

April 2017

Railway DIGEST™

T

**NSW request stops
G512 'Peter Pan' on the move again
The race towards a better, connected rail
The RTAA/Sydney Trains Clyde Field Days 2017**

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



| | |
|-----------------------------------|--|
| Editor | Bruce Belbin |
| Assistant Editor | Shane O'Neil |
| National Affairs | Lawrance Ryan |
| Editorial Assistant | Darren Tulk |
| International | Ken Date |
| General Manager | Ross Verdich |
| Subscriptions: | Ph: 02 9699 4595 Fax: 02 9699 1714 |
| Editorial Office: | Ph: 02 8394 9016 Fax: 02 9699 1714 |
| ARHS Bookshop: | Ph: 02 9699 4595 Fax: 02 9699 1714 |
| Mail: | 67 Renwick Street, Redfern NSW 2016 |
| Publisher: | Australian Railway Historical Society NSW Division, ACN 000 538 803 |
| Print Post | 100009942 |
| Publication No. | |
| Newsagent | Gordon and Gotch Ltd |
| Distribution | |
| Mailing & Distribution | Ligare Pty Limited and Australia Post |
| Printing | Ligare Pty Limited |
| Facebook | www.facebook.com/railwaydigest |

Contributor Guidelines

Articles and illustrations remain the copyright of the author and publisher. Please do not submit photos or articles that have been previously published or submitted to other publications. Article contributions are welcome; views expressed in this magazine are not necessarily those of the editorial staff or publisher. We welcome photographs of current Australian railway subjects in the form of digital files. Please include a detailed description including train details, time, date, place and photographer's name at the time of submission. Items that are not returned may be held within the ARHSnsw Railway Resource Centre. **Please limit email sizes to 15MB and Readers Write letter submissions to 500 words.**

Publication deadlines: *Railway Digest* is published on the last Wednesday of each month prior to the cover date. The deadline for advertisements and contributions is the 1st of the month prior to the cover date.

Copyright © Australian Railway Historical Society New South Wales Division 2017

Contact email addresses

| | |
|---|-------------------------------|
| Editorial | editor@railwaydigest.com.au |
| Photographic contributions | photos@railwaydigest.com.au |
| Articles/submissions | articles@railwaydigest.com.au |
| Subscription enquiries/change of address | mail@arhsnsw.com.au |

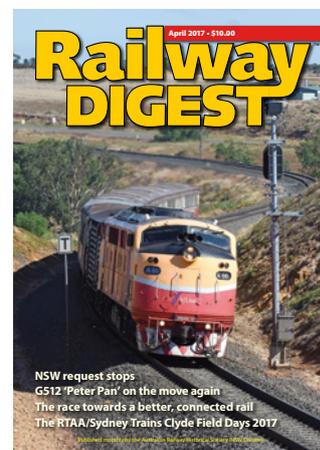
Contributors

Tony Bailey, Mark Carter, David Dixon, Norman Frisch, Jonathan Green, David Hill, Peter Hower, John Hoyle, Philip Jeeves, Evonne Oxenham, Ray Pacey, Vaughn Moore, John Temple.
ABC News, ACT Government, Albury City Council, Alstom Australia, *Australian Financial Review*, Australasian Railway Association, *The Ballarat Courier*, *Bendigo Advertiser*, *Bendigo Tramways*, *The Border Mail*, Broadbent Grain, *The Canberra Times*, *Carisbrook Mercury*, Cowra Shire Council, Downer Group, *The Examiner*, Glenorchy City Council, *Herald Sun*, *The Hobart Mercury*, NSW Minister for Transport – Andrew Constance MP, Office of the National Rail Safety Regulator, Public Transport Authority of Western Australia, Queensland Deputy Premier, Minister for Transport and Minister for Infrastructure Planning – The Honourable Jackie Trad, *Railway Gazette*, South Australian Department of Planning, Transport and Infrastructure, South Australia Police, *Sydney Morning Herald*, TasRail, TransLink, Transperth, Transport for NSW, Transport Heritage NSW, Victorian Minister for Agriculture and Regional Development – The Hon. Jaala Pulford, Victorian Minister for Public Transport – The Hon. Jacinta Allan, VicTrack. www.au.news.yahoo.com , www.govnews.com.au, www.nsw.gov.au , www.reliancerail.com.au

Cover: On Tuesday afternoon 7 February, V/Line Clyde/EMD unit A66, on car set SSH28, is only minutes away from arrival at its destination of Bacchus Marsh on the Ballarat Line. Steve Munro
Opposite: Early on Wednesday 22 February, G:link Flexity 2 tram 11 departs Florida Gardens with a service to Broadbeach. Bruce Belbin
Back cover upper: The Arrium group of companies is receiving Commonwealth and State assistance as it attempts to stabilise its finances. Part of that help is seeing track relaid ahead of time between Port Pirie and Kalgoorlie. On Wednesday 15 February, GWA units FQ03 and GM43 glide loaded rail train 4M41S up to the

April 2017

Volume 55, Number 4



Features

The RTAA/Sydney Trains Clyde Field Days 2017 36

Now a bi-annual event on the rail industry calendar, the Rail Track Association of Australia and Sydney Trains event was once again held at Sydney Trains Clyde depot, this time in early March. The event provides an opportunity for manufacturers, contractors, suppliers and engineering companies to promote what they have to offer the local rail industry. Shane O'Neil reports.

NSW request stops 38

Request stops (sometimes referred to as 'a' stops) are those stations where the train will only stop if a passenger advises the guard of their desire to alight, or if a passenger on the platform alerts the driver with a hand signal. There are nine such request stops on the Sydney intercity network, and in January this year Jonathan Green made an effort to visit as many as he could.

Bound for South Australia 42

We present a selection of recent images showing rail operations around *The Festival State*.

The race towards a better, connected rail 46

Norman Frisch, Chairman of the eLTE Industry Alliance, explains why he believes that LTE (Long-Term Evolution, a standard for high-speed wireless communication able to carry today's higher broadband demands) is the key to empowering rail networks with the best possible digital foundations to help them grow intelligently and safely.

Regulars

| | |
|--------------------------------------|----|
| Rail Industry | 4 |
| Railway people | 10 |
| News | 11 |
| International | 34 |
| Operations | 48 |
| – G512 'Peter Pan' on the move again | 48 |
| Preservation and Tourist | 52 |
| Readers Write | 57 |

crossing loop at Hesso, where they will wait for a run-through by Aurizon's MP1 intermodal service. Their ultimate destination is Bates on the Trans Australia Railway. Malcolm Holdsworth
Back cover lower: Running wrong road, G533 on 5M52N, hauls the ballast cleaner train near the end of its journey at East Greta Junction from Parkville. This is a regular movement during the quarterly ARTC Hunter Valley shutdowns, with the train avoiding all the platforms from Muswellbrook to Lochinvar due to tight clearances. This train ran on Friday 24 February at the end of its work schedule on the Upper Hunter Valley lines. Bruce Gehrig

Aurizon half year results – intermodal review continues

In announcing its half year results on 13 February, Aurizon revealed a 21 per cent increase to Underlying Earnings Before Interest and Tax (EBIT) of \$488 million for the six months to 31 December 2016, compared to the prior comparable period (first half 2016 financial year) of \$403 million. Highlighting the importance of its ongoing ‘transformation’ (cost reduction) program to the company’s fortunes, Aurizon achieved a \$64 million reduction in operational expenditure and is on track to achieve its \$380 million three year target. Its below rail business (the Central Queensland coal network) also continued to play an important role with increased revenue following the finalisation of the Access Undertaking in October 2016 which included a \$45 million ‘true-up’ payment for under-recovery in previous years.

Aurizon’s total half-year revenue was up one per cent to \$1.78 billion, compared to the previous period. Coal revenue was up two per cent, with revenue quality slightly offsetting a marginal volume decline. Freight revenue was down eight per cent, consistent with volumes while iron ore revenue declined by 15 per cent, reflecting a nine per cent volume decline and customer rate relief. Below rail revenue (Aurizon Network’s Central Queensland system) increased 15 per cent to \$671 million.

Return on invested capital was 9.6 per cent. Aurizon’s operating ratio was 72.6 per cent. The results include \$98 million proceeds from the sale of its Moorebank freight terminal investment. The company’s Board declared an interim dividend of 13.6 cents per share, up 20 per cent on the previous corresponding period.

Aurizon hauled a total of 135 million tonnes for the six month report period, a drop of three per cent on the first half of 2016. Coal volumes decreased by one per cent to 103.5 million tonnes due to the expiry of two contracts. Dominating the company’s coal haulage was the Blackwater network with 31.1 million tonnes, the Goonyella network followed with 30 million tonnes and Newlands with 9.4 million tonnes. Hunter Valley coal operations moved 23.6 million tonnes. Iron ore haulage totalled 11.4 million tonnes with Mount Gibson (WA) iron ore production expected to be extended with new development at Iron Hill mine. The intermodal haul totalled 1.6 million tonnes. Bulk haulage other than coal and iron ore reached 18.9 million tonnes.

CEO Andrew Harding said the results demonstrated a solid performance in a strengthening commodities market, with key financial and operational metrics trending positively. He said the Network and Coal businesses were the strong performers and the company remained on track to deliver the full year earnings and tonnage guidance previously provided to the market. Mr Harding said a number of immediate changes had been implemented to support Aurizon’s next phase of development and value creation for shareholders:

- Terminated the large, complex Freight Management Transformation project.
- Enhanced the financial governance organisation-wide to prioritise and optimise spend on capital projects and consultants.
- Expanded the scope of the transformation program beyond cost reduction to also include capital allocation and revenue generation.
- Moved to execution phase for Diversified Bulk Freight as part of the broader freight review, where Aurizon will retain, transform or exit individual contracts based on their commercial return and sustainability.
- Restructured the Intermodal business as a standalone function with full profit and loss accountability, reporting to the CEO, while the company progresses towards the conclusion of the freight review, expected mid-year.

The report indicates that there are three decisions that have emerged for the intermodal business – retain (hauls either already achieving target returns or reform options available to achieve targets),

transform (hauls can be reformed but require some third party decisions) or exit (hauls fail to achieve acceptable returns regardless of management action). The Townsville – Mount Isa general freight service has already been terminated and Aurizon announced in late February that it is exiting bulk sugar haulage in North Queensland at the end of the 2017 season (see report, next page, this issue). Qube’s Chief Executive, Maurice James, told the *Australian Financial Review* that his company would have ‘an interest’ if Aurizon’s freight and intermodal assets were sold off.

Mr Harding said he remained focussed on continuing the momentum gained in the Company’s transformation program which delivered \$64 million in cost reductions during the half year (\$195 million since 1 July 2015). The operations area provided the bulk of the transformation benefits with a \$52 million cost reduction. Labour productivity improvements of 13 per cent were achieved through continued benefits from new Enterprise Agreements including the introduction of flexible crewing, removal of a management layer and implementation of a new regional operational model and further improvements from operational technology and daily rostering consolidation.

Fleet productivity continued to improve (locomotives – five per cent and wagons – one per cent) despite flat activity. National payloads increased by two per cent through the operation of some over-length Goonyella system trains and additional WA volumes.

The company has confirmed its previous guidance for 2016/17 Underlying EBIT, which is expected to range between \$900-950 million. The forecast for total above rail volumes remains between 255-275 million tonnes, with coal haulage forecast at 200-212 million tonnes. Mr Harding said that from an international perspective, there was a strong demand for quality Australian resources, including metallurgical and thermal coal, in a strengthened price environment. He said this was good news for the company’s customers, for the industry and for Aurizon.

Downer wins contracts for Panania Station upgrade

Work will commence on an accessibility upgrade for Panania Station later this year after Transport for NSW announced on Wednesday 8 February that Downer has been appointed to deliver the project as part of the NSW Government’s Transport Access Program. (Panania is located on the East Hills line, 22.55 kilometres south-west of Sydney Central station.)

Station improvements will feature an upgraded footbridge, with lift access to the station platform. There will also be new canopies to provide better weather protection. The existing platform building will be refurbished to include a family-accessible toilet and an accessible customer information window.

New easy-access parking spaces will be provided as well as new zones for taxis, and a kiss-and-ride zone for private vehicles to pick up and drop off passengers. New undercover bicycle racks will be provided for commuters who want to ride their bicycle to the station before catching a train, while a new raised pedestrian crossing will be provided on Weston Street and a new pedestrian refuge on Anderson Avenue.

Construction is expected to start in June and take approximately 12 months to complete.

Aurizon to exit bulk sugar/molasses haulage, Wilmar says it will stay on rail

In a 22 February notice to operations and maintenance employees based at its Stuart (Townsville) and Mackay depots in North Queensland, Aurizon revealed that it will not be continuing its bulk sugar and molasses haulage business for Wilmar Sugar Australia beyond December 2017. The contract involves hauling bulk sugar and molasses from Wilmar's Burdekin region mills (Invicta, Pioneer, Kalamia and Inkerman) to the Port of Townsville and bulk sugar from Proserpine mill to the Port of Mackay. Aurizon said the decision was made following a review of operational requirements and commercial returns plus discussions with Wilmar. Aurizon's announcement came while the company is reviewing the future of its intermodal operations across Australia (see report, previous page).

A Wilmar Sugar spokesperson told *Railway Digest* the company had no intention of moving its Burdekin and Proserpine sugar transport from rail to road and it was, as of early March, evaluating tenders from existing and potential rail operators for sugar rail haulage from 2018. The spokesperson said an announcement was expected in the near future. One hurdle a new operator would face is the acquisition of locomotives

and wagons for what is a seasonal operation lasting around seven months of the year. However, a report in the *Daily Mercury* (Mackay) suggested that Aurizon might sell any surplus locomotives and rolling stock to a new operator. An Aurizon spokesperson told *Railway Digest* that the company may seek to redeploy or sell locomotives, wagons and associated infrastructure used for sugar transport but there was no commitment in this regard and the company would 'act commercially'. Aurizon has, in the past, scrapped locomotives and rolling stock or sold assets overseas rather than allow other rail operators to purchase such equipment – a move for which it has been criticised by many in the rail industry.

Prior to Wilmar Sugar's undertaking that the sugar business will remain on rail, Rail Tram and Bus Union State organiser Bruce Mackie told the *Daily Mercury* his members were very unhappy about the news. Mr Mackie said there were maintenance staff at Mackay and Proserpine and with fewer train movements they will have less rolling stock to maintain. Haulage of bulk sugar from Plane Creek (Sarina) and Racecourse and Marian mills (west of Mackay) to the Port of Mackay has been lost to road transport in recent years.

HEC Group joins the Rail Manufacturing CRC and UTS on innovative battery project

The Rail Manufacturing CRC announced on Thursday 2 March that the HEC Group will join the Centre as a new participant on an innovative lithium battery project.

Working in partnership with the University of Technology Sydney and the HEC Group, the project will focus on the development of new materials for lithium ion batteries to be used for rail vehicle propulsion, regenerative braking, signaling systems and auxiliary applications.

The Rail Manufacturing CRC is responsible for connecting industry organisations with Australian research institutions to deliver leading rail R&D projects.

Targeting hi-tech batteries as a major growth engine, the HEC Group has invested heavily in the energy storage sector. The HEC Group Australian division CEO Dr. Shuwei Wan said he is looking forward to his

organisation working on a project that could have far reaching benefits to the rail industry.

"The HEC Group has extensive experience in the development of electronic components and energy storage materials. These have the potential to contribute to new battery technologies that could reduce the need for overhead electrical infrastructure and also aid in the future development of hybrid-powered trains," Dr Wan said.

The University of Technology Sydney (UTS) is the lead university on the lithium ion batteries project. The Director of the UTS Centre for Clean Energy Technology, Distinguished Professor Guoxiu Wang will be responsible for driving the delivery of the research project.

The lithium ion batteries project is co-funded by the Rail Manufacturing CRC, and is expected to be completed by December 2019.

Remediation work required at Sydney's Waratah Maintenance Centre

Sinking earth under the maintenance centre for Sydney's Waratah passenger trains could force John Holland to pay out millions in remediation costs.

In its half-year interim results, released on Thursday 2 February, Downer EDI, which built and operates the Waratah fleet, disclosed that "ground subsidence" at the Waratah Train Maintenance Centre located on Manchester Road, Auburn (AMC) has been identified. The design and construction of the AMC was subcontracted to John Holland as part of the Waratah Train Project. Downer claims that the areas where subsidence has been found are part of "the sub-contractor's design and construct obligations" and that it is not liable for the repair costs. It has estimated the remediation work will cost in the order of \$70 million.

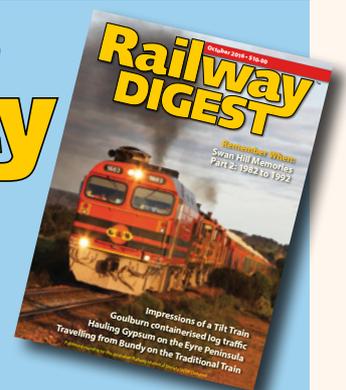
John Holland is understood to have used a plastic product, Atlantis Drainage Cells, under the maintenance centre to drain water, but the cells have collapsed. John Holland, owned by Leighton Holdings when it built the maintenance centre but acquired by China Communications Construction Company in 2015, previously sued Atlantis and engineering group KBR (which was hired to design stormwater facilities) in 2014 over subsidence in the maintenance centre's carpark, claiming breaches of contract and negligence.

The purpose-built AMC facility, located between Auburn and Clyde Railway stations, in Sydney's west began operations in 2010 and will be the maintenance centre for the Waratah fleet for at least 30 years.

Subscribe to
**Railway
DIGEST**

and you'll never miss an issue of Australia's leading railway magazine. Go to www.railwaydigest.com.au to subscribe online, or fill in and post the application form on page 59.

For a digital subscription, go to www.pocketmags.com



TRAIN CONTROL MANAGEMENT SYSTEMS 2017

Increasing Throughput, Safety and Network Responsiveness through Automation was the theme of this year's Train Control Management Systems conference. Held in Sydney on 28 February-1 March at Dockside, Darling Harbour (located right above the Cockle Bay 'restaurant strip') it featured an impressive array of local and international speakers, under the capable stewardship of Conference Chair, Andrew McCusker, Director Rail Logistics, SMART Facility University of Wollongong, who also chaired last year's event.

With the extraordinary rise in patronage on our urban rail systems, the need is greater than ever to leverage new technologies to maximise efficient operation, without compromising safety. Impressive results can be achieved using systems such as Communication Based Train Control (CBTC) and European Train Control System (ETCS).

Both Queensland Rail and Sydney Trains are currently in different stages of transition to a centralised Railway Operating Centre, and the large contingent of delegates from both organisations demonstrated their interest in the subject.

The speakers covered a wide range of subjects within the overall brief. Following opening remarks from Andrew, George Gadzuric, Head of Signalling and Control Systems, Sydney Trains, spoke of the challenge of increasing capacity on an existing system where patronage growth is currently 'going through the roof'. Oliver Fried, Director, Sydney Metro, brought us up-to-date with an overview of construction so far, and discussed how a highly sophisticated CBTC system was chosen and tailor-made to suit the requirements of the line, which will be operated by Alstom Metropolis driverless EMUs. While Sydney Metro is a brand new system, albeit using proven technologies, the next speaker looked at the more common issue of migration from legacy signalling to a CBTC System. Vikram Chimalgi, Head of Global Delivery, Transportation Business Unit, Cyient, described the process as "a logical progression, but like changing a tyre on a car in a rainstorm"! With particular reference to the London Underground upgrade, he described how rigorous testing (much of it 'off site') over a long period enabled a rapid conversion of the conventional fixed-block system to a moving-block system with no wayside signals, and an increase in capacity from 24 trains to 36 trains per hour.

Vikram's address was followed by IQPC's trademark 'Speed Networking' session, which proved as interesting as always, though most of us ended up a trifle hoarse at the end. Fortunately, an excellent morning tea followed.

After morning tea, Rodrigo Alvarez, Titan ICT Consultant, currently working for the WA Public Transport Authority, departed from his advertised address, to instead give a fascinating insight into "Trend evolution in railway communications", looking at how rapidly evolving technology can make the optimum choice of system a rather challenging task.

An 'International Fireside Chat' on 'The Process of Automating Train Control' followed. Facilitated by Andrew McCusker, it had as panelists Philip Wong, Chief Signal Engineer, Hong Kong MTR and Yogendra Sharma, President of Rail, Adani Power and Mines India. Philip discussed the signalling renewal project currently underway in Hong Kong, while Yogendra spoke about the significant advances in Train Management Systems and Booking Services that have recently taken place with his previous employer, that truly vast enterprise, Indian Railways.

After a well-catered lunch, ETCS and CBTC guru Dr Frank Heibel (or 'Doc Frank' as he's known in the business) gave an informative run-down on the strengths and weaknesses, and most suitable applications, of the various systems currently available or under development.

Many more highlights followed over this and the following day. The Champagne Solutions Clinic (with Champagne provided), Tony Eid's enthusiastic Keynote Address on Sydney Trains' new Rail Operation Centre, Vincent Scarcella's and Arthur Stamatoudis' detailed look at Brisbane's Cross River Rail project, and the Closing Solutions Clinic ('Discuss your greatest ongoing challenge'), were just a few items in the fascinating window to the future that was TCMS 2017. *Bruce Belbin*



Top: Yogendra Sharma, President of Rail, Adani Power and Mines India, and Philip Wong Chief Signal Engineer (Operations), Hong Kong MTR, were expert panelists for an 'International Fireside Chat' on *The Process of Automating Train Control*.

Centre: Having sorted their registrations, delegates enjoy coffee and fresh pastries and the view across Darling Harbour, and check out the trade stands, shortly before the commencement of the conference on Day One.

Above: The hard-working IQPC team of Di Malouf, Operations Manager, Jordan Mullins, TCMS 2017 Conference Producer, and Katherine Eugenio, Depots Upgrades & Workshops Modernisation Conference Producer, at the Registration Desk on Day Two.

The ARA Women in Rail Lunch

The Australasian Railway Association's inaugural *Women in Rail Lunch* was held at The Windsor Hotel, Melbourne, on International Women's Day, Wednesday 8 March, with 230 guests attending the sold-out event.

A panel discussion detailed what has been done to date, what is underway and provided some thought-provoking new ideas.

Data collected by the ARA in 2014 identified that women represent about 17 per cent of the rail workforce. While the rail industry is not alone in its low representation of women, the unprecedented investment and expansion now taking place within the rail industry presents all jurisdictions with the need to engage an increased workforce, providing rail with the perfect opportunity to address long-standing gender diversity issues within the industry.

The following day, Victorian Minister for Public Transport Jacinta Allan and Minister for Roads and Ports Luke Donnellan officially launched the \$1 million *Women in Transport* program, which aims to increase the number of women working in the Victorian transport sector from 16 per cent to 25 per cent by 2020.

Above right: Bob Herbert AM, Chairman, Australasian Railway Association, Danny Broad, CEO, Australasian Railway Association, Deborah Spring, Chairperson, Rail Industry Safety and Standards Board, the Hon. Jacinta Allan MP, Victorian Minister for Public Transport, Howard Collins OBE, Chief Executive, Sydney Trains, Michelle Doolan, Civil/Environmental Engineer, Aurecon and winner of Young Rail Professionals Pitching Competition, AusRAIL 2016, and David Irwin, Chief Executive Officer, Pacific National. Berna Doksatli **Right:** Facilitator Deborah Spring and Panellist Howard Collins look on as Jacinta Allan makes a point. Berna Doksatli



Women in Roads, Rail and Transport Infrastructure Leadership Summit 2017

10% Discount
For Subscribers of
Railway Digest



Sydney

15, 16, 17 & 18 May 2017

Booking Code: WRTI0517A - Q3



**LIQUID
LEARNING**

development opportunities for professionals

www.liquidlearning.com

info@liquidlearning.com

+61 2 8239 9711

LIGHT RAIL 2017

The Gold Coast Light Rail (or 'The G' as it's often called) is one of Australia's great public transport success stories, so it was only appropriate that, this year, the Australasian Railway Association's Light Rail conference and exhibition 'LIGHT RAIL 2017' should be held on the Gold Coast. The Crowne Plaza, Surfers Paradise, located opposite The G's Florida Gardens Station, proved an excellent venue for the two-day event, held on Tuesday 21 and Wednesday 22 February. Like its subject matter, the conference continues to grow in popularity and size, and this year attracted a record 208 delegates and eight exhibitors.

On Day One, following registration and coffee, conference producer Niamh Horan gave the obligatory administration and safety briefing, then Loretta Lynch, *Managing Director - Gold Coast Light Rail*, Keolis Downer, our Chair for the day, got the proceedings underway, firstly by introducing Cr Tom Tate, Mayor of the City of Gold Coast, who welcomed delegates to his home turf, and made it clear what a great investment he believes light rail has been, and continues to be, for the Gold Coast. He was followed by Australasian Railway Association CEO, Danny Broad, who also welcomed delegates and spoke about the continuing renaissance of light rail worldwide, which shows no sign of abating.

Next came the first of the two International Keynote Addresses:



Terry Wong, *GM-Infrastructure Maintenance*, MTR

Corporation, spoke of the challenges involved in running Hong Kong's busy light rail network. The network there is component of Hong Kong's highly regarded metro system, so the bar is set very high, and as Terry noted, although the system has a 99% customer approval rating, "people still complain"!

Following this, Phil Munford, *CEO, GoldlinQ*, and Peter Papantoniou, *Project Director-Gold Coast Light Rail Stage 2*, Dept of Transport and Main Roads, gave an informative update

on the activities of 'The G', from its beginnings to its operations, to the progress of the Stage 2 extension, now well underway.

After Morning Tea, Ken Deutscher, often described as 'The Father of Gold Coast Light Rail' took to the podium to discuss various aspects of the Stage 3 extension. Then, Ken and Peter Papantoniou joined Phil Chipman, *Director-Technical*, GoldlinQ, and Karlie Southwood, *Director-Rail Safety*, GoldlinQ, for a lively panel discussion about the 'Key Learnings from The G'.

The second International Keynote address proved to be welcome news. Edinburgh's troubled light rail system cost hundreds of millions of pounds more than originally planned, arrived three years late and caused a seemingly never-ending stream of disruptive road works. It was good to hear from Lee Harrison, *General Manager*, Edinburgh Trams Ltd, that with Stage 1 of the project now up and running, the trams have proved extremely popular, with over five million passengers in the first 12 months; with a 99% reliability rate and 97% customer satisfaction. And, as Lee explained, they never run short of rolling stock, because while only half the original route kilometres have been built so far, all of the trams have been delivered!

We were then given an update on the South East Sydney Light Rail by Glenn Bentley, *CEO, ALTRAC*, and the always lively Marg Prendergast, *CBD Coordinator General*, Transport for NSW.

Following an excellent lunch, we were treated to similar updates on 'Planning and Delivery of Light Rail for Parramatta', 'Delivering Light Rail to Australia's Capital' and 'Revitalising Newcastle – Light Rail', before afternoon tea and then breaking into two groups for the afternoon sessions Stream 1; Network Design, Management and Integration, or Stream 2; Customer & Safety.

The overall theme of Day 2 was 'LRT Planning, Design and Delivery', and following Opening remarks from the Chair,





Anjum Naweed, Associate Professor, Human Factors and Applied Cognitive Science, CQUniversity, we were treated to a fascinating 'Case Study – A compelling Case for Light Rail in Auckland', delivered by David

Warburton, Chief Executive, Auckland Transport. Several other interesting addresses followed, including one on 'Sustainability Applied to Light Rail Projects' by Sophie Hennes, APAC CSR & Sustainability Officer, Alstom Australia.

Following afternoon tea, the conference concluded with a ride on 'The G' and a site tour of the Keolis Downer/Bombardier Southport maintenance depot.

This was the fourth of the ARA's Light Rail Conferences, and the third that *Railway Digest* has participated in, and I've often remarked to colleagues that, of all the events I go to, this one always stands out for its positive and optimistic atmosphere. Given that light rail is going so well in Australia and throughout the world, this is probably not surprising.

At the time of writing, details of next year's event had not yet been announced, but a quick check of www.informa.com.au/LR17 over coming weeks should reveal all. *Bruce Belbin*

Above far left: Conference Producer Niamh Horan gets the day's proceedings underway.

Above centre: Terry Wong, GM-Infrastructure Maintenance, MTR Corporation Limited, delivered the International Keynote Address, on 'Operating Hong Kong's Light Rail Network'.

Top: A lively panel discussion on 'Introducing Light Rail to Queensland – Key Learnings from the G' featured, from left to right, Ken Deutscher, Program Manager Light Rail Project and Corridor Development, City of Gold Coast, Karlie Southwood, Director – Rail Safety, GoldlinQ, Phil Chipman, Director – Technical, GoldlinQ, and Peter Papantoniou, Project Director – Gold Coast Light Rail Stage 2, Dept of Transport and Main Roads.

Above: Loretta Lynch, Managing Director – Gold Coast Light Rail, Keolis Downer, and Anjum Naweed, Associate Professor, Human Factors and Applied Cognitive Science, CQUniversity, chaired the conference on Day One and Day Two respectively.

Left: Three of the industry display stands, photographed in a rare quiet moment. There were eight exhibitors in all at this year's event.



AUSTRALASIAN RAIL INDUSTRY AWARDS SYDNEY 2017

NOMINATIONS NOW OPEN!

Nominations for the Australasian Rail Industry Awards are now open, with 12 exciting categories to choose from.

The Awards are open to any individual working in the rail industry and any organisation operating in or affiliated to rail. The Awards promote diversity, excellence and innovation for the betterment of rail - all are encouraged to get involved. Nominations will close on Friday 21 April, so avoid the last minute rush and get in early.

Which category will you apply for?

- Career Achievement
- Customer Service
- Employee Engagement
- Frank Franklyn Young Rail Specialist
- Freight Rail Excellence
- Innovation and Technology
- Permanent Way Institution Young Achiever
- Safety
- Systems Engineering
- TrackSAFE Foundation
- Workforce Diversity
- Young Rail Professional

Visit www.railindustryawards.com.au to find out more about each category and to purchase tickets for the Gala Dinner to be held 13 July in Sydney.

PLATINUM SPONSOR



GOLD SPONSOR



CATEGORY SPONSORS



MEDIA PARTNER



PROGRAM SPONSOR



Nick Easy is the new Queensland Rail CEO

Former CEO of the Port of Melbourne, Nick Easy, has been appointed the new Queensland Rail CEO. Announcing the appointment by the QR Board on 8 March Queensland Deputy Premier and Transport Minister, Jackie Trad, said Mr Easy's experience leading two other major statutory authorities and managing stakeholders would help him drive reform, modernise Queensland Rail and implement the recommendations from the Strachan Inquiry. Ms Trad said, "Nick is a strong leader who has a proven track record overhauling management and leading operational and cultural change."

QR Board Chair Phillip Strachan said Mr Easy was renowned for being an effective CEO and the Board had full confidence that he will improve QR's culture, maintain an effective oversight of operations and overhaul the organisation's approach to risk management. Mr Strachan thanked Department of Transport and Main Roads Director-General Neil Scales for Acting as QR CEO for the previous four months at a time of major challenge for the business.

Mr Easy, whose career spans more than 27 years, has extensive management experience. Prior to being appointed in January 2014 as Port of Melbourne CEO, where he managed \$10 billion of land and sea assets, he served as CEO of Victoria's Metropolitan Fire and Emergency Services Board from June 2011 until February 2014 and was responsible

for leading the 2,200 strong organisation through a period of sector reform. He is a member of the Australian Logistics Council. Mr Easy left the Port of Melbourne in October 2016 and will commence as QR CEO on 3 April 2017.

The new QR CEO told NewsCorp he wanted to address cultural issues, would be 'robust' in his negotiations with rail unions and he saw the Strachan Review as his mandate for change. He said he had the right attributes having overseen the privatisation of the Port of Melbourne and implementing reforms to the Metropolitan Fire and Emergency Services Board. Mr Easy said setting up a culture where people in the organisation felt comfortable in raising an issue was a priority.

According to the *Brisbane Times* there was earlier speculation that former Sydney Trains senior manager and current Toronto Transit Commission CEO, Andy Byford, was in line for the job but the Commission quickly quashed this rumour.



Nick Easy

Pacific National CEO David Irwin resigns

David Irwin, Pacific National CEO, announced in early March that he will be resigning, citing family reasons for his departure. His announcement comes around six months after PN was separated from Asciano. Mr Irwin told staff that after ten years of working predominantly away from his home in regional NSW he had decided the time was right to put his family first. It is understood Mr Irwin will stay in his position until a new CEO is found and he may continue his link to PN as a consultant. Mr Irwin was previously the head of PN's coal division for eight years.

The Australian Financial Review reported that Global Infrastructure Partners' (GIP) Russell Smith has been appointed as Executive Chairman of PN on a temporary basis until a new CEO is recruited. GIP and the Canada Pension Plan Investment Board have the largest stakes in the private

consortium formed last year to acquire PN from Asciano after its rail and ports businesses were split up in a \$9.05 billion deal, with CPPIB having a 33 per cent share and GIP having 27 per cent. China's CIC Capital Corporation has 16 per cent, while Singapore sovereign wealth fund GIC and the British Columbia Investment Management Corporation each have 12 per cent stakes.



David Irwin

NSW Trains CEO Rob Mason makes a move

On Monday 13 February Tim Reardon, Secretary of Transport for NSW announced that Rob Mason, Chief Executive of NSW Trains, would step down from the organisation after a long career in the rail sector (including three and a half years as the first CEO of NSW Trains).

"Over the last three and half years Rob has successfully established NSW Trains as a customer focused organisation, delivering improvements to customer service, increasing patronage on intercity services and reconnecting the organisation with the regional and rural communities it serves", Mr Reardon said.

Following an 18 year career in senior roles in the London Underground, Mr Mason joined RailCorp in 2005 as Group General Manager of Train Services, and was Chief Executive from 2008 to 2013.

Mr Reardon thanked Mr Mason for his more than decade long service to the people of NSW. "Rob has made a significant contribution to transport in this State and I wish him well for the future."

Mr Reardon advised that Sydney Trains Chief Executive, Howard Collins, had been asked to take on the additional role of Acting Chief Executive of NSW Trains. The existing structure and separate operations of Sydney Trains and NSW TrainLink will be retained.

Peter Allaway, the current Executive Director of Customer Service Delivery, has been appointed as Chief Operating Officer and takes responsibility for day-to-day management of NSW Trains, reporting directly to Mr Collins.

Rob Mason did not remain idle for long, as on Tuesday 28 February NSW Minister for Transport and Infrastructure Andrew Constance announced his appointment as the new Chairperson of Transport Heritage NSW. "I am pleased to confirm that Rob Mason has accepted the role as Chairperson of Transport Heritage NSW, heralding a new era for this important non-profit establishment," Mr Constance said. "With Rob at the helm, I am excited to see what the future holds for Transport Heritage NSW."

Rob Mason said he was looking forward to the new challenge. "I am looking forward to starting this new chapter as Chairperson for Transport Heritage NSW and I am excited to play a role in enhancing our services and practices while continuing to recognize and protect this important aspect of state history," Mr Mason said.

Transport Heritage NSW Ltd (THNSW) is a not-for-profit, member-based organisation established in December 2013 incorporating the activities of the former NSW Rail Transport Museum (NSWRMTM), Trainworks Ltd and the Office of Rail Heritage.

Mr Mason's appointment became effective from 1 March 2017.



Rob Mason

Canberra light rail project wins international award

Stage 1 of Canberra's light rail network has been awarded the Asia-Pacific Transport Deal of the Year 2016 by Project Finance International.

The award recognises the light rail project as a clear example of how public-private partnerships can deliver transportation infrastructure to local communities. The award also highlights the world-class partnership between the ACT Government and the Canberra Metro consortium.

"It is exciting to see Canberra's light rail project already receiving international attention through this prestigious award. It is recognition that the project is providing a premier public transportation system for Canberra," Minister for Transport and City Services Meegan Fitzharris said.

In 2016 Canberra Metro was appointed as the ACT Government's partner to finance, design, construct and operate Stage 1 of the light rail project from Gungahlin to City. The Canberra Metro consortium and its advisors comprise national and international companies, including Mitsubishi Corporation, Aberdeen Investments, Pacific Partnerships, John Holland, CPB Contractors, Deutsche Bahn International, CAF and the Bank of Tokyo Mitsubishi.

"This first stage of Canberra's light rail network will transform the way Canberrans move around this city, creating an integrated transport system that is more convenient, efficient, affordable and reliable for our community. "Work is also now underway on light rail stage 2 from the City to Woden, with \$7 million to be invested in the technical and design work, including determining the best route and alignment, cost estimations and procurement strategy. We will continue to consult with the community about stage 2 as it progresses," Minister Fitzharris concluded.

Project Finance International (PFI), a Thomson Reuters publication, is a leading source for global project finance intelligence. The PFI Awards are considered one of the most prestigious events in the global project finance calendar, which see hundreds of the world's most successful market professionals gather to celebrate industry excellence. The PFI Awards were presented on Wednesday 1 February in London, with Mitsubishi representatives in attendance.

For more information on the Canberra light rail project visit www.transport.act.gov.au.

Local councils want Blayney-Demondrille line back on track

Proposed reopening of the Blayney–Demondrille rail corridor is back on track with a new study to examine likely costs of re-opening of the line, Cowra Mayor, Councillor Bill West has said.

The study has been commissioned by the four councils covered by the line, Cowra, Blayney, Hilltops, and Weddin, and will be completed by specialist rail consultants, The Lycopodium Group by late April.

"The State Government has already set-aside \$5 million to reopen the 36 kilometre Demondrille to Maimuru section of the track, we're asking the consultants to see how much extra, if any, reopening the whole 200km would cost," Cr West said.

(Maimuru is located approximately seven kilometres north of Young. It is the location of a currently disused grain silo and bulkhead.)

"We could look at re-opening the line in stages so as to build-up commercial demand for the line; we believe there is a compelling commercial case for this line to reduce freight bottlenecks through the Blue Mountains to Port Kembla and Port Botany," Cr West said.

"What business, local or multinational, will dare commit to utilisation of rail unless they know that the long-term viability of the line is guaranteed?" Cr West said. "Our view is that, 'if you rebuild it, they will come!' It's time for the State Government to take a leap of faith on rural infrastructure for a change" Cr West said.

"Once the assessment has been completed, we will be taking it to the new Minister for Roads, Maritime and Freight, Melinda Pavey and making the case for our part of the State to get some of the infrastructure spend in NSW."

Cr West said that benefits of reopening the line include: providing important infrastructure for over 40,000 people; meeting an exponentially growing transport demand for mining and agricultural products; and diverting freight traffic from increasingly congested Sydney rail networks.

"Other benefits include providing an alternate freight route for Port Kembla for exports and imports; mitigating impacts on the environment and public safety from heavy mass vehicles, and providing the opportunity for complementary infrastructure such as intermodal terminals, rail engineering and provide access for popular heritage listed rail services operated by Lachlan Valley Railway," Cr West said.

"The councils and their electorate remain resolute to pursue the

re-opening of the 'Cowra Rail Lines' as it is a key to unlocking regional economic development for our communities. Without rail access our economies in the region may remain stifled, unable to grow and develop to its full potential," Cr West concluded.

Re-opening of the Demondrille to Maimuru section of the Blayney – Demondrille cross-country line is one of a number of rail revitalisation projects funded under the pilot round of NSW Fixing Country Rail funding. The reactivation of the line was announced with much fanfare at Young station on 8 August 2016.

At that time it appeared that the section of line would re-open relatively quickly with then NSW Minister for Roads and Freight Duncan Gay stating;

"The NSW Government is determined to shift more bulk freight on to railway lines to ensure we get produce from paddocks to ports as quickly and efficiently as possible.

"I am the first minister in 20 years to be able to re-open a branch line which was closed. This announcement is the first stage of the program for the rail line between Cowra and Blayney."

However, since the August 2016 announcement progress has been slow with Transport for NSW indicating that none of the promised funding will be available until a positive business case for re-opening the line to Maimuru can be established. Such a positive result is doubtful given that almost all of the potential freight traffic to use the Cowra's lines originates in the Cowra area, and would be required to tranship from road to rail at Maimuru if that location becomes the terminus.

At the same time, it is believed that a re-opening of the line north of Maimuru will not be considered until the on-going viability of the Demondrille - Maimuru section can be established.

Informed sources indicate that the \$5 million funding announced at Young would likely allow re-opening of the line much further than Maimuru, something that will be investigated in the upcoming Lycopodium report. (Interestingly, the \$5 million promised at the Young announcement is now shown on the Fixing Country rail website as an amount "up to \$5 million", perhaps acknowledging that re-opening of the 36 kilometre section will not be as expensive as first thought.)



A temporary deviation has been constructed by the ARTC on the NSW North Coast Line at 543.2 kilometres, south of the site of Warrell Creek Station, between Eungai and Macksville, to allow a rail bridge to be constructed over the new alignment for the Pacific Highway. The bridge is part of a major road project funded by the Commonwealth and NSW Governments to provide the 20 kilometre \$830 million Warrell Creek to Nambucca Heads highway upgrade, expected to be completed by around the middle of this year. In this Saturday, 12 February view the Brisbane to Sydney XPT (NT32), powered by XP units 2018 and 2016, negotiates the temporary deviation. On the right can be seen part of the old alignment and in the right background work is proceeding on the new rail bridge. John Hoyle

Work is continuing apace on the Wickham Transport Interchange, as seen in this view taken from the footbridge of the old Wickham Station on Sunday 12 March. The 4WD on Stewart Avenue is in the spot where the light rail tracks will cross the busy thoroughfare, while above it can be glimpsed the recently-laid heavy rail tracks. Robert Rouse





On Monday 27 February, RL305, GM27, B61, S317 and RL304 lead 4557N empty grain train to Burren Junction near High Street Station, Maitland. The elderly EMD locomotives are used as bankers on Up journeys on the climb to Ardglan. Bruce Gehrig

First steps taken to deliver new NSW regional rail fleet

On Wednesday 1 March Deputy Premier and Minister for Regional NSW, Small Business and Skills, John Barilaro, said the NSW Government would aim for up to 100 per cent local content in the assembly of the trains in NSW, and that maintenance of the fleet will be undertaken in regional NSW. “This project presents a golden opportunity to stimulate local economies through the assembly and maintenance of these trains, creating sustainable employment opportunities including apprenticeships and traineeships,” Mr Barilaro said.

The NSW Government has met with regional businesses on 1 March to outline the plan to fast-track the upgrade. “Today’s industry briefing means we are two years ahead of planning for a new rail fleet and are now looking at getting these new trains on track by the early 2020s,” Mr Barilaro added. “We’ll be consulting widely with industry to get their ideas and develop a plan to deliver the best possible solution for the people of NSW.”

Minister for Transport and Infrastructure, Andrew Constance, said the NSW Government is spending \$50 million over three years to fast-track the replacement of the ageing XPT fleet, which first entered service in April 1982. The XPT carries passengers between Sydney, Melbourne, Brisbane and Dubbo, while travelling through a number of major regional centres including Bathurst, Orange, Taree, Coffs Harbour, Grafton, Goulburn, Wagga Wagga and Albury.

Mr Constance said the procurement of a new fleet would bring new opportunities for investment in Regional NSW. “As part of our industry engagement, we’ll also be considering opportunities to replace the XPLORER and Endeavour trains which serve key regional destinations like Armidale, the Southern Highlands, Moree, Griffith, Broken Hill, the Hunter.”

Market sounding has begun. This will be followed by Expressions of Interest and a tender process later this year, with the aim of awarding a contract in early 2019.

Uniting East to West

CELEBRATING A CENTENARY OF
THE TRANS-AUSTRALIAN RAILWAY

For 100 years, the Trans-Australian railway line has united the east and west coasts of Australia. Visit our eshop to see the full collection of exquisite coins that pay tribute to this Australian icon.

ROYAL AUSTRALIAN MINT
eshop.ramint.gov.au

\$50

each



On Monday 13 March 2017, SSR locomotive G514 hauls train No. 7576, comprising a rake of eighteen grain hoppers, across the John Whitton Bridge, over the Parramatta River at Meadowbank. The grain hoppers are coded as BGKF. They were originally coal wagons coded NHKF and were previously used for supplying coal from Leigh Creek to the power station at Port Augusta. Modifications included the fitting of a fibreglass roof with hatch, along with improved sealing of the discharge doors as well as having an SSR logo affixed to the side of each hopper wagon. Graham Attenborough

Planning for Victoria Street Station upgrade underway

Transport for NSW has announced that engineering and infrastructure company Downer has been awarded the contract to deliver an accessibility upgrade at Victoria Street station in East Maitland. The upgrade will also include improvements to the commuter car park.

(Victoria Street station is located on the Main Northern line. It is situated approximately 188 kilometres from Sydney Central station, and 23 kilometres west of Broadmeadow.)

“Planning is underway for an upgrade of Victoria Street Station which will make it significantly easier for our less mobile customers to access public transport, including people with disabilities, parents with prams and travellers with luggage”, a Transport for NSW spokesperson said on Wednesday 8 February.

Three new lifts will be installed providing customers with direct access to the footbridge from the street and then down to the platforms. The existing station building, footbridge and stairs will be refurbished and the platform resurfaced. New CCTV cameras and lighting will be installed to improve security, new canopies will be built over the platform, stairs and footbridge to provide protection from the weather and there will be a new accessible toilet.

Downer will also be responsible for upgrading the commuter car park and transport interchange. The existing commuter car park will be re-surfaced. Two accessible parking spaces will also be created, along with a space for taxis and private vehicles to pick-up and drop-off

passengers. Accessible paths will be built to connect the upgraded carpark to the rest of the transport interchange.

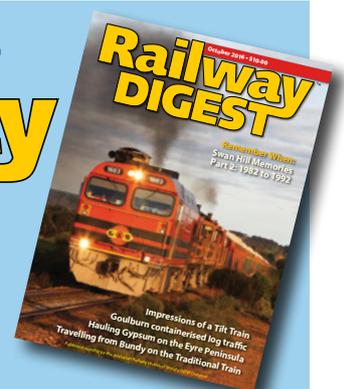
Subject to planning approval, the station upgrade and refurbishment of the carpark is scheduled to start around the middle of 2017 and take approximately 12 months to complete.

The upgrade of Victoria Street Station is part of the NSW Government’s Transport Access Program.

Subscribe to
**Railway
DIGEST**

and you’ll never miss an issue of Australia’s leading railway magazine. Go to www.railwaydigest.com.au to subscribe online, or fill in and post the application form on page 59.

For a digital subscription, go to www.pocketmags.com



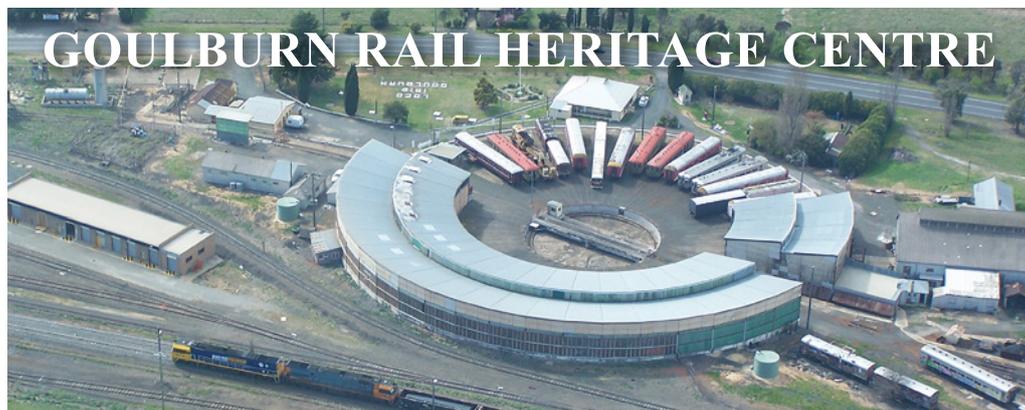


A 2.8 kilometre section of the Moree – Inverell line was reopened for rail traffic on 3 March when Pacific National operated a 1.3 kilometre train hauled by EMD units 8150 and 8154 to Broadbent Grain’s terminal on the eastern outskirts of Moree. The line had been reconstructed by John Holland under the NSW Government’s Fixing Country Rail pilot program which allocated \$15 million for six projects. The Moree project cost \$1.6 million. In this view (from left) Northern Tablelands MP Adam Marshall, Broadbent Grain Managing Director Steve Broadbent and Moree Plains Shire Council’s John Carleton stand beside 8154 as the train is loaded with 2,200 tonnes of grain via the portable auger in the background. Moree Champion

First train operates on rebuilt line to Broadbent Grain’s Moree terminal

The first train to serve Broadbent Grain’s Moree terminal operated on Friday, 3 March when Pacific National’s 8150 and 8154 operated a 1.3 kilometre train carrying 2,200 tonnes of grain from the terminal to the Port of Newcastle. The train used the rebuilt 2.8 kilometre section of the former Moree to Inverell line, upgraded under the NSW Government’s Fixing Country Rail \$15 million pilot program that included six projects and was announced in August last year (see page 11, September 2016 *RD*). The project was allocated up to \$2 million but was completed \$400,000 under budget. The upgrading work was carried out by John Holland. The work included replacing the existing timber sleepers which were in very poor condition with 4,825 new steel sleepers and installing 6,000 metres of 53 kg/metre pre-used rail to replace the existing rails. The rebuilt section of track was formerly part of the ‘non-operational’ John Holland Country Regional Network but the reopened section has been transferred to the Australian Rail Track Corporation’s network to be operated as a siding from the ARTC’s mainline at Moree.

The opening was attended by Member for Northern Tablelands, Adam Marshall, Parliamentary Secretary for Regional Roads, Kevin Anderson and Moree Plains Shire councillor Sue Price. Mr Marshall said the rebuilt track was expected to enable 250,000 tonnes of grain and 6,400 containers of cotton and pulses to be moved from road to rail each year and it would see significant freight costs savings between Moree and the Port of Newcastle. He said each train would save around \$40,000 in freight costs for producers and cut around 6,500 truck movements from local roads and the Newell Highway. The rail upgrade compliments \$3.3 million in bulk rail loading capacity and hard stand infrastructure at the site. Broadbent Grain’s Steve Broadbent said his company expected substantial reductions in load times as well as productivity benefits from lower travel distances and freight rates. Broadbent Grain took over what was then known as the Agripark terminal in 2014. Some FreightCorp trains did run to the Agripark terminal from 2000 but no rail services had operated there for many years. Broadbent says it will probably require a train around once per month to serve its terminal.



GOULBURN RAIL HERITAGE CENTRE

12 Braidwood Road, Goulburn, NSW

Open 10:00am–3:30pm daily (except Mondays, Christmas Day, Boxing Day & Good Friday)

Ph: (02) 4822 1210 Fax: (02) 4823 5762 Email: glrps@bigpond.com.au

Around Sydney

Proposed Parramatta Light Rail route revealed

NSW Premier Gladys Berejiklian has unveiled the route for the first stage of the new Parramatta light rail project. The light rail system will be built in two stages, with the first leg – a 12-kilometre route connecting Westmead to Carlingford via the Parramatta CBD – to open in 2023.

Announcing the route on Friday 17 February, Ms Berejiklian said the project confirmed the government’s commitment to the city of Parramatta. “This is a project that will not just connect major parts of Greater Parramatta but also revitalise communities and help create new ones,” Ms Berejiklian said.

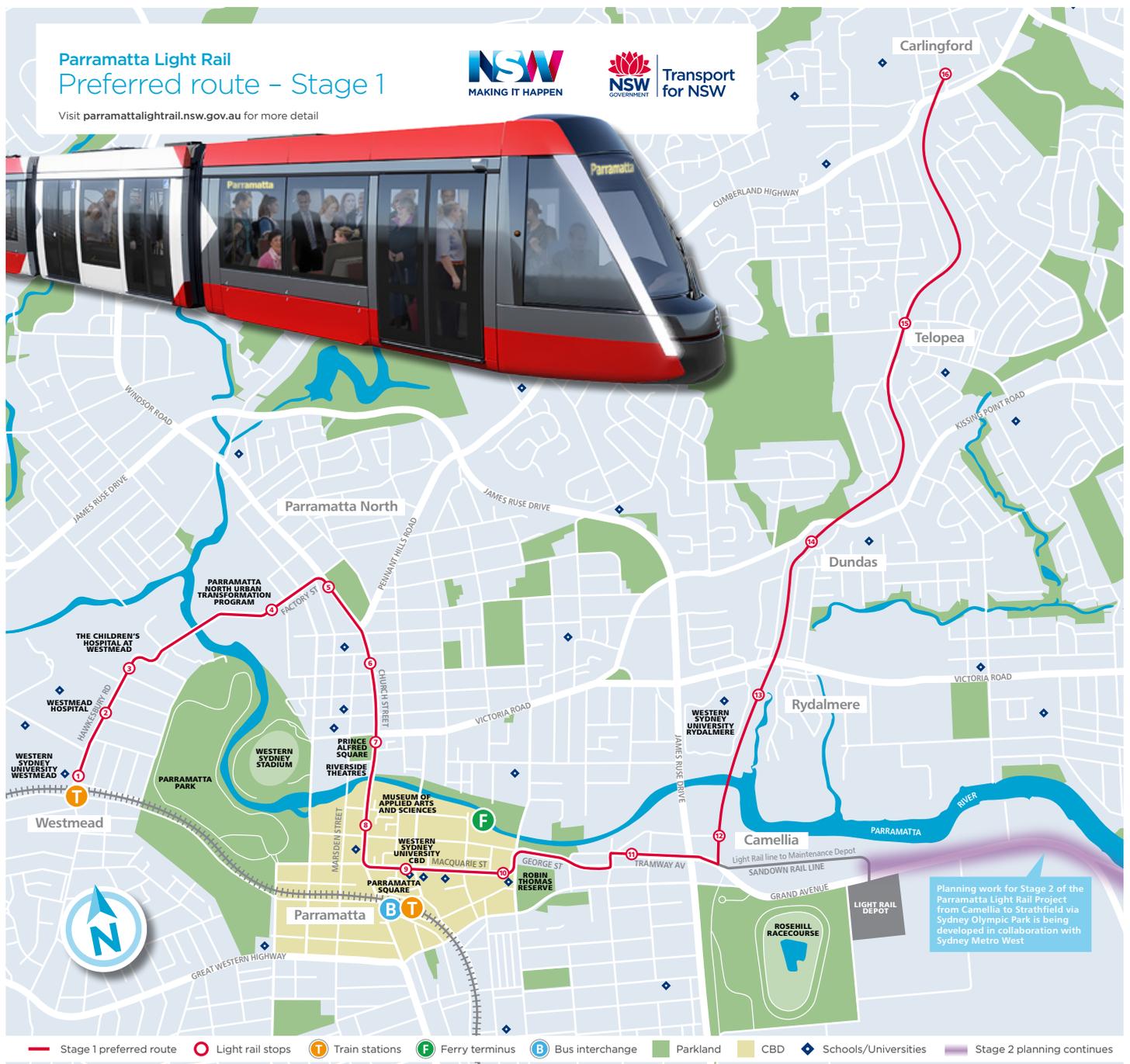
However, the Premier and Transport Minister Andrew Constance were forced to defend their decision to drop Olympic Park, which suffers from major transportation issues, from the first stage.

Mr Constance said the government was “absolutely” committed to extending the light rail to Olympic Park and said the government would “do its homework” before deciding the route of stage two later this year.

“We want to get the station locations right, and the design of the route right,” Mr Constance said.

Ms Berejiklian said she was aware transportation around Olympic Park was “a major issue”.

Opposition leader Luke Foley accused the government of abandoning residents and businesses in the area. Mr Foley said Olympic Park was home to a vital employment hub and the fastest growing high-rise residential development in Sydney, and said the Government was failing to deliver the transport it had promised.



Transport for NSW map showing Stage 1. Interesting to note that, after a break of 80 years, Tramway Avenue at Camellia will once again see trams.



Oscar Set H53 traverses the scenic single track section of the Illawarra Line at Clifton on 13 November 2016, with the Pacific Ocean visible in the background. Dominik Gienza

“The Liberals have walked away from light rail to and from Olympic Park,” Mr Foley said.

The government has committed \$1 billion in funding for the project. The business case is yet to be finalised, but the remaining funding is expected to be a mix of so-called value capture and additional contributions from the public purse to pay for the new line.

The proposed stops on the first stage of the new lines are:

- Westmead
- Westmead Hospital
- Children’s Hospital
- Cumberland Hospital
- Factory Street
- Fennell Street
- Prince Alfred Square
- Eat Street
- Parramatta Square
- Harris Street
- Tramway Avenue
- Camellia
- Rydalmere
- Dundas
- Telopea
- Carlingford

Most of the Carlingford railway line will be converted to light rail operation with the route following the heavy rail formation between Camellia and the terminus.

NSW Minister for Transport and Infrastructure Andrew Constance said the proposed 16 accessible stops would operate services from early

morning to late at night, every seven-and-a-half minutes throughout the day. “Customers won’t have to wait long for a service, they’ll tap on with Opal and board with ease and comfort,” Mr Constance said.

“There’ll also be extra services for special events and we are planning for the system as a whole to be capable of carrying 10,000 people an hour.”

Planning work for stage two of the project, from Camellia to Strathfield via Sydney Olympic Park is expected to be finalised by the end of 2017.

Gaol for Sydney graffiti vandal

One of Sydney’s worst vandals will spend at least nine months in gaol for his role in a graffiti crime spree that caused more than \$100,000 damage.

Martin Rosa appeared in court on Wednesday 1 February and admitted to the damage to dozens of Sydney trains and buses. Lawyers for the 26-year-old tried to argue the damage caused wasn’t permanent and could be considered art. However, the magistrate did not agree, and sentenced Rosa to 12 months in gaol and ordered him to pay almost \$30,000 in cleaning costs.

The sentence is the longest gaol term handed out for graffiti damage in New South Wales.

“These grubs deserve what they get,” NSW Transport Minister Andrew Constance said. “Quite frankly, we’ve had a gut-full of it. (Graffiti damage) disrupts commuters, it leaves trains off tracks, and it costs millions of dollars of taxpayer money repairing the damage.”

Queensland Government halts Bombardier NGR deliveries amidst design issue concerns

Queensland Deputy Premier and Transport Minister Jackie Trad announced on 1 March that deliveries of the New Generation Rollingstock (NGR) EMUs from Bombardier's Savli plant in India had been halted by the Government because of ongoing problems with their operation in test mode. Ms Trad said there were a number of issues which needed to be addressed including braking problems, windscreen visibility (including the inability to see stopping point markers on platforms), the inter-car connection doors not being wide enough for a wheelchair, and air-conditioning. Queensland Rail is understood to be painting new stop lines on platforms and installing new signage to overcome the problem of drivers not being able to sight the stop markers at the end of platforms.

The first of the NGR order for 75 six-car trains (set 701) arrived in Brisbane on 15 February last year. A TransLink spokesperson told *Railway Digest* that 13 NGR sets had arrived in Brisbane by early March and two more were to arrive during that month. At that time three of the sets were involved in on-track testing across the south-east Queensland. TransLink said that the first train was expected to enter passenger service by the end of June 2017. However, with the halt to deliveries that deadline may now not be met. In addition to on-track testing three NGR training simulators are currently being used for crew training and 146 staff have been engaged to support the trains at the Wulkuraka (Ipswich) maintenance centre.

Queensland Government plan to fix trains

Following the appointment of Nick Easy as the new Queensland Rail CEO (see *Railway People*, page 10) Queensland Transport Minister Jackie Trad announced on 8 March a Fixing the Trains action plan to modernise QR and provide commuters confidence in the rail network. This plan follows the Government committing to all 36 recommendations in the Strachan Report (see last month's *RD*, page 17). Ms Trad said overcoming a legacy of insufficient recruitment was a major task but the Palaszczuk Government was serious about fixing the trains and giving the people of Queensland the world-class rail system they deserve.

As part of the action plan, in the first 100 days Ms Trad has instructed QR to:

- Appoint a Chief Customer Service Officer with responsibility for ensuring the rail operator is putting the customer first.
- Introduce Commuter Catch-ups so customers have a new forum to provide feedback directly to Queensland Rail and the government.
- Strengthen Queensland Rail's Customer Charter so it is a contract with commuters delivering improved customer service benchmarks.
- Work to deliver more timely and reliable information so commuters can confidently plan their journeys.
- Facilitate entrepreneurs, developers and researchers to use transport data to develop more innovative products and services to benefit customers.
- Commence a station audit to determine which stations need an immediate refresh to improve customer access and facilities.
- Roll out a 'bin blitz' returning custom bins to inner-city stations between Toowong, South Brisbane and Bowen Hills. (The bins were removed because of security concerns and luggage lockers are no longer provided at Central or Roma Street stations).

Also included in the first 100 days action plan is the continuation to resolve issues with the New Generation Rollingstock to ensure customers have access to these trains as soon as possible.

Phase one of Fixing the Trains focuses on stabilising operations and provides for a timetable review to determine the sustainability of service levels and identify contingency operations. QR is developing a plan for upcoming critical periods, including the Easter holiday period this month, the introduction of the New Generation Rollingstock and Gold Coast

Ms Trad said no money had been paid to Bombardier or the Qtectic consortium. She blamed the previous Newman Government for obtaining 'half-price trains' and said '...everybody knows you get what you pay for'. Opposition Leader Tim Nicholls responded saying the latest problem was Labor's 'own goal' and Ms Trad was trying to cover up for the Government's failures. Mr Nicholls said there were some minor adjustments that needed to be done, as was always the case with new gear but they were the right product to deliver for Queensland. Opposition Transport spokesman Andrew Powell said former and current Transport Ministers Stirling Hinchliffe and Ms Trad were at fault because modifications were made to the design the LNP Government had approved. Mr Powell told ABC News the Palaszczuk Government had put 'guard cubbyhouses' back in at the insistence of the union, and that was one of the reasons for the significant delays.

Public Transport advocate Robert Dow from Rail Back on Track told ABC News he was concerned a delay in getting the new trains into service could eventually make matters worse when the Commonwealth Games commenced early next year. Mr Dow said the Newman Government excluded Queensland Rail from the design process leaving the Department of Transport and Main Roads and TransLink to lead the project (as had been the case with the much-delayed Redcliffe Peninsula Line project) and a price was now being paid.

Commonwealth Games in 2018. QR is to develop a five-year forecasting model for train crew supply and demand to ensure QR understands and can plan for train crew levels needed to meet future service requirements. QR will be expected to deliver improved customer service, appoint customer service champions within QR and improve communications with customers. A rolling eight-week train crew management plan will be introduced to provide a forward view of staff availability. This will be supported by improved leave management processes.

Phase two will incorporate four main components – recruitment and training, reporting and communication, governance and oversight and assurance. Phase three will incorporate development of a culture of transparency and excellence in customer service, major project delivery which will confirm the delivery of such projects and significant timetable changes will reside with the Department of Transport and Main Roads to ensure a network-wide approach to major project delivery and allow QR to focus on operational readiness. Phase three will also include a whole-of-business review of QR to identify any other business areas which may have systemic issues and may be at risk of failing. Finally phase three will also incorporate a review into the governance, legislative framework and structure for passenger rail service delivery.

QR plans to deliver a full-service timetable by late 2018. This timetable will rely on train crew working overtime to meet service requirements. The delivery of a full-service timetable, with the appropriate use of overtime, is expected by late 2019.

By early March QR had commenced external recruitment for drivers with prior QR experience and launched the largest ever training classes with 40 trainee guards and 25 trainee drivers commencing training on 20 February. Citytrain services had also been stabilised with less than one per cent of cancellations during February attributable to train crewing issues. QR has also introduced a dedicated General Manager for Train Service delivery and engaged with employee unions to improve train crew productivity and system efficiency. The Citytrain Response Unit will publish quarterly reports, detailing progress on the implementation of all 36 Strachan Report recommendations and additional customer commitments. For further information on Fixing the Trains see <http://www.cru.qld.gov.au/resources/Fixing%20the%20trains%20-%20High-level%20implementation%20plan.pdf>



IMU183 approaches Redbank with an Ipswich service on Wednesday 28 December 2016. John Scott

Coomera to Helensvale rail duplication project on track for 2017 completion

The Queensland Government's \$163 million Coomera to Helensvale rail duplication project is progressing, with construction on track to be completed later this year.

On Wednesday 15 February Queensland Deputy Premier and Minister for Transport Jackie Trad joined Gold Coast Mayor Tom Tate to inspect works on the project and said it had passed the halfway mark, with six of the eight new rail bridges almost complete.

The project, being carried out by Golding Contractors, will duplicate the remaining 8.2 kilometre single track section of Queensland Rail's Gold Coast line between Coomera and Helensvale.

"With 413 days to go until the Gold Coast 2018 Commonwealth Games, the \$163 million Coomera to Helensvale duplication project is on track and the finish line is now in sight," Ms Trad said.

"This major infrastructure project will support more than 200 full-time construction jobs and so far workers have clocked more than 260,000 construction hours in the race to build eight new bridges and duplicate 8.2 kilometres of heavy rail track."

"The Coomera to Helensvale rail duplication will not only support the Gold Coast region to host the largest sporting event in Australia this decade, but will also cater for the region's growing number of residents and visitors into the future."

Ms Trad said work on the bridge over the Coomera River, Hope Island Road and Saltwater Creek represented the busiest and most complex phase of the duplication project. "This bridge over the Coomera River will be longest spanning 860 metres and is a major engineering task," Ms Trad said. "The complex task of building the bridge across the 220-metre wide section of Coomera River has commenced, with marine piling works expected to continue until the end of this month. When this project is complete seven piers will be constructed in the river."

Gold Coast Mayor Tom Tate said he was pleased with the progress of the work to date. "I'm impressed with the pace Minister Trad has set since taking

over the transport portfolio," Mr Tate said. "Duplication of the heavy rail line makes absolute sense and I know has been underway for some time.

"Efficiency and frequency of service is paramount with all forms of public transport and this will go a long way towards ensuring more services for the Gold Coast direct in to Brisbane."

The project is expected to be finished late 2017.

Senior Cairns train driver stood down after drug-related charges

The driver-in charge of Queensland Rail's (QR) Cairns crew depot, Graham Parsons, appeared in the Cairns Magistrates Court on 28 February on nine charges of trafficking and possessing dangerous drugs and other drug-related offences. Police allege that he trafficked marijuana between September 2014 and September 2016.

The case was mentioned in court last September but Queensland Rail only stood Mr Parsons down following his court hearing.

Cairns Regional councillor, Richie Bates, who is a former Rail, Tram and Bus Union representative, questioned why QR had taken so long to suspend Mr Parsons. Mr Bates told the *Cairns Post* QR was obviously trying to protect themselves from any further damage to their reputation and were only acting now when the issue was in the headlines. However, a QR spokesperson told the *Brisbane Times* senior management had only become aware of the charges when he was due to appear in court.

In April 2010 Mr Parsons was fined \$2,500 for possessing cannabis. The QR Cairns depot has around 18 drivers who provide crews for the *Spirit of Queensland* diesel tilt train and the Cairns – Kuranda tourist trains.



Opened in 1978, Brisbane's Merivale rail bridge is currently undergoing a major overhaul, including its first complete repaint (see April 2016 RD, page 16). To facilitate this work scaffolding has been erected adjacent to the twin steel box arches and the steel cables linking the arches to the deck. The bridge has taken on a new appearance as seen in this Wednesday, 1 March view as a six-car 260 series Suburban Multiple Unit heads towards Roma Street. The project is scheduled to be completed by mid 2018. John Hoyle



SCT's Bromelton to Melbourne service (BM9) and the northbound movement (MB9) are rarely seen in daylight north of the NSW/Queensland border as they are timetabled to arrive and depart the company's Bromelton terminal in the nocturnal hours. However, on the weekend of 11/12 March the ARTC was carrying out track work on the NSW North Coast Line and on Victoria's North East Line necessitating cancellation and alteration of interstate freight and passenger services. On Sunday, 12 March, BM9, led by SCT Class units 005 and 010, is seen approaching Glenapp crossing loop, north of the Queensland/NSW border, on its journey to SCT's terminal at Altona (Melbourne). John Hoyle

Electric Tilt Train Sets 301 and 302 arrive at Maryborough West working No. Q992 to Roma Street, Brisbane, running 10 minutes late on Friday 13 January. Luka Ruckels



ONRSR welcomes Queensland to national rail safety fold

The Office of the National Rail Safety Regulator (ONRSR) will soon hold responsibility for rail safety regulation throughout Australia, following the passage of legislation to establish its jurisdiction in Queensland.

With the Rail Safety National Law (Queensland) Bill 2016 enacted on Tuesday 28 February, ONRSR will officially take responsibility for rail safety regulation in the state from midnight on 30 June 2017.

It is the culmination of a comprehensive process to establish ONRSR's regulatory responsibility, currently held by Transport and Main Roads' Rail Regulation Unit, and follows the Queensland Government's announcement in December 2015 of its intention to join the national scheme.

With the addition of Queensland, ONRSR now has jurisdiction in all Australian states and territories.

As with other transition processes, undertaken since the establishment of ONRSR in 2009, at the same time ONRSR begins operating in Queensland, the Australian Transport Safety Bureau will simultaneously take on the role of national investigator in the state.

Over the coming months ONRSR will work closely with Rail Regulation Unit staff to facilitate their smooth transition to roles within its Queensland Branch. It will also establish the branch headquarters in Brisbane and undertake a national recruitment process to appoint a Branch Director.

Queensland Deputy Premier and Minister for Transport Jackie Trad said productivity and efficiency for the state's rail operators will be

improved through greater consistency of national safety requirements.

"This is a significant step forward and will improve the way safety risks are identified and managed by industry", Ms Trad said. "By implementing these reforms in Queensland, we are cutting red tape for industry and making our railways safer."

Ms Trad said all permanent rail regulation staff currently working in Queensland would be offered a position with the National Regulator.

"The reforms have also received strong support from the Queensland's 66 accredited rail operators", she said. "The National Rail Safety Regulator and the Department of Transport and Main Roads will work together to provide rail operators with information and educational resources to guide them through the changes.

"Rail is essential for passengers travelling throughout our vast state as well as moving bulk commodities, coal, minerals, agricultural products and livestock. "We are proud of Queensland's excellent safety record and we thank our rail operators for remaining diligent, putting safety first and working collaboratively with Transport and Main Roads over many years." Ms Trad said the travelling public would not be impacted by the amendments.

Until the transition, the Queensland Department of Transport and Main Roads will continue to regulate and investigate rail safety in Queensland.

**OUTBACK QUEENSLAND
STEAM SAFARI**

2017 CATALOGUE OUT NOW
WWW.RAILWAYADVENTURES.COM
1300 733 323

This tour is operated by Platinum Travel Corp in association with Scott McGregor's Railway Adventures. ATAS Accreditation No: A10597

• BRISBANE • TOWNSVILLE • CHARTERS TOWERS • HUGHENDEN • RICHMOND • CLONCURRY • MT ISA • WINTON • LONGREACH •

9th June - 21st June
with Mike Condon

CELEBRATE OUTBACK HISTORY AND CULTURE ON A SPECIAL VINTAGE STEAM TRAIN EXCURSION INTO THE HEART OF CENTRAL QUEENSLAND

- Spectacular 4 day steam hauled westward journey through outback Queensland from Townsville to the celebrations of Cloncurry's 150th
- Travel aboard the 'Spirit of Queensland' from Brisbane to Townsville
- Explore tropical Townsville, the Reef Aquarium and Magnetic Island
- Discover the hidden sights of the mining city of Mount Isa and surrounds
- Waltzing Matilda in Winton with the, "Banjo-This is Your Life" theatre show
- Back a winner at the "Great Chicken Stampede", a chicken race carnival
- Soak up the wonders of the Dinosaur Stampede National Monument
- Visit the Stockman's Hall of Fame and Qantas Founders Museum



MKA/EMD 'streamliner' CLF5 and EDI/EMD unit GWA002 are seen on a Bowmans-bound grain train at Two Wells on the evening of Tuesday 3 January. Dominik Giemza



Having arrived at Islington hauling the AK Cars, GWA's Clyde/EMD units 2212 and 2214 wait for the signal to clear so they can head to Dry Creek for servicing, while on the Gawler line a two-car suburban DEMU set goes about its business, on Friday 3 March. Steve Munro

Rail Care Art applications being assessed

The South Australian Department of Planning, Transport and Infrastructure (DPTI) is currently assessing applications for the Rail Care Small Art Grants, which help communities improve the look and feel of Adelaide railway stations and tram stops.

The grants are open to individuals, community groups, schools and not-for-profit organisations to deliver local art projects at stations and rail corridors to benefit neighbours and travellers.

Rail Care grants can be used for:

- Wall murals in subways and other locations,
- Art on concrete retaining walls,
- Art of all sizes from miniature pieces to larger works,
- Small artworks for fences,
- Mosaic art,
- Outdoor sculpture for garden beds or other suitable locations,
- Artistic welding or 3D printed installations; and
- Painting one of our numerous metal boxes across the network.

Applications closed on Monday 20 March. Successful applicants will be advised during the first week in April with projects to be completed by mid-year.

Albert Park Station improvements include security upgrade

Anti-social behaviour at Albert Park station will now be caught on camera with the installation of new high definition CCTV cameras as part of the State Government's \$4 million Station Security and Amenity Upgrades Program.

(Albert Park railway station is located on the Grange line 9.1 kilometres from Adelaide station.)

In addition to the installation of latest CCTV technology the upgrade has also included:

- New lighting on platform and in the car park
- New public address system
- Resurfaced platform - new asphalt
- New station shelter
- Improved access
- Way-finding tiles (DDA compliant edging tiles)
- Improved access – including DDA compliant pedestrian access ramp
- New fencing

The improvements are designed to meet the needs of Grange line passengers, and to encourage higher public take-up of rail travel with the provision of better security and public access features.

South Australian Minister for Transport and Infrastructure, Stephen Mullighan, said that the upgrades are on top of other initiatives the SA Government has introduced to deliver safer, more amenable journeys for all public transport passengers.

"We have approximately 100 transit police and more than 200 safety officers riding our public transport services. We also have security guards on every train every night and on trams on Friday, Saturday and Sunday nights", Minister Mullighan commented. "Last year we also introduced mobile security patrols that monitor bus and rail networks as well as maintaining a presence at major stations and interchanges whilst on patrol."

Over the past 12 months Public Transport Safety Branch and DPTI Passenger Service Assistants have conducted dozens of special operations targeting fare evasion, graffiti and anti-social behaviour.

These operations have utilised South Australian Police's Passive Alert Drug-Detection dogs and plain clothes officers, and have involved closing down stations and the saturation of railway and tram lines giving offenders little chance to evade police.

"We have backed these initiatives up with tougher penalties for

thugs who attack public transport staff. Under changes made last year, if you assault bus, train or tram drivers or our passenger service assistants, you face up to 25 years' imprisonment", Mr Mullighan concluded.

SA Government to step-up fight against graffiti on public transport

The South Australian Government will soon enter into a new security contract that will include increased security presence focused on protecting Adelaide Metro infrastructure from graffiti vandals.

The new arrangements will see increased patrols around vulnerable areas of attack by vandals, with an emphasis on reducing the number of graffiti attacks on stations, trains, trams and buses.

The announcement of the new contract on Monday 13 February coincided with the release of figures revealing that the SA Government has spent \$486,752.54 for the removal of graffiti over the past three years.

| Year | Amount | Incidents |
|------|--------------|-----------|
| 2014 | \$145,918.44 | 194 |
| 2015 | \$168,076.98 | 263 |
| 2016 | \$172,757.12 | 252 |

Together with other costs including employing staff and vehicle expenses, the annual cost is more than \$600,000.

The increased security presences comes as the State Government continues its \$4 million roll-out of new high-tech CCTV cameras, improved lighting and emergency contact points at stations and interchanges across the Adelaide Metro network. Albert Park Station was the first station to receive a security upgrade with stations at Broadmeadows, Woodville and the Entertainment Centre to follow.

The new CCTV cameras will add to existing network of more than 1000 CCTV cameras to combat crime across public transport services, alongside the intelligence-based work of South Australian Police's Public Transport Safety Branch and Department of Planning, Transport and Infrastructure safety officers.

Other initiatives to be rolled out include 'green screens' at graffiti hot spots, which involves planting trees and hedges along stretches of walls at stations, making it hard for vandals to graffiti them.

The State Government will also provide a funding boost for its Rail Care initiative providing \$75,000 towards a grant programs to help improve the amenity of Adelaide's train, tram stations and rail corridors.

Rail Care has been hugely successful in working closely with volunteers and other partners such as local councils to improve the amenity of stations across the network.

"The damage these gangs do to our rail network is criminal and it's costing taxpayers tens of thousands of dollars every year", said South Australian Minister for Transport and Infrastructure Stephen Mullighan.



Fire your passion for railway history
Benelux Rail
 1970-1980
 By Marcel Vleugels

hardcover | 304 pages | 368 photos | map | € 34.00 |
 ISBN/EAN 978 90 73280 00 7 | Now at your ARHS^{nsw} bookshop
 or from www.nijverepublishers.nl

Councils support Hobart to Glenorchy light rail study

A \$200 million plan to transform urban development along Hobart's northern suburbs rail corridor has been endorsed by Hobart and Glenorchy councils. The plan includes new public spaces, modern housing, shopping and restaurant strips — linked by a light rail system.

A study into the feasibility of the Glenorchy to Hobart Public Transport Corridor Project was tabled at meetings of both the Hobart City Council and Glenorchy City Council on Monday 20 February. The *Glenorchy to Hobart Public Transit Corridor Study, October 2016*, was commissioned after the Tasmanian Government stated its belief that light rail would not be economically viable unless there was increased development to boost population along the rail corridor.

The report, by consultants GHD, outlines the potential for development and includes economic and demographic analysis and consultation with investors and the real estate industry. The report proposes new "key precincts" for more intensive urban, commercial and community development at New Town, Albert Road, Derwent Park Road, Glenorchy Central, Berridale and Claremont. The new precincts are focused in areas within 400m of the existing rail corridor and are linked with future light rail stops.

The plan has been costed at \$200 million, which would come from both the private sector and government.

The concept was given a significant boost when Mona (the Museum of Old and New Art) unveiled its vision for Macquarie Point in December 2016, which included a light rail system.

On Monday 20 February Hobart City Council voted to accept the recommendations of the *Glenorchy to Hobart Public Transit Corridor Study, October 2016*, one of which urged the council to engage with the State Government to realise the project. However, this recommendation was re-worded after Alderman Marti Zucco said the Federal Government also should be approached by the council. "What we need to be doing is taking it to the Federal Government and discussing with them how we can develop a strategy to raise the funds," Ald Zucco said.

Deputy Mayor Ron Christie said securing federal support was a priority for the project.

Other amendments passed by Council included that a report be prepared on the possibility of high-quality medium-density housing on council land in the corridor, and for a steering committee to be created to guide the project.

Glenorchy City Council commissioner Sue Smith, said it was an exciting plan for the Glenorchy community, especially the proposed new key precincts with new public spaces, modern housing and shopping and restaurant strips.

ReachTEL polling for the *Hobart Mercury* in November 2016 showed strong support for light rail, with 62.2 per cent of residents in favour. (The federal electorate of Denison is located in central Hobart and includes the suburbs of Glenorchy and New Town.)

Additional information on the Glenorchy to Hobart Public Transit Corridor study can be found on the Glenorchy City Council website.

Level crossing incident near Railton

Tasrail chief executive Damien White has pleaded with motorists to take more care at level crossings following a collision between a vehicle and train near Railton on Thursday 23 February.

The driver of a red Suzuki Swift escaped injury when the car was struck by the train, worked by TR Class locomotive TR04, at about 4.45pm.

Emergency services and TasRail investigators attended the scene and the Australian Transport Safety Bureau was notified. Mr White said the collision would cost Tasrail about \$50,000.

"It's under investigation but from what we can see, the car driver simply hasn't complied with the stop signs at that site and has been hit by the train," Mr White said. "Fortunately for the car driver he was able to walk away, but for our train driver he's suffered a trauma incident and injury, and it also brings back memories for all of our other drivers who've been involved in these sorts of incidents in the past."

Tasrail records about 100 near misses at level crossings each year.



A late-running return paper train, headed by TR06 and TR10, heads east through Merseylea (on the Western Line) on its way south to the Norske Skog paper mill at Boyer in the Derwent Valley on Friday afternoon 27 January. Rowan Kinnane



DQ Class unit 2002 and TR05 are slowed for a heat restriction between Conara Junction and Epping Forest while hauling a coal train on the South Line on Wednesday 1 March. Rowan Kinnane



TR06 and TR10 cross the Meander River at Deloraine with Train 31, Burnie to Boyer paper train, on Friday 27 January. Rowan Kinnane

\$518 million Ballarat line upgrade released to market

On Wednesday 1 March Victorian Minister for Public Transport Jacinta Allan announced the release of the Request for Proposal (RFP) to build the \$518 million Ballarat line upgrade project, which will create space for more trains, more often on the Ballarat Line.

The half-a-billion dollar upgrade will duplicate a 17-kilometre section of single track between Deer Park West and Melton, paving the way for future electrification of the line to Melton.

The Ballarat Line Upgrade includes:

- duplication of 17 kilometres of track between Deer Park and Melton,
- a replacement carpark at Rockbank station,
- additional platforms at Bacchus Marsh and Ballan stations, and extended platforms at Rockbank station with new pedestrian links between platforms,
- new stabling facilities at Melton and Rowsley, and the removal of stabling facilities at Bacchus Marsh,
- a five kilometre passing loop at Ballan,
- a four kilometre passing loop at Spreadeagle, making it possible to close the existing Bungaree loop (the original main line) and remove five level crossings; and
- duplication of three kilometres of track east of Warrenheip Junction.

Around 200 geotechnical investigations will be carried out for the Ballarat Line Upgrade. They began earlier this month in Ballan and are now being carried out between Caroline Springs and Rockbank.

These investigations will continue over the coming months and provide critical information about ground conditions along the Ballarat line, which will inform how the project is designed and built.

The RFP documentation is now available at tenders.vic.gov.au, with responses due by 1 May 2017.

Major construction on the Ballarat Line Upgrade will start early next

year, with the project to be complete by late 2019. For further information or to sign up for updates, visit vic.gov.au/ballaratl原因upgrade.

The Ballarat Line Upgrade is being delivered by the Melbourne Metro Rail Authority.

Clean bill of health for Ballarat Station car park

Concern about soil contamination in the Ballarat Station car park has been appropriately investigated and addressed according to a VicTrack media release issued on Wednesday 25 January.

In late 2016, in answer to Environmental Protection Authority Victoria (EPA) concerns, VicTrack engaged Senversa Pty Ltd — an Australian owned professional services firm specialising in environmental consultancy and audit services — to complete a Human Health Risk Assessment (Report) to assess the risks to the public. As a precaution, the EPA ordered that temporary fencing should be placed around some areas of the car park. (The site was formerly part of the Ballarat rail yard. It incorporates the former goods shed and is currently used for formal and informal car parking and storage of rail infrastructure.)

The assessment of the risks to the public from soil contamination incorporated conservative assumptions about site conditions and exposure levels. Soil contaminants commonly found in urban areas, polycyclic aromatic hydrocarbons (PAHs) and lead, have been identified below the ground level in three isolated areas of the car park.

The risk assessor concluded that:

- the soil contamination is not expected to pose an adverse health risk,
- the site is considered safe for the public to use for car parking (including in unsealed areas) and for rail operations; and
- no environmental management measures or controls are required for continued use of the site.

The fencing was removed on the morning of Friday 27 January.



BK002 and CSR002 on 7922V from Doon to Melbourne pass through Little River, on Friday 24 February. BK002 is still in the livery of its former owner, but is soon to become CSR012 in its new owner's fleet, (see March RD p31). Rhys Harrison



An eclectic group of Clyde/EMD units, comprising G512, S313, B76 and T395, is at the head of 9187 Qube Down Melbourne–Birchip (Mildura Line) grain train, seen approaching its destination on Wednesday 1 March. John Scott

Level crossing upgrades to restore Warrnambool timetable

The Victorian Government will upgrade 20 level crossings on the Warrnambool line this year to improve safety and restore services to timetable.

On Monday 13 February Minister for Public Transport Jacinta Allan revealed the \$10 million package of works, which will allow speed restrictions, put in place after the 13 July collision between a V/Line passenger train and a semi-trailer at the Phalps Road level crossing at Pirron Yallock (see September 2016 *RD*, page 22) to be lifted.

Over the next ten months, active level crossing protection will be installed at 20 high-risk level crossings between Waurn Ponds and Warrnambool.

The Safer Country Crossings program has already upgraded three level crossings on the Warrnambool line – at Phalps Road, Flaxmill Road in Colac and Sandys Lane in Gnotuk.

A further eight crossings earmarked as part of the program will be fast tracked and 12 additional crossings will be upgraded, enabling trains to run safely on-time again by the end of the year.

While these works are undertaken, Warrnambool services will continue to be delayed and passengers will need to allow an extra 15-20 minutes for their journey.

Border Councils release rail impact study

A report detailing the economic losses incurred by the poor reliability of Victoria's North East line services was released in March, ahead of state and federal budgets submissions.

Albury City, Wodonga, Wangaratta and Benalla Councils joined forces to fund the research project which looks at both the existing and potential future demand for rail services, current perceptions of train travel and the social and economic impact of rail on local communities.

The four councils worked closely with the Border Rail Action Group, which has been advocating for improved passenger rail services between Albury-Wodonga and Melbourne for a number of years.

The independent study was commissioned in the hope it will strengthen the case for improved rail services in North East Victoria.

City of Wodonga Mayor Anna Speedie said a draft of the report was tabled at a round-table on Thursday 23 February, with the final to be presented at a March council meeting.

"We all committed to putting in some funds and commissioning a report to measure the economic and social impact of not having good rail," she said. "The numbers are even bigger than I thought they would be ... we always knew there was a huge impact."

Cr Speedie said the lease between the Victorian government and the Australian Rail Track Corporation needed to be reviewed following the report's release.

“We have had regular meetings with the (Victorian Transport) minister for 12 months and very clearly the minister has said the condition of the track isn’t good enough,” she said.

Albury City Council Mayor Kevin Mack said he was also shocked by the estimations of missed productivity in the report.

“An analysis provided in the report would indicate there’s millions of dollars of opportunity there for growth in the region if they fix the line,” he said. “The report is fairly encompassing, it’s not just about the economy but benefits to the community. It’s not just a financial statement; it’s a social statement.”

Recommendations from the project will be used to inform future planning and development of infrastructure and services. It will be used to lobby government and rail authorities for much-needed improvements.

Meanwhile, the Australian Rail Track Corporation (ARTC) has been accused of keeping the extent of the problem with the Victorian North East rail line a secret from passengers.

In a Senate hearing on Monday 27 February, Greens Senator Janet Rice told ARTC chief executive John Fullerton that community members had counted 23 speed restrictions between Melbourne and Albury.

Mr Fullerton had claimed there were only eight to 10 restrictions.

“The community are concerned you are hiding data. They are concerned your assessment of the track, yes it meets standards you have determined with the Victorian government, but it doesn’t meet the community standards,” Senator Rice said.

The contract between the ARTC and Victorian government, detailing what standards the track has to meet, remains a secret, as does data collected on how well trains are running. Mr Fullerton told the committee it was because of a “commercial confidence”.

“I think it’s important we communicate with the community about what we’re doing to get the track up to performance, but that data is complex data,” he said.

Asked five times by Senator Rice why details were kept secret, Mr Fullerton only said it was “complex”, but agreed to take the issue of releasing data on notice.

“I can’t see why that raw data – even if it is complex data, there are lots of people in the community who are interrogating complex data – why that data is considered ‘commercial’,” Senator Rice said.

The comments come as V/Line’s January performance results revealed just 65.1 per cent of trains on the Albury line ran on time. This is an improvement on December’s 56.7 per cent, but still had the line as the second-worst performing in Victoria, behind Warrnambool services.

V/Line chief executive James Pinder said poor punctuality was due to speed restrictions caused by hot weather, trespassers and delays on metropolitan trains.

“The hotter summer months can often be challenging due to the hot weather, which results in heat speed restrictions to ensure the safety of passengers, services and staff,” he said.

Graffiti attack on historic Bendigo tram

Police have apprehended a vandal responsible for spray painting graffiti on one of Bendigo’s historic trams.

Tram No.976 was attacked between Monday 13 and Wednesday 15 February after the offender gained access to the Bendigo Tramways’ storage depot at the old Gasworks site, located on Weeroona Avenue. A large, green tag reading “Jarryd” was painted on one side of the tram, as well as the words “gone but not forgotten”.

The graffiti was subsequently successfully removed.

Bendigo 976 is a refurbished 1952 Melbourne SW6 tram. It was withdrawn from service as an advertising tram for Australia Post by the Victorian Public Transport Corporation in May 1996 and donated to Bendigo in July 1996. The tram was converted for use as the Cafe Tram and entered service in 1999. During 2007 the tram was re-commissioned as a “Restaurant Tram”. It is currently stored out of service.

Bendigo and Eaglehawk Station design tender released

The design tender for the upgrade of Bendigo and Eaglehawk Stations was released to market.

On Friday 3 March Victorian Minister for Public Transport Jacinta Allan joined Member for Bendigo West Maree Edwards to announce the release of the tender for the first major upgrade of these stations in decades.

The multimillion dollar project will build a new pedestrian overpass with lifts and stairs at Bendigo Station. The waiting area will also be improved, as will car parking and traffic management outside the station.

At Eaglehawk (located approximately six kilometres from Bendigo Station on the Swan Hill line) the platform will be extended and 60 new car parking spaces built, making the station more accessible for local passengers, particularly those with limited mobility and parents with prams.

The \$15.8 million project was funded in last year’s Victorian Budget and responds to findings from a community consultative taskforce established to improve access to Bendigo and Eaglehawk stations. It follows a significant increase in services to Bendigo, Eaglehawk and other local stations last year with the introduction of two new peak hour services and Stage 1 of Bendigo Metro.

The upgrades are consistent with Bendigo Council’s integrated transport and land use strategy Connecting Greater Bendigo, the Bendigo Station Improvement Plan and the Eaglehawk Station Precinct Master Plan.

Preliminary designs for the upgrades will be finalised later this year, with construction due to start next year and be complete by early 2019.

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

Australian Railway History

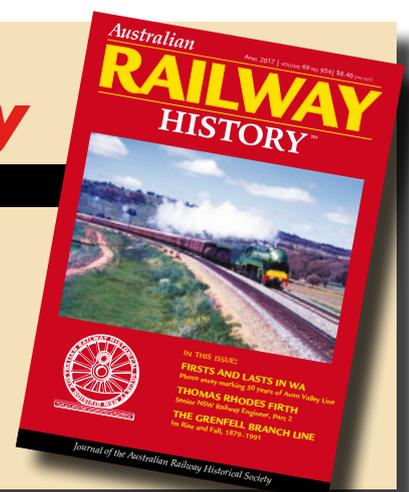
April 2017 issue out now! Just \$8.40

The April issue of ARH opens with Phil Cross’ photo essay featuring his own images of the remarkable changes that occurred on the narrow gauge Western Australian Government Railways associated with the opening of the standard and dual Gauge Avon Valley Line in February 1965.

Tony Firth rounds off his account of Thomas Firth’s career with the New South Wales Government Railways, covering his senior

engineering positions in Sydney from the late 1880s to his untimely death on 20 July 1903. He travelled extensively around the system and represented New South Wales at national conferences of railway officials.

Bob Scrymgeour concludes the issue with his account of the Koorawatha to Grenfell branch line in central western New South Wales from the 1860s until closure in October 1991.





A V/Line VLocity Set led by 1222 powers away from Sunshine Station, Melbourne, with a Ballarat/Wendouree Service on Wednesday afternoon 8 February. Shaun Stutsel

Dingee Station set for conversion to public library

Dingee railway station is set for transformation into the town's first public library, with tenders for the project closing on Wednesday 22 February.

(Dingee is an unstaffed station located approximately 211 kilometres from Southern Cross Station on the Swan Hill line. It is served by Melbourne – Swan Hill rail services and Mildura – Melbourne V/Line road coaches.)

Victorian Minister for Public Transport and Member for Bendigo East Jacinta Allan said it was another important step in the project, that will restore the station to its former glory by the end of the year.

The works include:

- repairs to the subfloor, wall and verandah structures
- installation of new floors and floor coverings in all rooms in the station building
- installation and painting of a new metal roof, new gutters and downpipes
- internal painting of all walls and ceilings, doors and windows
- construction of new external ramps and shelters
- new electrical wiring throughout
- fit out of new kitchenette, accessible toilet and new air-conditioners

Once the works are complete, the building will be released to the Loddon Shire Council and will be run by the Dingee and District

Country Women's Association as multi-use meeting space and library, in collaboration with Goldfields Library Corporation.

The project will be managed by Victorian rail asset owner VicTrack through their Community Use of Vacant Rail Buildings Program, which provides \$1.5 million every year to restore disused railway buildings so they can be used by local communities.

The contract is likely to be awarded by the end of March, with construction to begin shortly after. Works are expected to be completed by September 2017.

"This project will save this historic building and transform it into Dingee's first permanent public library", Ms Allan said. "It's a project that has been driven by the local community and I look forward to seeing the contract signed and work start in the coming months."

To read *Railway Digest* on your PC, Mac, Mobile, Tablet and more, visit
www.pocketmags.com

Around Melbourne

Skye/Overton road level crossing at Frankston fast-tracked for removal

Removal of the Skye/Overton Road level crossing in Frankston has been brought forward by almost 12 months with work to start this year and be finished by the end of 2018.

(Overton Road runs east from the Nepean Highway, over Wells Road and becomes Skye Road after crossing the Frankston line. The area predominantly consists of commercial outlets, as well as a small residential area. Kananook Primary School is also nearby, making safety a key concern of the local community.)

The Skye/Overton Road level crossing is one of Victoria's worst, with boom gates down for more than a quarter of the morning peak and three collisions at the crossing in the past ten years.

Speaking at the Saturday 25 February launch announcement Victorian Minister for Public Transport Jacinta Allan said; "We're fast tracking this crossing to reduce congestion and make Frankston safer, sooner."

The project will build a rail bridge over the road – the only feasible option identified for the site presented to the community during consultation last year.

The design includes improvements to the Skye/Overton Road and Dandenong Road West junction, to improve traffic flow between the Frankston Freeway, central Frankston and the surrounding industrial and retail precincts.

After extensive technical investigations last year, the Level Crossing Removal Project, in consultation with Melbourne Water, determined that lowering the rail line into a trench was not feasible because it would create a barrier across the existing floodplain and interrupt overland water flows. The design is the product of those expert planning, engineering, and hydrological studies, and was made in consultation with the community throughout 2016.

Over the coming months the project team will be seeking community feedback on landscaping, lighting, parking and paths.

A preferred contractor will be announced by the middle of the year, along with the detailed final design of the project. For more information, visit levelcrossings.vic.gov.au.

More X'Trapolis trains for Melbourne

Public Transport Victoria (PTV) has signed a \$137 million contract for Alstom to supply a further nine six-car X'Trapolis EMUs for Melbourne's suburban network.

Announcing the order on Tuesday 21 February, Alstom said production was expected to begin at its Ballarat plant later this year for delivery by late 2018. The order will take PTV's X'Trapolis fleet to 101 units (606 cars) delivered from Alstom's manufacturing facility in Ballarat since 2002. The new trains will begin production at Ballarat in late 2017.

This order coincides with the 100th anniversary of the Ballarat North Workshop site, which was privatised in the late 1990's, and acquired by Alstom in 1999 for \$7 million.

Alstom X'Trapolis trains have proven to be the most reliable trains on the Melbourne network and will further enhance the network's capacity while also increasing the reliability of the entire system. Composed of six cars, the 145 metre long train has been designed to optimise the capacity (1,430 passengers) whilst maximising passenger experience, comfort and safety.

"We are proud to have been trusted by the Victorian government to supply a further 9 trains from our industrial base in Ballarat. This will guarantee regional jobs, training and investment and ensure ongoing support to Alstom's extensive network of local suppliers. These new trains will provide additional transport capacity to the residents of Melbourne's area and allow them to commute on-board a reliable, comfortable and environmental-friendly mode of transport" said Mark Coxon, Managing Director of Alstom in Australia and New Zealand. X'Trapolis is the brand name for suburban train among Alstom's trains portfolio. In over 10 years, more than 4,600 X'Trapolis cars have been adopted by countries like: Australia, Chile, Spain, South Africa and France.

An X'Trapolis EMU Set working the Camberwell to Lilydale shuttle service arrives at Blackburn Station, passing under the new road overbridge, on Saturday 11 February.
Jo Asani





LDP001, CF4402 and LDP002 approach the Bunbury Street tunnel on Saturday 7 January 2017 with 7MP1 Melbourne-Perth intermodal freight. Dominik Giemza

Giant shed to cover City Square during Melbourne Metro rail works

A giant Bunnings-style shed will cover Melbourne's City Square for the next five years as work starts on the \$10.9 billion Melbourne Metro rail tunnel.

The Melbourne Metro Rail Authority officially took possession of the Swanston Street square on Monday March 20 with work expected to start on the 9 kilometres cross-city tunnel as early as April.

A 20-metre high acoustic shed will cover most of City Square during the works to protect pedestrians and hotel guests from noise and dust from disruption underground.

Melbourne Lord Mayor Robert Doyle said he hoped it would not distract people from enjoying the heart of the city. The last remaining tenant in the square ceased trading at the end of March.

Nineteen trees and six council-owned artworks will be removed to enable construction of the underground CBD South station. Council has asked for most of the artworks, including the Burke and Wills statue, a bronze dog and the Collins Street water wall, to be returned to the square.

Melbourne Metro Rail Authority spokesman Reid Sexton said City Square will be returned to the City of Melbourne when construction is complete.

Contract signed for Hurstbridge line upgrade

The contract to remove the congested level crossing on Lower Plenty Road, rebuild Rosanna Station and duplicate the Hurstbridge line has been signed – with work to start in the coming months.

Victorian Minister for Public Transport Jacinta Allan joined Member for Ivanhoe Anthony Carbone on Tuesday 7 February to announce that an Alliance of Laing O'Rourke, Fulton Hogan and Jacobs will deliver the multi-million dollar works.

The Lower Plenty Road level crossing is one of Melbourne's worst, with boom gates down for about 43 minutes each day during the two-hour morning peak.

The project will build a rail bridge over Lower Plenty Road, removing the crossing, reducing congestion and improving access to the shops and parklands. The design is the product of extensive engineering, planning and community engagement to find the best way to separate trains from traffic given the incline of the road, nearby creek and surrounding parklands. The rail bridge will protect train services from disruptions caused by flooding and save hundreds of local trees compared to the rail trench option, which would have been about double the length of the bridge.

Raising or lowering the road over the rail line was previously ruled out due to the significant amount of property acquisition required and impact on the local shops, parkland and community.

The project will also build a new Rosanna station (15.8 kilometres from Southern Cross station) next to the Lower Plenty Road crossing and duplicate the single section of track between Heidelberg and Rosanna, allowing more frequent and reliable services, which will have flow-on benefits for the South Morang line. (The Hurstbridge and South Morang lines share the same track for 5.4 kilometres between Spencer Street station and inner suburban Clifton Hill.)

The second track will be built to the east of the existing tracks, but will not require any property acquisition. The duplication will include a new tunnel under Darebin Street next to the existing brick tunnel.

These works are part of a \$395 million package of works that also includes the removal of the Grange Road level crossing in Alphington. For more information visit levelcrossings.vic.gov.au

Heavy rain disrupts WA rail services

Heavy rain fell over large sections of the south-west of Western Australian on Thursday 9 and Friday 10 February causing extensive flooding and damage to transport infrastructure. Brookfield Rail closed much of its narrow and standard gauge system on the 10 February including the Perth – Kalgoorlie main line and Leonora branch, and most of the narrow gauge grain network – particularly the Mukinbudin and Beacon lines and the Great Southern region (all lines).

Damage to the rail network included embankments and to access roads, which delayed Brookfield Rail from assessing much of the track. Continuing rain in some areas hampered Brookfield’s assessors for some days.

There was a steady reopening of rail lines as repairs were undertaken but the line from Wagin to Lake Grace with branches to Newdegate and Hyden remained closed until at least Monday 20 February. Brookfield Rail worked to have lines reopened by Saturday 25 February. In the interim CBH Group was forced to instigate movement of a large amount of grain by road to keep up requirements for shipping out of the grain ports. Brookfield Rail’s E-Newsletter sent out on 15 March reported that Wagin to Lake Grace and Hyden lines had re-opened earlier in the month but parts of the Lake Grace to Newdegate line were still submerged.

Road by-pass threatens disused line

The Shire of Narembeen (based on the town of the same name in the heart of the WA wheat belt approximately 280 kilometres east of Perth) plans to install a traffic bypass to remove grain trucks from the town roads. The plan includes using part of the disused ‘Tier 3’ Merredin – Kondinin rail corridor as the alternate road route. However, Brookfield Rail and CBH have objected to the Shire’s proposed land swap deal with Brookfield Rail as it would jeopardise the potential reopening of the closed line.

A CBH Group spokeswoman said that CBH believes it would be inappropriate to invest growers’ money into a process seeking rail access while, on the other hand, supporting the Shire of Narembeen’s proposal.

The Merredin – Kondinin line was closed in 2014 but is still owned by the State Government and leased to Brookfield Rail until 2049. CBH has been pushing to secure a long-term access agreement to the rail system since 2013. The Shire wants to take 36.5 metre road trains (used to transport grain from the Narembeen grain storage sites) out of the town’s main street.

David Whiteford



Goninan/GE unit P 2510 Shire of Corrigan (with another P unseen at the rear of the train) heads out from Albany with the wood chip shuttle service on Wednesday, 8 February. Bob Grant



On Wednesday 22 February, GE ES44DCi unit 8126 and GE Dash 9 units 7081 and 7046, lettered for Rio Tinto, Hammersley Iron and Pilbara Iron, respectively, are on a loaded ore train at Karratha, near the port of Dampier. Pilbara Iron is a wholly-owned subsidiary of the multinational Rio Tinto Group, that manages assets for Hammersley Iron Pty Ltd, a wholly-owned subsidiary of Rio Tinto, and Robe River Iron Associates. John Scott

Transperth crack-down on concession card fraud

Hundreds of Transperth passengers have been caught fraudulently using concession SmartRiders. (SmartRider is a reusable smart card, which allows travel on Transperth services.) The passengers were identified as part of a special operation, and are being made to repay the Public Transport Authority for their illegal travel.

On Thursday 9 February PTA spokesman David Hynes said the operation began in June 2015, and has so far seen 794 cards confiscated. "So far we have recouped more than \$120,000 in revenue lost when people travelled on SmartRiders they were not entitled to use," Mr Hynes said. "In the interest of tax-payers, most of the money has been recouped in full or through payment plans with some being pursued through the courts or debt collection."

Examples

| Description | Details |
|-----------------|------------------------|
| Repaid \$11,600 | Female, Secret Harbour |
| Repaid \$10,155 | Female, Yanchep |
| Repaid \$7,746 | Female, Parmelia |
| Repaid \$2042 | Male, Applecross |

Transperth has the lowest rate of fare evasion in the county – less than one per cent, with more than 22 million fare checks conducted each year.

"The people caught during this operation are not what most people would consider typical fare evaders. They are tagging on and off using SmartRiders – the problem is they aren't entitled to the discounted travel the card is getting them," Mr Hynes said. "For example, a passenger travelling from Mandurah to Perth and back each day should be paying \$9.30 each way (after the 25 per cent discount for using an auto-loaded SmartRider). "Instead, some have been paying just 60c each way using a student SmartRider. "The gap between what they have been paying and what they should be paying goes into the operation of public transport services in WA – it's not fair that other passengers pay their way and they don't. "For this reason, Transperth has launched a campaign to remind passengers we are on the look-out for this type of offending."

WA polities lose rail travel perks

The Salaries and Allowances Tribunal (WA) announced on Tuesday 28 February that long standing arrangements for Western Australian state government MPs elected before 1999 would be abolished immediately. The changes include entitlements to travel by rail or convert it to a return airfare. The Tribunal said this was from the days when the State Government owned the railways.

To read *Railway Digest* on your PC, Mac, Mobile, Tablet and more, visit
www.pocketmags.com

NEW ZEALAND

After languishing on the market for nearly five years the Kingston Flyer has finally been sold. The buyers, who had not been identified at the time of writing, are understood to be a local consortium. No plans for the future of the Flyer have been announced, although local speculation is that the service will be restored to operational condition. The Flyer has had a tumultuous few years, with bankruptcy of a former owner, the ill health of the previous owner and safety problems all affecting the service and causing it to be cancelled for lengthy periods of time. At its peak, the Flyer was considered to be one of the South Island's top tourist attractions. Unofficial reports suggest a major effort will be required to restore the line to service.

KiwiRail has suffered another severe disruption to South Island services after a bushfire badly damaged one of the major viaducts on the Christchurch – Greymouth line. The bridge over Truscotts Creek, between Cass and Springfield, was in an area severely affected by fires that raged through the South Island in early February and follows the earthquake damage to the Christchurch – Picton line last November that has seen that line only partially reopened in the intervening months. All services on the Greymouth line, including the daily TranzAlpine passenger train, have been suspended pending repairs to the viaduct, with the line not expected to reopen until some time this month. The combined effects of the bushfire and earthquake have led to a reduction in revenue and an increase in costs for the financial year, although KiwiRail continues to operate with a surplus and expects to generate more productivity savings this year.

INDONESIA

The leaders of Japan and Indonesia have reached agreement to cooperate on the provision of railway infrastructure, including the upgrade of a 600 km line between Jakarta and Surabaya. The agreement comes after Indonesia sided with China in the construction of a high-speed line between Jakarta and Bandung in 2015, although Indonesian confidence in that project is reported to be slipping as that line already faces construction delays. The upgraded line to Surabaya, although not a high-speed line, is expected to reduce journey times between the two cities to around five hours. With a long history of investment and cooperation in Indonesia, Japan is seen as a reliable partner in a major railway project.

The Indonesian President, Joko Widodo, has inspected progress on the construction of Jakarta's rapid transit project, with the completion of tunnelling occurring in February. Initially, a 16 km line linking Lebak Bulus and Hotel Indonesia will open in March 2019, followed by a second phase to Ancol Timur in 2021. The first part of the line will feature 13 stations, of which six are underground. A fleet of 16 six-car trains operating at five-minute headways will service the 1067 mm gauge line.

INDIA

The Delhi metro has introduced fully cashless payment systems at 10 stations. Purchases of smart cards or tokens to ride the metro are made using a mobile app. Customers are sent an SMS with a code number that is given to staff who sell tokens or top up smart cards. The new payment system was introduced in the wake of the Indian Government's desire to transform India's economy into a cashless model, although early steps towards that goal, including a withdrawal and reissue of certain bank notes, has played havoc with the finances of many of India's poorest people.

TAIWAN

An express Metro service has been introduced between Taipai and Taoyuan International Airport. The airport is located on a new line that runs to Huanbei and is 35 km from the main station. A second phase of construction will see the line further extended to Zhongli, creating a line just over 53 km in length. Express services to the airport operate at 10-minute intervals with trains reaching speeds of 100 km/h. Passengers have the option of checking in luggage at Taipai and Taoyuan stations. Express trains have been decorated with a purple livery while regular commuter trains on the line have a blue colour theme.

ARGENTINA

The first two of an order for 107 locomotives from Chinese manufacturer CRRC have been successfully tested on the metre gauge Belgrano network. The locos arrived from China in February and two weeks later were tested hauling a 21-wagon train of concrete sleepers. The new locos are being obtained as part of a drive to improve the rail network through new rolling stock and rehabilitation of track. CRRC will also supply 1,300 new freight wagons. A total of 30 locos are destined for the metre gauge network while 67 will be employed on the broad gauge track. The remaining 10 locomotives will be used on the country's only standard gauge line, which connects Buenos Aires and Paraguay.

KENYA

Train operations on the new Mombasa – Nairobi standard gauge line are expected to commence in June. The 472 km line, which was built by the China Railway and Bridge Corporation, has started test runs in readiness for the line's official opening. The line features an automatic block signalling system – the first of its kind in Kenya – that is built on a fibre optic and microwave network supported by its own power supply. Locomotive cabs will also have in-cab signalling. When fully operational, the line will be serviced by 56 locomotives, 1,620 freight wagons and 35 passenger coaches. The new line will also employ extensive security installations and it is expected that police stations will be provided at all of the 33 stations along the line.

SAUDI ARABIA

Alstom has unveiled a train that it is supplying for the Riyadh metro. The 2-car driverless set is one of 69 being supplied by Alstom, one of three suppliers for the metro. Rival manufacturers Siemens and Bombardier are also building trains for the metro, all to the same design. Alstom's train, like the others, includes three classes of accommodation. Internal fittings have been inspired by Arabian architecture and the handrails in the vestibules have been shaped like palm trees. The metro will be powered by a 750 volt third rail system with trains travelling at up to 90 km/h. Special door seals to prevent sand being drawn into the carriages are also a feature of the new trains.

FRANCE

An inauguration ceremony held last month for a new high-speed rail line was disrupted when a police marksman accidentally fired his rifle, injuring two people. The sniper, a member of an elite protection unit, incorrectly 'manipulated' his weapon while overseeing the ceremony from a rooftop vantage point, with the bullet hitting a waiter in the leg and a railway worker in the foot. Injuries to both were described as minor. The ceremony, which was attended by the French president, was held to launch the new Paris – Bordeaux line, which will reduce travel time between the two cities to just over two hours. The line adds to the already extensive high-speed network in France, although there is a growing realisation that the network is no longer profitable. A private consortium will operate the new line under a 50-year lease – an acknowledgement that the French government can no longer afford to build high-speed lines without private sector assistance.

Swiss rail company BLS has sold a 45% stake in its freight subsidiary, BLS Cargo, to French operator SNCF. BLS Cargo said the new arrangement would strengthen rail's business on the transalpine routes between Germany and Italy.

FINLAND

Two separate consortia will conduct a feasibility study into the building of a tunnel under the Gulf of Finland linking Finland and Estonia. The tunnel, which may end up being 92 km in length (nearly twice as long as the Channel Tunnel linking England and France), could enable journey times of as little as 30 minutes between the two countries that are presently linked through sea-going traffic that can take two hours for the journey. The two reports that will be delivered will consider both the technical

and economic feasibility of the proposed tunnel as well as alternatives, such as improved maritime services. No timeframe has been set for the tunnel's construction.

UK

The move to electrify the London-Cardiff rail line has been described as an example of 'how not to run a major project'. The line was proposed for electrification in 2009, although at the time the project had not been properly 'scoped' and there was little understanding of the scale of work that would be required. Since then, cost blowouts and alleged mismanagement of the project had left customers frustrated while doubts have been expressed that the work will be finished by the end of next year. The Public Accounts Committee, which recently reviewed progress, has warned that other proposed electrification schemes could experience 'similar flaws'. However, Network Rail and the Department of Transport claim to have learnt the lessons from the poor early planning associated with this project.

USA

A management purge has seen 1000 middle management jobs eliminated from the ranks of one of the nation's largest railroads, CSX Corporation. CSX announced the job cuts last month and said they would apply at its headquarters in Jacksonville, Florida, as well as other locations throughout its network. The 'involuntary separation' program will reduce overall staffing numbers to about 35,000. The retirement of the company's Chairman/CEO and its president will occur at the end of May, with Fredrik Eliasson, a 22-year employee and currently Chief Sales and Marketing Officer, announced as the new president. The changes at CSX have occurred against the backdrop of agitation from an investment company that has been pushing to have Hunter Harrison installed as the next CEO. Harrison earned his reputation through leading a strong turnaround at Canadian Pacific, although CSX has denied that

the leadership changes and the mass sackings are linked to a hedge fund's interest in the company. However, others within the industry are sceptical of these claims and feel that CSX's operating future is now entering a 'limbo land' where planned operating changes and capital projects may be stalled until the boardroom shuffles settle down.

The Association of American Railroads (AAR), an umbrella group that acts as the industry's voice, has urged President Trump to direct federal funds to network improvements as part of the plan to invest in upgrading the country's infrastructure. Since his election, Trump has made a number of announcements concerning America's infrastructure and has promised to spend 'billions' upgrading publicly-owned facilities, including bridges, highways and airports. The AAR has also urged the President to stop efforts by the Surface Transportation Board (STB) to reintroduce regulation of the freight railroad industry. The AAR pointed out that since 1980, when the rail industry was partially deregulated, railroads have invested in new infrastructure to improve their services and that shipping rates are about half what they were 35 years ago. The AAR has also argued that the road transport industry should pay for its use of the nation's highways through a 'weight distance fee' and that truck sizes should be limited to prevent further deterioration of road infrastructure. The AAR also supports increased federal funding of commuter railroads.

The installation of Positive Train Control (PTC) technology on commuter railroads is making 'good progress', according to the American Public Transport Association. By the end of 2016 23% of 5000 km of track that has been targeted under the program was either under full or demonstration coverage by PTC and 19% of commuter operations were fully equipped. PTC was mandated by Congress under the Rail Safety Improvement Act in 2008, originally with a 2015 deadline for all passenger and some freight lines. However, major technical problems led to a revised deadline being agreed to and installation for the designated lines must now be completed by the end of 2018.



A 2000 Series express train, built for the Taipei to Taoyuan International Airport service, undergoing testing near Sanchong Station on Sunday 18 December 2016. The trains were manufactured in Japan by Kawasaki Heavy Industries, with final assembly in Taiwan. Courtesy Rail News (Taiwan)



The RTAA/Sydney Trains Clyde Field Days 2017

Text and images by Shane O'Neil

The bi-annual event that has become a must-do event for those fully involved or just interested in the heavy duty sector of railway maintenance, was on again at Clyde in Western Sydney on the first two days of March. The Rail Track Association of Australia and Sydney Trains once more co-hosted the event in what turned out to be problematic weather conditions with substantial rain on the first day and very sultry conditions on the second. Being almost entirely exposed to the open, aside for a small portion of tented area, that can lead to some challenges.

In contrast to the last show in February 2015, there appeared to be fewer large machines and very few of those were showing their paces, at least on the day and time (11.30 am – 2 pm Thursday 2 March) this reporter was in attendance. There appeared to be just as many exhibitors as previously with many displays of small items of track maintenance displayed in static or work-like displays, so as to allow visitors to realize their potential.

Following on from the 2015 show, there was increased focus on encouraging women to consider a career in the rail industry. Sydney Trains had a very large area in one of the tents, substantially manned by women, to explain and encourage female participation in the industry. Over two days in May, there will be a 'Women in Roads, Rail and Transport Infrastructure Leadership Summit' to further inspire and encourage women to consider careers in these male-oriented areas of employment.

The ingenious, electro-hydraulic switch drive product known as the Easyswitch-R, manufactured by Vossloh Cogifer, was on show, using a well-made model, which showed off the clever features of this product, with the mechanism inside what is in effect, a metal sleeper. All the components to operate the switch – electrical junction box, the hydraulic unit, manual and hydraulic drive and locking system are incorporated in the overlength 'sleeper' form. Vossloh are a leading supplier of rail fastening systems for concrete sleepers for heavy-haul lines, with tramway point machines that are designed to be inbuilt between the rails at or below rail level. Consequently, they have wide application in the

Australian scene with the increasing number of light railways being built or proposed. The Czech manufacturer of track geometry trolleys and accessories, Komerční zeleznici vyzkum, abbreviated to KZV, had a number of their light weight measuring and geometric trolleys on display with the brand names KRAB S-Light at the KH1 stand, a Victorian-based company. At the Arconic stand, Huck power tools for working with concrete sleepers were on display. The era of concrete sleepers on Australian railways and light railways has brought with it a totally different approach to rail maintenance, with manual tools a thing of the past. Manual tools still have a role, but not with concrete sleeper installation.

A variety of machines were showing off their performance in areas such as tracklaying in the case of the DESEC Tracklayer, owned and operated by Sydney Trains, the Model VM8000 Rail Grinding Truck supplied by Autech Rail Australia and the Linsinger SFO2 Rail Milling Truck operated by Linmag Australia. Unseen by this reporter on Wednesday 1 March and earlier on Thursday morning, the Speno HRR8 Hi-Rail Grinder performed turnout grinding demonstrations.

Plasser Australia had two large Tamping Machines demonstrating their capabilities on both days, with one of these, a Model Unimat 08-475/4S, a fully imported model, manufactured in Europe due to the full production line at the companies St Marys factory, in Western Sydney. These machines are owned and operated by Sydney Trains and they provided demonstrations of their tamping capabilities on both days.

The Mermec-built, Mechanised Inspection Vehicle, MTPV1, operated by Sydney Trains was on-site and open for inspection only, as it was shut-down, which was unfortunate, but understandable, considering how it functions as a moving, diagnostic track recording car. Sydney Trains owns two of these units and they are about to take over the role that the well known, AK cars (operated by ARTC) have been performing for many years in the Sydney Trains system. This should be complete this year.

There was plenty to see at the show and it is a very worthwhile event, open to any interested persons, as long as they register. All are encouraged to consider visiting in the future.



Clockwise from top left:

- A side view view of the recently imported, Unimat 08-475/4S model of Plasser & Theurer, owned by Sydney Trains, at Clyde on Thursday afternoon, 2 March.
- Part of the Sydney Trains stand at Clyde, with an emphasis on the employment of women in all aspects of the rail industry.
- A Speno staffer holding one of the grinding stones, used by the company's HRR8-Hi-rail truck grinder.
- Looking after the Australasian Railway Association Stand on Thursday morning were Danny Broad, Chief Executive Officer, and Natalie Currey, General Manager – Passenger & Industry Programs.
- The Vossloh Cogifer Easyswitch-R working model on display.
- The Autech hi-rail VM-8000 Rail Grinding Truck provided demonstrations on both days of the Clyde Field Day of its capabilities.
- The Arconic stand, which also displayed a range of Huck power tools. Also on display were their brand of composite sleepers.
- Two versions of the range of KRAB track geometry and measuring trolleys, manufactured by Czech company, KZV, on display at the KHI stand at Clyde.



NSW request stops

Jonathan Green



On a recent Sydney sojourn, in January 2017, I made a particular effort to visit most of the ‘request stops’ on the regional network. Request stops are those stations where the train will only stop if a passenger advises the train’s guard of their desire to alight, or if a passenger on the platform alerts the driver with a hand signal. With just nine request stops on the entire intercity network, the one thing they have in common is that none are disability friendly.

The group of nine are distributed over all the intercity lines with the exception of the Southern Highlands line. We visited Zig Zag and Bell Stations in the Blue Mountains, Lysaghts and Kembla Grange Racecourse Stations near Wollongong, Wondabyne Station on the main northern line and Wirragulla Station on the north coast line. On that same line, we also passed through Mindaribba, Hilldale and Wallarobba Stations.

Recent usage statistics were difficult to source, but statistics from 2014 showed all of these stations recorded zero customers except for Wondabyne, with 10, which was ranked 286th for patronage, with the remaining stations equally ranked 298th.

Zig Zag Station

Zig Zag Station is located on the main western line, on the western side of the Blue Mountains just before the major town of Lithgow. It serves the Zig Zag Railway tourist attraction, currently closed due to bushfire damage and accreditation issues. However, the main line Zig Zag Station continues to operate. It is equipped with two side platforms, each about the size of a workshop bench, with active safety features guarding the pedestrian crossing, including mini boom gates. Access to stopping trains is via the rear door of the rear carriage, adjacent to the guard’s compartment. Trains will only serve the station during daylight hours.

Zig Zag station has several unique features. Passengers are required to use heritage green paddles to hail the train. Whilst awaiting a train, intending passengers can reflect on the narrow-gauge Bottom Points station and depot. But if trackwork occurs and Zig Zag Station is closed, buses depart from Clarence, a village some distance away, at the other end of the Zig Zag Railway.

Of note, a previous visit to Zig Zag Station managed to coincide with heavy rainfall. The station platforms were very wet and so were we afterwards. There to witness our moist misfortune was another passenger waiting as we disembarked.

From here we travelled by train to Bell, an act that impressed the Guard, noting that he had been running the Blue Mountains line for 12 years and it was the first time that he could recall seeing a commute from Zig Zag to Bell.



Top: A pair of tourists wait on the Up platform at Zig Zag for the next Sydney-bound service, in January 2006. Brian Webber
Above: The Down platform at Zig Zag, seen on 1 January, behind the station is the Zig Zag Railway’s Bottom Points Depot, with the bushfire damage evident. Jonathan Green

Bell Station

Bell station is one station towards Sydney from Zig Zag on the same line but is actually very large for a request stop. It has an island platform that can accommodate the rear four carriages of a V Set. Bell also has a very substantial brick building offering much more protection from the weather than Zig Zag, and more than most of the other request stops.

A dead-end siding branching from the Up line doesn't appear to have seen much recent use. A handy, at-level pedestrian crossing is equipped with boom gates. Bell is also the highest station on the NSW TrainLink network, at 1069 metres above sea level.

Lysaghts Station

Lysaghts station is the first stop on the Port Kembla branch of the South Coast line. It was opened for the sole purpose of serving the workers of the nearby steelworks. It is the largest request stop on the intercity network, consisting of two side platforms that can each fully accommodate up to six carriages. Platform 1 has a substantial 'tin shed' shelter, complete with a rarely-used rubbish bin, while Platform 2 is completely exposed to the elements.

The most unique feature about Lysaghts is its lack of access. Unless you are a worker with an access card, you cannot leave Lysaghts Station. This means that errant alighting passengers are trapped until the next train appears! The station is flanked by several goods sidings with a fair amount of traffic passing through. Also, like Bell, late night trains will stop on request at Lysaghts.

Oddly, Lysaghts also sports an emergency wheelchair access ramp on Platform 2. However, it probably doesn't see much use due to the



A loaded coal train, headed by Clyde/EMD locomotive 8237 and two sibling units, heads through the Up platform and past the substantial station building at Bell. Jonathan Green

station's inaccessibility to wheelchairs. Once disembarked on Platform 2, the only choices are going down some steep stairs, if you're an employee, or up the stairs to the overpass giving access to Platform 1.



Above: Four-car Oscar Set H30 departs Lysaghts on a Port Kembla service. Jonathan Green

Inset: This notice, on the Down platform at Zig Zag, advises passengers of the correct protocols for stopping trains, both day and night. Jonathan Green

Kembla Grange Racecourse Station

Kembla Grange Racecourse is a station on the main South Coast line to Bomaderry, serving the nearby racecourse. The station consists of a single platform that can accommodate the rear four carriages of passing trains. The platform hosts a red station building with a giant arch on it depicting the locality name.

The most distinctive feature of Kembla Grange Racecourse is probably its lack of trains. There are no scheduled weekday trains, with weekend services offered between 10:00am and 17:00pm. We managed a Thursday visit, due only to the summer holiday weekend timetable that applied. Funnily enough, the race meetings at the nearby racecourse are on Tuesdays, yet no trains stop!

Wondabyne Station

Wondabyne Station is situated next to Mullet Creek on the main northern line. It serves a few hardy locals, who arrive by boat, and bushwalkers on the Great North Walk between Sydney and Newcastle, as the Hawkesbury River divides the walking track. The station has two



Above: Kembla Grange boasts a quite reasonable-size platform and station building, despite having a very limited service.

Left: The platforms at Wondabyne, on the other hand, are very short (less than one carriage length), with bus shelter-style accommodation.

Below: The well-lit Wondabyne Station on New Year's Day evening. All Jonathan Green



platforms, both offering just enough space for the rear door of the end carriage. There is also a small house nearby and a level crossing with boom gates. A public pontoon offers parking for visiting boats.

Wondabyne has one distinguishing feature, being the only station in Australia with no road access. This also means that if trackwork occurs, replacement buses cannot serve Wondabyne. A water taxi down Mullet Creek may be needed!

We visited Wondabyne at night on New Year's Day, with the station and pontoon well lit up. To get home again, we joined the 20:57 Sydney service, the last scheduled train of the day.



Wirragulla station

Finally, we visited Wirragulla Station, the furthest request stop from Sydney. It is the last station before Dungog, the end of the line for Hunter railcars operating services from Hamilton on the main line towards Brisbane.

The station consists of a solitary platform, rivalling Zig Zag for spaciousness! The tiny platform has a seat for two people, a light, an emergency help point and a security camera. There is also an Opal Card reader and a satellite dish at the back of the station along with an adjacent carpark.

Wirragulla's most notable feature is its complete lack of features.

There are no houses; just a lonely road, several cows and a water pipe. The locality is tastefully announced with a well-presented station sign at the carpark entrance. This station would be the dictionary definition of 'extreme commuting'!

On the way up to Wirragulla, our train also pulled off a rare feat, stopping at every station on the way to Dungog. This included Wirragulla and Hilldale, with passengers boarding at Wallarobba and Mindaribba. Hilldale seemed an anomaly, as no-one appeared to join or leave. We took in the peacefulness of Wirragulla before re-joining a train for the journey home.



Above: Wirragulla Station, viewed from the spacious car park looking north, is the furthest request stop from Sydney.

Right: Wirragulla Station, looking south. Opened in 1911, it never had much patronage, and in 1975 the original station was demolished and replaced by a short three-metre wooden platform, to save on maintenance costs. Despite threats of closure in the 1990s, Wirragulla Station is still in service.

Both Jonathan Green





Bound for South Australia

Some recent scenes from The Festival State





Above left (page 42): Washaways between Kalgoorlie and Perth saw transcontinental rail traffic suspended from 10 to 16 February. As a result, trains had to be positioned and locomotives powered down in a range of yards and crossing loops. This SP7 priority service sat at Port Augusta for several days and finally got the green light to proceed westwards at dawn on 17 February. Here, NR12 and NR45 make good time on the sinuous climb between Wirrappa and Pimba. Malcolm Holdsworth

Below left (page 42): NR112, NR20, NR38 and G530 round the big curve as they approach Yantaringa Tunnel in the Adelaide Hills, with 6MP5 Melbourne-Perth intermodal freight on Saturday 4 March. Bob Grant

Above: Bombardier 4000 Class EMU 4015 departs Woodlands Park on a Seaford to Adelaide run on Monday, 21 November. The corrugated iron waiting shed in the background is a standard design provided at some Adelaide stations in the 1950s. Woodlands Park is the interchange station between Tonsley and Seaford line trains but the very tight connections mean some interchanging passengers miss their connections. John Hoyle

Below: On Thursday afternoon 23 February, SCT EDI/EMD locomotive SCT10 and CSR Ziyang/MTU unit CSR10 head east across a dry creek bed in the remote country between Pimba and Burando. Steve Munro







Above left (page 44): On Wednesday 15 March, NREC GenSet locomotives 1202 and 1201 were at Pelican Point, adjacent to Adelaide Container Terminal, being trialled by SCT on its wine train. Scott Mitchell

Below left (page 44): The sun sets over the two Australian Trans Continental lines at Tarcoola on Friday 24 February. Steve Munro

Above: On Wednesday 1 March, GWA10 and GWA003 work a mineral ore train east through Crystal Brook, while ALF18 and 2216 go about loading their train on the grain siding. Steve Munro

Below: On Thursday 16 February, the sun flirts with early morning cloud as GWN001 and 1301 lift inbound iron ore over the last hill before arriving in Arrium Mining's narrow-gauge yard at Whyalla. Malcolm Holdsworth





The race towards a better, connected rail

Norman Frisch

Rail networks are the most suitable transport infrastructures to ensure safe, reliable and efficient transport. However, implementation and operational expenditures of these networks are a costly factor. For this reason, operating such infrastructures at maximum capacity is vital. Expanding networks, increased traffic from high-speed rail services and intermodal integration with urban mass transit systems have shown the cracks of traditional IT infrastructures – it is time that innovation matches growth.

Rail operators today can no longer rely on data that is anything but real-time. A small change affecting a huge network operating at high-speed can instantly cause an array of changes. Prolonged commuting times and a growing population have also put pressures on passenger rail networks.

It is clear that high-speed rail traffic is growing and rail operators have a huge challenge on their hands to meet customer demand as well as infrastructure control and efficiency. Operators must aim to achieve interoperability between equipment, high speed coverage and expanded broadband services. There are two key technologies transport companies could adopt to achieve this.

1. Real-time data-flow, Intelligent Infrastructures

Real-time data-flow is vital in helping to efficiently maintain complex infrastructures that management, operations and maintenance work with. Maintenance costs are a significant factor in operating large scale infrastructures, with many operators of large scale infrastructures now adopting predictive maintenance based on continuous monitoring of sensor reading environmental conditions of their infrastructure components.

Increasing rail network data capability will simultaneously offer

Above: Two TransPerth A Set EMUs cross at Bassendean on the Midland Line on Sunday 12 March. The Public Transport Authority of WA plans to deploy a new LTE operational mobile radio network across the Perth metropolitan railway network. James Chuang

passengers more reliable travel information and improved access to mobile and multimedia services. Recent developments in technology aimed at alleviating the strains of overcrowding have focused on real-time updates, with many apps working on facilitating a more evened out, efficient use of the network. Digitising and automating the rail networks will help drive more efficient capacity utilisation of costly infrastructure and assets. This way, people will not only be updated about their train journeys in real-time – they will also have access to live data such as train-occupancy information.

2. High speed wireless communication

GSM-R (Global Systems for Mobile Communications – Railway) is a digital wireless train-to-ground communication system that facilitates train control and operational voice communication. While it is a well established communication system for day-to-day rail operation, certain services, such as on-board broadband video or mixed voice and video trunking, are beyond the reach of GSM-R. Hence, the technology is beginning to feel somewhat outdated. As such a switch to LTE (Long-Term Evolution, a standard for high-speed wireless communication able to carry today's higher broadband demands) is necessary, especially in today's digital era. However, the challenge now facing network operators is how to replace GSM-R with LTE, without disrupting service or forfeiting the sunk costs of the existing network technologies.

Huawei's GSM-R solution is a unique system within the industry supporting a five 9's availability and built-in capability to support LTE communication. The company is now leading the way in implementing 3GPP-compliant voice trunking (MC PTT) LTE systems, and has developed solutions that facilitate a smooth transition from GSM to LTE. This switch to LTE will enable network operators access to the real-time data-flow that will take railway management, operation, manufacturing and customer services into the age of digitisation, automation and mobile broadband.

Examples of where this has been demonstrated:

- In 2014, Huawei and Funkwerk jointly launched Dual Mode GSM-R / LTE Cab Radios at Inntrans – the first demo world-wide. This technology enables a joint solution between communication systems, allowing not only LTE-LTE voice-to-voice communication, but also voice-to-voice communication between GSM-R networks and LTE networks. This dual-cab mode radio responds to increased bandwidth demands and perfectly aids the migration process for GSM-R operators wishing to move towards LTE for Rail.
- In 2013, Zhengzhou worked with Huawei and became the first metro to put a 4G LTE system into passenger operation, inaugurated in December 2013. The high bandwidth of LTE has enabled Zhengzhou metro to simultaneously transmit multiple voice and data services – even high-definition real-time video transmission from on-board video surveillance cameras. Furthermore, the system has enabled high-speed mobility performance, and enhanced long-distance coverage, reducing the demand of network elements within tunnels between metro stations whilst enabling easy and flexible maintenance. LTE has effectively supported the high demands set on the Zhengzhou metro, a great example of how Huawei's solution might look on future urban wireless networks.

- In 2016, Huawei and Siemens successfully tested the interoperability of communication-based train control (CBTC) over LTE. The testing was carried out in France and saw LTE effectively used on services such as CBTC, CCTV and passenger information systems. The results were exceptionally positive, confirming that LTE satisfies transmission demands for CBTC as well as other services whilst also offering numerous advantages over other options. Tests with Siemens CBTC solution conclude a series of LTE/CBTC test campaigns with major CBTC train signaling vendors conducted in 2015 and 2016. These tests further prove Huawei's leading involvement in modernising railways across the world using LTE.

The future of rail

There is a pressing need for rail networks to empower passengers and meet safety demands of today's railways. It is only a matter of time before a fully connected rail becomes the norm. It is not just about ensuring reliable data provisions for passengers – it is a question of tackling the issue of overcrowding (both in carriages and on rail-lines) and the growing need for improved safety.

Through enabling railways with real-time data and LTE, we are equipping our highly-pressured infrastructures with the most modern technologies. Not only will this benefit current demand, but it will also empower future expansions with the best possible digital foundations to help rail networks grow intelligently and safely across the world.

Norman Frisch is Chairman of the eLTE Industry Alliance, and Marketing Director, Enterprise Business Group and Transport Sector of Huawei Technologies Co., Ltd. This article is adapted from an address he made to the Australian Information Industry Association (AIIA) 'Intelligent Transportation' forum in Melbourne on Thursday 16 February.



A Metro Trains Melbourne X'tropolis Set, bound for Flinders Street, rolls into Heatherdale Station on the Lilydale and Belgrave Lines. Nokia and Vodafone have now entered the final stages of negotiation to ink a deal with the Victorian government for the deployment of LTE networks through the metro rail network. The primary purpose of the new network will be to improve communications between rail operators by upgrading the existing digital train radio system. David Campbell



G512 'Peter Pan' on the move again

Text and images by Ewan McLean

While working QUBEs 9374 Tocumwal goods on Thursday 12 January 2017, G512's traction motor failed near Murchison East. The only option was to shunt G512 up the grain 'hump' siding where it was stabled near the Murchison-Violet Town Road just across from the Railway Hotel. Fitters that later worked on G512's traction motor enabled it to be moved to Melbourne for further repair. As a result of G512 and fellow class mate G515 failing on QUBEs Maryvale Paper Train (with G515 returned to Melbourne for attention), QUBE had to spot hire locomotives to cover an unexpected shortage of motive power.

The additional locomotives hired by QUBE were Southern Shorthaul Railroad's (SSR) T385, T386 and B75. QUBE already had both Seymour Railway Heritage Centre's S303 and Steamrail's S313 on hand. On Tuesday 31 January, I motored over to Seymour early, hoping QUBE's 9375 Tocumwal goods would be in attendance. As luck would have it, G521, T385, T386 and B75 were idling away in No.3 platform road, waiting for a path up the Goulburn Valley line after V/Line's 8308 Shepparton service to Melbourne arrived at Seymour, hauled on this occasion by N460, which rolled into Seymour at 07:30.

Waiting at Seymour's High Street level crossing, G521's horn could be heard along with the sound of hard-working EMD engines straining from a standing start. At 07:48, G521, T385, T386 and B75 with QUBE's 9375 Tocumwal goods were down to business, belching diesel fumes high into the air up the 1 in 75 grade to the old Hume Highway Bridge. Driving out of Nagambie, there wasn't long to wait before the quad EMDs rolled by at 08:13.

As I turned off the Goulburn Valley Freeway onto the Warring Murchison Road, 9375 made an appearance on the adjacent track. I headed to Murchison East and was thankful that 9375 had to slow on approach as the train crossed over into the platform road from the main line.

At this point, I turned south with the intention of returning north later in the afternoon, hoping that B75 would be leading QUBEs 9374 Tocumwal goods back to Melbourne. Continuing on, I arrived at Strathmerton and heard a familiar horn. To my disappointment, QUBE's 9374 Tocumwal goods with G521, T386, T385 and B75 came around the right-hand bend past the old Strathmerton station site.

Road works held up progress south on Numurkah Road as I headed to Katunga but 9374 had already activated the warning red lights and bells on the Carter Street level crossing at Katunga so I headed south of the town, stopping at a dirt crossing to see the quartet kick up dust at 16:31. The following stop was the Numurkah truck bypass road, known locally known as Allerts Road, where 9374 came to a brief halt.

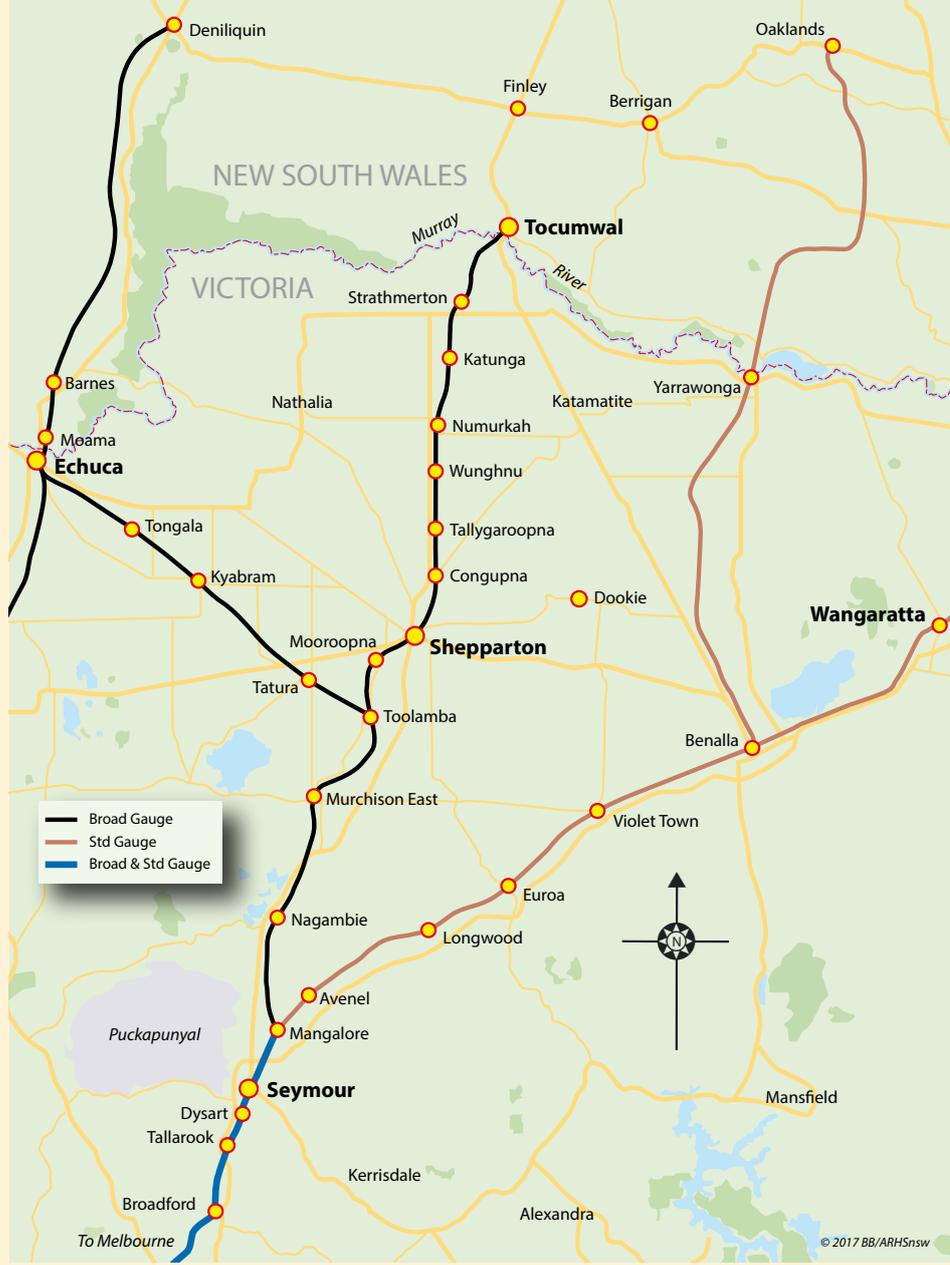
The pause gave time to get to the southern side of Numurkah where the line goes over the Broken Creek and over the Katamatite-Numurkah Road, around a sweeping left-hand bend and parallel to the Goulburn Valley Highway, where 9374 rolled by shortly after. The open road speed limit was sufficient to get well ahead and to stop at Wunghnu where the foursome rocked and rolled though, with the occasional buck and weave, at 16:50.

Heading to Mooroopna, there were hopes of beating the train, but the prospect of peak hour Shepparton traffic loomed large. Fortunately

I made it in time to Mooroopna to see the train roll over the trestle bridge spanning the Goulburn River, before coming to a stop at Mooroopna to pick up wagons from the Shepparton Preserving Company's (SPC) siding. B75 briefly led the group before it set back into the SPC siding to pick up the extra loading.

I drove down to Murchison East to await 9374's arrival. With the new V/Line timetable that came into effect on Monday 29 January 2017, there was an extra V/Line Shepparton service, coded 8235.

Heading to Mooroopna, there were hopes of beating the train



Left (page 48): Following its traction motor problems earlier in the month, G512 is stalled in the Grain Hump Siding at Murchison East, while G521, T386, T385 and B75 sit in No.2 Road with QUBE's No.9374 Tocumwal Freight, on Tuesday 31 January.

Below: Early that morning, G521, T385, T386 and B75 head north through Seymour with the Down working, QUBE's Tocumwal Freight No. 9375.







On Tuesdays and Thursdays the extra Down Shepparton would cross QUBE's 9374 Tocumwal goods, whilst meeting Pacific National's (PN) 9306 Tocumwal Goods on Mondays, Wednesdays and Fridays. Whilst so musing, the quartet led by G521 slowly came around the left-hand bend in No.2 road at Murchison East before grinding to a halt at 18:33.

Both G521 and T386 were quickly cut off and moved forward and stopped, so it appeared they were going to pick G512 up after the 8325 Shepparton service had departed. I had a bit of a wait before N460 came to a halt at the Murchison East platform with the new 8325 Down V/Line Shepparton service. A V/Line signaller had arrived to oversee proceedings and change the points to allow G512 to be picked up. At 19:03 G521 and T386 moved forward with T386 being cut off from G521.

With the points changed, T386 proceeded into No.3 road and disappeared behind T385 and B75 and emerging on the grain 'hump' siding, moving up to G512. With a successful coupling to G512 both locomotives set back. Emerging from behind T385 and B75, G512 and T386 moved forward to G521 to couple up. The trio of locomotives set back to T385 and B75 and now the motive power of 9374 Tocumwal goods consisted of G521, G512 (dead attached) T386, T385 and B75.

I drove south of Murchison East and waited for 9374 to arrive, which it duly did at 19:53, as ever-increasing cloud cover faded the remaining light. My next and last chance of seeing 9374 was at Mangalore as the EMDs roared past at 20:19, making up for lost time. At this time I bid farewell. Although B75 had not had the honour of leading 9374 back to Melbourne, the day had turned out to be another entertaining episode beside the permanent way.

Left (page 50): T386 couples up to G512 while G521 waits in No.2 Road at Murchison East on Tuesday 31 January.

Above: With the ailing G Class now safely tucked behind the leading locomotive, Tocumwal Freight No.9374 heads south from Murchison East behind a Clyde/EMD quintet of G521, G512, T386, T385 and B75.



With a father and his two young sons watching on in fascination, 3642 slowly eases its consist out of Central Station in the cold and rain on their way to the Transport Heritage NSW Festival of Steam 2017 at Thirlmere. Zane Maber



Half way between Thirlmere and Couridjah on Saturday 4 March, 2705 trudges uphill on a very heavily overcast day on the Thirlmere Festival of Steam Weekend. Neil O'Connor



Steamranger Red Hen railcars 412 and 334, with a wooden-bodied 'Centenary Car' sandwiched between them, depart Goolwa for Victor Harbour, South Australia, on the *Cockle Train* service, on Saturday 28 January. Scott Mitchell

Walhalla Goldfields Railway secures regional tourism grant funding

On Thursday 2 March Victorian Minister for Regional Development Jaala Pulford announced that the Walhalla Goldfields Railway had received a \$300,000 Regional Tourism and Infrastructure Fund grant to restore and convert 1926-built Melbourne X1 class tram No.461 into a self-propelled rail-motor for use on the heritage railway. A second X1 class tram, No.463, will be converted for use as a trailer.

The grant also includes support for infrastructure upgrades and construction of a storage facility, ensuring long term security and protection of the railway's heritage assets.

It is estimated the project will increase the number of visitors to the heritage railway by more than 15,000 in the long term and increase the amount spent on local businesses from \$2.4 million

to \$3.3 million per year. It will allow the Walhalla Goldfields Railway to operate seven days a week for the first time, with reduced crewing.

The Victorian Government's Regional Tourism and Infrastructure Fund supports the development and growth of regional tourism by investing in critical visitor structures. The Fund aims to double overnight visitor stays and expenditure, while boosting the visitor economy and regional tourism.

The Walhalla Goldfields Railway is a 762 mm narrow gauge not-for-profit tourist railway located in the Thomson River and Stringers Creek valleys in Victoria's Gippsland area near the former gold-mining town and tourist destination of Walhalla. Walhalla is located approximately 182 kilometres east of Melbourne.

ACT Heritage Council moves to protect Canberra rail relics

The ACT Heritage Council has moved to protect concealed railways tracks near the Kingston Foreshore and an impressive avenue of trees at the back of the Canberra Institute of Technology in Reid — reminders of early rail lines within the ACT.

"Canberrans would probably assume that Walter Burley and Marion Mahony Griffin's 1911 winning design for Australia's capital planned for railways but little is widely known about the temporary rail line built from Kingston to Civic", David Flannery, Chair of the ACT Heritage Council said.

"The City Railway remnants at Kingston and Reid are the only remaining evidence of the railway system planned for Canberra and are an interesting insight into Canberra's transport past."

Mr Flannery said the line was envisaged to come in from Queanbeyan, traverse across Canberra and continue on up to Yass. "The major railway was never really constructed but we have left in Canberra some remnants in Kingston near Cunningham Street and of course the easements in the Causeway and adjacent to Amaroo Street in Reid," he said. "That is what the Heritage Council is seeking to protect for future generations."

Heritage Council staff are busy preparing for the ACT Heritage Festival in April but said the permanent listing of the tracks and trees won't be finalised in time for the event.

"We will place them on the priority list and hopefully we can get to them in a few months' time," Mr Flannery said.





Above: Steamranger's ex-SAR Pacific 621 powers past the old mill and across Mill Terrace at Middleton, between Port Elliot and Goolwa, South Australia, on Sunday 1 January. Dominik Giemza

Left (page 54): Former QR English Electric unit 1616 on the Queensland Pioneer Steam Railway at Box Flat with a Racecourse-Box Flat-Racecourse shuttle train on Saturday 18 February. John Scott

Below: The Oberon Tarana Heritage Railway group occupies the former Oberon Station and yard, in the NSW central tablelands. On Monday 13 March, Walkers B-B DH locomotives 7321 and 7307, originally built for the NSW Railways and acquired from Patricks in May 2010, are seen stored in the yard, together with various items of rolling stock. Ross Verdich





Above: Seen at the Pilbara Railway Heritage Society's compound at 'Six Mile', near Rio Tinto's Seven Mile Yard at Karratha, on Wednesday 22 February, are former Hammersley Iron Alco S-2, 007 *Mabel* (left) and former NSW Railways 4002, later Cliffs Robe River 1705, Alco RSC 3. The water tanker is a relic of the days when the Society operated steam excursions on the Hamersley Iron railway between Dampier, Tom Price and Paraburdoo during the cooler winter months, using ex-Great Western Railway 4-6-0 4079 *Pendennis Castle* (since returned to the UK). John Scott

Below: On the first Steam Train Sunday for 2017, BB18¼ 1089 is seen entering "The Hole in the Wall" at Bowen Hills, on the first leg of its journey to Sherwood. To the left, Bombardier *New Generation Rollingstock* EMU Set NGR 702 is heading south through Platform 3. Luka Ruckels





Veteran Clyde/EMD units B74 and T357, in their original Victorian Railways colours, at Nagambie on Saturday 10 December 2016 with Seymour Railway Heritage Centre's *Santa's Express* to Tocumwal. Ewan MacLean

Around the Silver City

I read with interest the article 'Around the Silver City' in *RD* February 2017. There are a couple of matters which I believe need correcting and also some relevant comments I would like to make.

The first paragraph gives a brief summary of Broken Hill's history. Whilst I appreciate that this is all that is probably necessary for what is essentially a railway themed article, it does contain some errors and is rather simplistic for what has turned out to be a complex story. Firstly, it may give the impression that BHP established the first mine in Broken Hill, when in fact the reverse was the case and it was the mineral discovery which resulted in the formation of BHP to mine it. Charles Rasp was a boundary rider on the Mt Gipps (not Mt Gibbs) Station, and whilst he thought that the "broken hill" might contain minerals this was contrary to the opinions of local prospectors who referred to it as a "hill of mullock". None-the-less Rasp had some samples of the capping of the hill analysed. This capping is known as gossan, an oxide of manganese and iron, and the

samples of it showed traces of silver and lead. From here on the story of the major mineral discovery is still the subject of debate amongst historians, and particularly as to who found what. It is generally accepted though that those involved were employees or contractors of the Mt Gipps Station, and the manager of Mt Gipps, George McCulloch, who might have hated prospectors who stole his sheep, was no fool and ultimately provided his support and leadership. The so called Syndicate of Seven was one of a number of syndicates, but led by McCulloch this syndicate was floated as the Broken Hill Proprietary Company Limited on 10 August 1885. McCulloch was the founder of BHP, and Rasp had nothing to do with it and never served as a BHP director. Indeed in 1886 he left Broken Hill and lived the high life in Adelaide as a wealthy shareholder.

It might be of interest that Rasp's own history is also the subject of much debate. His biographical information that you might see, including his ADB entry, is basically his biography according to him. More recent research has cast a

lot of doubt on this, and in fact even what his name was. What is becoming obvious now is that his name was not Charles Rasp, but beyond that it is still the subject of research.

On the second column of this page, note that the water pipeline from the Darling River at Menindee was put in service in June 1952, and not 1960.

In the third paragraph of this column, the *Silver City Comet* connected at Parkes with the *Forbes Mail* on the many occasions when I caught it and not the *Western Mail*.

Further down this column, with reference to the opening of the current station. The records show that the signal box opened 20 May 1957, the new yard and station were available for use from 29 May 1957, but the official opening of the station occurred on 4 June 1957.

At the end of this column, regarding Broken Hill's population, according to the latest ABS data that I could find, dated 2014, the population of Broken Hill was then 19,048. There is another report (not ABS) which says that on 1 June 2015 the population was estimated to be 18,856, and the Council's website shows it as 19,000. Between 1952

and 1971 the population varied between 30,036 and 32,805, but the peak in population was 34,757 and this occurred in 1915.

With regards to Perilya Limited, in addition to their Southern Operation, (previously known as New Broken Hill Consolidated, which was set up in the 1940's as an offshoot of the Zinc Corporation) they also operate another mine called the Potosi Mine. This is about 10km east of Broken Hill, just off the Barrier Hwy. Ore from here is trucked to Perilya's Southern Operation for initial processing.

Whatever might be said about longevity of mines, this is of course dependent on mining costs and metal prices.

A few of the photo captions are also worthy of comment. Firstly though in the caption on page 41, the reference to page 38 is incorrect and should refer to page 40. Secondly, in the text on page 42, second column first paragraph, the reference to page 40 at the end of this paragraph should I imagine be page 44.

With respect to the photo on page 42, note the structure at the bottom left foreground. This was a buffer stop made from steel sleepers. The siding it served has been removed.

The old station building is also worthy of comment. It came under ARTC's care along with the lease of the track in 2004. Whilst ARTC has responsibility for its care, not very much has been done other than the removal of a large overhanging peppercorn tree. An information sign has been erected by the Council explaining the historical significance of this station building. I'm happy to say I had some involvement in this.

The sign says:

The NSW Railways' First Station in Broken Hill

This railway station is a significant part of the transport history of Broken Hill. Constructed in 1919 for the opening of the railway line between Broken Hill and Menindee, it was one of the first station buildings in NSW to use locally cast concrete components for the walls, foundations and floors, technology which was revolutionary at the time. In 1927 the railway was completed between Ivanhoe and Menindee, which linked Broken Hill with Sydney. This station then became the terminus of longest branch line in NSW and, at 1125km, the furthest station from Sydney.

The station was superseded in 1957 by the current station in Crystal St opposite Chloride St, but remained in use for some years as a local administration and freight centre.

It is the oldest and second largest precast concrete station building surviving in NSW.

In all, a great article to read about a great place, and I look forward to my next trip there in a few weeks.

Gary Hughes
via email

NSW Intercity Trains

The interior digital impression of the new NSW intercity trains which are being built (unfortunately) in Korea which appeared in the November 2016 *Railway Digest* shows that they will have fixed 2 + 2 seating arranged in facing groups of four. Virtually all passenger rolling stock built for NSW railways since the Second World War has had reversible seating. As David Brandt has pointed

out (Readers Write December 2016) the XPT fleet had fixed seating originally, which was unpopular with passengers and ultimately replaced by reversible seating. I submitted several questions to the NSW Minister for Transport some time ago and eventually received a reply from Mark Coure, Parliamentary Secretary for Transport. He confirms that the seating will be fixed. He states that 'reversible seating was not possible without compromising comfort and seeking amenities'. I personally think that fixed seating compromises comfort, but obviously others think differently.

I also queried the number of toilets per set and Mr Coure informs that the cars will operate as eight or ten car services, with two or three toilets respectively. The current V Sets have reversible seating and eight toilets per eight car set. The new cars will have fixed seating and two toilets per eight car set. An eight- car set fully loaded will have roughly 800 passengers and on a two-and-a-half hour journey from Hamilton (or Wickham) to Sydney, I do not feel that two toilets are adequate. Obviously, the twenty first century train traveller is expected to have well controlled bladders and bowels.

What do other *Railway Digest* readers think about all this?

Alan Templeman
Wyoming, NSW

Mud holes

I refer to John Nestor's letter in February *Railway Digest* re-Mud Holes on the main south.

Since ARTC have leased this corridor they have found they can't maintain this corridor between Macarthur and Goulburn and for years they have temporary speed restrictions for months and months on end.

Then all of a sudden, there will be a weekend closure between Campbelltown and Goulburn, causing problems for freight operators and regional trains. This happens several times a year. The lease to ARTC should be cancelled and John Holland or even RailCorp,

should maintain this essential rail corridor.

Robert Bruce
Hornsby

Fishermans Bend transport

Kerry Hortop's letter (*RD* Feb 17) suggests a well considered route for Light Rail to serve the Fishermans Bend redevelopment area, including returning the old rail bridge in the Docklands precinct to use to take the new tracks across the Yarra River.

While this option would provide an additional tram crossing over the Yarra River, I believe that the proposed route will face capacity problems at the intersection of Collins Street and Spencer Street adjacent to Southern Cross Station. This chokepoint already appears to operate near capacity in peak hours and may not be able to handle a new light rail route to Fishermans Bend even if a new river crossing is provided in the Docklands precinct.

Significant challenges remain to be solved whatever option is selected and there appears to be no easy solution available to planners.

Ian Crellin
Belconnen, ACT

Queensland Rail

Queensland Rail is in a mess right now, and that isn't news to people, just a fact. *RD* will cover the problems with the so-called new generation trains, but something that has escaped the attention of the media is the fact that most suburban train windows are scratched by vandals. CCTV has done nothing to help resolve the issue, it seems. What can be done?

Another issue that may show up in the near future, is the planned sale of rolling stock that could be rebuilt to provide a good quality service on trains such as the *Inlander* and *Westlander*. There are

five stainless steel dining cars, such as the type in use on the 'Tiltlander' train, that could be used on the above mentioned trains. Some lateral thinking on an affordable solution, is required. One sleeping car per set of the Brisbane to Cairns *Spirit of Queensland*, could replace the current car B. The rail bed cars would be used on the *Inlander* and *Westlander*, plus one of the dining cars, on each of those trains. The public desire a sleeping car, on each of the overnight trains. The concept that I have outlined, would provide a solution to that problem.

John Coyle
Bundamba, Qld

A steam journey to Wollongong

I accepted an opportunity for steam travel on a journey from Central down to Wollongong, departing at 10:33am on Saturday 11 March.

The diesel locomotive, attached to the rear, helped move the car set out of Central. However, the former express steam locomotive 3642 appears to have been allowed to struggle unaided up the grade to Sutherland, while the idle heavy diesel did no more than contribute to the load of what was probably an 8-car set, thereby severely loading the crankpin bearings on the connecting rod and coupling rod bearings of 3642, due to the slow rate of travel.

A misuse of an express locomotive.

We arrived at Wollongong prior to 1.00pm and were bussed to the wharf. 2½ hours were spent at the wharf, where we remained as a disjointed group, gathering something to eat

The sea journey departure was at 3:35pm, arriving at Circular Quay before 6:00pm. I eventually arrived home at 8:00pm.

James Cassidy
via email

Catchpoints

The photo at the top of page 56 in the March issue was incorrectly attributed to David Whiteford. It was, in fact, supplied by the Friends of Pingelly Railway Station.

ARHSnsw Railway Bookshop

67 Renwick Street REDFERN NSW 2016

Monday to Friday 10am to 5pm

Saturday 9am to 4pm

Shopping Cart: www.arhsnsw.com.au

Fast mail order service (use the order form)

Phone 029699 4595 or fax 029699 1714

MasterCard or Visa Accepted Only

ARHSnsw Members receive 10% discount
for items marked * after RRP.



LATEST AUSTRALIAN BOOK NEWS

- AMUSEMENT RAILWAYS OF AUSTRALIA. Longworth.244p \$65*
- N BALMAIN PENINSULA TRANSPORT HISTORY. MacAuslan.102p.. \$30*
- AUSTRALIAN TRAINS. Trainspotting thru the years (Topmill).120p. \$45*
- ENGAGING THE GIANTS Tas Southern Sawmills&Tramways (LLRSA)240p. \$60*
- JUMBOS Early Years RailmacMiniProfile#14 STA2000 Cars \$7.50*
- LENSES SOUTH. Steam's last years around Sydney & NSW South. 192p. \$85*
- LOCOMOTIVE ENGINEMEN OF TASMANIA. Anchen.184p col/bw \$50*
- N RAIL CENTRE COLAC. 1877-2014. Houghton. 262p..... \$63*
- RAILS ACROSS AUSTRALIA. D Cable. (Pen&Sword) 258p..... \$75*
- RAILWAY HOTELS OF AUSTRALIA Vol 1-Vic. SWhitaker.260p \$77*
- RAILWAY HOTELS OF AUSTRALIA Vol 2-NSW. SWhitaker.296p \$77*
- SAVING STEAM: RailmacMiniProfile#1. Early SAR Steam Preservation. \$7.50*
- STEAMING THRU THE PASS RailmacMiniProfile#8.Quom to Woolshed \$7.50*
- STEAMING THRU THE PASS RailmacMiniProfile#12.The Port to Woolshed \$7.50*
- STEAMTOWN 1977-2005:RailmacMiniProfile#3 Steamtown history...\$7.50*
- STEAMTOWN RailmacMiniProfile #9 Heritage Rail Centre.....\$7.50*
- STEAMTOWN RailmacMiniProfile#13 Locomotives & rollingstock. \$7.50*
- REBIRTH OF A RAILWAY:RailmacMiniProfile#2 Pichi Ritschi Railway.....\$7.50*
- RICHMOND VALE:RailmacMiniProfile#11 Pictorial history... \$7.50*
- SMELTERS HAVEN TO ARTIST'S REST. LakeMacquariehotels.Tonks \$40*
- The RAILWAY HERITAGE OF GOULBURN. S Sharp.(GLRPS)96p. \$47*
- The MAIN LINE. Ipswich/Granchester/Toowoomba Line.96p.....\$40*
- The ROCK to OATLANDS. John Reid. 56p.....\$17*
- N TASMANIA RAILWAY PRESERVATION. R Sweet. 36p..... \$17*
- THROUGH THE LENS. Cotterall & Ferguson. 240p..... \$80*
- N TROLLEYS EAST RailmacMiniProfile#6. Adelaide Trolleybuses in East...\$7.50*
- YOUNGY THEN & NOW 25 YEARS ON. Wallisend/Edgeworth Hist41p \$44*

LATEST AUSTRALIAN DVDS & CDs

- THE ALEX GRUNBACH FILMS:60s NSW Steam(ARHSnsw/Belbin) 57'.....\$40
- 49 DOWN 50 UP CLASS. The last steam service. 35'.....\$30
- 42101 BACK ON THE TRACK (Trainspotter) 45' DVD.....\$32
- CAB RIDE WORKING THE STREAMLINERS.BernieBaker60' \$34
- N DISAPPEARING STEAM. NSW railways 1959tomid60s 68'.....\$40
- JUST WESTERN AUSTRALIAN TRAINS 2012. (HD). 60'.....\$29
- PREMIER STATE C CLASS. (AC Video) 140'.....\$45
- QUEBEC FREIGHT TRAINS. NSW/Vic 2012/15 (Railtrax)50' \$40
- N RAILFANNING THE SOUTH LINE.Southern Tas (RailMedia) 60'.....\$30
- RAILWAY REMINISCENCE VOLUME 3. NSW 1973-75 55'.....\$39
- N RIDING WITH THE DRIVER.G42,Abt,R711, (Channel5) 52'.....\$35
- SENSATIONAL STREAMLINERS.Clyde/EMDs (AC Video) 62' \$40
- STEAM OUT OF CENTRAL. 1960s service steam 67'.....\$40
- TASMANIA'S RAIL FREIGHT NETWORK Vol.1.(RailMedia) 71' \$30
- THE WESTERN LINE. Pr1 Penrith/Bathurst (Trainspotter)DVD\$45BR \$50
- TASMANIAN RLWYS "THE CHANGING RAIL SCENE". 58' DVD.....\$30

NOTE: TRACKSIDE DVDS ARE LISTED ON LAST PAGE

NOTE: BEVAN WALL DVDS ARE LISTED ON LAST PAGE

| KEY TO SYMBOLS | | | |
|----------------|---------------------------|-----|------------------------|
| N | New in store | Sp | Special |
| Rr | Back in stock/re-released | sc | soft cover |
| | | hc | hard cover |
| | | b&w | black and white |
| | | p | page/pages |
| | | | mins (eg 60'=60 MINNS) |

ARHSnsw PUBLICATIONS & DISTRIBUTION

- 46 CLASS REMEMBERED. All locos & liveries. Colour.64p.....\$25*
- A CENTURY OF CENTRAL. McKillop, Ellsmore & Oakes. 160p.....\$49*
- A GUIDE TO AUSTRALASIAN LOCOMOTION.Walters/Baker/Peardon. \$30*
- Sp A RAILWAYMAN'S JOURNEY. Denny Ellis' NSW Career 448p.....\$10*
- AUSTRALIAN RAILWAY HERITAGE GUIDE 2010 ARHSnsw 320p.. \$35*
- BOILERS, BEAUFORTS & BOGIES. Chullora history. Longworth. \$49*
- BONDI TO THE OPERA HOUSE.Budd/Wilson. Sydney's trams.ARHS..\$29*
- BRIDGES DOWN UNDER. Don Fraser. 2nd Edition.....\$38*
- Sp COAL, RAILWAYS & MINES OF J & A Brown. BRAndrews.....\$50*
- Sp COAL, RAILWAYS & MINES OF NEWCASTLE. BRAndrews 2Vol set\$200*
- Sp FROM GREASE TO GOLD BRAID. Ken Ames. NSWGR 76p. \$10*
- JUGGERNAUT! David Burke. Sydney's steam trams.....\$15*
- Sp MERCY TRAINS. J Harvey. Wartime ambulance trains.280p...\$25*
- Sp NEW IDEAS FOR AUSTRALIA'S TRAINS:1929 TO 1973.....\$5*
- Sp NO FEAR OF CHANGE OR LEARNING TO LIVE WITH CHANGE.\$10*
- SOUTHERN AURORA. Chris Banger. 2nd Edit (ARHSnsw).224p.....\$88*
- SYDNEY'S CENTRAL. 2012 Edition 64p.\$20*
- SYDNEY'S FORGOTTEN CITY RAILWAYS. John Oakes 64p...\$20*
- SYDNEY'S FORGOTTEN GOODS RAILWAYS. J Oakes 112p\$25*
- SYDNEY'S FORGOTTEN ILLAWARRA RLWYS.J Oakes 88p...\$20*
- SYDNEY'S FORGOTTEN INDUSTRIAL RLWYS.J Oakes 208p.\$30*
- SYDNEY'S FORGOTTEN MILITARY RAILWAYS.J Oakes112p\$25*
- SYDNEY'S FORGOTTEN PARK & RURAL RLWYS.J Oakes 128p \$25*
- SYDNEY'S FORGOTTEN QUARRY RAILWAYS. John Oakes. 80p.\$22*
- THE DAYLIGHT. Intercapital daylight Melb/Syd.(ARHSnsw).352p.....\$115*
- THE GOONDAH TO BURRINJUCK.3rd Edit. 260p col/b&w HC.....\$30*
- THE SHALE RAILWAYS OF NSW. 2015 edition. 256p.....\$62*
- TRIKING THE LENGTH:NSWTrikes.Jim Longworth ARHSnsw 240p...\$59*
- WOLGAN VALLEY RAILWAY - ITS CONSTRUCTION. 32p...\$13*

OTHER PUBLISHERS

- 80 YEARS & MORE OF MOUNTAIN RAILWAY. Unanderra/MVale...\$20*
- A HISTORY OF SA RAILWAYS Vol.1.Early Years.(ARHSVic)320p\$70*
- A RAILWAY TO CUDGEWA. Nick Anchen. 122p col/bw.....\$50*
- AN AUSTRALIAN LOCOMOTIVE GUIDE. 2nd Edition.Clark.368p...\$35*
- AUSTRALIAN RAILWAY DISASTERS. Reprint.....\$43*
- BEHIND THE TIN FENCE. Ipswich Rly Workshops History...\$25*
- BUILT BY BALDWIN.(LLRSA) Wilson 160p sc b/w.....\$44*
- BUILT BY BUNDBERG FOUNDRY. ANGRMS.80p sc col.....\$25*
- CHASING THE SUNSHINE David Burke 154p b&w/col SC.....\$38*
- COMENG Vol. 1. 1921-55 History. John Dunn. 318p.hc col.....\$59*
- COMENG Vol. 3. 1966-77 History. John Dunn. 336p hc col.....\$70*
- COMENG Vol. 4. 1977-85 History. John Dunn. 288p hc col.....\$65*
- COMENG Vol. 5. 1985-90+ABB, Adtranz&Bombardierito. 312p col.....\$65*
- DISTANT THUNDER.NRM.Outback rlyw action 64p SC\$35*hc.....\$42*
- ENGINEMEN OF THE VICTORIAN RLYS Vol.2 Anchen hc.....\$50*
- EXPLORING QLD'S RAILWAYS:West/South Toowoomba.Webber160p\$38*
- GLEN DRAV A Shale Oil Ghost Town. Knapman.270p hc b/w col...\$59*
- GREAT RAIL JOURNEYS OF AUSTRALIA. Avery. 220p HC \$30*
- HELL NEVER STOP THAT TRAIN IN TIME.Brakes.Moffat.427p.\$99*
- JOADJA CREEK. A Shale Oil Ghost Town. Knapman.176p b/w col \$38*
- LAHEY'S CANUNGRA TRAMWAY. Climax & Shay locos.....\$10*
- LIFE ON AUSTRALIAN LOCOMOTIVES. Barnett. Vic Steam 1960s.\$35*
- LIFE ON THE VICTORIAN RLYS. Railwaymen's roles. Anchen.170p...\$50*
- MECHANICAL WEIGHING MACHINES No.2 (ARHSV) 328p sc \$49*
- MY RAILWAY DAYS. John Dare Images from 1970 to 2007 160p \$75*
- NEWCASTLE SLIDE SHOW. Greg & Silvia Ray.Colour images.....\$49*
- ONE AMERICAN TOO MANY. Brisbane Trams. David Burke.126p \$30*
- PANSY. Richmond to Kurrarajong Railway. 34p sc bw.....\$15*
- PENNY-A-SECTION, TUPPENCE-A-CASE. Irwin.97p sc bw.....\$29*
- PENINSULA PIONEER REVISTED. Peter Knie. 382p hc col.....\$95*
- POWER TO THE RAILS. Vic. Diesel & Electrics J Scott 224p hc col...\$75*
- PROCEED TO HAWKER. Evans (Railmac)152p SC b&w/col.....\$30*
- PROCEED TO QUORN. Evans (Railmac)176p SC b&w/col.....\$40*
- PROCEED TO WILMINGTON. (Railmac) 172p.HC.....\$40*
- RAILMOTORS,RAILCARS,EMUS,TILTRAINS QLD.(ARHSQ) \$35*
- RAILS AROUND BROKEN HILL. (Railmac) 36p col/bw.....\$13*
- RAILWAY ELECTRIFICATION IN AUSTRALIA & NZ.160p. \$20*
- RAILWAY PORTRAITS. B&RWheatley. 112p.V1\$55; V2/3. ea\$59*
- RAILWAYS OF TASMANIA'S WILD WEST. Anchen.160p.....\$50*
- RAILWAYS OF THE OVENS & KING. Beechworth etc N Anchen \$60*
- RICHES BENEATH THE FLAT.CaptainsFlat.Mainwaring 104p...\$30*
- SALUTE TO THE HUDSWELLS. (ANGRMS) 140p. SC.....\$35*
- SAMPHIRE & STONE Dry Creek to Stockdale NRM 184p sc b/w \$52*
- Sp SOUTH NORTH:The Railways of NSW In Steam. Preston.80p.\$15*
- SIMSVILLE & THE JARRAH MILL.Yall River NSW/McNeil (LLRSA)96p...\$29*
- SINGLE DECKERS FROM NEWCASTLE.Howarth/Ryan178p...\$65*
- TALL TIMBER & TRAMLINES. Queensland. Kerr (LLRSA)104p.\$30*
- THE APRICOT MAIL. Rogan's Hill Railway.Irwin.96p. b/w.....\$29*
- THE END OF AN ERA. Single-deck suburbans. Ryan.80p.hc col\$45*
- THE INNISFAIL TRAMWAY. (LLRSA). 2nd edit..... hc\$38* sc\$30*
- THE LANDERS. QRAC Cars. (ARHSQ) 152p col sc.....\$40*
- THE LEEDS FORGE CARS. Suburban Cars. (Bow River) 152p col.....\$49*
- THE McVOR TIMBER & FIREWOOD COMPANY.(LLRSA)Stamford\$30*
- THE MAPLETON TRAMWAY. John Knowles 92p b/w SC.....\$28*
- THE RIGHT WAY, THE WRONG WAY & THE RAILWAY. N Anchen \$35*
- THE RAILWAYS AT WORK Vol. 3 Mackey Official NSWGR Photos. \$35*
- THE RLWYS OF CABOOLTURE, WOODFORD & KILCOY Webber\$16*
- THE SOUTH COAST RAILWAY Gold Coast Rly (Water Street).....\$39*

TRAIN HOBBY BOOKS

- ALL-COLOUR, BIG A4 PICTURE 48-56 PAGE ALBUMS.
- COALS TO NEWCASTLE Part 1 - The Steam Era.56p.....\$42
- COALS TO NEWCASTLE Part 2 - The Diesel Era.....\$42
- COALS TO THE ILLAWARRA. 40 years of haulage.....\$42
- SYDNEY TERMINAL. The Steam Station.....\$42
- NSW 30 CLASS 4-6-4 Tank.....\$42
- NSW 30T CLASS 4-6-0 Tender.....\$42
- NSW 35 CLASS 4-6-0 Tender.....\$42
- NSW 38 CLASS 4-6-2 EXPRESS LOCOMOTIVE 56p.....\$42
- NSW 38 CLASS 4-6-2 EXPRESS LOCOMOTIVE Part 2 56p \$42
- NSW 40 CLASS. Canadian Diesel-Electric.....\$42
- NSW 421 CLASS Clyde-Gm Diesel Electric.....\$42
- NSW 43 CLASS Goninian Alco Diesel Electric.....\$42
- NSW 44 or 80 CLASS.....ea \$42
- NSW 48 CLASS MARK 1 & 2 Vol 1 NSW LOCO PROFILE \$42
- NSW 50 OR 53 CLASS 2-8-0 LOCOMOTIVE.Each.....ea \$42
- NSW 59 CLASS LOCOMOTIVE PROFILE.....\$42
- OLD CANEFIELDS STEAM.....\$42
- VANTAGE POINT TED PAYNE. Victorian Photos.160 p.....\$72
- VR C Class DIESELS Vol 2.....\$42
- VR T Class Bo-Bo DIESEL (First Series).....\$42
- VR X Class DIESEL Vol 1.....\$42
- VR R Class 4-6-4.....\$42
- VR G CLASS GARRATTS V1, 2 or 3.....ea\$42
- UNDER THE WIRES PART 2 Interurbans.....\$42
- UNDER THE WIRES PART 3 45 (7100) & 46 Class.....\$42
- UNDER THE WIRES PART 4 85 & 86 Class.....\$42
- UNDER THE WIRES PART 6 E Class Electrics.....\$42
- COUNTRY BRANCHLINES NSW PART 4 Boorowa, Crookwell, Yass...\$42
- COUNTRY BRANCHLINES NSW PART 5 Vol1 Blaney to Harden.....\$42
- COUNTRY BRANCHLINES NSW PART 5 Vol2 Blaney to Harden.....\$42
- COUNTRY RAILWAY STATIONS-NSW. Parts 4 or 6.....ea\$42
- COUNTRY BRANCHLINES VICTORIA Parts 5 or 7.....ea\$42
- COUNTRY BRANCHLINES VIC P19 Echuca,Deniliquin,Bairnald...\$42
- COUNTRY BRANCHLINES VIC P10 Patchewollock/Yaapeet/Yanac\$42*
- MELBOURNE'S INDUSTRIAL & SUBURBAN SIDINGS.....\$42
- MELBOURNE'S SUBURBAN RAILWAY STATIONS.....\$42
- RAIL SCENE 9 TANGERINE ERA. VR & V/line. 97p.....\$49
- WESTERN AUSTRALIAN STEAM, South West Cnr 56p...\$42

EVELEIGH PRESS PUBLICATIONS

- 38 NSWGR's C38 Class. John B Thompson.Definitivebook.276p \$65*
- 44-WORLD DOWN UNDER. R Preston.184p.hc b&w/col.....\$65*
- A HISTORY OF THE SOUTH AUSTRALIAN RLWYS Vol 5.240p\$70*
- A HISTORY OF SA RAILWAYS Vol 6.Locomotives. 340p hc.....\$70*
- ALCO DL541 - The NSW 45 & SAR 600 Classes.176p.. \$40*
- BYWAYS OF STEAM 30. Griffith/Barry/Tulloch tribute/RovingTO 171p\$45*
- BYWAYS OF STEAM: 29. Western Line/CaptainsFlat/Al Byways index...\$45*
- BYWAYS OF STEAM: 28. Narrabri West/Moree Loco.....\$45*
- BYWAYS OF STEAM: 27. Port Waratah, Richmond.....\$45*
- BYWAYS OF STEAM: 26 West Wallsend,Far West, Loco details \$40*
- BYWAYS OF STEAM: 25. History six suburban steam depots\$40*
- BYWAYS OF STEAM: 22, 23 or 24.....each\$40*
- BYWAYS OF STEAM: 21. Camden Issue.....\$38*
- BYWAYS OF STEAM: 20. Blayney, Short North, etc.....\$40*
- BYWAYS OF STEAM: 19. Nyngan, Short Nth,Master Fitter,57s\$38*
- BYWAYS OF STEAM 18. The Tweed Railway.....\$40*
- BYWAYS OF STEAM Encore. (With index to vols 1 to 14) ...\$35*
- BYWAYS OF STEAM 16.53Class \$38* 17 BinnawayCooma.\$38*
- BYWAYS OF STEAM 8 & 9ea\$28*10,11,12,13,14&15ea\$35*
- CENTRAL WEST EXPRESS. (Eveleigh Press) 164p Col.....\$22*
- COACHING STOCK NSW RAILWAYS Vol 1. Wood cars.260p\$99*
- COACHING STOCK NSW RAILWAYS Vol 2. FOs,steel cars \$120*
- COACHING STOCK NSW RAILWAYS Vol 3. Electric cars \$110*
- CONQUERING THE BLUE MOUNTAINS. Mark Langdon.....\$50*
- DAY OF THE GOODS TRAIN.Preston.Early to modern times\$60*
- DIESEL SCENE 3: 421CIS30* DS4-400 CI \$33*,DS5:Eveleigh \$40*
- DIESEL SPECTRUM Vols 3, 5 & 7.....each\$17*
- ESSAYS IN STEAM. Ron Preston.Various steam stories.184pb/w\$16*
- GERALD DEE. Life & Times. JFowler.161p.....\$60*
- GREEN DIESELS of the NSWGR. Preston 40&41 Class. 112p. \$45*
- INDIAN PACIFIC GREAT AUSTRALIAN TRAINS. Attenborough.\$20*
- IRONWORKHORSES. B Macdonald.(Eveleigh)176p.hc b&w/col. \$54*
- NEWCASTLE EXPRESS. P Attenborough. 96p sc Col.....\$20*
- PORTRAIT OF A CLASSIC. 46 Class history. 192p col b/w \$70*
- RAY LOVE'S DAYS OF STEAM. 112p Col hc.....\$50*
- SOUTH AUSTRALIAN STEAM MEMORIES.136p.....\$65*
- SOUTH MAITLAND RAILWAYS. Attenborough. 128p hc.....\$45*
- SOUTHERN HIGHLANDS EXPRESS. Attenborough. 64p Col \$22*
- SPIRIT OF PROGRESS. 64p A5 sc col b/w.....\$20*
- STANDARDS IN STEAM - 53 & 55 Class. Ron Preston. sc. \$48*
- SYDNEY SUBURBAN STEAM. John Ward. 72p hc b/w.....\$30*
- TIME OF THE PASSENGER TRAIN.Preston Vol 1,2 or 3. ea\$60*
- TULLOCH. A History. (Eveleigh Press).296p.....\$85*

Prices are correct as at press time. Overseas items sold and out of stock following press time will vary in price due to currency fluctuations.

USA PUBLISHERS - GENERAL

AMTRAK - AN AMERICAN STORY (Amtrak) 140pp sc col..... \$31*
 DAYLIGHT REFLECTIONS V1 Nils Huxtable.132p hc col/bw.... \$58*
 GUIDE TO NORTH AMERICAN STEAM LOCOS.(Trains) 335p... \$55*
 NEW HAVEN COLOUR PICTORIAL Vol3 The East End... \$92*
 PENN CENT POWER. Yanosey.(MorrisingSun) Collector's edition 248p \$115*
 PENNSY R/R DIESEL LOCO PICTORIAL V10 EMD. Withers 80p \$30*
 RAILS AROUND LAKE TAHOE Ferrell 256p hc b/w..... \$75*
 RIO GRANDE DIESELS. A COLOUR PICTORIAL V3 Strapac 112p \$45*
 Rk ROCKY MOUNTAIN SUNRISE Nils Huxtable.112p hc col/bw.... \$58*
 SP HISTORIC DIESELS V17 THE SD40 FAMILY (Strapac) 144p \$48*
 SP PASSENGER CARS V4: DINING. SPH&TS. 576p hc col/bw. \$200*
 SP PASSENGER CARS V5: DOME&PARLOR. SPH&TS. 576p... \$200*
 STEAM'S LAST SEASON. Grate Rail. 296p hc col/bw..... \$160*
 THE CALL OF TRAINS. Jim Shaughnessy. 220p hc bw..... \$80*
 THE CONTEMPORARY DIESEL SPOTTERS GUIDE 2008. Withers \$40*
 THE ELEVATED RAILWAYS OF MANHATTAN. (ERA 2ndEd) 363p \$125*
 THE LAKE SHORE ELECTRIC RAILWAY STORY. IndUni. 297p... \$135*
 THE MALBONE STREET WRECK. Fordham Uni Press. 120p bw.... \$55*
 THE METROLINERS. Goldberg & Warner. (Whitriver) 124p..... \$100*
 THE RAILWAY PHOTOGRAPHY OF JACK DELANO. 186p..... \$90*
 THE ROUTES NOT TAKEN. Raskin. 323p hc bw..... \$55*
 N TWELVE TWENTY-FIVE Pere Marquette 2-8-4 (MichUni) 212p.... \$88*
 TOURIST TRAINS GUIDEBOOK 5TH EDIT (Kalmbach) 354p.... \$27*
 WHEAT LINES & SUPERFREIGHTS (McMillan) 240p hc col.... \$125*

MORNING SUN (USA)

If your desired title is not listed, NYC POWER V1#20-4940 \$111*
 we will try to get it for you. N NYC POWER V2 4000-9820 \$105*
 NAC&Y and A&B BELT..... \$99* N OHIO CENTRAL V1 STH\$109*
 NAGLOMA CENTRAL..... \$99* N PENN CENT POWER V1.... \$105*
 AMTRAK POWER Vol 2..... \$99* N PENN CENT POWER V2..... \$95*
 NAPPALACHIAN Vol 3..... \$99* N PENN CENT POWER V3..... \$99*
 ATLANTIC COAST LINE..... \$95* N PENN CENT POWER V4... \$109*
 N BOSTON & MAINE V3..... \$96* N PITTSBURGH & SHAWMUT..... \$99*
 N BUFFALO, ROCH, PITT V5\$99* N PRAIRIE DEPOTS Vol 1..... \$95*
 N CAN PAC FACILITIES. V3\$105* N READING FACILITIES V1.... \$69*
 CBQ FACILITIES. V2..... \$99* N READING FACILITIES V2.... \$99*
 N CBQ FACILITIES. V3..... \$111* N SOUTHERN RLY Vol 3..... \$79*
 C&NW POWER 63-95 V1... \$99* N SOUTHERN RLY POWER V1. \$99*
 N C&NW POWER 63-95 V3. \$99* N SOUTHERN RLY POWER V2. \$111*
 N C&NW POWER 63-95 V4. \$99* N SP FACILITIES Vol 2..... \$105*
 C&O FACILITIES V1\$50*V2\$80* N SP OREGON..... \$105*
 N C&O Thru Pass Service \$105* N SP POWER/ Switchers, slugs, \$105*
 CONRAIL ATLANTIC V1. \$99* N STEEL MILL RR V4 & V5. ea \$85*
 CONRAIL PWRV1(1000-3999)\$99* N STEEL MILL RR Vol 7..... \$105*
 NCR CENTRAL REGION V3\$99* N STRASBURG RAILROAD..... \$99*
 NCR CENTRAL REGION V4\$105* N THE NEW RIVER TRAIN. \$105*
 N CONRAIL NORTH REGION\$105* N TORONTO HAMILTON BUFFALO\$105*
 N CONRAIL WEST REGION V1\$99* N WEST FLORIDA RAILS V1..... \$99*
 N CP GUIDE FREIGHT&PASSV2\$99* N WEST FLORIDA RAILS V2..... \$95*
 CRITTERS VOL 4 or 5. ea \$99* N WEST FLORIDA RAILS V3..... \$99*
 N CSAO CR SHARED ASSET \$105* N WISCONSIN CENTRAL LTD\$105*
 N CSX POWER 4axleEMDs V1\$105* N WISCONSIN Diesel Years..... \$99*
 N ERIE-DL&W-EL TRACKSIDE. \$105* N TRACKSIDE ERIE RR & Conn..... \$50*
 ERIE LACK POWER V1 \$115* N TRACKSIDE ERIE TO CR..... \$60*
 ERIE LACK POWER V2. \$95* N TRACKSIDE HARRISBURG..... \$65*
 ERIE LACKAWANNA V8. \$85* N TRACKSIDE LEIGH RIVER..... \$99*
 N ERIE LACKAWANNA V9. \$99* N TRACKSIDE MOHAWK VALLEY. \$105*
 N ERIE WESTERN..... \$105* N TRACKSIDE NEWPORT NEWS\$99*
 FLORIDA EAST COAST. \$99* N TRACKSIDE PENNSY TOWERS..... \$95*
 N ILLINOIS CENTRAL Thru Pass\$105* N TRACKSIDE PITTSBURGH..... \$85*
 INDUSTRIAL RR Vol 1. \$85* N TRACKSIDE PRR EAST REGIONS\$105*
 INDUSTRIAL RR Vol 2. \$90* N TRACKSIDE ROCHESTER 70/80\$99*
 JERSEY CENTRAL POW V1 \$99* N TRACKSIDE SUSQUEHANNA..... \$99*
 N JERSEY CENTRAL POW V2 \$99* N TRACKSIDE YOUNGSTOWN..... \$50*
 JERSEY CENTRAL LINES V4 \$95* N UNION RAILROAD..... \$75*
 JERSEY CENTRAL FAC V1\$95* N UP POWER V1.1965-2015. \$105*
 LAKE SUPERIOR & ISHPG V1\$99* N WHITE PASS & YUKON..... \$105*
 N LAKE SUPERIOR & ISHPG V2\$99* X CAR Vol 1 AACX-CRYX..... \$99*
 N LONG ISLAND POWER 52-15\$105* X CAR Vol 2 CSCX-GPXX..... \$99*
 N METRO-NORTH..... \$105* X CAR Vol 3 GROX-NYMX..... \$99*
 LEHIGH & NEW ENG..... \$99* N X CAR Vol 4 OCPX-TKXX..... \$105*
 MILW POWER V2 FINAL \$99* N X CAR Vol 5 TLXX-ZTXX..... \$105*
 N MILW RD FACILITIES V1\$105*

USA - HEIMBURGER HOUSE: Great Prices!

AMERICA'S GREATEST CIRCUS TRAIN. 208p col hc..... \$110*
 Sp AC GILBERT'S FAMOUS AMERICAN FLYER. 200p col hc \$59*
 Sp AMERICAN'S RAIL PICTORIAL. 152p col hc..... \$59*
 Sp AMERICAN STREAMLINER POSTWAR YEARS. 200p col hc \$59*
 Sp AMERICAN STREAMLINER PREWAR YEARS. 176p col hc..... \$59*
 Sp CHASING TRAINS. US Narrow Gauge. Richardson. 432p col hc..... \$89*
 Sp CHICAGO & NORTHWESTERN-MILWAUKEE. 78p col hc..... \$45*
 Sp CLASSIC VINTAGE CRAWLERS & DOZERS. Vol1188p col hc \$69*
 Sp DESERT RAILROADING. Steve Schmolinger. 172p col sc. \$59*
 Sp THE LAST OF STEAM. Joe Collias. 268p b/w sc..... \$59*
 Sp MASON STEAM LOCOMOTIVES. Wallace. 192p col sc..... \$69*
 Sp NARROW GAUGE COUNTRY. Mal Ferrell. 372p col hc..... \$85*
 Sp NEVADA CENTRAL SAGEBRUSH NARROW. Ferrell. 204p col hc \$59*
 Sp NEVADA COUNTY NARROW GAUGE. G. Best. 224p col hc \$59*
 Sp ROBERT W. RICHARDSON'S RIO GRANDE. V3208p col hc \$79*
 Sp THE SEARCH FOR STEAM. Joe Collias. 360p b/w sc..... \$59*
 Sp TRAINS OF AMERICA. Don Heimburger. 204p col hc..... \$59*
 Sp WEST SIDE PICTORIAL. Mal Ferrell. 312p col hc..... \$69*

UNITED KINGDOM & IRELAND

N APT The Untold Story. D Clough.(IanAllan) 144p HC col..... \$60*
 BARRY: YARD HISTORY & LOCOMOTIVES. (Allan) 256p col/bw \$80*
 BR COACHING STOCK 2014. PocketBkPlatform5. 110p sc col. \$16*
 BR LOCOS & COACHING STOCK 2014. Platform5. hc bw/col \$35*
 BR LOCOMOTIVES 2014. PocketBook.Platform5. 95p sc col \$16*
 BRANCH LINES OF STRATHEARN. TouristsTatties&Trains. 292pp \$85*
 BRITISH RAIL CLASS 60 LOCOMOTIVES. Egleed. 192p..... \$70*
 BRITISH RAIL DIESELS. Early lives. Hymans. 160p..... \$50*
 BRITISH RAIL CLASS 20 LOCOMOTIVES. Dunn. 208p..... \$58*
 BRITISH STEAM LOCOMOTIVE BUILDERS. Lowe. 704p..... \$90*
 CASTLES THE FINAL YEARS 1954-1965. (Allan). 128p..... \$50*
 COMMUTERS. British commuting history. Pen&Sword. 150p..... \$40*
 DISCOVERING LONDON RAILWAY STATIONS. Green.PocketBk104p \$15*
 DIESEL & ELECTRIC LOCOMOTIVES FOR SCRAP(OPC)240p. \$85*
 DMU COMPENDIUM. Bocock. (Allan). 128p..... \$40*
 EAST OF EASTBOURNE, WEST OF WATERLOO. 102p sc bw \$30*
 ENGLISH ELECTRIC CLASS 40,50 & 55. (Amberley). 128p \$50*
 ENGLAND'S HISTORIC CHURCHES BY TRAIN. HC 214p... \$75*
 FLYING SCOTSMAN. Famous loco(HistoryPress)Baldwin. 120p. \$38*
 FROM CLERK TO CONTROLLER. (Pen&Sword) Fowkes. 248p. \$75*
 GLASGOW SUBWAY ALBUM. (Watson). col.sc..... \$39*
 GRADIENTS OF THE BRITISH MAINLINE RLWYS.(Allan)95p... \$40*
 GREAT NORTHERN ATLANTICS. Baldwin (Pen/Sword). 128p..... \$50*
 GRESLEY'S CLASS P2 LOCOMOTIVES. (IanAllan). 128p..... \$65*
 N GW MOGULS & PRAIRIES LOCO PORTFOLIO(Pen&Swd)248p \$90*
 N GWR GOODS TRAIN WORKING VOL1. (Crecy) Atkins. 136p..... \$70*
 HOW A STEAM LOCOMOTIVE WORKS. (IanAllan) 112p col. \$57*
 IN THE TRACKS OF THE BOURNEMOUTH BELLE.(Crecy).128p \$33*
 N ISLE OF WIGHT RAILWAYS. A new history (Allan) 96p..... \$50*
 LMS HANDBOOK. Wragg. 1st Edition. 256p hc bw..... \$55*
 N THE LMS HANDBOOK. Wragg. 2016 Edition. 256p sc bw..... \$50*
 N LEWES&EAST GRINSTEAD RLWY The Bluebell(Allan) 112p. \$50*
 LOCOMOTIVES WE HAVE LOST (OPC, IanAllan) 260p..... \$85*
 LONDON UNDERGROUND. J.Glover 12th Ed (Allan) 192p..... \$60*
 LONDON UNDERGROUND STEAM. (IanAllan) 80p hc col.... \$35*
 LONDON'S DOCK RAILWAYS Part 1 Marden 110p sc b/w \$37*
 PRESERVED LOCOS OF BRITISH RAIL. Platform 5 160p sc col \$32*
 PRINCIPLES OF RAILWAY OPERATION. (IanAllan) 160p sc col \$50*
 RAILS TO GLYN CEIRIOG. Ceiriog Press. 308p hc bw/col. \$99*
 N RAILWAY ATLAS THEN & NOW. 2ndEd (IanAllan) HC col..... \$50*
 RAILWAY BREAKDOWN CRANES V1 (NoddeBks) 256p.... \$80*
 RAILWAY WORKSHOPS (Shire Books) 86p s/c col/bw..... \$15*
 RAILWAYS OF AYSHIRE. G Thompson. 160p s/c col/bw..... \$50*
 RAILWAYS OF BRITAIN-NORFOLK&SUFFOLK. (Allan) 112p.... \$48*
 N RAILWAYS IN THE LANDSCAPE. (Pen&Sword) Biddle. 216p.... \$75*
 N RAILWAYS & INDUSTRY IN THE WESTERN VALLEY. 254p... \$75*
 RAILWAYS OF THE ISLE OF WIGHT. (Amberley)PAleen. 94p \$38*
 N REGIONAL TRAMWAYS SCOTLAND. Pen&Sword. Walker. 144p \$75*
 SCOTTISH STEAM - A CELEBRATION. Langston 240p.... \$60*
 SHROPSHIRE RAILWAYS.(Crowood) Cryer 160p sc bw/col. \$55*
 SOMERSET AND DORSET SWANSONG.(WildSwan) 97p.... \$45*
 N SOUTHERN STEAM. Buckley Photos.(HistoryPress)Dickson. 96p \$50*
 N STEAM TODAY. BR Heritage Rail (HistoryPress) Swaine. 118p... \$50*
 N SWINDON WORKS. The Legend.(HistoryPress)Matheson. 192p. \$35*
 THE ANATOMY METROPOLITAN RLY 4-4-0 TANK Manning \$40*
 THE BOOK OF THE LORD NELSON 4-6-0s Derry. (Irwell)... \$55*
 THE GWR Vol 1. Paddington to Bristol. (Amberley). 128p.... \$43*
 THE GWR EXPOSED. Swindon in days of Collett/Hawksworth..... \$75*
 THE GWR HANDBOOK. 1923-47 (HistoryPress) Wragg. 248p... \$50*
 THE DEFINITIVE GUIDE TO TRAMS. Gordon. 245p sc bw.... \$48*
 N THE LINES BEHIND THE FRONT. WW Western Front Rlys (Aves) ... \$79*
 THE LYNTON & BARNSTAPLE RLWY MEASURED & DRAWN \$150*
 N THE ROYAL ARSENAL RAILWAYS. Pen&Sword Smithers. 212p \$90*
 THE SOUTH WALES DIRECT LINE. Rendall. 208p sc col..... \$65*
 THE SOUTHERN WAY. ISSUE 10. 100p sc bw..... \$15*
 THE STAFFORD & UTTOXETER RAILWAY. 240p HC bw.... \$85*
 N TWO CENTRIES OF RAILWAY SIGNALLING. 2ndEdition OPC 256p... \$80*
 N TRAIN DOCTOR. Diesel/electric troubleshooting. Pen&Sword. 214p \$70*
 UNDER GROUND STEAM. World Subways & Metros 208p... \$45*
 N VISIONS OF BARRY. J Grayer Photos. (CrecyPub). 120p.... \$40*

OAKWOOD PRESS (UK)

AYRSHIRE'S FORGOTTEN RAILWAYS. 200p sc col/bw..... \$45*
 FIFTY YEARS OF NEWPORT 1900-49. 160p sc col/bw..... \$45*
 NTH NORTHUMBERLAND'S MINOR RLWYS Vol 3 160p..... \$26*
 NTH NORTHUMBERLAND MINOR RLYS Vol 4 136p b/w..... \$30*
 OAKWOOD PRESS THE FIRST 80 YEARS Mullarky 120p sc col \$24*
 STEAM DIESELS & ON-TRACK MACHINES. 240p sc bw. \$40*
 N THE AXMINSTER & LYME REGIS RAILWAY. 144p sc col/bw \$40*
 THE BRISTOL-RADSTOCK-FROME LINE 240p sc b/w..... \$35*
 THE DAVINGTON LIGHT RAILWAY. 48p sc b/w..... \$25*
 THE ELY & ST IVES RAILWAY. 176p sc b/w..... \$45*
 THE EAST FIFE CENTRAL RAILWAY. Lochty Line 104p bw. \$33*
 THE LEVEN & EAST OF FIFE RAILWAY. 320p sc col/bw.... \$53*
 THE LYNN & HUNSTANTON RAILWAY. 192p sc bw..... \$32*
 THE NEWTON ABBOT TO KINGWEAR RAILWAY. 352p sc b/w \$50*
 THE REDDITCH & EVESHAM LINE. 224p sc b/w..... \$45*

CAPITAL TRANSPORT (UK)

THE BAKERLOO LINE OR DISTRICT LINE. 80p sc col b/wea \$18*
 THE CENTRAL LINE OR CIRCLE LINE. 80p sc col b/w...each \$15*
 THE JUBILEE LINE. 80p sc col b/w..... \$18*
 THE METROPOLITAN LINE. 96p sc col/bw..... \$18*
 THE NORTHERN LINE. 80p sc col b/w..... \$18*
 THE PICCADILLY TUBE. Horne. 144p hc col b/w..... \$78*
 THE VICTORIA LINE. 80p sc col b/w..... \$15*

WORLD TRANSPORT BOOKS

AUTOCARS, AUTOBUS, TROLLEYBUS de FRANCE. 1950/80. \$99*
 N BENELUX RAIL 1970-1980. Belgium, Nederland, Lux. 302p \$59*
 HEATHROW AIRPORT. 1929 onwards. Ops Manual 188p... \$40*
 CAMELS & CADILLACS. SAR 25 Class Condensers & 25NC 4-8-4s. \$90*
 COAL, STEEL & COMFORT. Local 141R568 & Swiss Classic Train \$42*
 N CZECH & SLOVAK RAILWAYS 1st Edit. Platform 5. 256p.... \$60*
 N EUROPE BY RAIL. Definitive guide. 14th edition. 496p..... \$25*
 N EUROPEAN RAIL TIMETABLE. Winter 2016/2017 edition. 648p... \$32*
 FRENCH RAILWAYS 5th Edit. Platform 5. 223p..... \$43*
 HIGH SPEED TRAINS. Peter Clark. 192p hc colour..... \$40*
 N ON TRACK. H.Gittins - Railway pioneer Siam & Canada. 151p... \$25*
 IRISH RAILWAYS-LOCOS, MUs & TRAMS V7. Plat5. 95p.... \$42*
 LITTLE TRAINS TO FARAWAY PLACES. (Indiana). 209p..... \$76*
 Rr NARROW GAUGE RAILWAYS OF SOVIET UNION. 224p HC... \$99*
 N RAILS ACROSS EUROPE. Northern&western. Cable. (P&S) 245p \$75*
 N RAIL MAP EUROPE. 1st Edition revised. (EuroRailTimetable)..... \$16*
 RO-RO HANDBOOK. Guide to roll-on/roll-off cargo ships. 151p... \$60*
 SEASONS OF STEAM. Steamscenes. 104p. All colour..... \$59*
 N STEAM LOCOMOTIVES OF EAST AFRICAN RAILWAYS 216p \$99*
 N SWISS RAILWAYS 4th Edit. Platform 5. 225p..... \$60*
 THE GREAT INDIAN RAILWAY ATLAS. Roychoudhury104pcol... \$45*
 N THE NG RAILWAYS OF BOSNIA-HERCEGOVINA. Chester 416p... \$90*
 N THE RAILWAYS OF MONTENEGRO. K. Chester 232p HC col/bw. \$90*
 THE RAILWAY ATLAS OF THAILAND, LAOS & CAMBODIA 212p \$75*
 THE RAILWAYS OF THAILAND. R. Ramaer. 212p sc col/bw..... \$80*
 THE RAILWAYS & TRAMWAYS OF VIETNAM. Dooling. 398p.... \$85*

NEW ZEALAND BOOKS

A WEST COAST ENGINEMAN. (NZ) Tibbles 252p sc..... \$70*
 NZ RAILWAY'S 4-6-0 LOCOMOTIVES. Sean Millar. 42p..... \$19*
 NZ RAILWAYS STAND ALONE MECH SIGNAL BOXES. 271p \$79*
 N NZ RAILWAYMEN AT WAR 1914-18. (KiwiRail) 64p..... \$22*
 RAILS TO ROXBURGH NZ. Otago provincial rlyCowan. 256p. \$75*
 RAILWAY ELECTRIFICATION IN AUSTRALIA & NZ. 130p... \$20*
 SIGNALLING & INTERLOCKING AT FRANKTON Junc. 1897/1987. 132p. \$25*

GENERAL INTEREST BOOKS

CITY OF ADELAIDE. RailmacMiniProfile#10. Historic clipper ship..... \$8*
 HAWKESBURY RIVER BOATS AND PEOPLE. 138p..... \$20*
 Sp INTO THE GOLDEN WEST. Bob McKillop. 286p..... \$44*
 MORRIS 25 ON THE RAILS RailmacMiniProfile#5 SA Inspection Cars..... \$8*
 UNION JACK. Jack O'Leary & the RTBU. 214p..... \$25*
 SHIPS FROM THE DEPTHS. Deepwater Archaeology. 182p \$68*
 SWIFT TO DESTROY. History 77 Squadron RAAF. 113p.... \$25*
 VOYAGE TO THE END OF THE WORLD. David Bruce. 200p... \$25*

TRAM BOOKS

AUSTRALIAN TRAMS THROUGH THE AGES. MKelly Pt1 160p sc. \$25*
 BRISBANE TRAMWAYS THE LAST DECADe (Transit Press) 60p..... \$21*
 DESTINATION WATERFRONT CITY. Wilson/Budd. Melb trams. 76p \$60*
 JUGGERNAUT! David Burke. Sydney's steam trams..... \$15*
 STEAMING DOWN ARGENT STREET. Broken Hill 90p hcbw. \$13*
 LAUNCESTON MUNICIPAL TRANSPORT 1911-1955. 170p. \$55*
 MELBOURNE'S COLOURFUL TRAMS 1970s Clark (TH) 56p. \$39*
 MIND THE CURVE. A history of cable trams. Keating. 155p \$28*
 MORE TRAM IMAGES with bonus DVD. Aust & NZ. Ballment. 140p... \$60*
 N NEWCASTLE TRAMS REMEMBERED. Pictorial by Noel Reed 64p... \$40*
 PRAHRAN & MALVERN TRAMWAYS TRUST. Ian Brady. 96p \$59*
 RAILS IN THE ROAD Britain & Ireland tram history. 269p. \$90*
 SYDNEY TRAMWAY MUSEUM. Souvenir Guide. 48p..... \$10*
 THE EASTERN LINES. David Keenan. 82p. sc..... \$30*
 THE MANLY LINES. David Keenan. 72p. sc..... \$25*
 THE NORTH SYDNEY LINES. David Keenan. Reprint..... \$29*
 THE ROCKDALE & ENFIELD LINES. David Keenan..... \$20*
 THE SYDNEY TRAM. Clark. A pictorial review..... \$15*
 THE SOUTH-WESTERN LINES. David Keenan..... \$25*
 THE WESTERN LINES. David Keenan..... \$25*
 THE GOLDEN CITY AND ITS TRAMS. Bradley. 144p col/bw... \$35*
 TRAM IMAGES. Australia & NZ. Ballment. (Transit) 120p sc col..... \$40*
 TRAMWAYS OF NEWCASTLE. David Keenan. 138p hc..... \$55*
 TRAMWAYS OF SYDNEY. David Keenan. 89p hc..... \$27*
 TROLLEYS WEST: RailmacMiniProfile#4 Adelaide trolleys in the West..... \$750*
 TRACING TRAMS THROUGH SYDNEY. Jim Longworth. 72p. col/bw... \$50*

ROBERT SCHWANDL TRAM/SUBWAY LIGHT RAIL

SUBWAYS & LIGHT RAIL IN THE USA 1-EAST COAST. 160p... \$40*
 SUBWAYS & LIGHT RAIL IN THE USA 2-THE WEST. 160p..... \$40*

TRAM DVDS

AUSTRALIAN TRAM MUSEUMS P1- SA & VIC. DVD. Tramalan 86' \$34
 BLACKPOOL TRAMS V3 Body & paint shops. DVD. Tramalan..... \$20
 BLACKPOOL TRAMS V4 Rebuild of Car 736. DVD. Tramalan..... \$20
 GERMAN TRAMS 1. DVD. Frankfurt Mainz Köln 67'..... \$34
 JUST TRAMS IN MELBOURNE 1972-2013. Greg Travers. DVD170' \$40
 LIGHT RAIL PART 1- Sydney Inner West. (Trackside) 104'..... \$36
 LIGHT RAIL PART 2- Gold Coast. (Trackside) 90'..... \$36
 SHOOTING THROUGH-SYDNEY TRAMS. DVD. 165'..... \$35
 SYDNEY TRAMS TODAY. Genelg tram. DVD. (Railstuff)..... \$30
 TRAMS AROUND THE WORLD Vol3. DVD. (Tramalan). 130'..... \$44
 TRANSPORT POTPOURRI. DVD. (Tramalan). 130'..... \$44

AUDIO CDS

DIESEL CENTRAL. Central Vic & NSW (Loco Records) 74'..... \$28
 STEAM ON THE 5' 3" Victorian Steam 1960s..... \$25
 NIGHT SHIFT NSW Steam 1960s..... \$25
 STEAM POWER. NSW & Vic Steam (Loco Records) 73'..... \$29
 VINTAGE DIESEL. GM Diesel Sounds (Loco Records) 73'..... \$28
 900 CLASS DIESELS IN SOUTH AUST Vol1 & 2 (NRM)..... \$15

COLLECTORS CORNER (RARE/PRE-READ BOOKS)

| |
|--|
| 21 YEARS OF TOURS. (ARHSnsw 1968). 103p.....\$35 |
| 36. John B Thompson. (1988). 168p. Excel cond.....\$245 |
| 38. John B Thompson. 1992 edition. 277p. Excel cond.....\$55 |
| 48 BACKBONE OF THE RAILWAYS. Preston 168p.b&w/col \$75 |
| 150 YEARS OF RAIL IN NSW. Souvenir Book. 64p.....\$55 |
| 150 YEARS OF THE PORT ADELAIDE RLWY. (NRM) 80p.....\$30 |
| 3801 A LEGEND IN STEAM. RG Preston. 104p. Excel cond.....\$55 |
| 500. The 4-8-2 & 4-8-4s of the SAR. 49p. Good cond.....\$25 |
| 600. The Pacifics of the SAR. 53p. Good cond.....\$25 |
| 700. The 700 Series of SAR. John B Thompson. 42p. Fair cond \$15 |
| A CENTURY OF LOCOMOTIVES 1855-1955. (NSWGR).....\$55 |
| A CENTURY OF SERVICE 1865-1965. (QR).....\$35 |
| A CENTURY PLUS OF LOCOS 1855-1955. (NSWGR).....\$75 |
| A HISTORY OF WAGR PASSENGER CARRIAGES. 454p.....\$145 |
| A HISTORY OF WAGR STEAM LOCOMOTIVES. Gunezburg.156p \$75 |
| A PICTORIAL HISTORY OF FERRIES.Sydney's waterway.120p. \$35 |
| A CENTURY OF NSW TRAMCARS V2 1903-1908.....\$55 |
| A COMPENDIUM OF NSW STEAM LOCOMOTIVES.(ARHS). \$75 |
| A GREAT PLACE TO WORK.Cardiff Workshops.Preston 104p \$75 |
| A GUIDE TO THE RAILWAYS OF NSW. S Sharp. 185p.....\$55 |
| ACROSS AUSTRALIA BY INDIAN PACIFIC.Patsy Adam-Smith \$20 |
| ADAMSTOWN VIA FERNLIEGH. Ed Tonks.116p. Excel cond.\$75 |
| ALL ABOARD.Trains of Australia Stamps. Patsy Adam-Smith\$25 |
| AMONG THEIR FAVOURITES.1989. Jean Campbell.144p.....\$20 |
| AWAY WITH STEAM. NSW steam images. Crow & McLean.....\$49 |
| BALLOON STACKS AND SUGAR CANE. CSR FUI 1961.104p.....\$35 |
| BELLBRACKES, BULLOCKS & BUSHMAN.1987.McCarthy.104p.....\$24 |
| BHP TRAMWAYS CENTENARY HISTORY.1985.Griffiths. 88p.....\$45 |
| BOGIE FREIGHT WAGONS OF VICTORIA P3. 1979-99. 253p.....\$55 |
| BRIDGING SYDNEY. SHB HISTORY.Historic Houses Trust.. 288p.\$75 |
| BRUNSWICK ST, BOWEN HILLS & BEYOND. Kerr. 128p.....\$45 |
| BUSH TRAMWAYS & PRIVATE RLWYS OF TAS. 1850-1960.174p..\$25 |
| BYGONE AUSTRALIAN TRANSPORT. Wilson (ARHSVic) 64p.....\$55 |
| BYWAYS OF STEAM 2. Rare copy. Excellent condition.....\$89 |
| BYWAYS OF STEAM 5. Rare copy. Excellent condition.....\$79 |
| BYWAYS OF STEAM 6. Rare copy. Excellent condition.....\$79 |
| BYWAYS OF STEAM 7. Rare copy. Excellent condition.....\$69 |
| CENTENARY OF A RAILWAY TOWN. Peterborough. 1976...\$45 |
| CHANGING BEFORE OUR EYES. Westrail 1982-1998.....\$25 |
| CHANGING TRAINS. Sydney/Melb. Belbin/Burke.1982 144p \$55 |
| CRIMSON GIANTS. QR ARTICULATED LOCOS.West. 144p. \$69 |
| DESTINATION STH BRISBANE. '84Ed.Armstrong&Kerr.120p. \$55 |
| DIESEL & ELECTRIC LOCOS OF NSWGR V2. (NSWRTM) 224p \$75 |
| DIESEL & ELECTRIC LOCOS OF NSWGR V3. (NSWRTM) 256p \$75 |
| EARLY DIESEL & ELECTRIC LOCOS OF NSWGR.(NSWRTM)224p \$75 |
| EXPLORING THE RAILWAYS OF FAR NORTH QLD.64p.....\$45 |
| EXPLORING QR RAILWAYS-SOUTH FROM BRISBANE.123p. \$45 |
| DIARY OF THE BICENTENNIAL TRAIN. Gogarty/Preston.112p..\$55 |
| FAMOUS LAST LINES. Holdsworth (1963). 128p. HC.....\$45 |
| FLASHLIGHTS ON STEAM. Whalley. 64p. HC.....\$45 |
| FLYER. (1970). Steam locomotion on Newcastle Exp.75p.....\$25 |
| FLYING SCOTSMAN ON TOUR in Australia. (1990).....\$45 |
| FOUR DECADES OF RAILWAY PHOTOGRAPHY.Saxon.96p. \$55 |
| FULL STEAM ACROSS THE MOUNTAINS.Belbin/Burke.HC.....\$25 |
| GAZETTEER OF INDUSTRIAL STEAM LOCOS. Illawarra. \$15/25 |
| GOING PLACES. NSW transport history. 104p.....\$55 |
| GOODS BRAKE VANS & ACCIDENT CRANES.SRA Official.....\$55 |
| GONE ON THE GHAN. Whitecock. 186p.....\$25 |
| GREAT STEAM TRAINS OF AUSTRALIA. David Burke.160p \$15 |
| GREAT RAIL NON-JOURNEYS OF AUSTRALIA.Taylor.233p \$35 |
| GREEN DIESELS. NSW 40 & 41 Classes Preston.184p.....\$35 |
| HISTORY OF THE GEELONG ELECTRIC TRAMWAYS.80p.....\$30 |
| HOBART TRAMWAYS. ICooper. Centenary Review. 65p. VGC.....\$45 |
| HOOLED ON TRAINS. The Keith Roberts Story. 120p. VGC.....\$30 |
| HOPPER COAL WAGONS. SRA Official.....\$35 |
| JEAN & GEOFF CAMPBELL PHOTOGRAPHER PROFILE.....\$65 |
| JOADJA CREEK. Shale oil town and its people. Knapman.....\$38 |
| KINGS OF THE IRON HORSE. Smith & Shea. David Burke.248p..\$25 |
| LANDMARKS IN PUBLIC WORKS. NSW Engineers 1884/1914.....\$49 |
| LANUNCESTON MUNICIPAL TRANSPORT 1911-55.44p.....\$45 |
| LINE CLEAR. Adelaide to Serviceton Train Working. 80p.....\$25 |
| LOCOMOTIVES OF AUSTRALIAN NATIONAL.....\$25 |
| LOCOMOTIVES OF THE S.A.R. (1972) 60p.....\$39 |
| LOCOMOTIVES & RAILCARS OF COMMONWEALTH RLYS.154p \$65 |
| LOVELY RAILS IN THE GULF COUNTRY. J.Knowles.62p.....\$45 |
| LOOK OUT FOR SUBURBAN TRAIN.(1998).44p.....\$25 |
| LOOK OUT FOR TRAIN. (ARHS Qld1971) 56p.....\$25 |
| MAITLAND TRAMWAY VENTURES.(65) Willson/McCarthy.....\$45 |
| MAKING THE RAILWAYS. David Burke. 261p. HV VG Cond.....\$25 |
| MAKING TRACKS. RJ Fitch. 76p. sc VG Cond.....\$30 |
| MELBOURNE'S MARVELOUS TRAMS. (1998) Budd/Wilson.....\$25 |
| MOTIVE POWER. Oberg. Modern Aust Locos (1995) 140p.....\$45 |
| NORTH OF THE HARBOUR. LA Clark. 168p Good cond.....\$55 |
| NORTHERN NARROW GAUGE. SAR Peterborough Div. Babbage \$40 |
| NORTHUMBERLAND - Newstan 1887-1987. EdTonks.96p \$35 |
| N.S.W.G.R. IN STEAM. RG Preston. 150p. VGcond.....\$55 |
| ONE RUSTY RAIL. SA SE ast Rllys. Stevin. (ARHS SA).....\$40 |
| OUR REGION, OUR RAILWAY. McKillop (ARHSNSW) 224p.....\$75 |
| P CLASS. M Morahan (NSWRTM) (2000 Ed) . 224p.....\$109 |
| PENNY-A-SECTION TUPPENCE-A-CASE. Castle Hill Tramway. 93p \$25 |
| POWELLTOWN. Stamford/Stuckey/Maynard. (LRRSA). 151p.....\$45 |
| POWELLTOWN TRAMWAY CENTENARY 1913-2013. 32p.....\$25 |
| RACK RAILWAYS OF AUSTRALIA. D Jehan (1970)1stEd 113p..\$45 |
| RAIL MOTORS AND XPT'S. (ARHS 1984) DCoock. 142p.....\$125 |

| |
|--|
| RAILWAYS OF AUSTRALIA. Singleton&Burke (1963) 160p.....\$55 |
| RAIL SCENE VICTORIA.(1991) Train Hobby. 64p.....\$65 |
| RAIL SCENE VICTORIA.Vol 2 Broadgauge Steam in mid30s.81p \$65 |
| RAIL SCENE VICTORIA.Vol 5 Lindsay Crow Gippsland.105p.....\$75 |
| RAIL SCENE VICTORIA.Vol 6 Lindsay Crow Nth Central.210p.....\$75 |
| RAILS IN TRANSITION NSW STEAM TO DIESEL. 128p.....\$45 |
| RAILS THROUGH SWAMP & SAND. Pt Adelaide Rly history. 112p..\$30 |
| RAILS THROUGH THE BUSH. WA. (1997ed) Gunzburg.156p.....\$75 |
| RAILS TO THE BURRA. SA 1st rlyw. (1970ed) Wilson. 37p.....\$30 |
| RAILS TO THE TABLELANDS. Cairns Railway Hist. 72p.....\$25 |
| RAILS TO THE WESTERN PLAINS. Rail hist. in Dubbo.96p..\$25 |
| REFLECTIONS OF AN ENGINEMAN. Ken Ames.160p. HC.....\$75 |
| REMEMBER WHEN II. NSW 1960-66. D Rogers.112pHC.\$75 |
| ROAD THROUGH THE WIDERNESS.Irancontinental Rly. 480p.....\$55 |
| ROBB'S RAILWAY. Fremantle to Guildford 100th. 54p.....\$25 |
| SKETCHES FROM BESIDE THE LINE. Ken Bowen.128p.HC \$55 |
| SEASONS OF STEAM. L Anderson .114p. HC Good Con.\$55 |
| SHOOTING THROUGH. Sydney by Tram .128p.HC GoodCon. \$25 |
| SIGNIFICANT SITES. Public works in NSW .192p.HCExCon.....\$55 |
| SOUTH AUSTRALIAN DIESEL PICTORIAL THE 80s.....\$35 |
| SOUTH COAST LIMITED. Kim Bird. Victor Harbour Line 81p.....\$35 |
| SOUTH MAITLAND RAILWAYS. Attenborough. 128p.....\$45 |
| STANDARDS IN STEAM.THE 30 CLASS.Preston. sc Excel \$159 |
| STANDARDS IN STEAM.THE 32 CLASS.Preston. sc Excel \$159 |
| STANDARDS IN STEAM.THE 50 CLASS.Preston. sc Excel \$149 |
| STEAM AROUND PERTH. (ARHS 1986) 56p.....\$49 |
| STEAM DAYS ON THE NORTH COAST OF NSW.Butcher.80p. \$45 |
| STEAM IN THE AUSTRALIA. Gilbertson. (ARHS).96p.....\$25 |
| STEAM LOCOMOTIVES & RAILCARS OF SA RLWYS.176p.....\$59 |
| STEAM LOCOMOTIVES OF VICTORIAN RLWYS. V1. 176p.....\$55 |
| STEAM IN THE FIFTIES. Selems. (NSWRTM). 152p.....\$99 |
| STEAM IN THE SIXTIES. (NSWRTM). 152p.....\$99 |
| STEAM ON THE ILLAWARRA. (NSWRTM). 60p.....\$15 |
| STEAM UP. Final years of WA steam.....\$15 |
| STEAMING DOWN ARGENT STREET. Broken Hill trams.90p \$25 |
| STEEL IN THE SUN. Whyalla steelworks book. (1965).64p..\$50 |
| STEEL & RAILS IN NEWCASTLE. KMcDonald.116p HC VGC.....\$55 |
| SUBURBAN TICKETS OF THE VICTORIAN RAILWAYS.246p. \$55 |
| SUNSHINE ROUTE JUBILEE. Armstrong & Kerr. 80p.....\$45 |
| SYDNEY'S WOODEN ELECTRICS. Kerry (Transit Pubs).64p. \$49 |
| SWANSONG OF STEAM. (NSWRTM). 60p.....\$15 |
| THE 34 & 35 CLASS. M Morahan (NSWRTM) (2000 Ed) . 224p.....\$125 |
| THE 57s and 58s. NSWGR 3 CYLINDER POWER. CMackey. 224p.....\$275 |
| THE 59 CLASS. H Wright.NSWR 2-8-2s. 224p.....\$275 |
| THE 60 CLASS. Groves,Wright&Morahan.NSWR Garratts.226p.\$275 |
| THE A7 ERA. VR S Class Diesel History. Bermingham. 180p.....\$99 |
| THE ABT RAILWAY ON TASMANIA'S WEST COAST. Rae.88Edit \$25 |
| THE ABT RAILWAY & RLYS OF LYELL REGION. Rae.94Edit.....\$75 |
| THE APRICOT MAIL. Rogan's Hill Railway. Irwin.Rae. 96p.....\$45 |
| THE BANKSTOWN LINE. Sydenham to Belmore 1895 28p.....\$25 |
| THE BIG ENGINE. KT Groves.NSWR 57&58 Class. 258p.....\$275 |
| THE DORRIGO STEAM RAILWAY & MUSEUM. Kramer. 72p.....\$55 |
| THE ELECTRIC RAILWAYS OF NSW. Dorman/Henerson. 96p.....\$75 |
| THE ELECTRIC RAILWAYS OF VICTORIA. Dorman/Henerson104p \$75 |
| THE EVELEIGH RAILWAY WORKSHOPS.DMoore photos120p..\$65 |
| THE FIFTIES DECADE OF CHANGE. Stormont photos.112p.....\$75 |
| THE GLENREAGH TO DORRIGO BRANCH RAILWAY. Paull. 72p..\$55 |
| THE GOLDEN CITY & ITS TRAMWAYS. Ballarat's trams 144p\$30 |
| THE GREAT NORTHERN RAILWAY. Newcastle to Maitland 112p.....\$55 |
| THE INNISFAIL TRAMWAY. J Armstrong. (LRRSA) 128p.....\$35 |
| THE LAST DAYS OF STEAM. R&B Wheatley. (1971).....\$35 |
| THE MIDLAND RAILWAY LOCOMOTIVES OF WA. 56p.....\$25 |
| THE ML2 STORY. VR B Class Diesel History. Bermingham.100p. \$99 |
| THE PUFFING BILLY LINE 1955-1991. Photo collection.100p.....\$25 |
| THE RAILTON-ROLAND BRANCHLINE. (TAS) 64p.....\$15 |
| THE RAILWAY AGE IN AUSTRALIA. R Bromby. 194p.....\$55 |
| THE RAILWAY CAME TO KU-RING-GAILocal history.468p.HC..\$75 |
| THE RAILWAYS OF NSW 1855-1955.(NSWGRofficial)304p..\$55 |
| THE RAILWAYS OF NSW - In Steam Short North. Preston..\$15 |
| THE RAILWAYS OF SMR COALFIELDS.(1969) Eardley.161p. \$85 |
| THE RICHMOND VALE RAILWAY. (NSWRTM) Preston. 112p..\$75 |
| THE SHALE RAILWAYS OF NSW. Eardley/Stevens.(ARHS).2000edit. \$99 |
| THE SHALE RAILWAYS OF NSW. Eardley/Stevens.(ARHS).1974edit. \$99 |
| THE STORY OF THE SYDENHAM TO BOTANY RAILWAY.Pollard\$25 |
| THE SYDNEY TROLLEY BUSES. MacCowan. 81p.....\$45 |
| THE TRAMWAYS OF NEW SOUTH WALES.McCowan. 152p.....\$55 |
| TASMANIAN RLYS. 125yr pictorial history.(1996). 88p.....\$45 |
| TENDER INTO TANK. RG Preston. (ARHS) 320p.1st Edition..\$75 |
| TENDER INTO TANK. RG Preston. (ARHS) 320p.2ndEd HC.\$155 |
| TO CESSNOCK AND BEYOND. (ARHSnsw 1976). 64p.....\$25 |
| TO GREENHILLS AND BEYOND. York to Bruce Rlyw. 111p.....\$25 |
| TOO MANY LOOSE RAILS. Tas mainline history.124p.....\$45 |
| TRACKS IN TIME. Dennis O'Brien Collection.(NSWRTM) 128p.....\$65 |
| TRACKSIDE. (NSWRTM). 128p.....\$45 |
| TRAIN TIMES: PASS TRAINS OD AUST & NZ. 2003.Isaacs \$11 |
| TRAINS UNLIMITED IN THE 21st CENTURY. Tim Fischer.....\$35 |
| TRANSCONTINENTAL TRAIN ODSEY. Tim Fischer.217p. \$25 |
| TRANSPORTING THE BLACK DIAMOND. (1968). 79p.....\$55 |
| TRIUMPH OF NARROW GAUGE. QP history. Kerr. 248p.HC.....\$85 |
| UNITS IN FOCUS. Mead Cotterall Renton. (1980).....\$55 |
| VR GENERAL APPENDIX Book of Rules and Regulations 1953. \$25 |

COLLECTORS CORNER (RARE/PRE-READ WORLD BOOKS)

| |
|---|
| A CENTENNIAL REMEMBRANCE.AlcoHist.Steinbrenner.542p.\$355 |
| A HUNDRED YEARS OF SPEED WITH SAFETY. Wabco.258p..\$59 |
| BEYER-GARRATT ARTICULATED LOCOMOTIVES.Catalogue.\$75 |
| ELECTRIC LOCO PLAN & PHOTO BK. NJ International. ExCon.\$55 |
| GARRATT LOCOMOTIVES OF THE WORLD. Durrant..207p. \$75 |
| LIMA THE HISTORY. Hirsimaki (2004).430p.....\$125 |
| MOTIVE POWER OF THE UNION PACIFIC. Kratville. 325p. Excel..\$175 |
| HIGH SPEED TRAINS. Peter Clark (2011). 192p. VGC.....\$75 |
| LANCASHIRE&YORKSHIRE LOCOMOTIVES. Lane (2010).192p.. \$69 |
| LAST OF THE GREAT STATIONS. LAUPT Bradley (1979).109p.\$25 |
| LIMA THE HISTORY. Hirsimaki (2004).350p.....\$125 |
| BRITAIN'S WORLD OF STEAM. Catchpole. (2002). 96p.....\$65 |
| HOMAGE TO THE SANTA FE. Armitage (Ltd Ed1973). 141p.....\$25 |
| SANTA FE THE CHIEF WAY. Strein Vaughan Richards.131p.....\$75 |
| THE BIRTH OF CALIFORNIAN NARROW GAUGE. MacGregor...\$129 |
| THE BOSTON & MAINE. P Hastings (1989). 206p. FairCon.....\$55 |
| THE GOLDEN AGE OF TRAVEL.Williamson.(1998). 128p VGC....\$50 |
| THE MAINE TWO-FOOTERS. Moody.(1998). 240p. Excellent.....\$125 |
| DIXIE LINES. The L&N. Oroszi/Flannery (2003). 160p. VGC.....\$85 |
| DULTH MISSABE & IRON RANGE RAILWAY.MorningSun(2003)..\$115 |
| MOTIVE POWER OF THE UNION PACIFIC. Kratville. 325p. Excel..\$175 |
| RAILROAD LOGGING IN KLAMATH COUNTRY.Bowden (2003).352p. \$85 |
| RAILROADS OF THE YOSEMITE VALLEY. Johnston (1975). 206p.....\$55 |
| RAIL COLOGNE. Conster/Barthels (2011).192p. New.....\$85 |
| RAILWAY STATIONS OF BRITAIN. Bowe (1990).....\$25 |
| RAILWAY TOP SPOTS. Trainspotting Destinations.Holland (2012).192p..\$45 |
| SOUTHERN PACIFIC DAYLIGHT V1.Wright. 656p.Rare HC.....\$355 |
| STEAM ON THE FEATHER RIVER ROUTE (2002). 192p. VGC. \$85 |

ARHSnsw ARCHIVAL DVDS

| |
|---|
| CURVE AND GRADIENT DIAGRAMS 1894, 1907 & 1932. \$59* |
| NSWR 1894,1907&1932 CURVE & GRADIENT DGMS.(CD)\$59* |
| NSWR GENERAL APPENDICES Pre-1955. (CD).....\$45* |
| NSWR LOCAL APPENDICES Pre-1955. (CD).....\$45* |
| NSWR WEEKLY NOTICES 1889-1955(Each CD 5 years). ea\$45* |
| NSW RAILWAY BUDGET Vol 1-26 1893-1917 on DVD.....\$55* |
| NSW RLWY & TRAMWAY MAGAZINE Vol 1-6 1917-23 on DVD...\$45* |
| NSW TRACK & SIGNAL DIAGRAMS.(Version 3 Adobe/DVD) \$79* |
| The STAFF NSW RLWY & TRAMWAY Pub Vol 1-7 1924-30 on DVD \$55* |
| RAILWAY DIGEST 1963-1973 on DVD. (ARHSnsw).....\$25* |
| RAILWAY DIGEST 1973-1982 on DVD. (ARHSnsw).....\$25* |
| ARHS BULLETIN 1937-1950 on DVD. (ARHSnsw).....\$25* |
| ARHS BULLETIN 1950-1959 on DVD. (ARHSnsw).....\$25* |
| ARHS BULLETIN 1960-1969 on DVD. (ARHSnsw).....\$25* |
| ARHS BULLETIN 1970-1979 on DVD. (ARHSnsw).....\$25* |
| ARHS BULLETIN 1980-1989 on DVD. (ARHSnsw).....\$25* |
| ARHS BULLETIN 1990-1999 on DVD. (ARHSnsw).....\$25* |
| ARHS BULLETIN/ARH 2000-2009 on DVD. (ARHSnsw).....\$25* |
| RAILWAY TRANSPORTATION 1951-1974 (4 DVD set)ARHSnsw \$45* |
| The RAILWAY NEWS 1956-2006 on DVD. (NSWSRCA).....\$35* |

MAGAZINE BINDERS

| |
|---|
| Quality binders hold 12 issues of our own Australian magazines. |
| ARH/BULLETIN A4 binders, red with white lettering. \$17 |
| RAILWAY DIGEST A4 binders, silver with red lettering \$18 |
| and plain (unlettered) A4 binders in blue or green \$14 |

BUSES/TROLLEYBUSES/TRUCKS BOOKS/DVDS

| |
|--|
| N BEDFORD BUSES AND COACHES. Furness. 224p HC col/bw.....\$90* |
| BLUE BUSES OF FOREST ROAD. John Birchmeier. 94p sc col/bw.....\$35* |
| N GONE BUT NOT FORGOTTEN. Australia's touring coaches. 548p. \$99* |
| N GONE BUT NOT FORGOTTEN. Aust bus/coach all over advertising. 268p. \$85* |
| JUST AUSTRALIAN BUSES. (DVD) Greg Travers. 74'.....\$30 |
| N KEMBLA KEIRA & AROUND THE LAKE (Ruit's Buses) Birchmeier.....\$42* |
| N RYLEWY. How horse buses transformed Sydney MacAuslan.128p. \$59* |
| SAINTS OF PEAKHURST. John Birchmeier. 85p sc col/bw.....\$33* |
| THE TRUCKIE WHO LOVED TRAINS. TNT History. 294p.....\$35* |
| TASMANIA'S TROLLEY BUSES. Cooper. 208p col sc.....\$69* |
| TROLLEY BUSES IN HOBART. (and other cities) Greenwood.90'. \$30 |
| The BIG RED BUS:RailmacMiniProfile#7 Bristol Lodekka.....\$750* |
| N The LONDON BENDY BUS. Wharmby. Pen&Sword.112p.....\$60* |
| WHISPERING DEATH Brisbane Trolleybus DVD.(WaterStreet).52'. \$39 |

MODELLING

| |
|---|
| AMRM Volumes 1 to 17 in stock. Each CD covers 12 issues...ea \$25 |
| DATA SHEETS by G Edwards.NSW Locos/rolling stock/infrastructure ea \$6.60 |
| GARDEN RAILWAY BASICS (Garden Railways/Kalmbach) 96psccl \$31* |
| GORGEOUS GARDEN RAILWAYS (Kalmbach) 144p sc col S/H.....\$40* |
| HORNBY 2016 MAGAZINE YEARBOOK.No 8. 128p.....\$45* |
| MODELLING THE RAILWAYS OF SA CONVENTIONS 11 to 15 DVD\$28* |
| N MODELLING PORTS AND INLAND WATERWAYS. DWright 192p. \$55* |
| NG&SL GAZETTE 50-YEAR COLLECTION (Benchmark)Twin DVD\$189* |
| N SCRATCHBUILDING MODEL RLWY TANK LOCOS.Tilbury442\$60* |

PICTORIAL HISTORIES FROM KINGSCLEAR BOOKS

| |
|---|
| Big picture black & white archival heritage albums. \$25* each: |
| •BALMAIN TO GLEBE•BLUE MOUNTAINS•CAMDEN & DISTRICT• |
| •CANADA BAY•CANTERBURY BANKSTOWN•CITY OF SYDNEY• |
| •CRONULLA•EASTERN SUBURBS•HOLYROD• |
| •HORNSBY SHIRE•HUNTERS HILL•MANLY•KINGS CROSS• |
| •NEWTOWN•LAVENDER HILL TO THE SPIT• |
| •LIVERPOOL & DISTRICT•PARRAMATTA & DISTRICT• |
| •PENRITH & ST MARYS•PITTWATER•RANDWICK• |
| •SOUTHERN HIGHLANDS•ST GEORGE•SUTHERLAND SHIRE• |
| •The HILLS•WILLOUGHBY•WOLLONGONG• |

| AUSTRALIAN DVD TITLES | UK DVD TITLES | NTH AMERICAN DVD TITLES | NORTH AMERICAN DVD TITLES |
|--|---|---|---|
| ALCO'S ON THE SMR. AlCo DL531 70'..... \$30 | 925 CHELTENHAM SCHOOLS CL.Kingfisher 42'.....\$25 | 315 & THE MUDHEN (Highball) [std/blu-ray] 105'.....\$38 | NORTHERN MEXICO RAILS (Pentrex) 105'.....\$35 |
| CAB RIDE II The 'AK' Cars. Bernie Baker. 75'. \$34 | CARRY ON CLAGGING 7 (DVD) 93'.....\$47 | RrACROSS ARIZONA P1 Needles/Williams (7idea) 108' \$36 | N NORTHWEST HERITAGE RLYS(7idea)[std/blu-ray] 24' \$40 |
| CATHEDRALS OF STEAM.(RossRail).Locosheds 82'. \$36 | CONNEX EXPRESS 03 (DVD).....\$23 | RrACROSS ARIZONA P2 Williams/Lupton (7idea)89' \$36 | NS HERITAGE FLEET VOL.1 [std/blu-ray]11'9'.....\$40 |
| CLOSED BUT NOT FORGOTTEN.VR Branches. 70' \$39 | DIDCOT STATION 2012.REOS IMAGE.63'.....\$31 | ACROSS UTAH DESERT-UP GREEN RIVER DVD/BR \$36 | PAN AM/NS PATRIOTCORRIDOR(Hball)\$32/BluR \$34 |
| DAYS OF STEAM 1 or 2 Belbin NSWR.60' each. \$40 | DUKE OF GLOUCESTER TheRecordBreaker (DVD)85'. \$33 | ALONG THE HUDSON DIVISION COMBO (Pentrex) \$44 | SpPENNSYLVANIA STEAM STORIES(Yard)90' \$18 |
| N DIESEL DIARY USA-P3.Special (Wall).108'.....\$50 | BLUEBELL RLY into East Grinstead.(GWP)75'(DVD) \$48 | ARKANSAS ALCOS. (Greg Scholl). 68'.....\$44 | POWDER RIVER POWER (C-Vision) 85'.....\$32 |
| DIESEL REVIVAL. (Belbin).60'.....\$40 | BLUEBELL RLY into East Grinstead.(GWP)75'(DVD). \$44 | BEST OF 1991 (Pentrex) 120'.....\$38 | ROGERS PASS(CPMountainSub)[std DVD]7idea.....\$36 |
| FILM NIGHT:STEAM IN NSW (Belbin) 60'.....\$40 | FFESTINIIO RAILWAY 2010.(GWP)80'(BluRay)..\$39 | BNSF GALOPING THRU GALLUP (Highball) 105'..\$39 | RUNNING THE HIGH LINE BNSF(Pentrex)107'..\$35 |
| FILMS FROM THE ARCHIVES. (UPowe). 70'.....\$32 | HOW TO DRIVE STEAM LOCOS (GWP) 60'.....\$44 | BNSF'S NEW MEXICO Sub.(7idea). [std/blu-ray]105'...\$35 | SANTA FE ODYSSEY V.2 GF101DVD\$30/BluRay \$35 |
| FORGOTTEN FILMS Aust Steam 40s & 50s (Belbin) \$40 | NGLASGOW-LONDON PENDOLINO CAB RIDE.240' \$50 | BNSF STAPLES EAST BluRay.CVision.120'.....\$32 | SOLDIER SUMMIT 7idea 131' BluRay.....\$36 |
| FULL STEAM AHEAD II. NSWRTM 1994-2013.....\$25 | ISLE OF MAN STEAM RAILWAY. (HB) (DVD).....\$45 | BY COAL VOLT & OIL (Yardgoat) 137'.....\$32 | SOUTHERN CALIFORNIA RAIL JOURNAL 2008..\$28 |
| HERITAGE STEAM IN NSW. (BrockVideo) 82' \$35 | MAINLINE STEAM 2012 V1 or 2 (BluRay)150'.....\$50 | C420 ALCONS ON THE A&A&MISSOURI (Highball) 60'. \$32 | SOUTHERN CALIFORNIA RAIL JOURNAL 2010. \$34 |
| JUST AUSTRALIAN TRAINS. Nat Film&Sound.141'..\$25 | MAINLINE STEAM 2013 V2 (BluRay)1130'.....\$65 | CALON PASS (7idea) 120' DVD.....\$36 | SOUTH BALTIMORE (MARC '92) (Highball). 60'.....\$30 |
| N JUST NSW TRAINS. Travers.74'. DVD \$30 /BluRay...\$35 | MAINLINE STEAM 2014 V1\$60 (Std&BluRay)135'.....\$60 | CINCY DIESELS.(Greg Scholl) 88'.....\$44 | SOUTHERN HISTORICAL Assoc.4discset#11' DVD...\$44 |
| JUST PILBARA TRAINS 2013. Travers.100'.....\$40 | MAINLINE STEAM 2014 V2 (Std&BluRay)135'.....\$58 | CLASSIC TRAINS Galesburg/Cameron CVision.71' \$35 | SOUTHERN HISTORICAL Assoc.4discset#2.DVD...\$48 |
| JUST OLD SUGAR TRAIN HIGHLIGHTS.140' \$39 | MAINLINE STEAM 2015 V1\$60 (Std&BluRay)140'.....\$60 | SpCOAL SMOKE OVER CUMBRES(Hball)[std/blu-ray]...\$16 | STEAM SPECIALS IN THE HEADLANDS(Yardgtl).\$34 |
| IN QTEAM 5711.(Visions of Steam) 60'.....\$32 | MAINLINE STEAM 2015 V2 (Std&BluRay)140'.....\$60 | COLUMBIA RIV GORGE Pt1 Up (dvd) (7idea).....\$35 | THE BEST OF SOO VOL1. (Cvision) 100'.....\$32 |
| MELBOURNE'S TRAMS (Highball) 80' BluRay.....\$38 | MAINLINE STEAM 2016 V1\$60 (Std&BluRay)160'.....\$55 | COLUMBIA RIV GORGE Pt2 BNSF(dvd) (7idea).....\$32 | THE FUNNEL(BNSFSpokaneSub)[std/blu-ray]7idea.....\$36 |
| MEMORIES OF A RAILFAN. NSWR 5763.Powe.64'.....\$32 | MINIATURE RAILWAYS 2 (BluRay) GWP.90'.....\$43 | DRESHLER OHIO-CSX CROSSROADS(BluRay) GF...\$36 | THE MOFFAT ROAD PART 1(7idea Prod) 108'.....\$36 |
| MOSS VALE TRAIN. Jim Powe. C38 footage...\$32 | NARROW GAUGE STORY 1 or 2.(GWP)120'ea.\$44 | EAST TO SPOKANE.BNSFLakeside DVD135'.....\$33 | THE MOFFAT ROAD PART 2 (7idea Prod) 136.....\$28 |
| NSW IN STEAM 2013(Fotoz) 2-Disk set(215)BR..\$85 | PITS & POWER STATIONS Jon Marsh Cine 78'.....\$30 | GEARS IN THE WOODS Shays at Cass (Hball) 105'. \$33 | THE POKEY-ELKHORN GRADE (Highball) 105'.....\$30 |
| Rr PHANTOM STEAM. (T/P Archive/Rollingstock). 55'.....\$35 | RAILWAY ROUND-UP.No.5 Kingfisher.120'.....\$22 | GULDFORD ON THE B.&M. (Highball) 105'.....\$36 | THE RATHOLE (NS) (Highball) [std/blu-ray] 110'.....\$37 |
| PIONEERS OF FILM. (Belbin) NSWR.70'.....\$40 | RAVENGLASS & ESKDALE RAILWAY.(GWP)95'(BR)..\$19 | SpHOTSPOTS 27 POINT OF ROCKS. (BluRay) 100'..\$15 | THE RATHOLE COMBO FPD (Pentrex) 148'.....\$32 |
| POWER OF THE GARRATTS 1,2 or 3 (World 70) ea. \$40 | RETURN OF A PACIFIC. 4472 Flying Scotsman.40' \$34 | HOTSPOTS 28 LOGAN HILL. (Highball) 135'.....\$30 | THE RETURN OF STAMPEDE PASS (Motf) 70'.....\$34 |
| PUFFING BILLY RLY SUMMER OF 1988. (3steam)Ar \$35 | STEAM VIDEO #124 (T/P) (Std&BluRay)145'.....\$32 | SpHOTSPOTS 29 DOLTON. (Highball) (std/blu-ray) 120'..\$15 | N THE WASATCH GRADE UP (7idea) 165' DVD/BR...\$38 |
| RAILMOTOR JOURNEYS OVER LOST VR LINES 47 \$35 | STEAMING THROUGH WESSEX.Kingfisher. 90'. \$46 | SpHOTSPOTS 32 BAYVIEW JUNC.(Highb)70'(BluRay)..\$19 | TENNESSEE PASS CAB RIDE.(Highball).90'.....\$34 |
| RAILMOTORS ACROSS VICTORIA 50s-60s 104' \$38 | TALLYLYN RAILWAY 2014.(GWP)79' (BluRay).....\$40 | ILLINOIS JOINT LINE (Highball) CSX/UP105'.....\$44 | THROUGH OREGON CASCADES P1 (7idea) 155' \$38 |
| SIGHT & SOUND OF STEAM (Belbin) b&w 55'. \$40 | The GLORY DAYS OF STEAM. (1961-65) V1 74 90' \$42 | INTO THE FEATHER RIVER CANYON (Idea) 110'..\$28 | THROUGH OREGON CASCADES P2 (7idea) 142' \$38 |
| SINGLE DECK SUBURBAN or INTERURBAN 65' ea \$20 | The GREAT LITTLE TRAINS OF WALES.(GWP)60'.....\$35 | JUCE ELECTRIC INTERURBAN FREIGHT SURVIVORS.\$30 | THRU SHADOW MT SHASTA (7idea)155'DVD/BR..\$38 |
| SIXTIES IN STEAM-NSW.(C5).Films KAtkinson74'.....\$39 | The ROMNEY HYTHE & DYMCHURCH 2011105BR \$52 | KICKING HORSE PASS (7idea) std/blu-ray 94'.....\$35 | UNION PACIFIC ODYSSEY V2 108' DVD Set...\$27 |
| STEAM IN THE HUNTER. (RossRail). 60'.....\$40 | THE VALE RHEIDOL RAILWAY BR (BluRay) 95'.....\$55 | MINNESOTA TRAIN ACTION V1 CVision.DVD/BR \$25 | SpUNION PACIFIC'S ARIZONA MAINLINE 90Blu Ray.\$16 |
| STEAM ACTION 3. AC Videos. 54/62'.....\$35 | TRACSIDA BRITAIN NORTHEAST (Hball)120' BRay.....\$33 | MINNESOTA TRAIN ACTION V7 CVision DVD.....\$21 | UNION PACIFIC'S BAILEY YARD (Highball).110'....\$45 |
| STEAM HIGHLIGHTS.(Belbin).60'.....\$40 | TRACTION 2011 Pt 2 Locomaster 100'.....\$39 | MINNESOTA TRAIN ACTION V9 CVision.DVD.....\$27 | N UNION PACIFIC 844 RETURNS (HB)70' DVD/BR...\$55 |
| STEAM IN NSW Parts 1 & 2 Combo 126'.....\$40 | TRACTION 2012 Pt 2 Locomaster 100'.....\$36 | MRL MONTANA MAIN LINE Part 1 (7idea)116' \$36 | UP'S CASCADE SUB PARTS 1&2 DVD 128'.....\$43 |
| STEAM IN NSW Parts 3/4/5 (Ross Rail) each \$40 | WELSH HIGHLAND RAILWAY RE-BORN.150' \$38 | MRL MONTANA MAIN LINE Part 2 (7idea)124' \$36 | UTAH RLWY OVER SOLDIER SUMMIT.(Hball)102'..\$45 |
| STEAM IN VICTORIA PART 3 (RRV).....\$40 | WELSH HIGHLAND RLWY.360Interaction/journey.103' \$66 | NORFOLK SOUTHERN Vol 5 GreenFrog 95'.....\$28 | WISCONSIN & SOUTHERN RRD V1 Northern...\$35 |
| STEAM ON 16MM IN THE SIXTIES. NSWRG 50'.....\$39 | WELSH HIGHLAND RLYWY.Completejourney.103' \$44 | NORFOLK SOUTHERN, RAILFANNING OHIO V1 \$40 | WISCONSIN & SOUTHERN RRD V2 Southern...\$35 |
| STEAM TIMES 5. Aust & Overseas 50s to 70s...\$38 | WELSH STEAM 2.Tallylyn RlywY(Highball)100'..\$40 | NORTHEAST SAMPLER (Pentrex) 95'.....\$35 | WINTER ON MARIAS PASS (Highball) 105'.....\$42 |
| STORIES OF STEAM VOL. 12 or 13. (Wall) 60'ea...\$34 | VIDEO 125 - DRIVERS EYE VIEW | EUROPEAN (TICKET TO RIDE) | WORLD DVDS |
| STORIES OF STEAM HD Vol. 2. (Wall) 103'.....\$50 | N ABERDEEN TO INVERNESS. 158' DVD.....\$34 | N/DIVERSE BAHNINIEN 1.Fuhrerstandfilm 2DVDs...\$83 | N AUSTRIAN EXPLORER. (TeleRail) 80'. dvd.....\$45 |
| SYDNEY'S COLORFUL TRAINS.(Hball)(2004)105'..\$38 | N BELFAST TO LONDONDERRY. 130' DVD.....\$44 | BTL16 SPRING 2013 - BluRay 80'.....\$29 | BATTLEFIELD HEROS P1 Xingyong Brickworks rly 90'.....\$38 |
| The CENTRAL COAST LINE.Cowan/Newcastle BluR \$45 | C2C Shoeburyness FenchuRCH (DVD) 116'.....\$44 | BTL17 SUMMER 2013-BluRay 65'.....\$38 | BATTLEFIELD HEROS P2 Yinghao coal rly 100'.....\$38 |
| The GASLIGHT FILMS NORM WADESON/Vic60'.....\$30 | CENTRAL LINE - Std.110'.....\$39 | TTR26 Up and About Cologne DVD 65'.....\$36 | N CHILE'S COLORFUL NG MINING RR.(HB)132' \$55 |
| The LAST FLYING BOATS .Ansett Norfolk Is Service. \$35 | CONNEX EXPRESS (DVD) 52'.....\$23 | TTR119 Railways of SWEDEN Pt 2 95'DVD/BRay \$40 | COAL IN THE HILLS. Huanan. 60'.....\$28 |
| THE WAY IT WAS Vol 9. (Water Street) 53.....\$44 | COTSWOLDS & MALVERNS LINE.DVD\$44.(BluRay) \$54 | TTH138 Railways of SWEDEN Pr3 DVD/BRay...\$41 | CLOUDS RISING IN THE SKY. Nilgiri. 38'.....\$20 |
| TAS RLWYS "TASRAIL'S" TR CLASS 74'. DVD.....\$30 | DUBLIN TO CORK (DVD) 110'.....\$34 | TTH139 Railways of SWEDEN Pr4 BRay.....\$50 | FURKA-OVERALP-BAHN 87'.....\$32 |
| TRAINS AROUND ADELAIDE.Nth & Sth V31 68'..\$22 | EAST COAST & MARCHLINK. 115' (DVD).....\$44 | TTR141 RLYS OF HUNGARY Pr 1.....\$36 | MONT-BLANC EXPRESS. French rail superlative \$30 |
| TRAINS AROUND ADELAIDE. Redhens V26 32'..\$16 | EUROSTAR DRIVERS EYE VIEW DVD\$40 (BluRay)..\$44 | TTR148 OVER THE ALPS WITH MIGROS BluRay.\$36 | ONLY IN INDIA. 35'.....\$30 |
| TRAINS AROUND ADELAIDE. Nth&Sth V37. 66'..\$22 | EXETER TO BASINGTOKE. 131'.BR\$54 DVD \$44 | TTR150 LAST YRS OF OLD GOTTHRD P12B/R..\$45 | SHIBANKI China coal rly. (Highb)std/blu-ray)140'....\$32 |
| TRACKS IN SUN/DOWN ARD BEAUDESERTIwinPack\$60 | HAMERSMITH & CIRKLE.98' DVD.....\$45 | TTR153 OUT & ABOUT BOLDENSETTBRay60' \$34 | N ST AFRICAN RLYWY ROUND.140'DVD\$45BR \$50 |
| TRAIN TIME 5TH AUST. 1995 Vol1 113'.....\$39 | JUBILEE LINE. 85'.....\$35 | TTR161/162 RLYS CZECH REPUB Pr 1or2 (std/blu) \$41 | STEAM IN BRAZIL. (RossRail). 1995 film. 54'.....\$30 |
| TRAIN TIME 5TH AUST. 2009 or 2010 70'ea. \$30 | LICKEY VOYAGER.107' DVD.....\$34 | TTR170 CZECH REPUBLIC Pr 3 80' (BluRay).80'..\$39 | STEAM IN CUBA. (RossRail). 2012 footage. 47'30 |
| TRAIN TIME VICTORIA.1985/88or2010 70'ea. \$30 | LIVERPOOL & MANCHESTER. (DVD).....\$39 | TTR183 CZECH REPUBLIC Pr 5 OSTRAVA 80'.....\$50 | STEAM IN SOUTH AFRICA. (RossRail).91'.....\$40 |
| TRACKSIDE DVDS (Australia) | NMANCHESTER TO CLEETHORPES.DVD\$44.(BluRay)\$54 | TTR187HAMEENLINNA/TAMPERE DVD/BRay...\$42 | N SWISS-EXPLORER. (TeleRail) 90'. std/blu-ray...\$45 |
| 46, 85 & 86 CLASS ELECTRICS. 104'.....\$36 | MARSILLE TO PARIS. 107'.....\$32 | TTR190 Railways South Africa Pt1 BRay 60'.....\$47 | NEW ZEALAND DVDS |
| AIS-BHP PORT KEMBLA DIESELISATION.95 \$36 | MILAN TRAMS. 74' DVD.....\$39 | TTR191 Railways South Africa Pt2DVD/BRay 60' \$47 | ENGLISH ELECTRIC SWANSONG. electrics. \$15 |
| ALCO'S C/M 636 CENTURY LOCOS. 104'.....\$36 | N NORTH WALES COAST.Crewe/HolydDVD\$44.(BR) \$54 | TTR194 Joensuu to Simpele DVD/BRay 85'..\$42 | NZGR Ka942 IN STEAM.(Fotoz).45'.....\$29 |
| ALCO'S DL500&541.NSW44/45 SAR930/600 02' \$36 | PICCADILLY. 105' London Tube.....\$34 | TTR195 Simpele to Kouvolta DVD/BRay 90'.....\$40 | SpNZ RAILSCENE 71, 72 & 73, each.....\$25 |
| ALCO'S DL 500G. NSW 42/SAR700 101'.....\$36 | NORFOLK BRANCHES. Std DVD 93'.....\$29 | TTR196 Kouvolta to Helsinki DVD/BRay 85'..\$42 | NZ RAILSCENE 75. Majik Video. 60'.....\$35 |
| ALCO'S DL 531.NSW48/SAR830/STC 105' \$36 | READING TO WATERLOO. 76' DVD \$44 /BluRay.....\$54 | TTR 200 Railways of Germany Pt9 BRay 60'.....\$50 | NZ RAILSCENE 78. Majik Video. 60'.....\$40 |
| CHARBON REVISTED 2014. 92'.....\$36 | STRASBOURG TO PARIS (also BluRay)\$35/103'..\$35 | TTR 201 Railways of Germany Pt10 DVD 80'.....\$50 | NZ RAILSCENE 85.....\$42 |
| CLYDE GM 49 CLASS. 2 disks=143'.....\$36 | The DOWN FISHGUARD. 118' DVD.....\$39 | TTR 202 Railways of Czech Rep Pt6DVD/BRay 80' \$50 | NZ RAILSCENE 89. Majik.DecQ16 RM31.....\$42 |
| N CLYDE GM'S 81 CLASS. Pr1 Early Years 159' \$36 | The FLYING SCOTSMAN.190'.....\$44 | 205 OUT & ABOUT SAXON SWITZERLAND.52' \$50 | BEVAN WALL DVDS/BLURAYS |
| Clyde GM G CLASS. 101'.....\$36 | The ISLE OF WIGHT DRIVER'S VIEW\$35/BR...\$38 | 207 Railways of Austria Pt9 Brenner BR 65'.....\$50 | DIESEL DIARY ARG IN NSW. 47' DVD.....\$39 |
| N CLYDE GM N CLASS. 91'.....\$36 | The JACOBITE. FtWilliam/Mallaig. DVD.....\$44 | N 211 Malmo to Hassleholm DVD 50'.....\$45 | DIESEL DIARY Vol. 1, 2, 3 or 4.1993-97ea \$34 |
| Clyde GM T CLASS 101' or X CLASS. 104'ea\$36 | The ROYAL SCOT Parts 1 & 2.189'.....\$39 | N 212 Hassleholm to Alvesta DVD 45'.....\$45 | DIESEL DIARY VOL 22.....\$34 |
| Clyde GM'S LATE BULLDOGS. 105'.....\$36 | The WEST HIGHLAND. 96' DVD.....\$34 | N 213 Alvesta to Linkoping DVD 98'.....\$50 | DIESEL DIARY Vol 23 or 24 85'.....\$49 |
| Clyde GM'S MODEL GT26C. 102'.....\$36 | N THE WESTERN CORRIDOR.155' DVD \$44/BR..\$54 | N 214 Linkoping to Stockholm DVD 98'.....\$118 | DIESEL DIARY 44 CL FAREWELL 91'DVD...\$39 |
| Clyde GM'S MODEL J26C422,22&DC.136' \$36 | The WIRRAL LINE. 100' DVD.....\$44 | N 223 Swiss Railways from Air P1 DVD/BRay 73' \$45 | DIESEL DIARY SSR. DVD \$39 BR.....\$49 |
| N CLYDE/EMD'S MODEL J42C 82.GMLRClass.104' \$36 | TGV ITALY FRANCE.Turin/Chambery.123DVD \$44/BR..\$54 | N 224 Swiss Railways from Air P2 DVD/BRay 69' \$45 | DIESEL DIARY DIESELS UNDER WIRES.DVD..\$39 |
| N CLYDE/EMD'S 90 CLASS. J42C GT46CWM 104' \$36 | THAMES BRANCHES. 72' DVD \$44 /BluRay.....\$54 | N 225 Swiss Railways from Air P3 DVD/BRay 80' \$45 | DIESEL DIARY HD V1.BluRay 2005/2014.108' \$49 |
| COMENG ALCO'S CE615. NSW 80 Class140' \$36 | VICTORIA LINE. 110' DVD.....\$34 | N 227 O&A MULHOUSE & BASEL DVD/BRay 40' \$45 | N DIESEL DIARY SIMPLY STREAMLINERS.DVD\$39 BR \$49 |
| COMENG'S XPT. 105'.....\$36 | WELSH MARCHES. Std & BluRay 115'.....\$39 | N 229 British Railways from Air P1 DVD/BRay 80' \$45 | DIESEL DIARY BRITISH COLUMBIA.DVD\$39/BR \$49 |
| GONINAN'S 47 CLASS. 90'.....\$36 | WESSEX Weymouth to Waterloo. 134'. DVD...\$34 | EUROPEAN CABRIDE DVDS | DIESEL DIARY SPECIAL USA P1/2.DVD\$39/BR \$49 |
| GONINAN'S GL CLASS. CFCLA Rebuilt 442CI100'.....\$36 | WEYMOUTH TO BRIGHTON. 117'. DVD.....\$44 | BERNINABAHN. (Swiss Cabride#1).....\$32 | DIESEL DIARY. The 4168 Files. LVRFreight.60' \$39 |
| IN MEMORY OF AUSTRAC. 84'.....\$36 | FFESTINIIO RAILWAY UK | ORSIERES.MARTINGNY.CHAMONIX (Sw#10) \$36 | HD TRAINS BULLDOGS ON BLU_RAY.130' \$39 |
| ILLAWARRA LINE P1 to Offord P2 (to Nowra) 82'ea...\$36 | A YEAR IN THE LIFE OF THE F&WHR 2013. (BluRay) \$54 | JUNGFRAU 1 (Swiss Cabride#11).....\$25 | N JUST SOUTH AUSTRALIAN TRAINS.(HD) 72'. \$29 |
| MAIN SOUTH LINE Parts 1,2,3,4,5or6 80'ea \$36 | A YEAR IN THE LIFE OF THE F&WHR 2013.DVD \$50 | OVV VIDEO - STEAM DRIVERS EYE VIEW | N JUST VICTORIAN TRAINS 2.73'. DVD\$30BR \$40 |
| NATIONAL RAIL: THE EARLY YEARS. 102'.....\$36 | A YEAR IN THE LIFE OF THE F&WHR 2014 DVD. \$50 | N BITTERN THE NEED FOR SPEED.DVD/BluRay.....\$40 | LVR STEAMING ON. V1 or 2. 59'ea.....\$34 |
| NATIONAL RAIL: THE LATER YEARS. 92'.....\$36 | 2011-2014 YEAR F&WHR HIGHLIGHTS.255'(BR)..\$35 | N MAINLINE DIARY 2015. 120' DVD/BluRay.....\$40 | SINGLE DECK SURVIVORS.90sFarewell83' \$50 |
| NOHAB'S MZ CLASS. Danish Delights! 75'.....\$36 | A TRAVELLER'S VIEW OF THE FFESTINIIO RAILWAY & THE WELSH HIGHLAND RAILWAY 105'(BluRay) \$55 | N WEST SOMMERSET RLYWY.2016 DVD/BluRay.....\$40 | STORIES OF STEAM HD V2 BR 2005-15100' \$39 |
| NORTHERN COAL 2013 Pts 1, 2 or 3 95'ea.....\$36 | The WELSH HIGHLAND RLWYA Traveller's View.DVD \$30 | N Z48 A WEEKEND TO REMEMBER.DVD/BluRay...\$40 | N STORIES OF STEAM V3 & 2.Remastered 92'.....\$39 |
| NORTHERN COAL 2013 Pt 4 or 5 ea.....\$36 | HARBOUR STATION - The Whole Story!146'(BluRay) \$55 | N BORDERS RAILWAY. EdinburghTwe DVD/BluRay.....\$40 | NSTORIES OF STEAM V1 & 4.Remastered 96'.....\$39 |
| ORANGE TO BROKEN HILL. 1, 2 or 3 ea.....\$36 | The GREASERS' EXPRESS 2011. 76' (DVD).....\$35 | N BRITANNIA GOES WEST. PlymouthDVD/BluRay.....\$40 | STORIES OF STEAM SPECIAL ED 38s P1or2. each\$39 |
| N PACIFIC NATIONAL: THE EARLY YEARS. 104' \$36 | LYD - A NEW LOCOMOTIVE 60' (DVD).....\$35 | N CLAN LINE SURREY HILLS DVD/BluRay.....\$40 | STORIES OF STEAM SPECIAL ED 3830.DVD...\$39 |
| QR NATIONAL STANDARD GAUGE (2disks)130' \$36 | QUARRYPOWER. 60' (DVD).....\$35 | N COTSWOLD MAINLINE. OxfordDVD/BluRay.....\$40 | STORIES OF STEAM SPECIAL ED 6029.DVD...\$39 |
| QR NATIONAL'S SUNLANDER.....\$36 | FRED HOWES-The Permanent Way Man P1 74'(BR)..\$40 | N DUTCHOVER DEVON BANKS.DVD/BR..\$40 | STORIES OF STEAM SPECIAL NSW150th.....\$39 |
| SPIRIT OF THE OUTBACK.Bris. to Longreach 97' \$36 | FRED HOWES-The Permanent Way Man P2 74'(BR)..\$40 | N EARL OF MOUNT EDGCUMBE.DVD/BluRay.....\$40 | STORIES OF STEAM SPECIAL 38sOverMountains...\$39 |
| TRAINS IN TROUBLE 1, 2 or 3. 68'ea.....\$36 | 2017 CALENDARS | N NORTH WALES COAST LINE. DVD/BluRay.....\$40 | |
| The MAIN WEST LINE. PARTS 1, 2 or 3. 58' ea. \$36 | AMRM. Double sided Steam/Diesel/Electric...\$13 | N SETTLE & CARLISLE.(Jubilee) DVD/BluRay.....\$40 | |
| The NORTH COAST LINE. PARTS 1 or 2. 58' ea.....\$36 | GREAT TRAINS (Bartel).Heritage&modern...\$8 | | |
| The SHORT NORTH PARTS 1 or 2. 58' ea.....\$36 | IMAGES 2017. World Steam in Camera.....\$20 | | |
| The SOUTHERN LINE P2-MossVale/Goulburn90'..\$48 | TRAINS (Bartel). World Heritage & modern.....\$20 | | |
| WERRIS CREEK PARTS 1, 2 or 3. 58' each.....\$36 | | | |
| WERRIS CREEK LINE REVIEW P1or2.95'each. \$36 | | | |

Prices are correct as at press time. Overseas items sold and out of stock following press time will vary in price due to currency fluctuations.

