riverina Oil and BioEnergy (ROBE), Vinidex, BOC Gas, Austrak, Enirgi Group and Wagga Wagga Council's Livestock Marketing Centre.

Project adviser, James Bolton, said the RiFL Hub Program builds on the existing facility and involves the construction of new major rail and road infrastructure and a freight terminal on 30 hectares.

"By establishing the RiFL Hub, industrial production can be expanded in addition to increasing employment and economic activity," he said. "The primary focus is to shift freight from road to rail plus efficiency gains from reduced product handling resulting in lower costs."

In April 2017, Wagga Wagga City Council and Gennese and Wyoming Australia (GWA), a subsidiary of Macquarie Infrastructure and Real Assets, signed an agreement for the latter to construct 5.8 kilometres of track and a new rail terminal at northern Wagga Wagga suburb of Bomen.

"At present, 75,000 containers from Eastern Riverina and 70,000 from Western Riverina are being handled through Wagga Wagga," said David Bardos, product development manager with the Port of Melbourne. "Commodities include cotton, wines, meats, rice, cereal grains, nuts, oils, meal and timber products." "Tey, ROBE, and Energi are ready to expand and having rail access to the major ports only hours away means the logistics of their operations will be covered."

Development of the RiFL is a three stage project;

- Stage 1 - construction of the Bomen Enabling Roads (part of the Wagga Wagga High Productivity Freight Route) – already underway.
- Stage 2 – construction of the RiFL
  - Rail infrastructure, including a master siding servicing the intermodal terminal,
  - Installation of turnouts off the Main Southern Railway Line to facilitate construction of the RiFL Hub Master Siding,
  - Intermodal terminal for the transfer of containers between road and rail development,
  - Adjoining industrial land development; and
  - Land acquisitions required to complete project two.
- Stage 3 – replacement of the Eunomy Bridge in east Wagga Wagga to provide better access to the Bomen Business Park and connections to the Olympic Highway.

Combined, the Eunomy Bridge Road Deviation, the new Eunomy Bridge, Bomen Enabling Roads and the proposed RiFL Hub, stand to have huge economic benefits for the City. Heavy vehicle traffic will also be reduced from the Wagga Wagga CBD area and the new route has the potential to save up to 36 minutes, or 21 kilometres, on a roundtrip.

Wagga Wagga Mayor Greg Conkey said the \$45-million project was visionary in its scope to ensure reliable freight services across the southern sector of Australia for many decades.

"Council's vision to facilitate this long-term project enables growth and prosperity for generations to come," he said.

Additional information regarding the RiFL development and the Bomen Business Park can be found at:

<http://www.wagga.nsw.gov.au/city-of-wagga-wagga/business/projects/current-projects/bomen-business-park/bomen-business-park-rifl-hub>



On Wednesday, 5 April CSR/MTU units QBX006, QBX004 and QBX005, on QUBE's 1311 empty Paper Train from Port Botany to Harefield (between June and Wagga Wagga) approach the Frampton Road bridge at Frampton. A VL Class unit had accompanied these locomotives as far as Cootamundra, where it was detached. Bob Grant





The Australian Rail Track Corporation has recently demolished the platform and remaining station building at Merrygoen on the Dubbo – Gulgong/Binnaway line. The building was used for Staff exchange purposes (Electric Staff from Elong Elong, Ordinary Staff from Dundedoo and from Binnaway) but the introduction of Train Orders on 20 April 2016 eliminated the need for the building and the associated signalling lever frame. In this Tuesday, 9 May view only the lever frame remains where the station and platform once stood, but the steam locomotive water tanks (now used by the Warrumbungle Shire Council to supply non-potable water to the village of Merrygoen) and a water column still remain as reminders of a bygone era. John Hoyle

## Community divided on Newcastle Civic station demolition

The future of Newcastle's disused Civic station is unclear with respondents to a community survey divided on whether the station's buildings should be demolished or reused, as the government flags its intention to prepare a development application for the prized land in the heart of the city.

(Civic station is located on the closed Newcastle line, approximately 1.1 kilometres west of the terminus, in the Newcastle CBD. Civic station closed on 25 December 2014 when the Newcastle line was truncated at Hamilton.)

The consultation, carried out by state-owned development agency UrbanGrowth in late 2016, involved school excursions to the site, community "drop-in" sessions and two community workshops. Feedback was also provided online.

According to UrbanGrowth's Ideas Festival Outcomes Report – released in early May, respondents were unable to reach a consensus on whether Civic station should be demolished.

"While the station is not officially recognised as having heritage significance, people expressed personal and historical social connections with the station buildings, with some ideas focused on

interpreting this in the new domain design," the report said.

While the report points out that respondents were divided on whether the station should be demolished, it also says that improving the amenity of the area through shade structures, gardens and seating is a priority for the community.

If the buildings are to be kept, respondents said, they should be reused for eateries and other public space.

Revitalising Newcastle program director Michael Cassel said the Revitalising Newcastle team will work with heritage specialists, landscape architects and Newcastle City Council (NCC) to include the community's input into the future design and function of the space. This will then allow a Development Application (DA) submission to NCC. As part of the council process the public will have the opportunity to comment on future plans through the DA public exhibition period coordinated and run by NCC.

The full Ideas Festival Outcomes Report can be downloaded at: <http://revitalisingnewcastle.nsw.gov.au/assets/Publications/Community-Engagement/UG-Ideas-Festival-Outcomes-Report-WEB-booklet.pdf>

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## New top-up minimum announced for Opal cards

On Tuesday 30 May NSW Minister for Transport and Infrastructure Andrew Constance announced changes to minimum auto and online top up values for NSW Opal Cards.

Opal is the smartcard ticketing system used to pay for travel on NSW public transport. The Opal network includes train, bus, ferry and light rail services in Sydney, the Blue Mountains, Central Coast, Hunter, Illawarra and Southern Highlands.

	Current website minimum top-up amounts	New auto top-up minimum amounts	New website top-up minimum amounts	New Opal Travel App minimum top-up amounts
Adult	\$40	\$10	\$10	\$10
Concession/Child/Youth	\$20	\$5	\$5	\$5
Gold Senior/Pensioner	\$10	\$5	\$5	\$5

"The whole purpose of Opal is to ensure people don't have to queue or fumble for change, but what we're finding is people aren't choosing to top up online because the current minimum values are too high", Mr Constance said. "We're changing that from July 3 and hope it gets people online and keeps them moving faster."

"We know people want to control where their money goes, so now we're offering even more flexibility and convenience for topping up your Opal card online," Mr Constance said.

Additionally, in 2018 people will be able to choose a variable top-up amount via digital channels so the top up amount can be exactly what they want it to be. "We want to make it the norm for people not to have to worry about queuing to top-up their Opal Card. Reducing the minimum top up amounts will hopefully go a long way to encouraging the switch."

Records show that 71 per cent of all Adult Opal cards top-up transactions processed at machines are valued between \$10 and \$20, indicating that customers have a clear preference for lower top-up values.

On Tuesday 18 April, CFCLA's Avteq/EMD unit VL351 hauls a load of ex-Pacific National Leigh Creek coal wagons (converted for grain use by SSR) as Train No 7448, from Lithgow to Broadmeadow. It is seen passing between Kingswood and Werrington in Sydney's western suburbs.  
Rob Cook



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**Above:** Freightliner's No.5182 cotton train from Wee Waa (NSW) bound for Port Botany sneaks through an otherwise deserted Cheltenham Station on Friday night 2 June. Leading the train is 'aging' Clyde/EMD JT26C-2SS unit G535 – one of two Gs owned by Freightliner, the other being G533 – with CFCLA lease UGL/GE C44aci locomotives CF4408 and CF4409 also lending their weight to the cause. When one of the G Class join the GEs on this train, the older DC-traction locomotive often leads the loaded working, while the newer AC units lead the northbound empty run.  
Chris Walters

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## Around Sydney

### Apology for Granville train disaster victims

NSW Premier Gladys Berejiklian and Minister for Transport and Infrastructure Andrew Constance apologised in the NSW Parliament on Thursday 4 May to the victims of the Granville Train Disaster.

The worst rail accident in Australian history saw 83 people lose their lives and another 213 were injured when a commuter train derailed near Granville Station and an overhead road bridge collapsed on to the carriages.

Premier Berejiklian said the recent 40th anniversary of the 18 January 1977 disaster highlighted the need to formally apologise to the victims and their loved ones.

"I have no doubt that the pain people feel today can sometimes feel as raw and real as it was all those years ago," Ms Berejiklian said. "The lifelong impact on survivors and the unimaginable grief felt by those who lost a loved one has never been formally acknowledged and this was long overdue. I hope that today's apology helps the victims and their loved ones some way along their journey of healing. We also wanted to honour the first responders and everyday heroes who stepped up in the worst possible circumstances."

Mr Constance said a significant commitment was made to invest in safety and emergency systems on the rail system after the Granville tragedy. "There is nothing we can do to take that pain away, but we do offer our heartfelt apology to those people whose lives were irrevocably changed at Granville that day," Mr Constance said.

### More trains services on Airport rail line

Passengers on Sydney's T2 Airport Line will have access to more than 200 extra services each week in non-peak times to cater for a spike in customer demand.

The 'More Train, More Services' program will boost capacity to and from Sydney Airport with:

- Trains servicing the Domestic and International Airport stations doubling from four to eight services per hour during the day on weekends which means; A train, on average, every seven-and-a-half minutes, compared with every 15 minutes today; and
- Extra services on weekdays late at night, meaning trains running every 15 minutes instead of every 20-30 minutes today.

On Monday 15 May NSW Minister for Transport and Infrastructure Andrew Constance said the growth in passenger numbers is unprecedented. "We're doubling services on the weekend because the growth is so dramatic." Mr Constance said.

International and Domestic Station patronage	2014	2015	2016	Increase
Overall	6.2 million	7.2 million	8.2 million	32%
Weekends	1.2 million	1.5 million	1.8 million	42%



On Wednesday morning 3 May, NR28 and NR19 on Great Southern Rail's 3AS8 Indian Pacific are 14 kilometres from the IP's final destination of Sydney Terminal as they pass through Flemington, while Sydney Trains Waratah Set, A63, passes on the Down Suburban line with a Penrith service, about to stop at Flemington Station. Rob Cook





Just before midday on Sunday 21 May, SCT train 7MB9 (Melbourne-Brisbane freight) was approaching Beecroft when locomotives SCT002 and SCT008 failed to lift the load. Later that afternoon rescue locomotive CEY003 *Lidsdale*, running as light engine D177, proceeded to the rear of the train at Cheltenham. The train then moved forward towards Thornleigh, to wait for the passing of the XPT (NT31) and proceeded north at 3.23pm. Graham Attenborough

"In 2014 there were 6.2 million customer journeys to and from Domestic and International Airport stations. Since then, there has been an extra one million customer journeys to and from the Airport each year – a 32 per cent increase in patronage," Mr Constance said. "Weekend patronage has grown even more – shooting up 42%."

"It's clear that more and more people are choosing the train to and from the airport, so we need to move fast to cater for this growth."

"We know driving to the airport can be painful, so we're hoping the service boost acts as another incentive to leave the car behind."

Combined with \$500 million in major road upgrades in and around the airport and longer-term solutions like WestConnex, travelling to the airport should become easier.

"Extra train services will complement this work, and provide plane passengers, airport and airline workers with better options to access both Sydney Airport and the city," Mr Constance said.

Earlier this year, the NSW Government announced an extra 20 express trains per week in the AM and PM peak hour connecting Campbelltown and Macarthur customers with Sydney CBD via the T2 Airport Line.

The new service improvements will be implemented from late 2017.

This is the next step in the 'More Trains, More Services' program – a capital investment of over \$1.5 billion to provide an urgent uplift in customer service on Sydney's rail network.

A joint study on Sydney's aviation capacity has forecast the number of passengers at Kingsford Smith to reach almost 77 million by 2035.

With demand for trains surging, the government shows no willingness to remove a station access fee of \$13.40 imposed on passengers when they pass through gates at the airport's terminals.

The state government is now the major beneficiary of the access fee, instead of the private operator of the four stations on the Airport Line.

Under a revenue-sharing agreement, the Airport Link Company paid the government \$68.6 million in a "train service fee" last financial year, up from \$54 million in 2014-15.

The net boost to the government's coffers is offset by it having to "compensate" the private operator for passengers using Green Square and Mascot stations. That compensation has been estimated at \$22 million last year. The government has subsidised the access fees for passengers using the two non-airport stations on the rail line since 2011.

Mr Constance said it was important to note that the station access fee for the airport stations was capped at \$25 a week for Opal card holders who travelled by train to the airport more than once a week.

"Compare the cost of being able to get to the airport affordably from places such as the city relative to catching a cab and being stuck in traffic," he said. "The access charges won't be there forever – they will come off at the end of the concession period."

A facts sheet on the increase Airport Line services can be found at: <https://www.transport.nsw.gov.au/sites/default/files/b2b/projects/more-trains-more-services-airport-line-fact-sheet-wcag.pdf>

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## NT Supreme Court Justice says train crew probably saved woman's life

In November 2015 a blind, hearing-impaired woman overdue for medical treatment was abandoned in the desert south of Alice Springs without food or water in a "particularly callous" crime committed by her boyfriend, and would have probably died if not for the actions of the crew of a passing train, the Northern Territory Supreme Court heard on Friday May 19.

Kenneth Mututa, then 53, was gaoled for two years and six months after pleading guilty to failing to provide the woman, 36, with the necessities of life, as well as two aggravated assaults committed in the hours before the woman was abandoned.

Justice Trevor Riley said Mututa's "heartless conduct" in November 2015 could easily have killed his girlfriend. "Your conduct in leaving her there alone and completely vulnerable was particularly callous," he said.

Mututa abandoned his victim, who suffers from end-stage renal failure and who was due for a dialysis appointment.

A passing train woke the woman late on the day she had been abandoned. The woman, "lost, helpless and completely vulnerable" wandered towards the tracks, thinking they would lead her into town, but inadvertently turned south and began walking further into the outback. A second passing train stopped to help the woman after nearly hitting her. "It was mere good fortune that she was not killed or badly injured at that time," Justice Riley said. "Had the train not arrived, and the operators been so observant, she could easily have perished while walking south rather than north."

Mututa, who has served 14 months behind bars since police tracked him down in South Australia's far north, will be eligible for parole in July.

## Aurizon to close Rockhampton Workshops and Mackay depot, casual drivers to be employed

Aurizon announced on 1 June that it will commence the staged closure of Rockhampton Workshops with the process to be completed by late 2018. There are 181 employees at the workshops who may be affected but up to 40 of those are expected to be offered employment at the company's Jilalan maintenance centre near Sarina which services locomotives and wagons used on the Goonyella coal network. All ten apprenticeships at Rockhampton will be completed at other facilities if not completed before closure.

Head of Aurizon's Operations, Mike Carter, said the company had undertaken a review of core maintenance requirements for its Queensland operations and decided that the future maintenance task would be best delivered at its newer facilities at Jilalan, Stuart (Townsville), Willowburn (Toowoomba) and Callemondah (Gladstone) with components supply and non-core maintenance sourced from third parties. Mr Carter said the amount of work required at Rockhampton had significantly reduced in recent years. He said it was a 'legacy' facility designed for a different operating footprint in a different time and it was not located close to the company's Central Queensland coal network. The first workshops were provided at Rockhampton to serve the first railway in central Queensland which was opened in 1867 to link Rockhampton to Westwood. This railway was eventually extended to Longreach and Winton to form the Central Line.

Aurizon said the workshops, which includes a heritage-listed roundhouse, is largely preserved and would provide an ideal opportunity for integration into any future urban development. Mr Carter said the company would commence discussions with local, state and federal government representatives on the opportunity for urban redevelopment in Rockhampton on land vacated by the workshops.

In addition to the Rockhampton Workshops closure Aurizon is planning to engage more casual contract train crew to provide greater flexibility. This will result in a reduction in the number of permanent drivers. The 'reshaping' of the train crew workforce in Central Queensland will affect depots at Callemondah, Bluff (near Blackwater) and Stanwell (west of Rockhampton) with 126 permanent train crew positions to be phased out at those depots over the next 12 months. Callemondah will lose 55 train crew positions, Stanwell loses 42 and Bluff will see a reduction of 29. The transition is expected to result in the creation of around 70 locally-based contractor crew positions over the same period. In addition, an extra 20 contractor train crew positions will be created at Coppabella depot, near

Moranbah, to meet increased customer demand on the Goonyella and Newlands coal networks.

Aurizon is also eliminating 62 permanent positions including train crew, freight operators and leaders at its Stuart and Mackay depots, primarily because of the completion of Aurizon's haulage contract with Wilmar Sugar in December this year (see news item, page 18). As a result of this, and the company's ongoing freight review, the Mackay depot will close with the loss of all 30 positions comprising five driver trainers, 15 locomotive drivers, one freight operator (Level two) seven freight operators (level four), one freight operator (level one) and one regional operations leader. From around January 2018 Aurizon proposes that the remaining work currently allocated to the Mackay train crew depot will be undertaken by a mix of casual drivers in the region, some work redistributed to Rockhampton and Stuart depots and some contractors as required. At Stuart driver trainer positions will be reduced from 10 to seven, locomotive drivers from 72 to 50, freight operators (level 4) from 24 to 18 and regional operations leaders from five to four – a total reduction of 32 positions.

Aurizon is planning to complete the North Queensland employee reduction process by the first quarter of next year and it has commenced the process of offering voluntary redundancies, retraining, relocation and compulsory redundancies. The company has advertised locomotive driver and freight operator vacancies at Cloncurry, Acacia Ridge, Fisherman Islands, Toowoomba, Enfield, Newcastle, Dynon, Esperance and West Kalgoorlie as redeployment opportunities.

Mr Carter said, "Aurizon needs to continue to change in line with what our customers need if we are to remain competitive." "Historically, most of our train crew have been permanent full-time employees and we have been unable to match fluctuations in weekly and monthly demand in train haulage services from coal customers or contract wins or losses."

He said Aurizon recognised the impact the changes would have on local employment and the regional economy but he said the company would work to offset these losses by undertaking a review of which Brisbane-based roles had the potential to be relocated to Rockhampton and other regional centres. He said Aurizon would continue to have a large presence in the Rockhampton region with more than 650 employees across its various businesses. This includes an ongoing presence at the Rockhampton Administration building adjacent to Rockhampton station which is to be refurbished in the near future.

Aurizon says the proposed changes are necessary to address varying demand in the resources sector as well as changes to Aurizon's operating footprint. Mr Carter told ABC News it was a tough market and Aurizon did not take that decision lightly however, in the interests of the long sustainability and success of the company, it was essential to take these tough decisions. Australian Manufacturing Workers Union spokesman Bernie Mitzell said the impacts of the Rockhampton closure would be widespread. "It's a kick in the guts for the workers down there at the Aurizon workshops," he said. Rail, Tram and Bus Union spokesman Les Moffitt said

Aurizon's decision followed hundreds of job losses last year and he feared more were on the way. Mr Moffitt said the changes were bringing in insecure working arrangements for permanent railway employees and that was not good for people in the community. One Rockhampton Workshops employee told *The Morning Bulletin* (Rockhampton) that Aurizon gave him and other workers false hope when it promised to 'centralise' its maintenance to Rockhampton in 2014. The worker said, "But we've got blokes who've come up from Redbank when they were sacked. They said this would be the hub. They said there would be at least 15 years work here."



An eastbound empty fuel train from Mt Isa passes Nelia, east of Julia Creek, on Monday 1 May behind Aurizon Goninan/GE unit 2806. Very few fuel trains now operate on Australian railways. Larry Zanker

## Adani says Carmichael coal mine and railway will go ahead

Indian mining and power generation company Adani announced on 6 June that it plans to proceed with development of the \$21 billion Carmichael coal mine, located around 160 kilometres north-west of Clermont in central Queensland's Galilee Basin and construction of a standard-gauge railway to link the mine to the existing export terminal at Abbott Point, north of Bowen. The announcement was made as Queensland Premier, Annastacia Palaszczuk, officially opened Adani's regional headquarters in Townsville. Ms Palaszczuk said that Adani's rail and port operations headquarters would be based in Bowen and a rail maintenance and provisioning yard would be located in the Mackay – Bowen region. Federal Resources Minister Matt Canavan said Adani's announcement was a great thing for Queensland. The proposed mine would be one of the largest in the world and when fully developed would include six open-cut pits and five underground mines. The company has indicated that output could be as high as 60 million tonnes a year.

Adani says pre-construction work is scheduled to start in the September quarter. The company's Australian manager, Jeyakumar Janakaraj, said Adani had signed a \$74 million deal with Arrium's Whyalla steel works for the supply of rail, an \$82 million contract for concrete

sleepers to be manufactured by Austrak's Rockhampton plant and an agreement had been signed with AECOM to survey and design the railway.

However, Queensland Greens Senator, Larissa Waters, said the announcement was just a 'PR stunt' to squeeze a \$1 billion 'handout' from the Commonwealth Government's Northern Australia Infrastructure Facility to construct the rail link. Senator Waters said the so-called final investment decision was meaningless as Adani was broke and 19 banks have refused to fund the 'deadly mega-coal mine'. Environmental finance group, Market Forces, told News.com.au that Adani had a net debt estimated at around \$2.5 billion and needed to raise \$5 billion to finance the project. The group said that 23 banks had so far distanced themselves publicly from Galilee Basin coal projects or had introduced policies that prohibit financing Adani's project. However, Adani says it will have financial backing in place by December this year.

Aurizon has questioned the need for a separate railway between Adani's mine and Abbott Point suggesting that it would be much cheaper to build a railway to link up with its Newlands line to reach the port (see 'Aurizon's Harding sees coal as part of future energy security', page 4, this issue).



## Pacific National wins Wilmar sugar haul contract

Wilmar Sugar has confirmed that Pacific National will take over Wilmar's raw sugar haulage from Aurizon at the commencement of the 2018 cane harvest season. Wilmar's Executive General Manager, North Queensland, John Pratt said the company's current haulage arrangements with Aurizon end at the conclusion of the 2017 crushing season prompting Wilmar to invite a number of rail operators from within and outside Queensland – including Aurizon – to present proposals for a new long-term agreement for sugar haulage.

The outcome of a rigorous process of review resulted in Wilmar partnering with Pacific National. Mr Pratt said rail was Wilmar's preferred mode of transport for raw sugar and the company will be working with Pacific National and the Queensland Government to ensure a sustainable long-term solution.

The rail contract involves moving raw sugar from the company's Burdekin mills (Invicta, Pioneer, Kalamia and Inkerman) to the Port of Townsville and from Proserpine mill to the Port of Mackay. "While Aurizon did make an offer in the process, that offer was withdrawn with an indication that sugar haulage no longer aligned with their business priorities," Mr Pratt said.

A Pacific National spokesperson told *Railway Digest* said the company was unable to comment on the new rolling stock to be used for sugar haulage until the contract with Wilmar is finalised. However, the *Mackay Mercury* indicated that the wagons are being manufactured in China. It is understood the wagons will be designed for conveying products other than sugar, suggesting that they could be used for other purposes outside the sugar harvesting season.



2334D and 2388D bring a loaded coal train down the grade through Spring Bluff on the Toowoomba Range on Saturday 29 April. Dominik Giemza

## Report into Redcliffe Peninsula line signal problems released

Last year, the government received advice that there were outstanding issues with the signalling system developed for the Moreton Bay Rail Link (also known as the Redcliffe Peninsula line).

Subsequently, the decision was made to delay the planned mid-2016 opening until an audit into the project was undertaken and safety of the system guaranteed. The line subsequently opened on 3 October.

Rail expert Robert Smith was appointed to lead the investigation because of his specialist knowledge of rail signalling systems. The report was finalised last year but could not be released until residual commercial negotiations with the contractor were finalised and legal processes concluded. That work has been completed, allowing for the public release of the investigation.

The investigation found that the decision to delay the opening of the line was justified and necessary but as the safety issues had not been

formally assessed, QR's identification of safety as a reason to delay the commissioning was not supported.

The independent investigation contained 40 recommendations. The first 16 recommendations were for immediate implementation and were actioned to allow the MBRL to safely open.

Queensland Rail were additionally provided with independent assurance that the safety controls put in place were effective and the network was safe.

Since its implementation, the signalling system has performed well.

The remaining 24 recommendations relate to lessons learned and future projects and are all being addressed.

The report can be found at:

<http://www.parliament.qld.gov.au/documents/tableOffice/TabledPapers/2017/5517T812.pdf>





Still embroiled in a huge amount of controversy, none of the latest *New Generation Rollingstock* suburban EMU sets for Brisbane have yet to enter passenger service. However, the running of 'Test Trains' still continues, as evidenced by this image of NGR set 702 running near the old Gloucester Street Station on the morning of Sunday 7 May. Mike Martin

## Brisbane stations to benefit from \$6 million in upgrade works

The Queensland Government has announced that it will invest nearly \$6 million to upgrade stations across the south-east Queensland rail network.

In a Monday 22 May media release, Queensland Deputy Premier and Minister for Transport Jackie Trad said the upgrades were part of a wide range of initiatives kicked off in her first 100 days as Transport Minister. "It has now been 100 days and I am as determined as ever to ensure Queenslanders can get the high-quality, reliable rail services that they deserve," Ms Trad said. "I'm delighted to announce we are investing almost \$6 million to give ten key stations minor upgrades, which will include platform improvements, new coats of paint and renewing the signage."

The minor upgrades will begin later this year at:

- Park Road – five kilometres from Brisbane Central on the Beenleigh, Cleveland and Gold Coast lines,
- Bowen Hills – 2.7 kilometres from Central on the North Coast line,
- Wacol – 20 kilometres from Central on the Main (Ipswich) line,
- Goodna – 23.5 kilometres from Central on the Main line,
- Manly – 24 kilometres from Central on the Cleveland line,
- Murrarie – 14.3 kilometres from Central on the Cleveland line,
- Windsor – 4.5 kilometres from Central on the Ferny Grove line,
- Wilston – 5.5 kilometres from Central on the Ferny Grove line; and
- Beenleigh – 40.5 kilometres from Central on the Beenleigh line.

In addition, a mural will be installed at Roma Street station – 750 metres from Central in the Brisbane CBD.

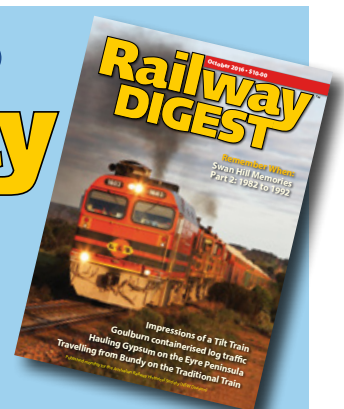
Queensland Rail Chief Executive Officer Nick Easy said the ten stations had been identified through a station audit and listening to customer feedback.

"The project builds on our \$212 million Station Upgrade Program, which is underway and delivering independent access and improved, modernised facilities at 14 stations over a five-year period. We have already improved service reliability through the stabilisation of the timetable, our work being undertaken to fast-track training and improving our communication with customers", Mr Easy said.

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## Gawler rail electrification project underway, again

The tender process for the electrification of the Gawler rail line commenced on Wednesday 10 May with registrations of interest opened to companies seeking to tender for the project.

The Gawler line runs north from Adelaide Station to Gawler Station, a distance of 39.8 kilometres.

Stage One of the project is being fully funded by the State Government at a cost of \$152.5 million and will involve electrifying the rail line to Salisbury (18.6 kilometres from Adelaide). A matching commitment by the Commonwealth Government in the 2017-2018 Federal Budget, which would have extended the electrification, was not forthcoming.

Companies with experience in rail electrification works will be able to register for work. Signalling system upgrades and public safety improvements, including pedestrian level crossing enhancements and corridor fencing, will also form part of the Stage One works.

The Gawler electrification project will strictly adhere to the State Government's policy requiring all steel to be sourced from Australian-standard certified fabricators and mills. It will also adhere to the Government's Industry Participation Policy, supporting local jobs and local contractors. Companies which register will then be able to complete full submissions from July with major construction works to start early in 2018.

"This is the first stage of a long-awaited project which will provide real transport benefits to commuters in Adelaide's northern suburbs", said South Australian Minister for Transport and Infrastructure Stephen Mullighan. "The Gawler electrification project will enable faster, safer, more reliable and more comfortable rail services which will encourage more people to leave the car at home and take public transport."

"Patronage on the Gawler line rose by more than 30% over the seven years to 2016, making it Adelaide's most popular train network and we want to keep growing that patronage" Mr Mullighan concluded.

The Gawler rail electrification works includes:

- Installation of the overhead wiring system including masts and gantry supports
- Installation of a new signalling system
- Installation of an Automatic Train Protection system
- Installation of a new fibre optic communications system cable,
- Installation of protective works and modifications to existing infrastructure, and;
- Service relocations, vegetation trimming and removal and other works necessary to enable the electrification to proceed.

The project will recommence after it stalled following the withdrawal of federal funding in 2013. In October 2013 the Federal Infrastructure and Regional Development Minister Warren Truss wrote to the State Government withdrawing \$76 million of funding from the Gawler Electrification project.

Infrastructure Australia has identified the Gawler Electrification as a high priority initiative, with the first business case submitted in 2008. Significant works have already been undertaken by the State Government including the installation of nearly 300 masts and footings and rail track modification works necessary for electrification.

An upgrade of Salisbury station is currently underway which will include the installation of ticket validation gates, new ticket machines, improved CCTV and lighting, and extra disability parking.



Clyde/EMD Streamliners GM37 and GM42, with crew car in-between, begin to notch up as they leave Red Hill with No.4M41 Infrastructure Train on Anzac Day, 25 April. Jack Chambers





Pacific National's Goninan/GE units NR109 and NR75, both carrying the appropriate livery, bring Train No.1AD8 *The Ghan* through Bolivar, in Adelaide's outer suburbs, as they head towards Darwin on Sunday 21 May. Scott Mitchell.

## Grants for Rail Care Art projects at Adelaide railway stations and tram stops

A glow-in-the-dark mural at Peterhead railway station (located on the Outer Harbor line 14.6 kilometres from Adelaide station) and a community mosaic at Christie Downs (28.9 kilometres from Adelaide on the Seaford line) are among 58 projects to share in \$103,000 from the South Australian Government's Rail Care program.

Community groups, schools, not-for-profit organisations and individual artists were awarded grants ranging from \$120 for street art calligraphy to almost \$9000 for a large community art project in the first round of the Rail Care Art Grants program.

The projects will improve the look and feel of Adelaide metropolitan stations and tram stops, while discouraging graffiti, particularly at suburban locations.

Other projects to be undertaken in the first round of grants are:

- A garden sculpture at Coromandel station (Belair line - 17.2 kilometres from Adelaide),
- A contemporary Aboriginal mural at Blackwood station (Belair line - 18 kilometres from Adelaide) ; and
- A traditional painting of country by an Aboriginal artist at Gawler Central station (terminus of the Gawler Central line - 42.2 kilometres from Adelaide).

The applications were chosen based on a number of criteria including cultural diversity, site suitability and geographic spread across the network and community or school involvement.

Adelaide Metro passengers and local residents will be able to watch the projects taking shape throughout winter.

South Australian Minister for Transport Stephen Mullighan said that the response to the first round of Rail Care grants had been overwhelming and it's encouraging to see so many artists of all levels wanting to contribute to local railway stations and tram stops.

"Projects like the Rail Care Art Grants are excellent initiatives to inject life and brightness into rail neighbourhoods and our Adelaide Metro passengers' commutes", he commented.

The Rail Care Program launched applications for its first Rail Care Art Grants on 16 February, with individuals, community groups, schools and not-for-profit organisations encouraged to apply (see April 2017 *RD*, page 23).

Eligible art projects could range from wall murals and fence artwork to mosaic art and outdoor sculptures.

A total of 115 applications were received before applications closed on 20 March.

The Department of Planning, Transport and Infrastructure reviewed applications based on cost and need, value for money, art forms, cultural diversity, site suitability, geographic spread across the network and community or school involvement.

For more information, please visit the Rail Care website at: <http://www.infrastructure.sa.gov.au/railcare/artgrants>



## Digital notifications for rail corridor works

On Tuesday 16 May the South Australian Department of Planning, Transport and Infrastructure (DPTI) introduced a digital notification system to alert residents near tram and rail corridors of upcoming night works.

Once registered, residents and businesses will receive notification, sent via SMS or email, to advise when maintenance works are planned in their area. The service is designed for those living near train or tram corridors and who may be impacted by night maintenance and emergency works.

Residents who do not have a mobile phone or email can request family members, neighbours or friends to receive the notifications on their behalf. Businesses and landlords can also register to receive digital notifications, to then advise tenants and employees of intended night works.

The new digital notifications will make it easier for DPTI to notify residents of changes in work schedules due to weather conditions, logistical considerations or in response to emergency work activities.

The online Rail Maintenance Works Calendar will continue to be maintained as dates of upcoming maintenance works are confirmed. Paper notifications will be phased out from Saturday 1 July 2017, to provide simpler, faster and more efficient customer-focused digital notifications.

Residents around rail corridors have been informed about this change.

To sign up for digital notifications or view the rail maintenance calendar, visit: [www.dpti.sa.gov.au/worksnotifications](http://www.dpti.sa.gov.au/worksnotifications)

## Completion of Jetty Road tram track replacement

Glenelg tram services returned to normal on Saturday 3 June following the completion of the Jetty Road Tram Tracks Replacement Project.

Tram services along Jetty Road in suburban Glenelg, between Brighton Road (Stop 15) and the line's terminus at Moseley Square (Stop 17), resumed from first service on Saturday 3 June following the successful test running of trams the previous day.

The \$3.7 million project involved replacing the tram tracks on Jetty Road to ensure the continuation of safe and reliable services. In addition, the upgraded trackwork will provide a smoother ride for passengers and reduce noise.

Jetty Road was also closed to vehicular traffic for the duration of the tramline upgrade. Continuous work saw the project completed in 19 days, 7 days less than scheduled, minimising the period of impact to the local community and re-opening Jetty Road as quickly as possible.

The Jetty Road closure had infuriated business proprietors along the busy shopping strip, with many reporting a significant decline in foot traffic and a sharp downturn in customers – with one café owner reporting at least a 95 per cent drop in trade.

The Glenelg tram line runs 15 kilometres from Hindmarsh (north-west of the Adelaide CBD), through the Adelaide city centre, to the beach-side suburb of Glenelg.

## Access improvements for Edwardstown Station

The South Australian Department of Planning, Transport and Infrastructure (DPTI) will be installing a shared use path for pedestrians and cyclists adjacent to the Edwardstown Railway Station. Edwardstown station is located on the Seaford and Tonsley lines in the inner south-western Adelaide suburb of Edwardstown. It is 7.9 kilometres from Adelaide Station.

The shared use path, from De Laine Avenue to Castle Street, Edwardstown, forms part of the Marino Rocks Greenway walking and cycling route and will include:

- Separate pedestrian and cyclist ramps to De Laine Avenue.
- Installation of new street lighting along sections of the shared use path; and
- An upgrade of street lighting along Railway Terrace.

Two existing disabled car parks will also be retained.

Works commenced on Monday 5 June, and are expected to be completed by the end of August, weather permitting.

This \$400,000 project is funded by the South Australian Government's Asset Improvement program.

On Tuesday 18 April 18, Genesee Wyoming Australia units GWU008, GWA005 and GWA004, working 2184 Grain Train from Wolseley, back into the silo at Keith to pick up some extra loading. Bob Grant







On Tuesday 16 May, Clyde/EMD DQ Class units 2002 and 2006, are seen between Boyer and Dromedary, with ten HF empty coal hopper wagons, running as train 464 for Brighton Hub. The wagons had been used to deliver coal from Fingal to the Norske Skog Paper Mill at Boyer and are on their way back to Fingal, via Western Junction. Bruce Tilley

## State and local government to fund study in heritage rail proposal

The Tasmanian Government and Dorset Council (based at Scottsdale in Tasmania's north-east) will fund a third party investigation into the viability of a rail trail along the 70 kilometre disused rail corridor between Launceston and Scottsdale. The investigation will also assess the viability of a proposed heritage rail service on the route before a decision is made on the disused line's future.

The state government and Dorset Council have agreed to jointly fund the study into the heritage rail project to ensure the community has all the facts before any development goes ahead.

The Dorset Council and the North East Rail Trail Association have worked since 2014 to develop a plan for a rail trail along the corridor. In May 2015 the Council secured \$1.47 million from the Federal Government's National Stronger Regions Fund to part pay for the \$3 million project.

However, a second proposal – from the Launceston and North East Railway Group – was released after a series of community meetings, with the potential of a rail-related project generating significant discussion about the future use of the corridor.

A group of farmers also objected to the rail trail proposal, citing they weren't consulted and concerns the project would hit the hip-pockets of ratepayers.

"We need to ensure that the development of the rail corridor is embraced by the community and that's why the government, in consultation with the Dorset Council, has decided to have a third party assess the heritage rail proposal before a final decision is made on the future use of the rail corridor," Tasmanian Treasurer Peter Gutwein said in an article that appeared in the 23 May edition *The Examiner*.

The study will consider the condition of all rail infrastructure, a risk assessment, an analysis of measures needed to ensure safe road crossings and the level of investment required to establish and sustain a heritage rail precinct.

"We need to have the facts on the table to ensure that, as a community, we can have an informed discussion about the best use of the rail corridor," Mr Gutwein said.

The study will be contracted to a third party secured by Infrastructure Tasmania.

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## Public transport supported in 2017-18 Victorian Budget

The 2017-18 Victorian Budget -released on Tuesday 2 May, contained a suite of significant investments in metropolitan and regional public transport designed to provide more reliable services across the Victorian rail network.

Some highlights from the announcement include:

### Metropolitan projects and initiatives

- Frankston line stabling – \$187.4 million to shift stabling from Carrum to Kananook, to support extra services on the Frankston line,
- Continuing the Night Network – \$193.2 million to make all night public transport on weekends permanent, supporting the visitor economy,
- Enhancing safety on the train network – \$67 million for critical safety upgrades across all public transport modes,
- Improving Victoria's busiest railway stations – \$8.69 million for planning to get Flinders Street, Southern Cross and Richmond Stations ready for future network improvements such as the Metro Tunnel,
- Improving public transport accessibility – \$11.3 million for tram stop and station precinct works to improve accessibility; and
- More train, tram and bus services – \$66.9 million for bus services and timetable improvements.

### Regional Rail Revival Program

- Upgrading the Gippsland track – \$435 million for track, station and stabling upgrades on the Gippsland line to run more trains more often to Victoria's East,

- Upgrading the Shepparton line and providing more services – \$43.5 million to build new stabling and an extra passing loop on the Shepparton line to enable more train services from 2020,
- Maintaining the regional network – \$316.4 million to support operational performance and capacity; and
- Ensuring safer country crossings – \$9.7 million to make crossings safer on the Warrnambool line.

### New trains and trams

- Providing more E-Class trams and infrastructure – \$218.1 million for 10 new high-capacity, low-floor E Class trams and associated infrastructure to run more services and carry more passengers; and
- Investing in regional trains – \$289.6 million for 39 new VLocity carriages and to re-design VLocity trains, and \$12.5 million to refurbish the existing train fleet.

## No conviction for 18-year-old man who caused train derailment and \$2 million damage

A young man whose stranded four-wheel drive caused a V/Line VLocity train to derail at Kangaroo Flat has avoided a conviction in court.

The 130 km/h crash – caused when the 18-year-old got his vehicle stuck on the railway line, south of Kangaroo Flat station – caused \$2 million damage to the track and train, which was carrying 64 people at the time. (Kangaroo Flat is a suburb of Bendigo. It is located 5 kilometres south-west of the Bendigo CBD.)



**Not the Indian Pacific!.** Consecutively-numbered Pacific National Goninan/GE units NR26 and NR25 approach the freeway overpass at Corio with 3XM4 Port Augusta to Melbourne Steel train, on Wednesday 12 April. Bob Grant





**Veteran Clyde/EMD units S313, T386, T395, T378 and B75 are on QUBE's Down Tocomwal Goods No.9375 at Strathmerton on Thursday 4 May. The Down home signal to Strathmerton from the erstwhile Cobram line is visible on the left. Ewan McLean**

On Monday 29 May the man from Marong (17 kilometres west of Bendigo), pleaded guilty in the Bendigo Magistrates' Court to one charge of unlawfully and negligently obstructing a railway carriage.

The court heard he was driving his four-wheel-drive on bush tracks near Kangaroo Gully Road at 1pm on Wednesday 15 February when he became lost without a correct GPS reading. He attempted to accelerate over the railway line at a non-designated crossing off Apeline Track, with visibility blocked by trees in both directions.

The man's 1999 Nissan Patrol failed to clear the track and became stuck. He attempted to use a branch to free the vehicle, but was unsuccessful. He called his father who immediately called 000 while the man walked to the nearby Phillis Street Bridge over the rail line in an attempt to determine his location. The message failed to reach the train driver, who spotted the man, and the vehicle on the tracks and made an emergency brake application.

The train hit the four-wheel-drive at just under 130 km/h. The front car (1234) of VLocity set VL34, the 12.14pm Southern Cross to Epsom service, derailed and pushed the vehicle 65 metres along the line before it fell into an embankment, while the train travelled a further 640 metres.

The train driver suffered an ankle injury, and at time of writing was still unable to return to full duties, two passengers suffered minor physical injuries and another passenger can no longer travel by train due to the trauma. Buses replaced trains on the line for 24 hours.

More than 1100 concrete sleepers needed to be replaced, with total costs to V/Line at more than \$2 million.

Defence counsel Peter Ward said there was no criminal intent, and the man had simply "done a very stupid thing". He said community work could help to repay the damage caused.

The man avoided conviction and was placed on a 12-month community corrections order, with 150 hours of unpaid community work. He must also complete a road safety awareness course.

## New V/Line timetable from August

The new V/Line timetable, to be introduced in August this year, will feature 142 additional weekly train services.

The Bendigo and Ballarat lines will each receive 18 extra services each week, improving the current weekend frequency from around 90 to 60 minutes.

The Geelong line will receive 74 additional weekly services, including 30 new services which will allow weekday Warrnambool trains to run express through some stations between Geelong and Melbourne.

The new timetable will also deliver a further 18 weekly trains for the Gippsland line, and four services between Shepparton and Melbourne will be added on weekends.

The Ararat line will benefit from two additional trains each weekday, comprising an extra morning train from Ararat, forming a Melbourne bound train at Ballarat and an afternoon service from Southern Cross to Wendouree which will be extended to Ararat.

Following the successful opening of Caroline Springs Station earlier this year, all Wendouree trains between the morning and afternoon peak will stop at the station in the middle of the day, while changes to stopping patterns will provide Deer Park with more than 200 extra trains every week.

The 142 extra services are the final to be delivered as part of the 170 regional services announced in the Victorian State Budget 2016/17.

As part of the new timetable, some train services will depart earlier or later and will have different stopping patterns.

The timings of some V/Line coaches and local bus services that connect with trains will be adjusted to reflect the new timetable.

The new train and coach timetables which will be available on the V/Line website in late July.



## Around Melbourne

### More powers for Victorian Protective Services Officers

The Victorian government has given Protective Services Officers (PSOs) new powers to target anti-social behaviour and crime, with legislation introduced into Parliament in late-May.

PSOs are located at all 212 metropolitan railway stations in Melbourne and four regional stations across Victoria (Bendigo, Traralgon, Ballarat and Geelong). They also provide security for the weekend public transport Night Network of all night train, tram and bus services.

Under the legislation PSOs will be given a range of additional powers including the power to arrest a person who has breached their parole, conduct searches for illicit drugs, and request names and addresses from people who witness crime. They will also be able to respond to incidents in and around the stations they are patrolling.

The increased role for PSOs was announced on Tuesday 23 May and forms part of the Victorian government's \$2 billion Community Safety Statement, which includes funding for an additional 100 mobile PSOs who will be rolled out across the public transport network. The increase in mobile officers will enable PSOs to tackle hotspots and move across the Melbourne transport network – including trams, transport hubs and the bus network.

In addition to the 1,300 PSOs who patrol Victorian stations and major public buildings, the new mobile PSO teams will increase the overall flexibility of PSOs to ensure safety for commuters during peak periods,

including major events which take place outside of normal PSO hours of duty.

Since their introduction in 2012 (see August 2012 *RD*, page 16) PSOs have issued 75,000 infringements.

### Thirty new metro peak trains each week from August

An additional 30 new Metro train services in the peak, every week – designed to get people in Melbourne's north and west home safer and sooner – will be a feature of a new metropolitan timetable that will start on 27 August.

The timetable will add a new morning and evening peak services on the Craigieburn, Sunbury and Werribee lines. These services will create room for 27,000 extra passengers at the busiest times.

In a massive boost for Altona Loop passengers, 37 daily services that currently stop at Newport will be extended in the new timetable. Two peak services on the Hurstbridge line will be extended providing more services for passengers in Rosanna, Macleod, Watsonia, Greensborough, Montmorency and Eltham.

Two minutes will be added to services on the Frankston Line in the new timetable, in preparation for the opening of Southland Station later this year, and the timing of connecting buses will be adjusted to align with train services.

The new train timetables will be available in July from [ptv.vic.gov.au](http://ptv.vic.gov.au)



Clyde/EMD unit N460 on the Down afternoon Southern Cross (Melbourne) to Shepparton passenger service, at Mangalore on Tuesday 4 April. Dennis Forbes





On Wednesday 12 April, vintage streamliner B75, on a rake of mostly empty flats, sits beside fellow Clyde/EMD units G515, T395, T356 and B76 with another stabled freight, at Appleton Dock, Melbourne. Bob Grant.

## One-stop shop for jobseekers on Mernda rail extension

Jobseekers will find opportunities on major Victorian projects easier to access with the launch of a dedicated Jobs Hub for the Mernda Rail Extension. Victorian Minister for Industry and Employment Wade Noonan and Member for Yan Yean Danielle Green joined workers at the project site in Epping on Wednesday 31 May to officially open the Jobs Hub for the \$600 million project.

The Jobs Hub – built by indigenous construction company Barpa – aims to help jobseekers from all backgrounds find meaningful employment. Victorians with disability, the long-term unemployed and workers transitioning from the auto industry will have access to a network of employment service providers. The Hub offers face-to-face support, assistance with job applications and resume writing, as well as training opportunities, and will connect jobseekers to employers and suitable roles.

A number of different positions will be available, from engineering and construction to administration and catering. The Mernda project team's social procurement plan aims to stimulate the local economy by purchasing local goods and services from local suppliers. "The Mernda Rail Jobs Hub is about connecting jobseekers to employers, and finding opportunities for work on this exciting rail extension project", Minister Noonan said.

Construction on the Mernda Rail Extension is now underway, with the line to open in early 2019. The project will build eight kilometres of new double-track rail line between South Morang and Mernda and three new stations at Hawkstowe, Marymede and Mernda.

The Jobs Hub is located at 323 McDonalds Road, Epping. It is open from 9am – 5pm, Monday to Friday, and on Saturdays by appointment.

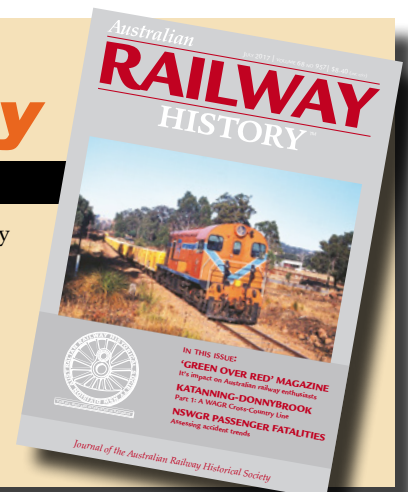
For the nostalgia of rail, don't miss...

## Australian Railway History

July 2017 issue out now! Just \$8.40

The July 2017 issue of ARH opens with an account of the establishment of the railway enthusiast magazine *Green Over Red* by its founder and editor Paul Nicholson. Initiated by a group of young enthusiasts, the magazine offered a new focus on diesel locomotives and safeworking principles between 1966 and its demise on March/April 1972. It attracted a number of contributors, many of whom are still active contributors to current railway magazines.

Part 1 of Rod Milne's article on the cross-country railway line from Katanning to Donnybrook in Western Australia focuses on the planning and construction of the line. It is rounded off by an analysis of passenger fatalities on NSW Railways and an Explorer item by Philip Dunn on the Victorian Report on trends in narrow gauge locomotives that led to the purchase of the G Class Garratt locomotives.





## Work on Airport Central Station underway

The Forrestfield-Airport Link is a step closer with a construction site established and work underway at the Airport Central Station site.

The construction site, located near the control tower at Perth Airport, will be ready for the tunnel boring machine to start work in early 2018.

The first of two tunnel boring machines to be used on the Forrestfield-Airport Link was delivered in mid-May and will break ground in Forrestfield in late July, starting a two-year journey to Bayswater.

The \$1.86 billion 8.5 kilometre Forrestfield-Airport Link is jointly funded by the Australian and Western Australian governments. It will deliver a new rail service to the eastern suburbs of Perth – with three new stations at Belmont, Airport Central and Forrestfield.

The rail line will connect with the existing Midland line near Bayswater Station and will run to Forrestfield through twin-bored tunnels, to ensure minimal impact on the existing land and road network. It will provide Perth Airport users with access to a direct 18-minute train journey to the Perth central business district.

On Monday 29 May Western Australian Premier Mark McGowan said that the Forrestfield Airport Link was the number one priority of the Metronet vision. “With work now underway, this project will deliver a significant jobs boost for Western Australians and help improve connectivity across our suburbs”, he commented.

The works at Perth Airport coincide with the release of artist impressions of Airport Central Station. The underground station has been designed to create a seamless journey to the airport terminals via an elevated walkway. The station has a striking roof shape inspired by the aerodynamic features

of aircraft with ample natural light to the concourse and platform levels.

The Forrestfield-Airport Link project is closely aligned with Perth Airport’s redevelopment plans to consolidate the domestic and international airport terminals. Works have begun at the airport to construct the underground station box structure adjacent to the existing airport control tower.

Like most stations on the Transperth network, the station will have lifts, stairs, escalators, toilets, ticketing and information services, a kiosk and customer service staff.

The Forrestfield-Airport Link is expected to be completed in late 2020.

The animation of the Airport Central station design can be viewed at: <https://www.youtube.com/embed/hoX0sQO5beg?wmode=opaque>

## Radio system upgrade for Perth urban rail network

The Western Australian Government is progressing with its plan to upgrade the radio communications system for Perth’s urban rail system.

Five short-listed companies will be asked to respond to a request for proposal, after the Public Transport Authority of Western Australia (PTA) called for and evaluated expressions of interest earlier this year.

The \$120 million project will see the current analogue radio communications system replaced with a modern digital system. It will involve installing new towers and poles with new digital-friendly infrastructure. The new equipment will be at the forefront of technology, allowing the PTA to take advantage of modern applications.

All radio devices in trains, security vehicles and handheld radios for mobile staff will be replaced with new equipment.



Due to a shortage of standard-gauge CBH locomotives, loaded grain train 4556 from Avon yard to Kwinana on Wednesday 17 May was powered by Watco Australia Clyde/EMD locomotive FL220, sharing the work with Motive Power/Cummins unit CBH 119. The odd couple is seen at Bakerville, near Millendon Junction, just before sunset. Watco has recently expanded beyond its CBH grain haulage to include infrastructure trains (ballast, sleepers, etc) under a new contract with Brookfield Rail. In order to provide motive power for the additional work Watco has obtained HL203, FL220, G511 (1,435mm gauge) from CFCLA and reportedly ex-TasRail Ds 2020 and 2021 (1,067mm gauge, originally from WA) both of which are now in SSR’s Bendigo shops for overhaul and repair. Graham Barnes



The contract will be awarded early next year. The project is expected to generate about 40 jobs and bring important technical expertise to Western Australia. It will be delivered by late 2020 before the existing analogue system is switched off to comply with changed licensing and spectrum allocation requirements of the Australian Communications and Media Authority.

## AvonLink survives, but with fewer services

The Western Australian Government has moved to quell uncertainty around the future of the *AvonLink* service connecting Midland to Northam, announcing on Thursday 1 June that the service will continue, albeit in reduced numbers.

Funding to continue the service, which was due to expire at the end of June, was found internally, but trains will run just one return trip each weekday.

A three-year trial from 2014, funded by the government's Royalties for Regions program, trebled the number of trains in a bid to increase patronage but produced no rise in the number of passengers, which are on average less than 20 people a day (see January 2015 *RD*, page 29).

An average weekday *AvonLink* train was at 21 per cent occupancy before the trial but the figure dropped to 15 per cent on a train with a capacity of 116.

WA Transport Minister Rita Saffioti said while the secured funding was a good start, the goal was to grow patronage on the service. "I'm glad we could continue to fund *AvonLink* and we will be engaging with relevant stakeholders in tourism, ageing and local shires to discuss opportunities to optimise the train service," she said. "The previous government had not funded *AvonLink* beyond June 30, meaning we had to find an additional \$800,000 to retain the service. "I would like to thank the community representatives involved with the *AvonLink* working group and the supporter groups over the last three years who supported the service."

From 1 July, there will be return services running once a day from Monday to Friday. The last service of the expanded trial will run on Saturday, July 1. *MerredinLink* services will revert to the pre-trial timetable, offering return services between Perth and Merredin on Mondays, Wednesdays and Fridays.

There will be no *AvonLink* weekend or special event train services.

## Metronet road, rail plan gets \$1.2b kickstart

The Federal Government is set to provide more than \$1.6 billion towards Western Australian road and rail infrastructure projects, including Labor's flagship transport plan, Metronet. The funding is part of a \$2.3-billion state and federal infrastructure deal, which includes a \$700 million commitment from WA.

WA Premier Mark McGowan described the funding deal as a huge win. "It is a congestion-busting masterpiece for our state. It will ensure there is more rail and more road projects that create jobs," he said. Almost \$1.9 billion will be redirected from the now-defunct Perth Freight Link and much of it will be spent on Metronet.

Mr McGowan said the funding would also go towards 16 other infrastructure projects including;

- Improved access to Fiona Stanley Hospital from Kwinana Freeway and Roe Highway
- Upgrades to Mitchell Freeway/Kwinana Freeway
- Upgrades to Leach Highway/Roe Highway; and
- \$44.2 million for regional roads, including planning work for the Bunbury Outer Ring Road.

State and federal Liberal MPs, including Finance Minister Mathias Cormann, heavily criticised Metronet in the past as they promoted

the failed Perth Freight Link project but in early May Senator Cormann spoke of his support for Metronet and said it was a matter of working constructively with the new WA McGowan Government.

"The Metronet project does fit very well with the Turnbull Government's Smart Cities agenda, it does fit very well with our efforts to improve connectivity across our capital cities," he said. "So we do believe there is more opportunity for us to work together in the future to deliver this project."

It is understood that the Metronet business plan still needs to be taken to Infrastructure Australia for approval before \$700 million in federal funds is handed over for the Thornlie link to Cockburn, and the line extension to Yanchep.

It is hoped many of the workers whose jobs have been affected by the scrapping of the Perth Freight Link project can be redeployed on the planned infrastructure works.

## Specialist team to drive Perth Metronet project

A multi-agency team will be established to drive the Perth Metronet project. The specialist team will comprise experts in transport planning, land development, town planning and value capture.

The WA Government describes Metronet as much a land use plan as a transport plan, and each project will be designed to marry the best transport outcomes with optimised land use outcomes.

For the first time in Western Australia, there will be a mechanism to capture the increased value of land due to new infrastructure, such as a new railway station, to help pay for specific projects.

Experienced public servant Anthony Kannis has been appointed as the team's project director. Mr Kannis is a former senior Treasury official and was a key member of a project steering committee that helped deliver the Mandurah Line and the new underground rail connection in the Perth central business district.

Mr Kannis was also a board member of Infrastructure Australia for six years from 2008.

The first stage of Metronet includes:

- Completion of the Forrestfield-Airport Line (Expected completion end of 2020);
- Building the Yanchep extension (Expected completion 2021);
- Building the Thornlie to Cockburn line (Expected completion 2021);
- Planning and construction of the Morley-Ellenbrook Line (Expected completion 2022);
- Building the Byford extension (Expected completion 2023);
- Starting a program of removing level crossings on the Armadale, Fremantle and Midland lines; and
- Building new stations at Karnup and Midland.

Part of stage one will also include planning work for an inner suburb light rail system, improving bus services and circle routes and creating better synergies between cycling infrastructure and public transport.

The Metronet team will include experts seconded from state agencies including the WA Department of Transport, Public Transport Authority, Main Roads WA, Metropolitan Redevelopment Authority, the Department of Planning, Lands and Heritage and the departments of Finance and Treasury.

WA Transport Minister Rita Saffioti said that the team will comprise of experts from a variety of fields, who will work together under one office to deliver the best land use, transport and finance outcomes for Metronet. "Metronet is not only a transport plan but a blueprint for creating a network of well-connected activity centres across Perth", Minister Saffioti said.



## CHINA

Representatives of 110 countries assembled in China in May to hear presentations on China's ambitions under a program termed 'Belt and Road'. The program aims to recreate the ancient 'Silk Road' trading routes by building new maritime and overland infrastructure to support trade movements between China and other Asian countries, as well as Europe and Africa. High-level government officials attended the conference, including the Chinese President as well as heads of nearly 30 other countries. However, no heads of European countries were there, highlighting the wariness that is felt in some quarters towards the initiative, which has been criticised as lacking in detail. Critics claim that the program is nothing more than a vehicle by which China can claim domination over countries along the route while its supporters see only benefits for otherwise struggling economies. There has been a mixed reaction from the countries involved, some of which are ready to welcome the significant investment that China is prepared to make while others are highly suspicious of China's motives. For some years China has provided financial and engineering expertise to developing nations in Asia and Africa with its funding of new or revived railway routes. China has made a point of saying that it does not interfere in the domestic politics of the countries with whom it does business, although the extent of Chinese influence through media links and political and industrial espionage has long been debated in diplomatic circles. Elements of the program are actually already in place and regular rail services have been operating between China and various destinations in Europe for some years. One of the private sector players that has been involved is the international logistics company, DHL, which has started a new service between China and Belarus. The train connects Shenzhen and Minsk and carries export products in both directions. Another company, Swiss intermodal operator Hupac, has launched a service in conjunction with a Chinese chemical manufacturer to move tank containers carrying chemical products from China to destinations in Germany and France. Another Chinese company has started a China – UK service to test the market for the carriage of 'premium' products on a route that passes through Kazakhstan, Russia, Belarus, Poland, Germany, Belgium and France before using the Channel Tunnel to reach a terminus at Barking. The cost of shipping such products by rail from Asia to Europe is expected to be about half that of air-freight while being much faster than is possible using ships.

Chinese manufacturer CRRC has unveiled an Autonomous Rail Rapid Transit vehicle, which is actually a bus. The three-section articulated bus is built to the same dimensions and looks like a tram but it runs on the road using rubber tyres. Sensors keep the bus in its lane and it can also detect traffic problems. On a full charge, the bus can run up to 40 km at a maximum speed of 70 km/h while carrying 300 passengers. The new vehicle is intended for cities seeking a cheaper alternative to rail-based public transport.

## USA

An American institution came to an end in May with the closure of the Ringling Brothers Barnum and Bailey Circus. The demise of the circus was not just the end of an entertainment staple that had played to audiences for nearly 150 years; it also brought to a close the use of circus trains that carried performers, animals and equipment across North America during the circus-touring season. Ringling Brothers operated two circus trains, the 'Red Train' and the 'Blue Train', both of which were over 50 carriages in length, including accommodation cars to house around 300 people, cars adapted to carry animals as well as flat and container cars to carry vehicles and the myriad equipment that makes up a circus showground. The circus did not own locomotives, instead using those of the host railroad over which the trains ran. The trains were on the road for about nine months of the year, with the summer layover spent parked in a Florida siding. The circus owners, Feld Entertainment, announced the closure of the circus earlier this year, citing high costs, dwindling audience numbers and ongoing and concerted campaigns by animal rights activists who objected to

the use of animals in such a spectacle. Surveys suggest that with the changing tide of public opinion up to two-thirds of Americans do not approve of animals being used for 'entertainment'. Animals had actually been withdrawn from the shows once before – in 1925 – before being restored to the performance six years later. Ironically, a decision in 2015 to remove elephants from the circus only hastened the drop in ticket sales. The future of the passenger cars is unknown but they are not considered an easy sell due to the extensive modifications that have been made to turn them into living accommodation suitable for long periods away from home.

Driverless trucks are emerging as another threat to the carriage of freight by rail with some estimates suggesting that up to 70% of all trucking jobs could be wiped out in as little as 15 years, thus making road transport even more competitive with rail. Rapid advances are being made in the development of driverless technology for all road-based vehicles but the commercial and safety benefits that would flow from a driverless truck fleet are starting to be emphasised as some of the industry's biggest players move towards an autonomous future. Australian mining companies have been pioneers in the use of driverless technology but some of the biggest freight haulers in the US are now starting to look at a future operational model where trucks would operate either completely or largely independently of a driver.

Such a development will address a number of problems confronting the road freight industry, including safety, costs, mandated work limits and a chronic shortage of drivers. In the first stage of autonomous development, it is likely that operations within depots or confined areas would become commonplace, but such manoeuvres would quickly expand to freeways and major highways. The first generation of such trucks would have a driver to oversee its operation and to step in when required but the era of the fully autonomous highway hauler is considered to be closer than many people may realise. Truck driving is one of the biggest categories of employment in the US and the widespread adoption of driverless vehicles, along with the associated job losses, will have a major impact on the social fabric of the country – let alone the effect on the rail system that may struggle to compete against a business model that manages to all but eliminate the paid worker. Train crew sizes have reduced in the US over the last 30 years. In the 1980s up to five crewmembers were common on a freight train but today the two man crew is standard. The push to reduce to single man crews has been stymied somewhat in recent years by safety concerns but the move to driverless trucks, if it is not matched by a driverless or a completely driver-only rail system, could only intensify the pressure to further reduce train crew numbers.

The American Public Transport Association has voiced concerns about plans by the Trump administration to phase out funding grants for public transport projects under two schemes that have thus far received congressional support. While President Trump has made it clear that investment in infrastructure, including airports, highways and rail networks, is a priority for his administration, the proposal to eliminate funding for public transport projects has been criticised as being inconsistent with this aim. Various public transport initiatives were supported in last year's presidential ballot (dozens of other matters are routinely voted on during American presidential elections) in the expectation that matching federal grants would support state and local funding.

Questions have been raised about the appointment of E Hunter Harrison as CSX Chief Executive after he appeared at a company event using an oxygen machine. Harrison told the audience at the meeting of shareholders in Richmond, Virginia, that his doctor had cleared him to work, although he did not disclose the nature of his medical condition, but did say that it prevented him from travelling as much as he would like. Harrison was lured to CSX from Canadian Pacific as part of a deal involving an investment group that wanted to overhaul CSX's operation by installing a new management team. Harrison is famous for his so-called 'precision railroad' approach to train operations, which involves tightly scheduled services and maximising the use of rolling stock assets.



## UNITED KINGDOM

Work to identify the next generation of vehicles to be used on London's Docklands Light Railway (DLR) has commenced with Transport for London seeking a supplier to build 43 new trains over the next five years. From humble beginnings when it opened 30 years ago, when it carried 6.7 million passengers in its first year of operation, the DLR now carries 112 million passengers a year and has been criticised for having been designed without future capacity to expand. The new trains are expected to lift capacity by 30% while providing improved comfort and various passenger services, including real time information and mobile device charging stations.

## FRANCE

Rail operator SNCF is to rebrand its TGV trains as 'inOui' as part of a plan to rationalise service levels and differentiate the premium and low-cost ends of the market. Ouigo is the low-cost brand that was introduced in 2013 and which operates in a similar manner to low-cost airlines. SNCF is expecting a significant increase in low-cost ridership as the network of such trains is expanded. The more upmarket inOui brand will cater to premium passengers. TGV services have had their previously privileged market position challenged by the rise of budget airlines as well as the growth in popularity of ride-sharing apps.

## SOUTH AFRICA

The first 13 Xtrapolis 'Mega' electric multiple unit trains being supplied to Metrorail have entered service on suburban routes in Pretoria. The joint venture company led by Alstom that is supplying the trains will ultimately deliver 600 six-car trains over a 10-year period, with future deliveries to be used to replace older rolling stock currently operating

in cities such as Johannesburg, Durban and Cape Town. The first 20 trains are being manufactured in Brazil but the remainder are to be built in South Africa under a program designed to promote local manufacturing and build the skills base of local workers. More than 60 trains a year will be delivered when the factory reaches full production.

## ZIMBABWE

A proposal to redevelop the so-called 'North South Corridor', stretching from Durban in South Africa through Zimbabwe and Botswana to the Democratic Republic of Congo and Zambia, has been launched. The study will be used to develop a plan for freight and passenger train movements along the corridor while growing volumes, reducing costs and better pricing of services. A memorandum of understanding has been signed by the rail operators along the corridor with a view to overcoming the problems caused by lack of finance and dilapidated infrastructure.

## KENYA

The new 472 km standard-gauge line linking Mombasa and Nairobi has been officially opened. The new line, which was built with Chinese funding to a standard that will allow passenger trains to travel at speeds of up to 140 km/h and freight trains up to 80 km/h, has reduced transit time for containerised freight from 16-24 hours by road to around 8 hours. Two passenger services have been introduced – an express service running non-stop between the termini at each end of the line and a slower service that calls at seven intermediate stations. The route is the first part of a planned larger network that will ultimately link Kenya, Uganda, Rwanda and South Sudan. The Kenyan Government has said that new economic zones will be established along the route of the new line.



The X'Trapolis 'Mega', supplied to Metrorail South Africa, is a brand new train in Alstom's X'Trapolis suburban range, quite different from the X'Trapolis trains familiar to Melbourne commuters. The new trains will initially run in the Koedoespoort – Rissik Corridor in Pretoria during peak and off-peak hours – a total of 146 trips a day. Courtesy Alstom/Karl Shoemaker









# THE NSW HUNTER VALLEY

A snapshot of one of Australia's busiest rail corridors



**Previous pages:** With the Hunter Valley Coal Chain being the largest export operation in the world, coal is still king in the Hunter Valley, and coal trains dominate traffic 24/7. Aurizon is currently one of three main players in the market, and on Friday 26 May, Aurizon UGR/GE units 5008 and 5037 haul a Down empty coal across the Hunter River just out of Singleton. John Scott

**Right:** Seasonal grain trains also mix it with the ubiquitous coal trains when the harvest is underway. Nearing the end of their long journey from Werris Creek to Port Waratah RL305, C504, 4917, 4911 and RL304 haul 5478 SSR grain train past East Maitland Station on the 'Up mineral' line on New Years Day 2017. Stephen Preston

**Below:** CFCLA Goninan/GE units EL56 and EL57 on a Down empty Pelton coal train are falling behind XP2013 and XP2002 on NT35 Down Sydney to Brisbane XPT as they pass through Waratah on Wednesday 24 May. John Scott

**Above right (Page 35):** Shadows lengthen in the late afternoon light as C506, C505, 44206, S302 and GM27 haul SSR Grain Train No.5444N near Muswellbrook on Friday 28 April. Ewan McLean

**Below right (Page 35):** Pacific National Canadian-built EMD units 9019 and 9018 haul a west-bound empty coal train through Branxton Station on Saturday 1 April. Bruce Gehrig











**Above:** On Friday 26 May, an empty SSR grain train behind the eclectic quintet of C506, BRM2, B61, S317 and GM27 pass a coal train hauled by TT127, a 93 Class unit and a second TT at Glennies Creek. Graeme Belbin

**Right:** A Hunter Railcar Set, with Car No.2703 leading, rolls through East Maitland Station with a Muswellbrook to Hamilton service on Tuesday morning 27 December 2016. Stephen Preston

**Below:** No, it's not a race! Aurizon UGR/GE units 5028 and 5041 on UL171 coal train overtake sibling units 5026 and 5027 on MB919 coal train at Whittingham on Saturday 29 April. Ewan McLean







**Above:** Pacific National EDI/EMD units TT103, TT124 and TT120 lead a loaded coal working past the beautiful jacaranda trees at Aberdeen, on Saturday 12 November 2016. Stephen Miller

**Below:** 8181 and 4894 haul 4523N Down Carrington-Werris Creek empty grain train past the Pacific National Train Support Facility at Greta, on Saturday 27 May. John Scott







**Above:** An empty SSR grain train passes through East Maitland with a mixed bag of motive power, comprising RL306, GM27, S317, C505 and C509, hauling converted ex-Leigh Creek coal wagons, on Monday 29 May. Peter Sansom

**Below:** A Genesee & Wyoming Australia (GWA) empty coal train, comprising UGL/GE units XRN 006, GWU 003 and XRN 010 powering a rake of PHEH and PHYH wagons has just passed through Wollar crossing loop on the Muswellbrook – Ulan – Gulgong line. GWA now competes with Aurizon and Pacific National for Hunter Valley coal business. John Hoyle









# Finding the right innovation in Australia's rail industry

Martin Chappell



**T**he Department of Infrastructure and Regional Development expects the rail freight task in Australia to double over the next 20 years, bringing huge opportunities, but also challenges, for the industry.

Resurgences in industries such as manufacturing and mining are playing a part in this, as well as a number of Federal Government-supported rail infrastructure projects - either confirmed or in the pipeline across the country.

This is encouraging, but even as it expands, the rail industry faces many of the same challenges as other industries such as retail and other forms of transport. Pressure on costs and resources, doing more with less and meeting constantly rising customer expectations, all while maintaining the highest levels of safety for rail workers are among these challenges.

Enter technology and innovation. While the rail industry might be considered a relatively slow area of technological enhancement compared with the likes of automotive or aviation, there have been notable changes in recent years that have had a positive impact. These include computer systems to reduce slip control, distributed power to automate operator actions and modern brakes to reduce heat fade.

The challenge for industry is deciding which technologies should be implemented when so many are available. The most successful deployments will come from innovation that addresses the two most fundamental needs – increasing productivity and protecting rail worker safety.

Our organisation recently conducted research supporting this – of 130 IT leaders from industrial and commercial sectors including rail, 91 per cent want to leverage data to monitor and communicate with workers to help keep them safe. 73 per cent want to increase productivity through simplifying or automating manual or complex tasks.

## Reducing complexity with simple measures

Businesses in all industries in Australia and globally are adopting new third-party platform solutions to navigate the ever-changing economy. Industry-focused solutions continue to outpace more traditional industry spending as businesses evolve and adapt to new revenue streams.

For the rail sector, finding the right blend of technologies to increase safety for workers while boosting productivity generally lies within simple, small and precise data sources. Impressive new innovations such as transferring energy created from braking trains to power grids and moving platforms that can dock with high speed trains will continue, but

**Above:** Typical of unforeseen problems that can arise, on Australia Day, SCT's 4BM9 Brisbane-Melbourne freight had fuelling problems at Goulburn and as a result departed there 1hr 30mins late, so the crews had to be changed-over at Junee instead of Wagga Wagga as scheduled. The two crews chat on the platform at Junee as locomotives SCT010 and SCT014 idle patiently. Rhys Harrison

applying modern technology and analytics to existing communications systems including radio networks can also yield great results.

GPS can now be used on the network to track – either through radios or smart phones and other devices – the location of each worker on the train. Bluetooth can be used for the same purpose in stretches where GPS signal is poor.

Imagine a driver were to fall down injured – the network can trigger automatic alarms to alert other workers to the incident, meaning the situation can be resolved before the driver or others on the train are hurt. Data from these networks and devices can be used to develop more precise maintenance schedules, automatically register when workers have arrived and are ready to move, and automate manual tasks to save time and money.

## Imagining the rail worker of the future

The need for mobility and to communicate with personnel on the train or back at the station will always be vital to the rail industry. As the Internet of Things develops and new innovations emerge, we can imagine many more opportunities to enable higher levels of worker safety and productivity.

We can imagine the future 'connected worker' in the rail industry will be of a different style to what we currently have.

Using technologies such as body-worn video cameras, heads-up displays and biometric sensors will mean important data can be sent and received seamlessly and potential hazards identified with ease, all without any distraction to the worker while completing their tasks.

The future of Australia's rail industry is bright, and technology and innovation will continue to play a major role in this, so it's important to refine what helps businesses increase productivity while keeping workers safe.

*Martin Chappell, is General Manager Commercial Channels, Minerals & Energy, Motorola Solutions Australia and New Zealand.*



# Cunningar

## Buck Rogers



On 7 December 2015, GrainCorp announced that its Cunningar grain receival site would be upgraded at a total cost of \$8.1 million, with the funding for the upgrade coming from three sources: GrainCorp (\$3.6 million), Hilltops Council and local grain growers (\$2.0 million), and the Commonwealth Government's National Stronger Regions Fund (\$2.5 million). (See report in November 2015 *RD*, from page 30.) The Cunningar Grain Receival site is 380.921 kilometres from Sydney on the Main South, just north of Harden.

The key elements of the upgrade are:

1. The construction of a garner bin and spout to load trains at 1,000 tonnes per hour,
2. Construction of an inter connecting conveyor from the existing storage to the new loading point
3. Upgrading the site road traffic infrastructure, and
4. Re-instatement, extension and upgrading of the existing siding and construction of new trackwork.

Sydney-based Martinus Rail has been contracted to construct the new rail facilities. On-site construction commenced in February 2017, and by mid-May, the following progress had been made:

- Most of the major earthworks had been completed.
- Work was about to begin on the construction of the rail sidings and overhead bins.
- Fabrication of the steelwork and silos off-site was well advanced, with trusses for the conveyors having already been delivered on-site.
- The piling for footings was underway.

Once completed, in October 2017, the upgrade should have the following benefits:

- An 80 per cent improvement in train loading times from 23.8 hours to 4.1 hours.
- Reducing the time it takes for grain to be railed from Cunningar to Port Kembla and back by half – achieving 24 hour turnaround (eliminating the need to run short shuttle trains from the silo to GrainCorp's Harden facility to be combined into a longer train).
- Reducing the cost of railing grain to port by \$10 per tonne.

Cunningar serves one of the most consistent grain growing areas in Australia and is the most northern of the silos served by rail on the Main South line. By January 2017, Cunningar had received 100,000 tonnes of grain, which is a record for the site.

**Above:** Cunningar looking towards Albury on Thursday 30 March, with the earthworks for the upgraded grain receival site well underway. The concrete silos closest to the camera were completed in 1931, whilst the taller silos behind were completed in 1967. The former island passenger platform used to stand adjacent to the taller silos. The Down mainline was slewed to its current straight alignment after the island platform had been removed (The line appears to have been straightened sometime in the early 1980s). The Boorowa – Harden Road level crossing can be seen in the distance. Buck Rogers

**Right:** On Thursday, 11 May the Melbourne to Sydney XPT (ST24) is seen passing the construction works for the new siding. John Hoyle







# Data and the Internet of trains

## Gerhard Kress

In June, I had the privilege of visiting Australia for the first time. A wonderful country that, in addition to having some of the friendliest people in the world, is home to progressive cities such as Melbourne and Sydney, which understand that transportation is at the heart of our societies.

Like other big cities, transportation in Australia brings people to and from work, and moves large amounts of goods and products. Here and across the world, making transportation work means not just focusing on cars, trams and trains themselves, but on the systems that make sure that there's safety, power, and communication around all the movement of every transportation unit. Rail is especially important: It would be hard to imagine a big city operating efficiently without a functional rail system.

For cities, infrastructure providers and governments, the critical question that drives most decisions is, "How do you ensure that passengers waiting for a train are getting a train on time"? Beyond the rolling stock and infrastructure, the answer lies in data specialists who monitor and analyse the billions of data points that a train sends out every year.

But data itself is worthless unless we have the knowledge and capacity to turn it into information. Even more important is to then take that information and turn it into action. For the rail industry, that means making decisions about whether to take a train out of service to be repaired or keep it running for a few more days. Decisions such as analysing data and information on what parts of the train have broken, what spare parts have been used and what is still available, what geographic regions it has travelled through (is there a hill that is notorious for causing problems?), and whether it's near a service depot that has capacity to provide maintenance. This level of analysis is required to turn raw data into valuable information that impacts operational capabilities.

So what are some of the key pillars of data and digitalization in the rail industry, and more importantly, what is the potential?

### Predictive maintenance

Our roadmap to digitalizing transport initially focused on the maintenance of trains because, in the long run, as transportation gets more digital and robust, it can reconfigure itself in the event of external shocks.

The first step to consider is the availability of the vehicles. If you do not know the condition your vehicles are in, you do not know when one of them will fail. This knowledge is a basic prerequisite for the optimization of operation control - the actual production process in rail transport. Risk detection and maintenance has since gained significant ground, at Siemens and across the industry. Predictive maintenance is essential in improving availability of rail assets, as it allows you to understand a problem before it arises, replacing the component at a time when it does not disturb operations, reducing the risk of unforeseen events during a journey.

### New data and new possibilities

The digitization of the operation control is a challenge, particularly in large fleets and long distances, because the dependencies are significantly higher. The more projects we implement for our customers, the more data we can generate and analyse - especially as we work on projects worldwide where the length of the routes and trains vary as well as the climatic conditions or the capacity utilization. Therefore, with each new challenge, we as an industry have the opportunity to gain new data and insights that we can use for other projects as well as predictive maintenance.

The application of data analysis and insights, especially in the realm of Industry 4.0, is not a rigid process but a continuous development of concepts, ideas and products. For people who have been in the industry for a while and for new graduates just getting in, the opportunities that data offers are endless.



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A great example is how a small team of Australian-based Siemens rail engineers designed and developed a Remote Diagnostic and Advisory System (RDAS) – which is now part of the global Siemens Railigent platform – that for the first time, brought together disparate systems on the network into an integrated platform, giving operators the ability to view all their assets in real-time through one consolidated application.

RDAS monitors interlocking, network peripherals, point machines, signals, axle counters and others – in the past, each device used individual monitoring tools. This is testament to the new possibilities, particularly technology-agnostic solutions, using data.

### Cooperation that drives continuous development

For the rail industry to flourish in the digital world, it is important that we do not act in silos. For continuous development, we need to work together. An interesting example is in Russia, where we operate not only a center for data analysis, but also in a joint venture, manufacture heavy locomotives. There are many questions about diesel locomotives that help us to better understand the data of such a technology platform. In Russia, therefore, a whole new data source opens up for us, from which we can also learn for other global projects.

Around Moscow, there is a dense network of regional trains and suburban trains, where currently about 40 trains run on a ring route around the centre. This is currently one of the prestigious properties of the Russian railways and is clearly in front of other railways. From 2018, the trains should drive autonomously and later even without a driver. This is, of course, a major challenge in that there should be no surprises during operations if there is no longer a driver on board. We need to understand the interactions even better, and we are currently working with our joint venture in our Russian data analysis center.

### Combining data with other networks

The added value of Big Data comes into existence only when you combine different data with each other. For example, take the kilometres-long freight trains in the USA at railway junctions. Here you can wait 20 to 30 minutes at a railway crossing before a freight train has passed.

This could impact on local emergency services such as the fire brigade, the police or the ambulance.

Based on the generated data, we will know exactly when a train passes which railway crossing and how long it will be closed. In this case, networking with the local forces could save lives.

Networking with data from logistics companies could also create many synergies - for example, with regard to loading. You could calculate the net inflow and outflow per station based on the weight of trains. This is relatively uncomplicated in comparison to other measurement methods, but it can have a high significance for the operation of a route and the scheduling of the trains.

### Unleashing the full extent of data

Today we are relatively at the beginning of a gigantic learning process, which will open up many possibilities. However, the speed of this process is also very impressive, so we can probably expect very fast development and networking.

In Spain, we worked with Renfe, the national railway, to boost on-time operations on the high-speed rail line between Madrid and Barcelona. The rail trip takes two -and-a-half hours, and it competes with flights of an hour and twenty minutes. When the trains started, 80% of travellers took the plane, and 20% took the train. As of early 2016, those numbers have reversed: 80% are taking the train, and just 20% are flying. That is because those trains are punctual.

With each new project, we get new data from which we learn, and from this development, in turn, we get benefits for existing projects. It is also interesting in this process that thanks to the merger of vehicle and maintenance data, we can now make even better predictions. And this is still an important basis for our work.

All of this is important, because with the insights we can create from data we can help our customers gain more value from their assets, ensure better operations and ultimately help them be more successful in their business.

*Gerhard Kress is Global Head of Data Services, Siemens Mobility*

**Above left (Page 40):** Transport for NSW's Italian-built 'Roger 800' track inspection vehicle MTPV1 saunters through Sydney Central's Platform 18, en route from a run down the North Shore Line, Tuesday 6 June. Chris Walters  
**Right:** A feature at Circular Quay Station on Sydney's City Circle line is an information/train transcriber 'kiosk' set up on each platform so that passengers can also see what trains are due and when, with the facility operated by the platform attendant. Previously, this equipment was all set-up inside the platform office and was not so readily accessible to passengers. Shane O'Neil





# A visit to the West Coast Wilderness Railway

Text and images by Shane O'Neil



A long term steam railway enthusiast mate and a colleague of his, scored, what would appear to many readers of *Railway Digest*, a dream employment opportunity in late 2016. A four-month paid stint as steam drivers on the West Coast of Tasmania driving the small, 0-4-2T Abt rack system-equipped locomotives over the West Coast Wilderness Railway. There are not many paid positions as steam locomotive drivers in Australia, with Puffing Billy being the standout. The Zig Zag Railway was a big user of steam qualified drivers until the events of 2012. However, aside from paid fitting and workshop staff, all locomotive crews were volunteers.

When the WCWR commenced operating the long-closed and removed railway between Strahan and Queenstown in 2003, the need for fully qualified and experienced steam crews was obvious. The majority of footplate crew came from the mainland, as there was a dearth of qualified, experienced personnel in Tasmania. Puffing Billy has become a training ground for such a skill base and in addition, the very nature of their narrow-gauge operation with small locomotives, thereby ensures the operators thereof become very familiar with learning their steam trade skills on-board these small tank locomotives, operating regular timetable-scheduled services, on a very popular tourist railway. Accordingly, PBR locomotive crews have all the skills sets and more, for the demanding environment on the WCWR. Consequently, Graham and Alan after completing a trade and knowledge test combined with provision of their record of service on other railways clearly proved their worth as skilled steam locomotive crewman and they were contracted for the period 1 January to 30 April 2017.

Graham's 60th Birthday falling on the 12th of March provided the excuse for a bunch of mainlanders, and one resident Tasmanian, to help him celebrate the event, which commenced with a dose of steam at Sheffield on Saturday 11th at Redwater Creek Heritage Museum amongst the hay balers, traction engines and the narrow gauge railway with its delightful, composite Krauss 0-4-0T. Once we were suitably

steam-affected, we headed off to Queenstown to enjoy the pleasures of the WCWR. An inspection of the workshop on the Saturday afternoon sated the desires of some in the party, however, for the rest of us, we resisted temptation until the Sunday morning. The day dawned cool with mist surrounding the town, only added to it by appearance of Abt No. 5, some 30 minutes before departure time, with our friends on the footplate, promising a much anticipated day of steam delights. My late father, who was never a railway enthusiast by any stretch of the imagination, had beaten me by a decade or more riding the train whilst on a respite care visit from caring for my now, late mother and he spoke highly of the trip. So it had been on my list of things to do for at least that long, though in reality, it had been a desire since at least January 1969, when on a family holiday to Tasmania, when we had driven west from Hobart one day, we had come across Abt No. 2 sitting on the back of a truck stopped beside the main road, en route to Hobart for eventual preservation in the museum at Glenorchy. That lucky sighting had awoken my interest in this strange railway operation that had operated in such a remote and inhospitable place. I never visited SW Tasmania until December 1981, when I came with a bunch of mates to do a rafting trip down the Franklin River. Even in mid-summer, weather conditions in Queenstown could require a few layers of clothing and the surrounding hills were as barren as a moonscape. Many things have changed in the intervening 35 plus years, with vegetation reappearing on the hills, fewer buildings around town and the collapse of mining in Queenstown, with depressed ore prices.

Meanwhile, back in Queenstown March 2017, a steady stream of passengers were turning up at the railway station, collecting their tickets, ordering and enjoying their coffees, which added to the atmosphere in the, by now, very crowded station. Soon after 10am we departed and the little train of three carriages threaded out through the still slumbering town whistling for the many street crossings and after a short water stop at Lynchford, we soon commenced the climb





particularly after Halls Creek, with the rack commencing about half way to Rinadeena. At that station, a stop was made for the passengers and for the locomotive, to take on water, as it did also at Lynchford. The on-board staff also performed station refreshment duties here and later at Dubbil Barril, selling a range of hot and cold drinks, including alcohol and snacks. From here to Dubbil Barril, the line is rack-equipped as the grade is steep and there are multiple bridges and the scenery is spectacular and about three kilometres after the summit of the line at Rinadeena the King River comes near to the line and the valley opens up with views looking north east.

Arriving at Dubbil Barril, the locomotive cuts off from the train, takes water and reverses to the small turntable and with the entire train as an audience, the locomotive is turned to allow funnel first operation on return to Queenstown. Throughout our journey that Sunday, the weather had been fine with mist and some cloud and the occasional sun passing through the thick vegetation. In other words, ideal weather for a journey through Tasmanian rainforest. After a stop of 30 minutes or so where one of our party attempted to fit a couple of his small digital cameras to various places on the locomotive to obtain some different video coverage without success, the return journey commenced with a serious assault of the rack-assisted grade back to Rinadeena.

**Above left (page 44):** The half-day morning train returns to Queenstown on Monday 13 March passing the Quarry Road level crossing where a number of items of rolling stock are stored on a short dead-end siding, including four-wheel brake van No.B2, formerly from the Mt Lyell Railway.

**Above:** Intently focussed on the task at hand, Graeme Hind, a former Zig Zag and Puffing Billy steam driver, who also earned his 'stripes' firing and driving steam in South Africa in the 1980s, eases Abt No.5 down the rack section from Rinadeena to Dubbil Barril with a half-day run from Queenstown.







The climb may have been spectacular but inside the sealed carriages, aside from the smoke, we didn't really notice as there was very little audible sound. Somewhat disappointing and for those that like the sound of a steam locomotive working up a steep grade with accompanying sound effects, forget it. The crew took on more water for their little charge at Rinadeena, as did many of the passengers. Lynchford was the last water stop before arrival back at Queenstown on time. The last episode for the railway enthusiast and those pretending they weren't but in reality, they were, was the locomotive turning procedure set against the townscape. Our friends on the

locomotive were required to do another return run to Dubbil Barril, so our party of ten split up to do other things until the end of the day's running.

The next day after we had a late start after the birthday party celebrations the night before, we chased, if that is the term considering the lack of roads and the short distances involved, the first run to Dubbil Barril and return, covering the few locations available between Queenstown and a bit beyond Lynchford. After lunch, we drove over to Strahan and did the same thing with the afternoon run from there that runs up to Dubbil Barril, with good road access to Lowana, so some low level







water views were possible in our photographs. We were blessed with very good weather for 75% of our photography and unlike the days we spent photographing Tasrail in the days afterward (see May *Railway Digest*, pages 38-43) we knew where trains were at any one time and they could be relied upon to be at the appointed location at the known time.

The only negative aspect of the WCWR experience was the somewhat unnecessary and at times inane commentary provided by the passenger attendants. My advice – and our party of ten all agreed on this was – forget about it and let the passengers enjoy

the natural experience and ambience of travelling through one of the most beautiful parts of Australia. Also, while you're at it, allow the windows to be opened, so that passengers can hear the steam working as it should be heard; loud! As railway enthusiasts, we would have loved the full bottle experience of a day return run, from either end behind steam, but that is maybe stretching it a bit much. However, with the right marketing, via social media, there are punters out there who would be interested, even if it is going to cost more. I would pay and I am sure, I am not alone in my thoughts.

**Above left (page 46):** On the misty Sunday morning of 12 March, Abt No.5 is turned by its crew, whilst an attentive audience of passengers watch on at Dubbil Barril, before the train's return to Queenstown.

**Below left (page 46):** The day's work is done. Abt No.1 and train on return from Dubbil Barril at Regatta Point, late Monday afternoon, 13 March.

**Above:** Passengers enjoy their ride on the Abt Railway in one of the eight Tasmanian-built carriages. Three are used on this, the Queenstown to Dubbil Barril section, whilst another three, plus a kitchen car, are run on the other end of the line from Strahan to Dubbil Barril

**Right:** Looking down into the King River Gorge from the footplate of Abt No.5 as it drops down the 1 in 20 from Rinadeena to Dubbil Barril.







**Above:** Abt No.1 emerges from behind the trees on the edge of Macquarie Harbour at Lettes Bay, near Lowana, as it returns to Regatta Point on Monday afternoon 13 March.

**Below:** View from the footplate looking down the rack section toward Dubbil Barril from Rinadeena above the King River Gorge as Abt No. 5 heads the regular half day trip from Queenstown on Sunday 12 March.

**Right (page 49):** Whilst Abt No.5 takes water, one of the crew checks the inside motion during the stop at Rinadeena on return from Dubbil Barril after the climb up the 1 in 20 rack section on Sunday 12 March.











# Daylesford update

James Chuang

Good news for the Daylesford Spa Country Railway (DSCR) with the pending arrival of 280hp Walker 85RM. Previously stored at the Mornington Peninsula Railway, 85 is a sister to units 82RM and 91RM, and is a 280hp, three-section, articulated rail motor consisting of two driving units and seating areas. With seating for 38 in first class and 56 in second class, a total of 94 passengers can be accommodated. The unique layout of the motor has a centre mechanical section with engine and motor located in the middle with an offset corridor to enable transiting as needed.

Despite being designed in the 1940s, the notion of articulated bodies with centre-mounted mechanicals can still be seen today in much newer European trains like Stadler Rail's FLIRT and Bombardier Talent trains! 85 RM was one of the last Walker railmotors in service with Victorian Railways, entering service in 1951 and being withdrawn in 1979, having been stored at Mornington Railway's Moorooduc station yard for the last few years.

DSCR already has two, 280hp Walker railmotors with 91RM rostered for active service and 82RM stored pending restoration. Despite languishing in storage for nearly four decades, reports suggest 85 is still in reasonable condition, and a good candidate for the loving attention of DSCR's speciality skills in restoring, operating and maintaining Walker machinery. Restoration work on another Walker unit, the 153hp 32RM, is almost complete, with spare parts on-site that will help facilitate work on 85.

Set in Victoria's picturesque Central Highlands just over an hour from Melbourne, DSCR is in the enviable position of dealing with increased

visitor numbers in recent years. With the Spa District attracting day trippers and overnight visitors, rail motor loading capacity has increasingly been put under pressure with some services completely booked out on occasion. Additional capacity is sought to help ease the crowding and the possibility of additional running days is being considered. The number of additional days would be limited to maintain the desired 'time capsule' effect as described in the 2012 Business Plan. Supporting the illusion of stepping into the past, DSCR is hoping to restore 85RM back to its original 1950s configuration, as opposed to 91RM that is currently outshopped in a 1970s presentation.

The restoration of another Walker railmotor, the 153hp 32RM withdrawn in 1980, is well advanced with testing and trials currently underway. A fresh coat of paint and a 1950s-style VR logo has been applied to portray 32RM firmly in the post-war era. Plans are in place to expand the existing car shed to accommodate the new residents.

With assistance from Victrack, the 1882 dichromatic brick station building at Daylesford has also received a thorough restoration to its former 1920s-era glory. The restoration work restored the former ticket office and provided a larger waiting room, with the interior repainted according to a 1920s style. The station was officially relaunched on 1 May with Mayor of Hepburn shire council, Cr Sebastian Klein and local state MP, the Hon Mary-Anne Thomas, member for Macedon, in attendance.

**Above:** Mayor of Hepburn Springs, Cr Sebastian Klein (2nd from left), President of Daylesford Spa Country Railway, Stuart Smithwick (3rd from left), State MP for Macedon, Mary-Anne Thomas (5th from left), representatives from Victrack and Daylesford Spa Country Railway volunteers at Daylesford Station celebrating the building's complete restoration, on Monday 1 May. Mary Brook

**Right:** Former Victorian Railways Walkers Railmotor RM32 breathes some fresh air under the morning sun, with a fresh coat of VR paint and a VR chevron applied, outside Daylesford Spa Country Railway's restoration workshop on 24 April. Steve Fiume





## Tumbarumba to Rosewood rail trail legislation passes NSW Lower House

Construction of the controversial Tumbarumba to Rosewood rail trail (located on a 21 kilometre section of the disused Tumbarumba rail line) could begin in the foreseeable future after the NSW government introduced legislation to enable the lifting of rail lines on the planned route.

On Friday 2 May NSW Minister for Transport Andrew Constance moved for the second reading of the Transport Administration Amendment (Closure of Railway Line Between Rosewood and Tumbarumba) Bill 2017. The purpose of bill is; “.... to close the non-operational railway line between Rosewood and Tumbarumba to progress the development of a rail trail along the corridor.”

The government’s move is the next step in the process of opening access to the line after it approved a \$4.8 million grant allocation in June 2015 to support the Rosewood to Tumbarumba route as a pilot rail trail.

Speaking in parliament, Mr Constance said the line was “ideal for renewal as a vibrant, new tourism attraction building on the significant natural beauty of the region”. “Current and forecast rail passenger and freight patterns suggest it is unlikely that the

Tumbarumba to Rosewood railway line will ever be required for future rail services, however the arrangements will ensure that the corridor can be resumed by Transport for NSW for operational purposes if the need arises,” Mr Constance said.

Owen Fitzgerald of the Tumbarumba to Rosewood rail trail pilot steering committee welcomed the bill and said planning work was already underway. “After 14 years of battling I feel at last we have been vindicated in our campaign to get rail trails for NSW,” he said.

However, a strong opponent of the project, Borambola farmer Alan Brown, said it still did not have the support of adjacent landholders, and not all were farmers. He said residential homeowners in Tumbarumba with the railway line behind them did not want people “riding in their backyards”. “It’s going to be very expensive and it’s not going to be value for money, it’s a poor use of public funds”.

The Transport Administration Amendment (Closure of Railway Line Between Rosewood and Tumbarumba) Bill 2017 was passed by the NSW Legislative Assembly on Tuesday 23 May and had progressed to the second reading in the Legislative Council when debate was interrupted later the same day.

## Campaign to reopen Kandos – Rylstone section of Mudgee line

At the end of May a petition containing over 1,200 signatures calling for the reopening of the Kandos – Rylstone section of the Mudgee line was presented to local state Member for Bathurst and Minister for Lands, Paul Toole. The petition was organised by Kandos Museum and Lithgow State Mine Railway who want the seven-kilometre line reopened to support tourist trains and bring visitors to the Kandos – Rylstone district. Kandos Museum President, Buzz Sanderson, told the Mudgee Guardian Kandos –

Rylstone was a small community and re-opening this rail link would enable the towns to really lift the visitor economy.

Lithgow State Mine Railway chairman, Michael Wilson, said Mr Toole had been a great supporter of the re-opening and the two groups were hoping for a positive outcome. The reopening of the line to Rylstone would see the start of the Kandos-Rylstone Rail Heritage Precinct project preserve and the restoration of the railway stations at Clandulla, Kandos and Rylstone.



Tumba Rail’s celebrations marking the centenary of Ladysmith Station on the former Wagga Wagga to Tumbarumba branch line took place on Sunday 14 May. Ladysmith is now the last station remaining intact on the line and is in the care of the Tumba Rail group, part of the Regional Heritage Transport Association, Junee. To mark the event, a replica station nameboard was unveiled by the local State Member of Parliament, Daryl Maguire and Tumba Rail Chairman Richard Goodman. Peter Neve





## The Transport Heritage Expo

Held at Sydney's Central Station over the Queen's Birthday Weekend, the 2017 Transport Heritage Expo once again attracted large crowds, enjoying the many attractions on offer.

**Above:** 3642 lifts its large ten-car train plus 4520 trailing unit as Train No. 6569 through the classic Illawarra Line station of Carlton on Saturday afternoon 10 June. This was the third return shuttle to Hurstville that day for the Transport Heritage Expo. Shane O'Neil

**Right:** On Sunday 11 June, 3016 was on display, and the crew welcomed a steady stream of visitors on board. Bruce Belbin

**Below:** Heritage EMU Set F1 departs Central platform 4 on its first of two shuttles to Kingsgrove, while to the right, the *Southern Aurora* carriages get ready for the Devonshire Tea sittings. 4490 is sitting uncoupled next to the carriages, with the CPH railmotors sitting in front, waiting for F1 to clear the platform before they can occupy it. Joshua Stanbury







**Above:** BB18 1/4 Class Pacific 1089 on trip M9Y2 at Landsborough on Saturday evening 27 May, on a 'Destination Blues' Private Charter to Beerwah/ Landsborough. 1089 and the heritage coaches dropped patrons at the Beerwah Hotel for a meal plus Blues & Booze, whilst the train proceeded to Landsborough for turning on the 'angle'. Later that evening, the passengers re-boarded at Beerwah for their night-time trip back to Roma Street. Ray Miller

**Below:** Having successfully surpassed Warrenheip bank, A2 986 is seen cruising along at close to the 80km/h speed limit as it crosses the Midland Highway level crossing and former site of Elaine Station on its return from Ballarat to Newport on Sunday night 28 May, after a successful weekend of running shuttles between Ballarat and Lal Lal block point with steam locomotive Y112. Blair Campbell







**Above:** Running on a section of the former Port Douglas Shire Tramway in far north Queensland, the Ballyhooley Steam Railway operates passenger trains daily, with steam power featuring on Sundays. On Sunday 28 May, as its patrons enjoy morning tea in the café, Bundaberg Fowler 0-6-2T+T *Bundy*, which once hauled sugar cane for the nearby Mossman Mill, waits to leave St Crispins on the 30-minute return run to Port Douglas Marina. The green livery of Bundaberg Fowler 0-6-2T *Speedy* (ex-Millaquin Mill, Bundaberg), sitting in the loop behind, can be glimpsed through the carriage uprights. A third steam locomotive has recently joined the fleet, with the acquisition of former Mulgrave Mill 1934-vintage Fowler 0-4-2 *Nelson*. The loco was extensively rebuilt at Mulgrave in 1988-89 to haul the *Mulgrave Rambler* tourist trains. Bruce Belbin  
**Below:** The Victorian Colonial Express Carriages, 611ZD, 309Y, 40X and 69YZ seen stabled at Maldon with K153 on Saturday 20 May, after a special run on the Victorian Goldfields Railway. Ewan McLean







**Above:** On Saturday 27 May, veteran 128 year-old steam locomotive Y112 leads a shuttle for the Ballarat Heritage Festival, running from Lal Lal block point to Ballarat, passing the former station site at Yendon. Blair Campbell

**Below:** THNSW World President Association Charter Run number 6L41, powered by heritage Alco diesel locomotives 4001 and 4520, passes through the level crossing at Calwalla heading to Moss Vale from Wollongong on Saturday 27 May. Sohtaka Kikuchi







Redhen railcars 412-334 leave Victor Harbor, South Australia, with a Down Victor Harbor to Goolwa passenger service on Sunday 16 April.  
John Scott





**Above:** QR Heritage BB18 1/4 Class steam locomotive 1089 arrives at Spring Bluff with a *Sunshine Express* Rail Tour to Toowoomba on Saturday 29 April. Dominik Giemza

**Below:** The Rail Motor Society's CPH Rail Motors 1, 3 and 7 at the close of a 'rail and sail' six-day cruise, make a rare appearance at Brisbane's Roma Street Station. The cruise commenced in Brisbane, with participants travelling on the *Sea Princess* to Sydney, followed by two days on the CPHs back to Brisbane, arriving there on Thursday 8 June. James Wilmot







R707 Operations Inc loaned their flagship locomotive, R707 *City of Melbourne* to Seymour Railway Heritage Centre to enable them to operate a Steam Special from Seymour to Echuca via Nagambie and Kyabram for the Echuca Rally Festival on 10 June. The Special is seen here in full steam just outside Nagambie. James Chuang

### The Wentworth Deviation

Surely the 36-kilometre rail deviation of Picton is the most important infrastructure need in NSW!

It would cut the rail distance to Goulburn by 30 kilometres and save at least 30 minutes in travel time and millions of litres of rail diesel fuel!

The Melbourne to Sydney XPT waits 17 minutes at Bomen for the Sydney to Melbourne XPT, so the Melbourne to Sydney XPT could be in Sydney 45 minutes sooner. A 2½ hour Sydney to Canberra tilt train could soon follow.

*Bruce Hardiman  
via email*

### Steam in NSW

I've just bought and am reading the latest edition. Disappointing to see that 'NSW' could only provide two steam locomotives to this year's Maitland SteamFest – and one of them 'borrowed' from the ARHS ACT misfortune.

By contrast, Victoria has several active steam locomotives, and other states lesser locomotives in steam. Perhaps the demise of 3801 Ltd. has not been favourable for NSW operating steam locomotives.

*Laurie Bondeson  
via email*

### Inland Rail – Melbourne to Brisbane

I wish to make a few suggestions that I believe to be important to the Inland Railway Project.

1. As the proposal is to have trains travelling at up to 115 km/h, it is important that the tunnel mouths should be flared so as to minimise air pressure shock both to the train and to the surrounding area when entering and leaving the tunnels.
2. What will be a new concept for freight trains travelling at speeds which much higher and journeys that are much longer than hitherto, the locomotives


should be streamlined. This will assist in reducing air drag and so the amount of fuel used on the train's journey.

3. Attention should be given to modifying or re-designing the flat wagons that carry shipping containers so that windage caused by the train

is reduced. Even relatively modest deflections could make a substantial difference to fuel consumption in spite of an increase in the mass of the wagon.

*Barry Skelton  
Fisher, ACT*

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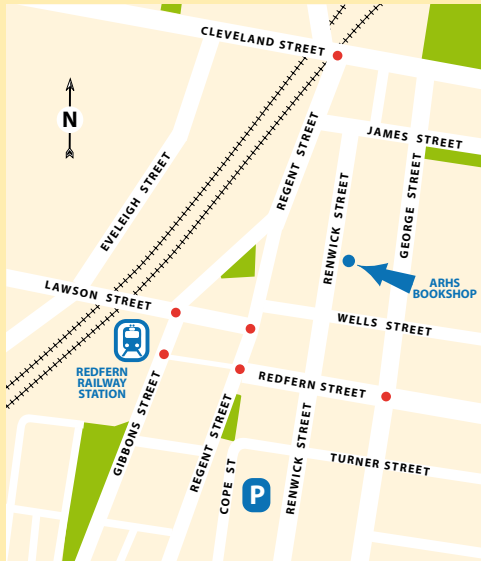
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