

March 2020

Railway DIGEST™

Rolling stock:
The Fortescue Metals Group
Iron Ore Wagons

The Last Train to Carlingford
Zig Zag Railway – January 2020
Western NSW Infrastructure update
Albany revisited and other travels! Part two

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



Editor Bruce Belbin
National Affairs Lawrance Ryan
Editorial Assistant Darren Tulk
International Ken Date
General Manager Paul Scells
Subscriptions: Ph: 02 9699 4595
Editorial Office: Ph: 02 8394 9016
ARHS Bookshop: Ph: 02 9699 4595
Mail: PO Box 206, Alexandria NSW 1435
Publisher: Australian Railway Historical Society NSW Division,
ACN 000 538 803
100009942
Print Post
Publication No.
Newsagent Ovato Retail Distribution Pty 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 2020

Contact email addresses

Editorial editor@railwaydigest.com.au
Photographic contributions photos@railwaydigest.com.au
Subscription enquiries/change of address mail@arhsnsw.com.au

Contributors

Ian Hammond, Peter Hower, John Hoyle, Philip Jeeves, Effie Kelly, Phil Melling, Vaughn Moore, Peter Newett, Shane O'Neil, Andy Plunkett, Chris Walters.

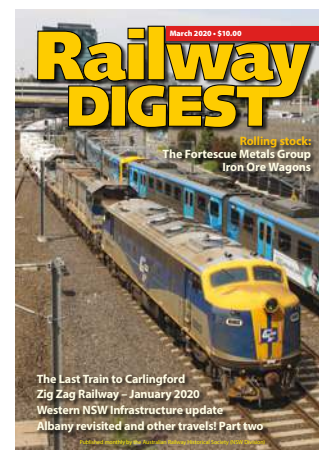
ABC News, Adani Group, Arc Infrastructure, Australasian Railway Association, Australian Rail Track Corporation (ARTC), Australian Transport Safety Bureau, *Barossa Herald*, Bureau of Infrastructure, Transport and Regional Economics, Constable Care Child Safety Foundation, Federal Minister for Population, Cities and Urban Infrastructure – The Hon. Alan Tudge MP, Industry Queensland, Level Crossing Removal Authority, LINMAG Australia, METRONET, Mainroads Western Australia, Parramatta Light Rail, Port of Melbourne, Public Transport Authority of Western Australia, National Faster Rail Agency, Parliament of Australia, South Australian Premier – Hon. Steven Marshall, Sydney Metro, *Sydney Morning Herald*, Transport for NSW, Victorian Minister for Transport Infrastructure – The Hon. Jacinta Allan, VicTrack, *The Wall Street Journal*, *The Warrnambool Standard*, *The West Australian*, Western Australia Premier Hon. Mark McGowan, Yarra Trams
www.7news.com.au , www.brisbanetimes.com.au , www.bloomberg.com
www.infrastructuremagazine.com.au , www.urbantransportnews.com
www.i-q.net.au , www.wsfm.com.au

Cover: On Thursday 6 February, CFCLA broad-gauge Clyde/EMD veterans B80, T377 and T373 bring Qube 9572 Up cement train, running from Dandenong South to North Dynon, past Federation Square, Melbourne. Scott Mitchell

Opposite: Wednesday 15 January was a welcome rainy day in South East Queensland, and on that same day, the AK cars made their first visit to Brisbane for 2020, hauled by SSR Goodwin/Alco locomotives 44204 and 442s1. They are seen here between Kagaru and Flagstone, only about an hour from their destination of Brisbane's Roma Street station. Peter Reading

March 2020

Volume 58, Number 3



Features

Western NSW infrastructure update

30

Since the last update covering the \$300 million reconstruction of the Parkes to Narromine line to form part of the New South Wales section of the Melbourne – Brisbane Inland Railway, the major development has been the commencement of track laying northwards from Goonumbra, 19 kilometres north of Parkes, working towards a point near Narwonah, south of Narromine where the Inland Rail alignment will diverge to bypass Narromine. Although this project currently dominates the regional NSW rail infrastructure scene, smaller projects, funded under the NSW Government's Fixing Country Rail program, are also underway. One such project, the provision of a multi-user siding at Hermidale, 666 kilometres from Sydney on the Nyngan – Cobar line, is starting to deliver benefits to rail operators and customers. John Hoyle reports.

The Last Train to Carlingford

34

Saturday 4 January 2020 was a day where Penrith in western Sydney was officially recorded as the hottest place on Earth and the dire bush fire crisis threatening the south eastern states of Australia became a global conversation. Buried well down in the day's news cycle was another, somewhat less dramatic turn of history for this was also the last full day of heavy rail passenger operation on the seven-kilometre Carlingford branch line. A large crowd, including Chris Walters, turned out to farewell the branch ahead of its conversion and absorption into the under-construction Stage 1 of the Parramatta Light Rail route from Westmead to Carlingford.

Regulars

Rail Industry	4
Railway people	6
News	7
Operations	42
– Albany revisited and other travels! Part two	42
Rolling stock news and contracts	48
– The Fortescue Metals Group Iron Ore Wagons	48
– Contracts and deliveries	51
– Corrections to the 2700 Class article	53
Preservation and Tourist	54
– Zig Zag Railway – January 2020	54
Readers Write	57

Back cover upper: Motive Power/Cummins locomotives CBH006 and CBH001 on 2G51 loaded grain train are seen just north of Yandanooka heading to Geraldton Port on Monday 19 August 2019. (See 'Albany revisited and other travels! Part two', from page 42.) Phil Melling

Back cover lower: After conducting routine brake tests on the Shorncliffe line, 220 Series SMU 222 approaches Nudgee with CityTrain HF01 back to Mayne ETS on Monday 23 December 2019. This unit was the first 220 Series SMU to enter revenue service, in October 1999. Mick James

Contractors shortlisted for Port Botany freight connection projects

Major improvements for freight transportation through the economic gateway of Port Botany are closer to reality with major firms shortlisted by the Australian Rail Track Corporation (ARTC) to design and construct the Botany Rail Duplication and Cabramatta Loop projects.

"Improving freight performance at Port Botany is critical for the economic growth and prosperity of Sydney, NSW and Australia with the amount of container freight handled by the Port set to significantly increase by 77 per cent to 25.5 million tonnes by 2036," ARTC CEO and Managing Director John Fullerton said on Monday 13 January. "Each freight train can take up to 54 trucks worth of freight off the road, tackling congestion and improving the everyday commute in Sydney".

Three contractors have been shortlisted to bid for the Botany Rail Duplication Project including CPB Contractors, Laing O'Rourke and John Holland. Downer EDI, Fulton Hogan, and John Holland have been shortlisted to bid for the Cabramatta Loop Project.

The Australian Government has committed \$400 million to meeting this future freight demand with the Botany Rail Duplication and new Cabramatta Loop projects long been identified as key projects to enable more freight to be transported by rail from Sydney.

"These two landmark projects will strike the balance between rail and road by duplicating the remaining single freight rail track section of the Botany Line between Mascot and Botany and constructing a new passing loop on the Southern Sydney Freight Line (SSFL) between Cabramatta station and Warwick Farm station to allow for freight trains up to 1,300 metres in length", Mr Fullerton continued. "Once completed, the Cabramatta Loop Project will allow freight trains travelling in either direction along the Southern Sydney Freight Line to pass each other and provide additional rail freight capacity for the network".

The NSW Ports' 30-year Master Plan shows 80 per cent of containers moving through Port Botany are delivered to locations within a 40 kilometre radius of the port, and port rail shuttles are essential to help move more of the freight task to and from outer Western and South Western Sydney freight precincts.

"These major projects aim to improve rail capacity, flexibility and reliability for freight rail customers, encouraging more freight to shift from road to rail, and we are getting on with delivering these massive improvements," Mr Fullerton said.

The formal tender process for both projects will be undertaken in 2020.

Alstom SA to acquire Bombardier's rail business

On Monday 17 February it was reported in *The Wall Street Journal* that French rolling stock manufacturer Alstom SA had reached a preliminary deal to acquire the entire rail business unit of Bombardier Inc. for 7 billion euros (AUS\$11.29 billion).

The purchase would make Alstom the clear number two in rail equipment worldwide and help it counter industry leader, China's CRRC Corp., which is increasingly targeting global sales. The French/Canadian deal comes after a merger between Alstom and German multinational conglomerate Siemens AG was rejected by the European Union in 2019.

The acquisition of Bombardier's rail business by Alstom would mark the latest move by some of the world's largest rolling stock manufacturers to counter growing competition from China. In 2017, Bombardier held talks with its competitor, Siemens AG with a view to combining their rail operations, but Siemens ultimately opted out, to pursue a deal with Alstom, which failed last year. "After the failure of the Alstom-Siemens merger, [a deal] would be a good strategic rebound for Alstom," said an industry

source familiar with the French government's thinking. Bombardier's rail assets are heavy in lower-margin rolling stock, which are less attractive for Alstom, the source noted, but the deal would still offer synergies.

Both companies are very active in the Australian rail industry. Bombardier has recently completed delivery of 75 six-car 'New Generation Rollingstock' EMU sets to Queensland Rail, and is currently building 12 additional A-City EMU sets for Adelaide Metro, 10 additional *Flexity Swift* trams for Yarra Trams, and a further 12 3-car sets of *VLocity* DMU railcars for V/Line. Alstom delivered 60 *Citadis X05* trams to Transport for NSW for Sydney's new CBD and South East Light Rail and 22 six-car *Metropolis* EMU sets, as well as the *Urbalis 400* CBTC signalling system, for Sydney's North-West Metro, and it will supply a further 23 sets and the signalling system for Sydney Metro City and Southwest. Five additional *X'Trapolis* EMU sets are being delivered to Metro Trains Melbourne, while PTA Transperth has recently ordered 41 six-car *X'Trapolis Mega* EMU sets and two three-car DMU sets.

More freight on rail for Port of Melbourne

The Port of Melbourne has welcomed the Victorian Government's support of the new \$125 million Port Rail Transformation Project (PRTTP) to reduce truck movements, improve productivity and further enhance Australia's premier port. The port's 'rail solution' will be developed over the next three years and will see more containers moved by rail, by-passing roads in inner Melbourne.

On Thursday 30 January, Port of Melbourne CEO, Brendan Bourke said; "The port's rail solution is a critical and missing link in Melbourne's transport and supply chain network. It expands the rail offering for freight and delivers environmental benefits by reducing truck movements, congestion and pollution.

"Everyone we talk to says rail is a good thing and industry has called for a rail solution for more than a decade. Port rail shuttle trains will have a capacity of 84 Twenty-foot Equivalent Units (TEU) containers, in comparison to a B-Double truck having a capacity of three TEU. This project also supports regional exports by taking cost out of the rail supply chain.

"The port's rail solution is a vital piece of infrastructure delivered

with no cost to taxpayers. Our export market, especially farmers, will benefit from this project".

"The project is more than an infrastructure project; it also provides industry reform and drives efficiency in the rail supply chain. It is the result of significant engagement with industry," said Mr Bourke.

The project is being funded by a small increase in the tariff on full import containers of \$9.75 per Twenty Foot Equivalent Unit (TEU) to take place no earlier than 1 April 2020. This equates to less than 5 cents on the wholesale price on an average sized television.

The PRTTP is the key project of the port's Rail Access Strategy – Our Plan For Rail, which is a comprehensive plan for an integrated freight rail network across Victoria.

"We are committed to investing in the port - it is a key driver of economic activity in the State. We want to move freight in and out of the port more quickly and to deliver the everyday goods needed to support our daily lives," said Mr Bourke.

For more information on the Port Rail Transformation Project go to www.portofmelbourne.com/facilities-development

Shortlisted tenderers announced for Sydney Metro Bankstown line accessibility upgrade

Sydney Metro has shortlisted three companies to supply customer access technology for the metro rail conversion of the ten stations between Marrickville and Bankstown, on the T3 Bankstown line that will be upgraded and converted to metro rail standards.

The technology, including mechanical gap fillers and platform screen doors, means the stations will be fully accessible when metro rail services begin in 2024.

All Sydney Metro stations will have platform screen doors to keep people and objects like prams away from the tracks, and also allow trains to get in and out of stations much faster. All platforms will be level with the new metro trains – meaning no more step-up into the train.

The three shortlisted companies are:

- Gilgen Door Systems AG;
- Hyundai Movex Co. Ltd; and
- Kyosan Electric Manufacturing Co. Ltd.

The next step of the procurement process will be to test the technology put forward by the three companies for Australian conditions.

How many Lottes does it take to change a light bulb?
Only one, if it's Lotte Koenig wearing the Paexo Shoulder Exoskeleton, a wearable tech body suit developed and manufactured by German medical technology company Ottobock. The exoskeleton was designed to relieve muscular stress for workers who specifically spend long periods of time working with their arms raised. When people wearing the Paexo Shoulder raise their arms, the pads around the biceps transfer weight to the hips thanks to mechanical cable pull technology. This provides noticeable relief for the muscles and joints in the shoulder region. The Paexo Shoulder is now in use worldwide including most countries in Europe, the US, Canada, Mexico and India, and has just been launched in the Australian market. Ottobock



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



AUSTRALASIAN RAIL
INDUSTRY AWARDS
MELBOURNE 2020

NOMINATIONS NOW OPEN!

Nominations for the Australasian Rail Industry Awards are now open, with 13 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 17 April, so avoid the last minute rush and get in early.

Which category will you apply for?

- Career Achievement
- Customer Service
- Emerging Rail Specialist
- Employee Engagement
- Freight Rail Excellence
- Innovation and Technology
- Permanent Way Institution Young Achiever
- Rail Sustainability
- 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 2 July in Melbourne.

PLATINUM SPONSOR

MTA
Metro Trains Australia



FRAUSCHER

GOLD SPONSOR

CATEGORY SPONSORS

THALES

MTA
Metro Trains Australia



FRAUSCHER



MEDIA PARTNER

**Railway
DIGEST**

PROGRAM SPONSOR

**Endeavour
Mutualbank**

Inland Rail Senate inquiry identifies community flood concerns

Concerned landholders greeted a rural Senate Committee investigating the management of the Inland Rail project by the Australian Rail Track Corporation and the Commonwealth Government with claps and cheers as they arrived at a public hearing at Millmerran on Wednesday 29 January. (Millmerran is located 208 kilometres west of Brisbane in Queensland's Darling Downs. The town is the terminus of Queensland Rail's disused Brookstead to Millmerran line that was closed due to flood damage in January 2011.)

The Inland Rail project, a 1700-kilometre freight rail link from Melbourne to Brisbane, has been met with widespread criticism over the proposed route that will require new corridors to be constructed through farmland in southern Queensland, some of it in the Condamine River floodplain.

Goondiwindi Mayor Graeme Scheu said while he was supportive of Inland Rail, he had not met a single person who thought the current proposed route was a good idea. He said it was unbelievable to put a major freight rail corridor through one of "Australia's largest floodplains". "I myself have lived in Goondiwindi since 1978 and I have not spoken to one man, woman or child who believes this to be the correct decision".

Cr Scheu said out-of-date flood mapping was used by the Australian Rail Track Corporation (ARTC) when devising the route. "There has been plenty of consultation, but our biggest fear we have is that the

messages from our end have not got to the decision-makers," he said. "If it has to go through the floodplain, so be it, but there has to be a bridge built capable of allowing water to move under it. "These earth mounds and viaducts will create obstacles and create interference".

Millmerran egg producer Adam Birch said uncertainty over the rail line was having a major impact on his business, which produces 10 per cent of whole eggs in Australia.

Larry Pappin, the president of the Inner Downs Inland Rail Action Group, said recent rain highlighted how quickly flooding could happen.

"Last week we found with the downpour we had — you saw the erosion that occurred just outside of Pittsworth — I don't think ARTC and their engineers fully understand the power of nature," Mr Pappin said.

Committee chair Senator Glen Sterle said he believed there was a lack of transparency in the ARTC's consultation.

In November 2019, the project gained support from the Queensland Government, which signed an agreement with the ARTC. (see January 2020 RD, page 19). An ARTC spokesman said the inquiry would help them to explain the work that was being done. "The Senate Inquiry is an important opportunity to hear different perspectives about the project," the spokesman said. "We appreciate the opportunity to share that detail with the wider community".

Railway people

National Faster Rail Agency CEO appointed

The Australian Government has appointed Barry Broe as the new Chief Executive Officer for the National Faster Rail Agency (NFRA).

Mr Broe has spent over 40 years in major project, transport and public sector infrastructure delivery including over 17 years at executive or CEO level. He has direct local and international experience in rail and planning. He has held senior executive roles with Brisbane Infrastructure, Transport for London and Queensland Transport. Mr Broe will serve as CEO for an initial five-year term.

The NFRA was created in July 2019 as an Executive Agency within the Infrastructure, Transport, Cities and Regional Development portfolio to support the delivery of the Australian Government's 20-year Faster Rail Plan, which includes \$2 billion for faster rail between Melbourne and Geelong and eight regional to capital city business cases along the eastern seaboard.

Minister for Population, Cities and Urban Infrastructure Alan Tudge congratulated Mr Broe on his appointment. "With vast experience in

transport infrastructure he will bring expertise and leadership to the NFRA".

The NFRA will work closely with state and territory governments on opportunities to develop rail infrastructure between major cities and key regional centres to advance social, economic and population outcomes.

The National Faster Rail Agency will be supported by an Expert Panel that will play an important role on providing advice on faster rail related matters including existing faster rail project business cases, new potential faster rail corridors, future developments across networks and infrastructure requirements and priorities.

Mr Broe commenced in the position on Monday 6 January.

For further information on the National Faster Rail Agency visit the website: nfra.gov.au

Barry Broe



New CEO at Yarra Trams

Julien Dehornoy took over the role of CEO of Yarra Trams on Monday 13 January. Mr Dehornoy is familiar with large and complex transport operations, following his role at France's national state-owned rail company, SNCF where he was Managing Director of some of the largest and busiest rail commuter lines serving Paris (D-Line and R-Line), part of the Regional Express Network.

During his three-year tenure, his major achievements included the design and implementation of a significant rescheduling project, which resulted in a decrease in late trains by 25 per cent, and the renewal of the Line R rolling stock fleet and depot.

Prior to arriving at Yarra Trams in September 2019, Mr Dehornoy was the Chief of Staff to the Minister for Transport in France, who oversees land, air and sea transport infrastructure and operations.

He joined Yarra Trams in September 2019 as Executive Director, Passenger Experience Delivery.

"I am proud to be stepping into the role of CEO of Yarra Trams," Mr Dehornoy said. "I am very much looking forward to leading this expert team, who operate the largest tram network in the world, and with whom I share a passion for public transport".

Mr Dehornoy succeeds Nicolas Gindt, who led Yarra Trams for four years.

Julien Dehornoy



Trainline 7 released

In December 2019, the Commonwealth Bureau of Infrastructure, Transport, and Regional Economics (BITRE) and the Australasian Railway Association (ARA) released the latest in its annual Trainline series: *Trainline 7*. *Trainline 7* gives an overview of Australian freight, urban and non-urban passenger rail transport, and the associated rollingstock and infrastructure. The report analyses traffic levels, the provision of infrastructure and rollingstock, and railway performance. It also reports actual running times for Melbourne to Perth and Perth to Melbourne intermodal designated trains and compares these times to scheduled running times.

New features in *Trainline 7* include reporting on rail industry employment and rail freight operators' feedback on challenges facing the industry and opportunities for change. Most statistics reported are for the 2017-18 financial year.

Freight

For the second consecutive year, *Trainline* has not been able to report national level rail freight tonnages due to a lack of data provision. Rather, it has been able to report some commodity specific and network specific tonnages. For example, in 2017-18, there was an increase in iron ore and coal transport by rail. On the Defined Interstate Rail Network (DIRN), there was growth in intermodal freight on the Sydney-Brisbane corridor and eastbound intermodal traffic on the east-west network, while there were declines elsewhere. This is based on below-rail data the ARTC and Arc Infrastructure provided.

In 2019, there was a decline in the number of scheduled Melbourne to Perth and Perth to Melbourne services. There was a significant decline in the number of scheduled Melbourne to Brisbane and Brisbane to Melbourne services but there was a significantly increased number of Melbourne to Sydney services (prior to 2018 there were none) and Sydney to Melbourne services.

Scheduled intermodal freight train transit times on the ARTC and Arc Infrastructure interstate corridors in 2019 were largely unchanged from 2018. With regards to actual running times for Melbourne-Perth intermodal designated trains for June-August 2019, the following results stood out:

Eastbound services:

- Average transit times were slightly greater than scheduled, but most trains completed their journeys in times faster than schedule;
- Most services departed Perth either ahead of or close to schedule;
- Most services arrived at Melbourne ahead of or close to schedule.

Westbound services:

- Average transit times were slightly greater than schedule, and most services completed their journeys in times of more than 30 minutes longer than schedule;
- Most services departed Melbourne either ahead of or close to schedule;
- Most services arrived at Perth more than 30 minutes behind schedule.

The fastest recorded service was a westbound train that departed Melbourne on a Wednesday. This was an express service that completed its journey in one day, 22 hours, and six minutes. The slowest recorded service was an eastbound train that departed Perth on a Wednesday. It completed its journey in three days, 10 hours, and 22 minutes. There were also patterns of actual running times for particular days of the week that *Trainline 7* discusses.

Passenger

Total urban heavy rail patronage for 2017-18 was 726.4 million passenger journeys, while for light rail there were 235.4 million passenger journeys.

Patronage grew on all urban heavy rail networks in 2017-18 (compared to the previous financial year), except Perth, which had a minor ongoing decline. Brisbane had the greatest patronage growth, at five per cent. Sydney still has Australia's busiest urban heavy rail passenger network, with approximately 359.2 million passenger journeys in 2017-18. There was modest growth in light rail patronage in all cities that had light rail services in 2017-18.

Non-urban rail patronage grew in New South Wales and Victoria, while Western Australia and Queensland had declines. New South Wales (Trainlink) intercity services had the highest patronage growth, at almost 10 per cent.

Infrastructure and Rollingstock

Australia had an estimated 32 900 route-kilometres of operational heavy railways in the second half of 2019, approximately 10 per cent of which was electrified and an estimated 314 route-kilometres of operational light rail/tramways. The principal iron ore railways are in Western Australia's Pilbara region (2 642 route-kilometres). The main coal networks are the central Queensland systems (1 979 route-kilometres) and the New South Wales Hunter Valley Coal network (approximately 785 route kilometres). There are approximately 4 700 route-kilometres of operational railways that are largely or exclusively used for grain haulage.

In September 2019, there were an estimated 2005 operational locomotives in Australia, which was roughly the same as 2018. There were an estimated 4 350 urban passenger heavy rail vehicles, 576 light rail vehicles, and 1260 non-urban passenger (heavy) rail vehicles. BITRE does not have details of freight wagon numbers.

Employment and Industry Safety

There were 104 notified fatalities on Australian railways that the Office of the National Rail Safety Regulator regulates. Approximately 45.6 thousand people work in the Australian rail industry.

You can view *Trainline 7* at <https://www.bitre.gov.au/publications/2019/trainline-7>



Sri Lanka
on the Viceroy Special

A CULTURAL ADVENTURE BY PRIVATE TRAIN

5 - 19 November 2020 • With Robert Kingsford-Smith

- COLOMBO • TRINCOMALEE • BATTICALOA • DAMBULLA • NUWARA ELIYA • KANDY • GALLE •
- Seven scenic train trips right across the country in your own exclusive private charter of the regal Viceroy Special
- Luxury coach connections and transfers
- Many multiple nights in iconic luxury hotels
- Visit 8 amazing World Heritage sites
- All meals and numerous special dinners
- Transfers, tipping, visas and all luggage handling



Scott McGregor's
RAILWAY ADVENTURES

SEE YOUR WORLD BY TRAIN

Fully escorted, small groups, unique programs

FOR MORE INFORMATION ON THESE AND ALL OUR TOURS

RAILWAYADVENTURES.COM
1300 800 977
info@railwayadventures.com
TRAVEL ACCREDITED LIC #A14416



NEW ZEALAND
BY RAIL, ROAD AND SEA

17 - 30 October • With Allan Boyer

- AUCKLAND • WELLINGTON • CHRISTCHURCH • DUNEDIN • QUEENSTOWN •
- Ride New Zealand's main trains and unique heritage railways
- Soak up the scenery of both NZ's North and South Islands
- Guided Explorations of NZ's major cities and towns
- Sail Cook Strait and the Marlborough Sound by Ferry
- Museum visits at Te Papa, Larnock Castle and Ferryhead
- Spectacular Taieri Gorge Railway and stunning Queenstown

Blue Mountains line reopens after devastating bushfires

Limited passenger and freight train services resumed on the Blue Mountains Line between Mount Victoria and Lithgow from Tuesday 21 January, over a month after significant damage caused by the disastrous Gaspers Mountain bushfire (see February 2020 *RD*, page 11).

On Thursday 16 January NSW Minister for Regional Transport and Roads Paul Toole said the bushfires had left a trail of destruction along a 25 kilometre stretch of the state's Main Western line, causing extensive damage to power transmission, signalling and rail infrastructure.

"We recognise how important this rail connection is to passengers travelling to and from the west and to moving freight and we are doing everything possible to resume full services as soon as possible," Mr Toole said. "Sydney Trains' engineers have worked tirelessly to develop temporary systems that will allow us to restore rail connectivity and safely operate a limited number of freight trains from the evening of Monday 20 January and passenger trains from Tuesday 21 January".

"But this will be a long recovery process as we are essentially rebuilding some parts of the operating system from scratch".

In the lead-up to service restoration crews removed more than 300 damaged trees from the rail corridor and re-laid thousands of kilometres of communication, electrical and signal wiring.

"We understand customers' concern and frustration, and we appreciate their patience while the repair work continues," Mr Toole said.

Following the reopening of the Lithgow to Mount Victoria section of the Blue Mountains line, albeit on a limited basis, the opportunity was taken to transfer V sets V9/V10, that had been stranded in Lithgow yard since Thursday 19 December, to Flemington Maintenance Centre in Sydney. Sydney Trains' Goodwin/Alco units 4819 and 4827 travelled to Lithgow light engine on the evening of Wednesday 22 January and brought the V Sets back to Sydney the following Friday morning, and are seen here near Warrimoo at 8.57am, having earlier refueled at Lawson to wait for the morning peak traffic to abate.

Andrew Coble



NSW TrainLink chief executive Pete Allaway said NSW TrainLink and freight services had been suspended between Mount Victoria and Lithgow since 19 December due to active fires and the subsequent damage.

The first Bathurst Bullet, the Broken Hill *Xplorer*, and most Dubbo XPT services resumed to a slightly altered timetable from Tuesday 21 January, though the second Bathurst Bullet service continued to be replaced by a road coach. Coaches also continued to replace all Intercity trains between Mount Victoria and Lithgow into February.

As at 28 January it is understood that the integrity and continuity of overhead catenary wiring between Bell and Dargan is still in question, and has to be extensively inspected before re-energising and testing. Signalling also has significant issues with Pilot Staff Safe Working introduced until further notice between Mount Victoria and Lithgow Coal Stage in both directions.

While the majority of mainline running signals are lit they have white crosses placed across their face to indicate that they are not fully operational.

Services to Clarence Colliery resumed from late-January with trains accessing the siding from the mainline via the Pilot Staff. A Block Post was established at the Colliery crossovers to facilitate entry and exit and a Pilot Officer was in 24 hour attendance at the site to ensure no safety concerns arose.

Blue Mountains line closes again after landslip at Leura

The limited reopening of the Blue Mountains line proved to be short lived, after devastating storms with torrential rainfall ripped through eastern NSW over the weekend of 8/9 February, causing a severe landslip near Leura that left rail tracks dangling in mid-air.

Also, a falling tree badly damaged a stanchion at Blackheath, bringing down overhead wiring.

Transport for NSW chief operating officer Howard Collins said it would be "several weeks" before the Blue Mountains line could be reopened. He said engineers were working hard to rebuild parts of the fire-affected network and attempting to redesign facets of the track in weeks, when it would normally take a year.

Elsewhere, train services on the North Shore line were cancelled between Gordon and North Sydney due to a landslip at Artarmon, with buses replacing trains. A shuttle rail service operated between Hornsby and Berowra at a reduced frequency.

Train services on the Central Coast-Newcastle rail line between Hornsby and Morisset were cancelled, with buses organised to move passengers.

Buses also replaced train services on the South Coast line between Thirroul and Waterfall due to heavy rain activating safety monitors and slip detectors at Helensburgh. Trains were also cancelled between Wollongong and Port Kembla due to urgent signal equipment repairs at Port Kembla.

Sydney Metro services between Macquarie Park and Chatswood were also cancelled after more than five million litres of water poured into the Metro tunnels over the weekend, flooding the deepest areas up to platform height and cancelling services for three days. Metro services continued to operate between Tallawong and Macquarie Park.

More than 80 lifts at railway stations were put out of action by the rainfall over the weekend, though that number had been reduced to 24 by the evening of Wednesday 12 February, according to TfNSW.



Above: Although the cotton harvesting season finishes around May and the peak transport season tends to be during the winter months some cotton is still moved to ports in the summer months. In an example of such a movement Qube's No. 1811, powered by CSR/MTU QBX Class 002, is seen on Tuesday, 21 January a few kilometres north of Nevertire hauling its load of empty containers from Port Botany to Auscott's gin and siding located on the Nevertire – Warren line, 10 kilometres south of Warren, for loading with export cotton. John Hoyle

Below: NP23 *Xplorer* service to Armidale crosses the Brisbane Street level crossing in Tamworth during a dust storm on Thursday 23 January. The storm was one of a number of weather events that affected Tamworth's annual country music festival. A massive thunderstorm the following day damaged the rail line near Werris Creek, causing *Xplorer* services to be suspended. Ken Date



30 million journeys since public transport contactless payment launch

Millions of New South Wales commuters have been taking advantage of contactless payments when taking train, light rail, Metro rail and ferry journeys across the Opal network.

(Opal is the NSW Government's smartcard ticketing system used to pay for travel on public transport in Sydney, the Blue Mountains, Central Coast, the Hunter and the Illawarra.)

On Thursday 23 January Acting NSW Minister for Transport and Roads Paul Toole said a major milestone had been reached with more than 30 million public transport journeys taken using debit or credit cards, or linked devices, since the first trial on the Manly Ferry in 2017.

"The NSW Government is powering ahead with more innovative payment options for those using our Opal network as people continue to move away from cash, and even more recently cards," Mr Toole said. "We know digital wallets are becoming more common, so being able to pay a fare with a mobile phone or smart watch is just another added convenience for commuters".

The full roll-out of contactless payments is an Australian-first innovation and is one of the biggest advancements in ticketing technology in generations, with around 1.5 million journeys paid for without an Opal card in an average week.

Mr Toole said while new payment options were growing in popularity among commuters, there was still demand for pre-loaded Opal cards.

"It's easier than ever to pay for public transport and through our innovative payment platforms we're aiming to create more digital products including the digital Opal card which we plan to roll out in a trial phase in 2020," Mr Toole said.

This follows the activation of contactless payments on all public transport modes on the Opal network, and introducing the same fare and travel benefits of an Adult Opal card last year (see November 2019 RD, page 9).

Contactless payment timeline

Date	Milestone
July 2017	Trialled on Manly ferry services
November 2018	Expanded to Sydney Trains network and NSW TrainLink services
July 2019	Adult Opal card fare and travel benefits extended to contactless payments
September 2019	Extended to entire Opal network (including buses)

Transport for NSW continues to offer Opal cards.



The Rail Road SF02 W-FS Truck rail milling vehicle was built in Austria in 2012 for LINMAG Austria (LINMAG GmbH) and has been adapted for Australian conditions. The High Rail system of setting up is employed where the MAN T68 26-480 diesel prime mover is registered as an articulated vehicle and can thus travel any road system and is more or less permanently coupled to the rail milling machine. The whole unit is 16.69m long, 2.55m wide and 3.8m in height so conforms with the national heavy vehicle standards for road usage. The vehicle arrived in Wallerawang NSW in mid-January having travelled by road after completing a job in Adelaide SA. This is the first time that John Holland CRN has engaged this vehicle for work on the main western line, although the LINMAG is no stranger to NSW, having worked on the main Northern Line last year and also the Sydney Harbour Bridge in August 2019 for Sydney Trains. The whole set can be transferred from road to rail using the same principle as High Rail vehicles, although an added advantage is the swivel bogie which makes it quicker and easier and thus it can be launched at level crossings as well as on High Rail pads. The unit conducts rail milling, reprofiling and reconditioning of track in just one pass, the work is monitored by computer screen CNC controlled system in the number one end operations cabin (the unit cannot be operated from the truck end of the consist) and can only be operated in one direction. The system delivers a high accuracy of traverse and longitudinal profiling with the added bonus of no flying sparks (eliminating track side fires), no fumes or emissions and no environmental pollution. All metal dust and tailings are vacuumed through a pipe system and waste matter goes to a storage tank to be emptied later. The unit covers a 10 metre section in one minute, and points and crossovers can also be milled. Two Austrian technicians are assigned to the consist and travel with it to various work sites. Effie Kelly



On Wednesday morning 15 January, a northbound SSR grain train, headed by locomotives 4911, 4908, BRM001, GM10, 4904 and RL304 works through the NSW Southern Highlands town of Tallong. The EMD-powered sextet certainly made its auditory presence felt. Steve Munro



Above: United Group/GE units 5038 and 5010 haul a loaded Aurizon distributed power coal train around Whittingham bound for the Port of Newcastle on Thursday 16 January. Simon Li

Below: Having exited Omega Tunnel Number 2 on the South Coast Line, Clyde/EMD JT26C locomotives 8130, 8119 and 8116 roll downgrade through lingering bushfire smoke and across Bush Bank Vale with train 9138, the Up Manildra service from Bomaderry to Port Botany on Tuesday 28 January. The four Omega tunnels cut across the former Omega Retreat Estate and are a combined length of 1220 metres, with Number 2 being the shortest at 199 metres. Colin McMaster





Above: At the Cullerin top bridge on Wednesday 29 January, Clyde/EMD units 8235 and 8252 are hauling a loaded ARTC rail rake from Whyalla, South Australia. The train consists of twelve wagons loaded with continuously welded rail, about 230 metres long. Peter Clark

Below: On Wednesday 8 January, UGL/GE C44aci CEY class locomotives CEY003 and CEY001 lead train LS04 through Wallerawang enroute to Lidsdale coal mine with 44 loaded PHTH coal wagons plus CEY007 on the rear. CEY007 was electronically linked to the other locomotives as a distributed power unit, and was subsequently utilised to lead the train into the Lidsdale coal mine. Josh Noonan



Around Sydney



Goninan/GE units NR29, NR71 and NR73 are only just beginning their three-day day journey to Perth as they pass through Lidcombe with 7SPS, Sydney-Perth intermodal freight. NR29's livery suggests this locomotive has made the journey many times before. Anthony Evans

Passengers trapped in tram on Sydney light rail

Hundreds of passengers were trapped on a tram for more than an hour on Sydney's new \$2.9 billion light rail service broke down, prompting an evacuation by police.

A mechanical failure on a tram at Town Hall at 4pm on Tuesday 21 January triggered the shutdown between Town Hall and Circular Quay.

While nine trams were caught up in the system failure, one was left locked for about 70 minutes, with passengers given no explanation and forced to call the police for assistance.

Chloe Groom and her five-year-old daughter were among the passengers who were trapped. Ms Groom said commuters felt "abandoned", were given no information during the ordeal, and called police after the emergency button elicited no response.

"We pressed it over and over and there was no answer ... I don't think they knew there was a tram full of people," she said. "People stayed pretty calm for a while but ... especially when you're receiving no information, you start to feel a bit panicked".

Ms Groom said police were called and helped to open the doors. Passengers were able to get out just before 5.30pm.

Since opening on Saturday 14 December (see February 2020 RD, page 34) the 8.5-kilometre service between Randwick and Circular Quay has been criticised for its slow speeds, with journey times hovering between 40 and 50 minutes since it started running.

Construction delays and cost blowouts dogged the project in the years before it opened, having originally been budgeted at \$1.6 billion.

Chief Light Rail officer Brian Brennan apologised to the passengers caught up in the delays, and conceded it took too long to evacuate those trapped in the tram.

"At the end of the day we should have had passengers off that tram much quicker," Mr Brennan said. "I'd like to apologise to those people who were left in that tram for that length of time".

He insisted the network would become more reliable in the coming months, and said the operator Transdev was investigating the failure.

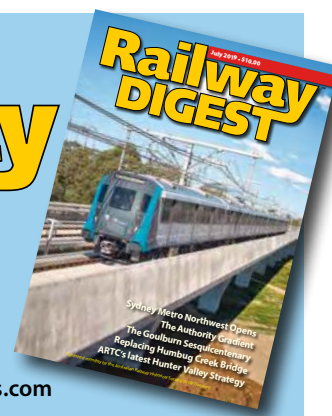
"Days like yesterday are regrettable and we apologise to the customers who were impacted, but the reliability will improve, it is improving. We will get this right for Sydneysiders".

He added that operator Transdev Sydney was still working towards the forecast journey time of 38 to 40 minutes.

The new system is transporting about 44,000 passengers a day.

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





Above: Sydney's Clyde to Carlingford line closed on Sunday 5 January in readiness for its conversion to form part of the Parramatta light rail line, which is set to open in 2023. One of the Carlingford line's features was the level crossing across busy Parramatta Road at Clyde, one of only a handful left in Sydney. On Monday, 16 December 2019 four-car K set 88 crosses the thoroughfare on its way from Carlingford to Clyde. The high-rise residential buildings in the background at Granville are a manifestation of a policy to have high density housing near key railway stations in Sydney. John Hoyle

Below: About ten minutes into the journey on the 35 degree Saturday 1 February, 2020, Tangara sets T109/61, with a hint of pantograph carbon on the roof-line, call at Asquith with Berowra to City via Gordon service, Run 174L. Mick James



First sod turned on Parramatta Light Rail

Major works on the Parramatta Light Rail project commenced on Friday 31 January following a first sod turning ceremony at the former Rydalmere railway station. (Rydalmere station is located 24 kilometres from Sydney's Central station on the former Carlingford line.)

Speaking at the ceremony Acting NSW Minister for Transport and Roads Paul Toole said it was an exciting time for Greater Parramatta as works ramp up for the new high-frequency light rail system.

"Today marks a significant step on a project that will transform transport connectivity in a growing part of Sydney," Mr Toole said.

Stage 1 of the Parramatta Light Rail will connect Westmead to Carlingford with a 12-kilometres dual track route that will travel via the Parramatta CBD and Camellia.

Mr Toole said that the government had "hit the ground running" with decommissioning works along the closed T6 Carlingford rail line underway in preparation for its conversion to light rail. By the end of January overhead wires, track and sleepers had been removed along the former heavy rail corridor.

Member for Parramatta Geoff Lee said the project was a major win for the region, as it would support the creation of new communities. "This Parramatta Light Rail will bring people living in Greater Parramatta

together with a safe and efficient public transport network," Mr Lee said. "It will improve connections to popular key destinations across the region, while also linking into Sydney's greater public transport networks".

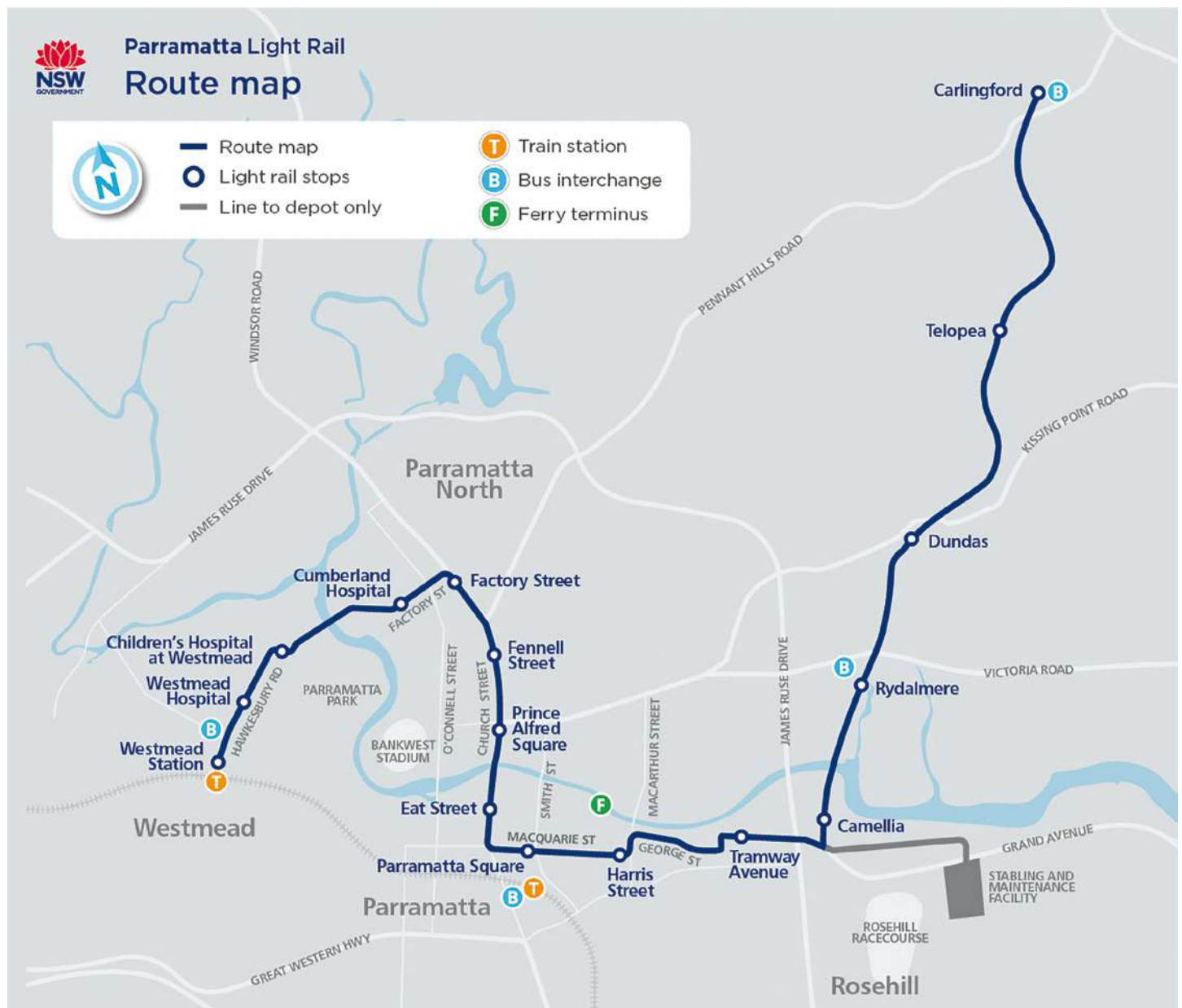
Mr Toole said Transport for NSW was working hard to minimise the impacts of construction on businesses and the local community.

"Some disruption is unavoidable, which is why we will continue working with businesses to ensure they have the information and support they need," Mr Toole said.

From Saturday 1 February, Church Street in Parramatta became a pedestrian-only zone between Macquarie and Market Streets. This includes 'Eat Street', the section of Church Street between George Street and Lennox Bridge where restaurants are located and al fresco dining is allowed.

"Transport for NSW will also pause construction from 1 November until 31 January each year along 'Eat Street' to allow businesses to take advantage of the holiday trading period", Mr Toole said. "During this time, events and activities will be put on to support local businesses and encourage families and friends to continue to enjoy all that is on offer".

Parramatta Light Rail is expected to open in 2023.



Despite drought, Watco optimistic about new business

As reported in last month's *RD* (page 16) US-based shortline operator, Watco, commenced its Queensland operations on 2 December 2019 hauling chickpeas from GrainCorp's Mount McLaren storage facility on the Blair Athol line to the Port of Mackay via the Goonyella line. Watco's contract with GrainCorp provides for transport from GrainCorp storage sites to the Ports of Brisbane, Gladstone and Mackay. However, the drought in southern Queensland has resulted in only chickpea haulage to Mackay with no services from the grain growing areas on the Darling Downs. However, Watco Australia Executive Director, Ken Potts, told *Rural Weekly* that despite haulage volumes being well below expectations the company was in it for the long haul with GrainCorp. Mr Potts said Watco had done its averages over several years and realised there would be "bumpy" years but it would average out over time. GrainCorp's domestic customer service general manager, Sean Barker, told *Rural Weekly* the transition to Watco had been a "major success". GrainCorp is reported to have indicated that the cost of hauling grain from Mount McLaren to Mackay with Watco was around one-third of the cost when Aurizon provided the service. There has been also minimal loss of grain enroute from the new DGWY wagons compared with the previous wagons that were converted from coal haulage.

Watco has commenced constructing a rail maintenance facility at Mackay Harbour, adjacent to the GrainCorp unloading and storage area. The facility will include a storage shed, administration office and maintenance pit. A siding will be provided off the GrainCorp balloon loop to allow wagon storage and a fuel tank will be installed. The Mackay facility will support a supervisor, two maintenance staff and up to 12 drivers – sufficient to work two trains. The Mackay facility will complement the operational headquarters at Warwick while there will be a head office in Brisbane. Mr Potts told *Rural Weekly* that when southern Queensland recovered from the drought there would be up to 24 drivers based at Warwick joining four maintenance staff

and a manager already at the site. Watco expects to have around five locomotives based at Warwick out of its fleet of eight WRA Class units from NRE in the USA and five Clyde/EMD 2170 class. The DGWY wagons are wired for distributed power operation and Watco expects to use this facility when required to speed up train turnround (operating with locomotives at each end of the train) when loading at grain silos.

Watco says it is investigating other opportunities in Queensland based around its "heat and eat" theme, that is, the energy and food sector. These opportunities include coal, cattle and container traffic. Unconfirmed reports suggest that Watco is planning to run cattle trains and these may be operated outside the current contract which Aurizon has with the Queensland Government for cattle train operation. This contract still has two years to run.

Floodwaters cut Mount Isa rail line

The Mount Isa rail line was closed on Sunday 26 January due to flooding between Charters Towers and Hughenden (128 and 377 kilometres respectively from Townsville), including a bridge failure at Prairie (333 kilometres). On Tuesday 28 January Queensland Rail regional head Jim Benstead said detailed track inspections in some areas could not take place until water had receded. "We will work to re-open the line as quickly as possible once it is safe to do so," he said.

An eastbound fully-loaded Pacific National freight train came to a halt on a washed out section of track at the Prairie Creek rail bridge at about 6.30am on Sunday 26 January. Queensland Rail said the train, with lead engine 8320, was safely set back later that morning and all freight trains were accounted for and stabled in dry locations.

The west-bound *Inlander* passenger train was held at Cloncurry on January 26 due to potential flooding on the network and customers were provided alternative transport to complete their journey to Mount Isa.

The line was reopened on Tuesday 11 February.

Flinders Mayor Jane McNamara said most of the shire's roads, built on black soil, were also closed.



On Tuesday 11 February the Mt Isa line reopened after flood repairs were completed (see news item above), and that afternoon Pacific National 9M22 Mt Isa Service is seen departing Stuart, Townsville behind EDI/EMD units 8319 and 8315, with crew van RZNY02, plus 8316 as remote-controlled distributed power, further down the train. Leon Harris

Spike in train cancellations raises lobby group questions

A string of cancelled or delayed trains across Brisbane's rail network has prompted questions about the possible causes, but Queensland Rail says "train faults" are not becoming more frequent.

According to a report in the *Brisbane Times*, on Monday 20 January there were 13 reported cancellations or delays attributed by TransLink to "train faults", with rail lobbyists questioning why so many occurred in just one day. (TransLink is the public transit agency for South East Queensland. It is part of the Queensland Department of Transport and Main Roads.)

Public transport lobby group *Rail Back On Track* spokesman Robert Dow said the faults appeared to be occurring across the entire rail network, across both New Generation Rollingstock and older trains still in operation. "There are enough problems for the rail operator, and passengers, having to cope with bridge strikes, overhead power failures, signalling failures, police incidents etc without having to worry about the increasing number of services cancelled or delayed due to 'train faults'," he said.

Mr Dow noted the faults occurred on a day that ended in severe storms, causing more cancellations and delays for commuters across the south-eastern network.

Queensland Rail chief executive Nick Easy said trains, like private cars, could have problems that needed to be fixed. He said from 1 to 19 January, 1.3 per cent of Queensland Rail's 19,825 timetabled services experienced train faults. That amounts to 257 services affected by a train fault, which Mr Easy said did not indicate an increase in reported faults compared with data from the past six months. "Train faults can range from unforeseen mechanical-related issues to issues involving the doors of a train, which impact boarding times," he said. "While every effort is made to rectify train faults while the train is on the network, to ensure the safety of our staff and customers decisions may be made to remove a train from service until repairs can be completed".

Adani rail update – KiwiRail locos rumoured for construction trains

Following the announcement (December 2019 *RD*, page 8) that Martinus Rail will be the contractor for track laying on the 189 kilometre line linking Adani's Carmichael mine to Aurizon Network's Goonyella – Abbot Point Line near the Leichhardt Range crossing loop, Adani has announced further details of contracts associated with the rail construction. Toowoomba-based Wagners will be the lead contractor to deliver quarry products for the new railway, as well as roads and mine civil works in a contract worth more than \$35 million. BMD is undertaking the earthworks for 75 kilometres of the line and infrastructure company Decmil has won a contract worth around \$40 million to design and build three 400-bed temporary accommodation camps along the rail corridor. Rail construction operations will be supervised from Collinsville.

International company Siemens has won the contract to provide signalling for the Carmichael railway. The company will supply colour light signals, signalling equipment rooms, power systems including solar, site earthing and surge protection, level crossing warning systems, traffic control systems and IT infrastructure.

Unconfirmed reports from New Zealand in February indicated that Martinus Rail may be purchasing two KiwiRail EMD DC class locomotives to use on construction trains. It is understood these might be DC 4444 and DC 4571. These were originally part of a fleet of 146 DA class units built by EMD in the USA and Canada and Clyde in Australia between 1956 and 1967. Between 1978 and 1983 a total of 80 DA class were rebuilt at Clyde's Rosewater (Adelaide) plant and a further five were rebuilt by the then New Zealand Railways at Hutt Workshops. All were designated the DC class and a sub-group designated primarily for passenger work were designated as the DCP class.



Clyde/EMD units 2313 and 2320 descend the Toowoomba Range at Murphys Creek with Aurizon's 9863 loaded coal service from the Acland Mine to the Port of Brisbane on Saturday 25 January. Ken Date



Above: 2191 and 2387 lift a long cattle train over the watershed between the North and South Pine Rivers at Bray Park, a station two stops back from Petrie, the junction between the North Coast Line and the new Redcliffe Railway. This is a busy stretch of track and the locomotives are working hard to maintain speed up the grade so as to not delay any suburban trains. The two locomotives both have EMD 645E engines but 2191's V16 is Rootes Blown and 2387's V12 has a turbocharger and produces 350Kw more power. The combination of the 2170 and 2300 classes is a common occurrence on these cattle trains. This train is running to Dinmore near Ipswich on Monday 20 January and is a little unusual, as the cattle season generally starts around March. Aurizon and QR recently renewed the contract for these cattle trains for a further two years. Neill Farmer

Below: While conducting platform interface testing on the North Coast Line, 'New Generation Rollingstock' 700 Series EMU 718 arrives at Landsborough as CityTrain E998. Platform Interface Testing was conducted between Caboolture and Nambour on Wednesday 8 January. From Friday 6 March, 700 Series Units will commence revenue service on this line. Mick James



GlobeLink freight project abandoned

GlobeLink, a plan to reshape the South Australian landscape with a generational upgrade to South Australia's freight export infrastructure by creating an alternative non-stop corridor connecting the state's south east to Port Adelaide for freight travelling by either rail or road, has been officially scrapped following the release of a consultant's report finding that the project has little merit.

The proposal was put forward by the then South Australian Liberal opposition ahead of the 2018 state election. It called for existing rail and road corridors either side of Adelaide's CBD to be replaced by alternative routes that would bypass the city to the north. The new road thoroughfare would run alongside rail to allow freight to be transported between Port Adelaide and a new export park, including an airport at Monarto, near Murray Bridge. The new rail route would also allow double stacking of containers between Melbourne and Adelaide.

Following the 2018 SA election the incoming Marshall government engaged consultants KPMG to complete a scoping study and business case on the GlobeLink project at a final cost of \$2.4 million.

In the report KPMG said demand was too low, and the expected benefits were too limited, to justify a project which would ultimately cost taxpayers \$7 billion.

It estimated the road corridor part of the project would bring just six cents of value for every dollar spent, while the rail corridor would give back eight cents in the dollar.

Speaking after the release of the report on Monday 27 January SA Minister for Transport, Infrastructure and Local Government Stephan Knoll said; "The State Government has fulfilled its election promise to undertake a business case to investigate the viability of GlobeLink and is being open and transparent with the people of South Australia and has released the full independent report. The State Government has accepted all recommendations in the KPMG report and will not be progressing the original GlobeLink proposal".

Mr Knoll went on to say that several road connectivity options identified in the report will now be investigated to explore opportunities that could deliver upon the objectives of GlobeLink in the long term, after the completion of the North-South Road Corridor. However, he offered little chance of developing any of the rail-related proposal.

"Particularly, with respect to the rail component, the report highlights that limited and declining volumes see limited relative economic benefit for the state. Therefore, with rail volumes unlikely to increase sufficiently in the future, the benefits of a new rail corridor are very marginal. This means that the issue of double stacking rail freight will unlikely be an issue as first predicted by other reports as rail freight volumes are limited," he concluded.

A full copy of the KPMG report can be downloaded at: https://dpti.sa.gov.au/__data/assets/pdf_file/0010/625951/GlobeLink_Scoping_Study_Report_Business_Case.pdf



After completion of the Oaklands crossing removal last year, the SA Government announced that the next suburban level crossing to be removed would be at Brighton Road, Hove, 12km from Adelaide on the Seaford line. However the project requires careful consideration and consultation to determine what would be the most effective way of eliminating the crossing – by over- or under-pass. Both options will entail lengthy grades and the construction of a new Hove station to replace the existing basic structure dating from the 1950s. An average of 37,000 vehicles pass through this level crossing each day. The boom gates at Brighton Road are down for approximately 20 percent of the time during the combined morning and afternoon peak periods. The contract to undertake the detailed planning and design work to identify the preferred option for removing the level crossing was awarded to the Public Transport Projects Alliance (PTPA) in August 2019. The project is in its detailed planning and consultation stages. Early works are expected to begin in 2021/22. The image above shows the Up approach from Brighton over Brighton Road with Bombardier A-City set 4002 approaching on Tuesday 21 January. Ian Hammond



EDI/EMD units SCT005 and SCT01 and their sizeable train are nearing the end of their journey from Perth as they slow to enter the Bolivar Loop road to enter SCT Penfield yard, Virginia, South Australia, on Saturday 25 January. Stephen McLachlan

Government considers all proposals for use of Barossa rail corridor unviable

Passenger and tourist rail services will not return to South Australia's Barossa Valley after an impartial, evidence-based assessment, commissioned by the State Government, deemed every proposal to be unviable.

Following a call for Expressions of Interest (EOI) for the use of the Barossa rail corridor, which runs from Gawler Central station to Penrice Quarry, near Angaston, in August last year (see October 2019 *RD*, page 24), the government has concluded none of the proposals, which included passenger and tourist rail services, warrant "further development". Instead, the rail corridor will continue to be owned and preserved by the government.

South Australian Minister for Transport, Infrastructure and Local MP Stephan Knoll said none of the five submissions presented a sufficiently well-formed concept that stacked up in the long-term.

"All submissions lacked the required detail and failed to meet the mandatory evaluation criteria, and did not provide sufficient persuasive evidence of the outcomes and benefits of their proposals which would warrant further development," Mr Knoll said. "Included were proposals for passenger and tourist rail services, but none of these were viable without imposing significant costs on South Australian taxpayers".

The assessment also concluded that all submissions would have required substantial support from government, and presented "significant and prohibitive amounts of taxpayer funds or assumption of risk".

"The last time passenger train services operated in the Barossa was 1969 - the same year as the first moon landing," Mr Knoll continued.

"The reason this passenger service was discontinued and has not been reinstated since is because it just doesn't stack up and the

cost to run it is too prohibitive. "The use of this corridor will remain a long-term consideration for the government. "This is why we will continue to own and preserve the rail corridor, but it is certainly not a priority".

Despite these conclusions, the Government announced it will further engage with The Barossa Council on some elements of its submission.

"...we will be working with the local council to explore some aspects of their proposal that could open up use of the corridor," Mr Knoll said.

The Barossa Council's submission centred around developing a fully autonomous vehicle that would provide transport between Tanunda, Nuriootpa, Angaston, and potentially beyond - unconstrained by a railway line.

It also proposed an extension of existing passenger rail from Gawler to Concordia. From Concordia, a rail connection via the Wine Train and/or autonomous vehicle would provide a connection to the valley floor and Tanunda.

The proposal was developed as a joint proposition between Barossa Council, Sage Automation, Chateau Tanunda, Leyton Funds Management and First Drop Wines.

Barossa Mayor Michael 'Bim' Lange said that, despite initially being told their proposal was unsuccessful, they remained hopeful of achieving some form of utilisation of the rail corridor.

"Council remains open to any discussion on achieving its vision, of course balanced against the cost to ratepayers, noting that Council is not a public transport authority," Mr Lange said.

Gawler electrification

Preliminary site works are now under way between Adelaide and Dry Creek on the second attempt to electrify the Adelaide-Gawler Central suburban line after a hiatus of seven years.

The Gawler rail electrification works include:

- Installation of the overhead wiring system including masts and gantries
- Installation of a new signalling system
- Installation of an Automatic Train Protection system
- Installation of a new fibre optic communications system cable
- Purchase of 12 new Bombardier A-City 3-car electric trains similar to those used on the Seaford line.

The project recommenced in 2018 after it stalled following the withdrawal of Federal funding in 2013. When work on the Gawler project stopped, around 500 masts had been manufactured and 300 masts and footings had been installed. Preparatory works including utility diversions had also been underway, and this has resumed. The \$615 million project is being undertaken by construction company Lendlease.

A funding agreement has been reached with the Commonwealth Government with the State Government contributing \$395 million and the Australian Government \$220 million.

At present cable trenching for the new signalling system and construction of concrete footings to support masts and overhead wiring structures is under way in the Adelaide- Dry Creek section. The project completion is expected in 2021.



Left: A Down Gawler train formed by DEMUs 3012+3010 is speeding express past Kudla station on Thursday 6 February, through a line of precast masts erected and unused since 2013. Note that from this point on masts were erected only on one side of the tracks. Ian Hammond

Below: On Wednesday 5 February, DEMUs 3023 + 3017 arrive at Gawler Central station from Adelaide, passing under the King Street bridge, which is expected to be demolished due to its inadequate clearance for electric overhead. Ian Hammond





Above: TasRail ballast trains are usually powered by a pair of DQ class Clyde/EMD locomotives, but on Wednesday 5 February the two nominally 'spare' DQ class units normally allotted the task had been temporarily assigned to the Fingal coal train. This resulted in the uncommon event of a TR class Progress Rail/Caterpillar unit working the ballast train. TR05 is seen entering the Tea Tree loop after dropping ballast between there and Brighton. The ex Emu Bay Railway hopper wagons have recently been fitted for air operation of the hopper doors, and are seen mingled with the former Queensland Rail hopper wagons. Bruce Tilley

Below: On Wednesday 8 January, Don River Railway railcar DP22 and trailer wait in the platform at Coles Beach Junction ready for the return service to Don as TasRail locomotives TR14 and TR01 run past on the main line with a Brighton-bound intermodal freight from Burnie. Stephen McLachlan





Clyde/EMD units G521 (owned by the train's operator, Qube Logistics) and X31 (hired from Seymour Rail Heritage Centre) haul the Hanson Apex Quarry train through Kilmore East on Friday 7 February. Greg Best

V/Line train hits derailed wagons in north-east Victoria

A V/Line train collided with a wagon from a derailed freight train in north-east Victoria on Wednesday 29 January.

At approximately 5.42pm, north bound Pacific National (PN) freight train 4MC2 - travelling from Melbourne to Griffith in NSW, had several wagons derail bringing the train to a halt in the township of Barnawartha (291 kilometres from Melbourne on the North East line). Shortly after Train No.8630 V/Line loco hauled passenger service, travelling from Albury to Melbourne on an adjacent track, struck a container from a derailed wagon from the PN train.

Seventeen passengers and three crew were assessed by ambulance services and no injuries occurred.

A Victorian Country Fire Authority spokesperson said a number of the wagons were alight when emergency services arrived, and the flames sparked a grassfire. The spokesperson said no dangerous goods were on board either of the trains and the fire was quickly brought under control.

Ambulance Victoria said paramedics were called to the scene but no-one was transported to hospital.

Australian Transport Safety Bureau officers completed their initial on-site assessments at around 5pm on Thursday 30 January, allowing recovery operations to begin.

In addition to the task of recovering wagons, components and containers from the track and moving the V/Line train, Australian Rail Track Corporation staff had to replace more than 1800 damaged sleepers and more than 180 metres of damaged rail.

Despite temperatures reaching more than 44 degrees in the recovery site area, limited train services had resumed by Sunday 2 February.

Overheight vehicle strikes Warrnambool rail overpass - trailer with excavator rolls

A truck, hauling a trailer carrying an excavator struck the Simpson Street rail overpass in Warrnambool on Thursday 9 January, causing the trailer to roll and block the road.

(Warrnambool is the terminus of the Victorian South West line. It is located 267 kilometres from Melbourne's Southern Cross station.)

Warrnambool Highway Patrol Acting Sergeant Corey Holland said the northbound truck hit the overbridge bridge at about 1.30pm. The male driver in his 50s was uninjured. A crane was called to remove the tipper-truck combination, which was carrying an eight-tonne excavator.

The bridge has a 3.4-metre clearance and Acting Sergeant Holland said that it was the excavator that hit the bridge structure. He said it was lucky there were no oncoming vehicles passing the truck at the time of the crash.

"The consequence could have been fatal," he said.

A V/Line engineer assessed damage to the bridge and rail line. Train speeds were initially reduced to 10 km/h through the area as a safety precaution until a detailed inspection was completed.

The bridge is gaining a name for itself after police and residents recall multiple collisions there.

"We have seen incidents in the past where vehicles have underestimated the height and struck this bridge," Acting sergeant Holland said. "It's included buses and garbage trucks".

A nearby resident came to assist with traffic direction after hearing an "almighty bang". She said similar incidents had happened "multiple times". In November 2018 a truck carrying polystyrene foam crashed into the bridge, while a freight delivery truck became wedged under it in 2014.

Around Melbourne

New stations and three level crossing removals on Frankston line

Melbourne's south-east will see a rail construction blitz in May 2020, with designs released for Mentone station gardens and preparations commencing for the removal of three level crossings.

The designs for the gardens at Mentone station (located 24.3 kilometres from Southern Cross station) were based on community feedback, and feature a large new recreational area. The new heritage deck will provide 540 square metres of new community space in Mentone, as well as more green space, wider paths, with ramps to improve accessibility.

The works on the Frankston line will also include the removal of three level crossings.

Major construction on two new modern stations at Cheltenham (22.4 kilometres from Southern Cross) and Mentone began in late 2019 with a rail trench, which will lower the Frankston line under Park Road and Charman Road in Cheltenham as well as Balcombe Road in Mentone.

Preparations for the construction of two new modern stations mean the existing Mentone station will close in late March 2020 and the existing Cheltenham station will close from mid-April 2020. Trains will travel express through the closed stations until a two-month closure of a section of the Frankston line, which will run from mid-May to mid-July 2020.

The new stations are expected to open shortly after the closure period with finishing works continuing into early 2021.

During construction five heritage-listed trees in the Mentone station gardens – three Canary Island date palms and two Norfolk pines – will

be protected and the heritage-listed Mentone station buildings will be refurbished on site.

The Friends of Mentone Station and Gardens community group have been a key part of the work at Mentone to date and will continue to be involved in the project as construction commences.

Works at Cheltenham and Mentone are part of a \$3 billion investment on the Frankston line, which includes the removal of 18 level crossings, with five already removed, and the construction of twelve new stations.

Drunk driver stuck on rail line at Essendon station

A drunk driver had a close call after getting her car stuck on tracks in Melbourne's northwest as a train approached.

The 60-year-old woman is believed to have lost control of her car while in the car park at Essendon Station (located 8 kilometres from Southern Cross station on the Craigieburn line) about 12am on Friday 24 January.

She ended up with the car straddling both lines to the north of the station as a train approached. The train was brought to an abrupt stop, narrowly avoiding the car.

There were long delays on the Craigieburn line with trains suspended as emergency services removed the car.

The woman was taken to a nearby police station where she underwent a breath test, returning a reading of 0.105. She had her licence suspended, car towed and is expected to be charged on summons with drink and careless driving offences.



SSR Clyde/EMD units P16 and T385 approach Footscray station as they transfer a Metro X'Trapolis EMU from Newport to the Alstom workshops at Ballarat on Wednesday 12 February. Scott Mitchell



Clyde/EMD shunter Y129 pulls a carriage set from Southern Cross Station to the car sidings on Friday 27 December 2019. Peter Sansom

\$496 million level crossing removal contract awarded

An alliance comprising of Laing O'Rourke, Jacobs and Metro (MTM) has been awarded a \$496 million contract to remove the dangerous and congested level crossings at Manchester Road, Mooroolbark and Maroondah Highway, Lilydale. (Mooroolbark and Lilydale are located on the suburban Lilydale line 33.1 and 37.8 kilometres respectively from Flinders Street station.)

More than 53,000 vehicles use the crossings each day with boom gates down for up to a quarter of the morning peak.

Detailed design work will begin in 2020 to incorporate community feedback into the previously released concept designs. Hundreds of local residents have already provided input into the project and they will have more opportunities, as the designs are further refined.

The removal of the level crossings will involve the building of new rail bridges and two new stations in order to reduce travel times and improve connectivity across all modes of transport. A multi-deck carpark will also be built at Mooroolbark station with up to 450 new and upgraded spaces to increase parking options.

Construction will begin in mid-2020 and is expected to be completed in 2022.

Toorak Road level crossing will be removed ahead of schedule

The busy Toorak Road level crossing on the Glen Waverley line in Kooyong will be removed more than six months ahead of schedule, with traffic set to flow freely and trains travelling over the new rail bridge in April 2020.

On Thursday 23 January Victorian Minister for Transport Infrastructure Jacinta Allan visited the site, where teams have been working around the clock on the bridge structure.

In January work crews installed 18 massive concrete columns that will support the new rail bridge, and in February and March, 20 large U-troughs will be installed to form the rail bridge. Retaining walls to support sections of the rail bridge are also taking shape at the rail reserve in Tooronga Park and along Talbot Crescent, located between Kooyong and Tooronga stations (seven and 8.4 kilometres respectively from Flinders Street station on the Glen Waverley line).

To enable the level crossing removal to be completed safely, efficiently and earlier there will be changes to the way people travel around Toorak Road. Buses replaced Glen Waverley trains on the second-last weekend in February and will continue to do so through most of the Easter school holidays – making use of the quieter holiday periods to avoid disruption. There will be a range of road closures to support these works, with most closures scheduled for off-peak periods.

Removing the level crossing will ease a major bottleneck for the 37,000 vehicles that pass through the crossing each day, improve cycling and pedestrian connections and create new open spaces for the community to enjoy.

Finishing works and landscaping will be completed in early 2021 with more than 23,000 trees, plants and grasses planted in the area.

The Victorian government is removing 75 level crossings by 2025, with 31 already gone.

For information about the project visit levelcrossings.vic.gov.au.

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

WA government seeks builder for Morley-Ellenbrook line

The search for a company to deliver the METRONET Morley-Ellenbrook Line has begun, with the release of a Request for Proposal (RFP) to the market on Thursday 16 January. The RFP calls on companies to design, construct and commission the new METRONET rail line under a competitive alliance model.

The main works contract is the biggest of four works packages that will deliver the Morley-Ellenbrook Line, including the Bayswater Station upgrade and Tonkin Gap projects.

The two best submissions for the main works will be shortlisted, with the shortlisted consortia required to provide a detailed bid indicating how they plan to deliver the project.

Enabling works for the Morley-Ellenbrook Line started with early works at Bayswater Station in late-2019, while construction of the rail tie-in will be part of the Tonkin Gap project.

(The Tonkin Gap Project will address the current bottleneck where the Tonkin Highway reduces from three lanes to two lanes in Bayswater and Redcliffe. The project features construction of an underpass and dive structure north of Railway Parade, Bayswater, to enable the railway to enter the Tonkin Highway median. The Tonkin Highway is a 51-kilometre north-south road that links Perth Airport and Kewdale with the city's north-eastern and south-eastern suburbs. The southern terminus of the highway is located in Ellenbrook.)

The RFP process closes in March and will lead to the main contract being awarded later this year, adding to the construction that will already be underway as part of Bayswater station and Tonkin Gap project.

The main works contract will include the design, construction and commissioning of rail track, systems and five stations. This will include bulk earthworks and retaining, structures, grade separations, roads and drainage.

The 21 kilometre Morley-Ellenbrook Line will branch off the Midland Line at Bayswater, run up the middle of the Tonkin Highway, through land north of Marshall Road, along the western side of Drumpellier Drive (formerly New Lord Street) and finish in the Ellenbrook town centre.

Five stations - Ellenbrook, Whiteman Park, Malaga, Noranda and Morley - will be built as part of the project, with a future-proofing provision for a sixth station at Bennett Springs East, as population levels increase and development continues in the area.

Site chosen for new Midland station

The ageing Midland railway station will be demolished and replaced with a new station nearby at a cost of about \$160 million.

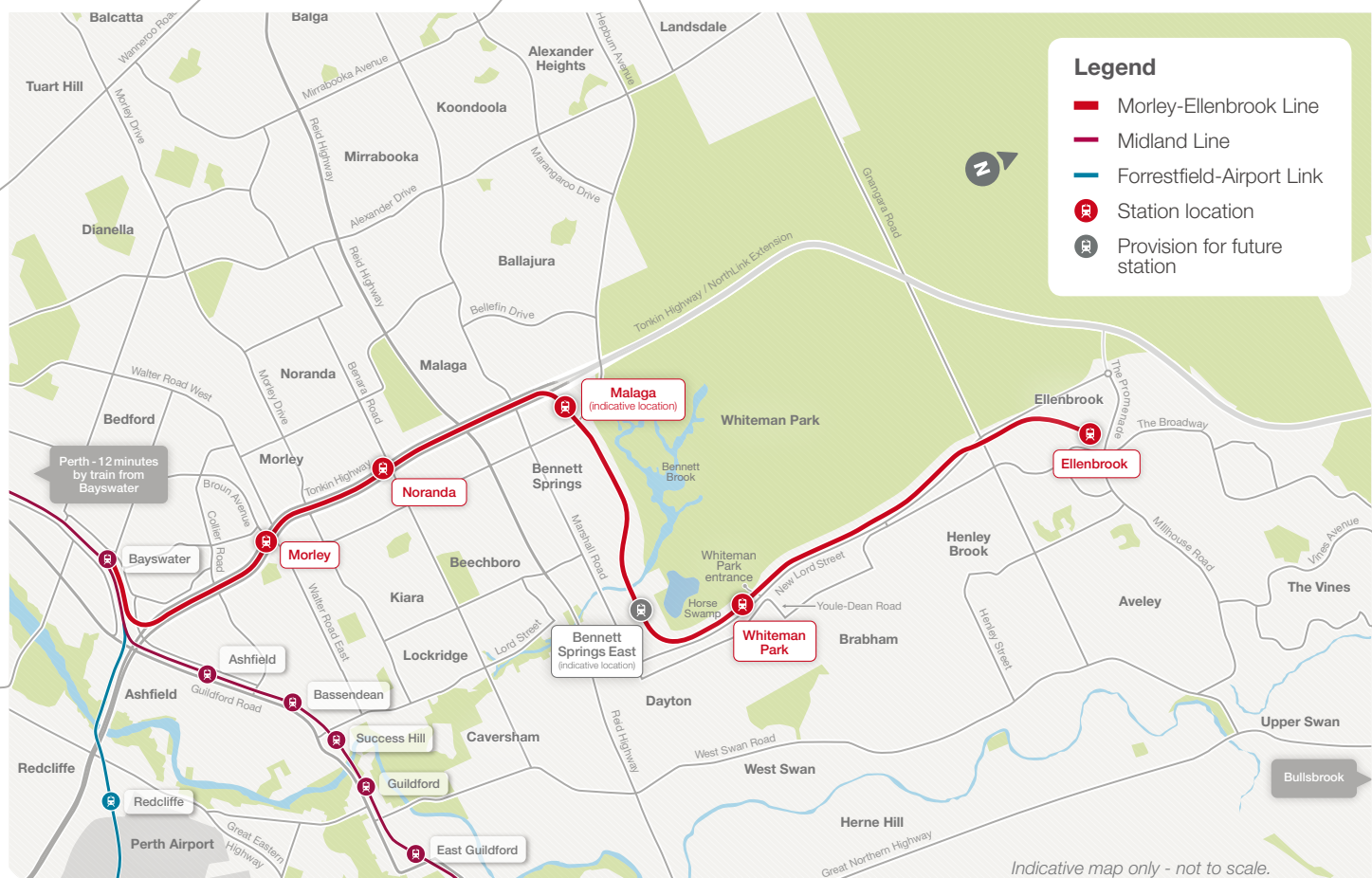
The WA government confirmed the location for Midland's new station on Tuesday 14 January, with the current 51-year-old station to be replaced with a new facility located further east between Helena and Cale streets, bringing it closer to the heart of Midland's growing commercial centre, Midland Health Campus and the Bellevue railway workshops precinct. Relocating the station further east was required to facilitate electrification of rail lines to Bellevue, where construction of a new railcar manufacturing and assembly facility will begin in the first half of 2020.

(Midland station is located 16 kilometres from Perth. It is the terminus of the suburban Midland line. The station features two narrow gauge platforms for Transperth Midland line services and a single through standard gauge platform.)

The new station will include three platforms, a new bus interchange, car park, bicycle facilities and a new shared path.

As part of the new Midland station project, the Helena Street level crossing will be closed and another crossing created at Cale Street, which will connect to Centennial Place.

With the new station location confirmed, planning will now focus on details such as station layout and design in preparation for procurement and construction.





By Sunday 2 February the 'airbridge' connecting the under-construction Airport Central station to Terminal 1 at Perth Airport was substantially complete. This view looks to the station construction site. David Whiteford

The business case for the project has been submitted to Infrastructure Australia and the project definition plan will be completed in mid-2020. The Federal Government has already committed \$80 million to the project and WA Transport Minister Rita Saffioti said the \$80 million cost to the State would be new money in the next State budget.

Early works will start this year with an expected completion date of late 2022 or mid-2023. The existing station will remain operational during most of the construction of its replacement, but Ms Saffioti warned there "will be impacts" to services.

Redevelopment plans for the old station site, potentially to include housing and parking, will be drawn-up in conjunction with the City of Swan.

Midland's Labor MP Michelle Roberts said the new location would serve both sides of the railway, connecting to the town centre and shopping centre, as well as the redevelopment around the railway workshops.

Planning for an extension of the Midland line to Bellevue is being considered.

New North Dandalup Station open

The new North Dandalup Station was officially opened on Thursday 23 January by Western Australian Minister for Transport Rita Saffioti.

(The small town of North Dandalup is located approximately 72 kilometres from Perth station on the WA South Western Railway. It is an 'as required' stop for *Australind* services.)

Work began in September 2019 (see October 2019 *RD*, page 30) to replace the station's existing low-level platform with a raised platform, which is now fully compliant with Disability Discrimination Act standards.

Two car bays and one ACROD (Australian Council for Rehabilitation of Disabled) bay, line marking and bollards, new kerbing and bitumen surfaces have also been installed, along with better pedestrian paths. The total upgrade cost was \$750,000. The new raised platform, which includes a shelter, will improve the experience of Transwa passengers travelling on the *Australind*, which operates daily between Perth and Bunbury.



The new North Dandalup Station, viewed from the car park side. Public Transport Authority of Western Australia



AC4307, AC4304, Q4003 and Q4011 on 025 Kalgoorlie freighter from Kwinana at Midland at 7:20pm on Saturday 25 January. Cooper Whitehead

On the same day, similar station improvements, costing \$650,000, were officially opened at the South Western Railway line station at Cookernup (128 Kilometres from Perth)

Australind Action Plan and WA-made railcar design revealed

Western Australian Premier Mark McGowan and Transport Minister Rita Saffioti visited Bunbury station on Thursday 23 January to unveil the designs of the new \$54 million *Australind* railcar sets.

A key part of the Government's \$1.25 billion railcar program (see February 2020 *RD*, page 26), the two new *Australind* diesel multiple unit (DMU) trains, each consisting of a three-car set, will have a modernised interior, with USB connection points, Wi-Fi, an improved kiosk, upright storage for 16 bicycles, and three toilets.

The railcar sets, being built by Alstom Transport Australia at a new manufacturing and assembly facility in the eastern Perth suburb of Bellevue, are expected to be delivered in 2022-23.

The existing ADP/ADQ class railcars operating the Perth – Bunbury *Australind* passenger service began operation in November 1987. They were originally planned to have an operational life of up to 30 years. While extensive maintenance has been undertaken to keep the DMUs operational, ageing and obsolescence led to a number of delays and cancelled services during 2019 (see July 2019 *RD*, page 25).

Following passenger feedback, the WA government is implementing the *Australind* Action Plan to reduce the impact on passengers who rely on the *Australind* in the event of failure prior to the delivery of the new Alstom railcars. From May, the WA Government is introducing a trial non-stop road coach service departing from Bunbury Station at 6am every weekday and returning to Bunbury in the evening. The road coach will drop passengers at Mandurah Station (located 70.1 kilometres from Perth station on the suburban Mandurah line), where they can continue their journey free of charge on the metropolitan rail system by presenting their Transwa ticket.

The government has also introduced a credit program for *Australind* rail passengers - if their train journey is delayed by more than an hour due to maintenance issues or failure of rolling stock, they will be given a credit to take their next journey free of charge.

Artist's impression of the exterior design of the new *Australind* railcars to be manufactured by Alstom Transport Australia. Public Transport Authority of Western Australia





Western NSW infrastructure update

Parkes – Narromine track laying under way, Hermidale siding in service

Text and images by John Hoyle

Parkes – Narromine track laying reaches Peak Hill

Since the last update covering the reconstruction of the Parkes to Narromine line to form part of the New South Wales section of the Melbourne – Brisbane Inland Railway (see November 2019 *RD*, from page 30), the major development has been the commencement of track laying northwards from Goonumbra, 19 kilometres north of Parkes, working towards a point near Narwonah, south of Narromine where the Inland Rail alignment will diverge to bypass Narromine. Goonumbra was formerly the loading point for mineral concentrates (primarily copper) derived from the Northparkes mine, 13 kilometres to the west.

While the line north of Goonumbra to near Narromine had been lifted for reconstruction, the Goonumbra – Parkes section was kept open to allow loading of the mine's output on to Pacific National trains for transport to Port Kembla. Following the commissioning last September of Pacific National's Parkes intermodal terminal (see December 2019 *RD*, from page 6) the Northparkes concentrates are now trucked to the new terminal, allowing the Parkes – Goonumbra section to be lifted and rebuilt. Work on this section is currently concentrated on rebuilding the formation and commencing track laying from Parkes following the removal of the old track.

Tracklaying north from Goonumbra had, by late January, reached to just north of Peak Hill. A ballast train, comprising CFCLA Goninan/GE GL Class units 110 and 112, 26 CHAY wagons, two CHOY wagons and two CHTY plough wagons is based at Goonumbra, in isolation from the rest of the network. The train is loaded with ballast using the hardstand area previously utilised to load the Pacific National mineral concentrate trains. Qube Logistics is operating the train. Work has also commenced on providing a crossing loop of 1,945 metres length around three kilometres south of Peak Hill. The grain siding at Peak Hill is also being rebuilt. It will be 1,106 metre in its reconstructed form. Some signalling has been installed at both locations.

The rebuilt line will also have two other crossing loops – at Nanardine (1,930 metres long), six kilometres south of Goonumbra and Timjelly (2,047 metres), four kilometres north of Wyanga. The Goonumbra siding will be retained for loading the mineral concentrate

trains when the line reopens. Dead-end maintenance sidings will also be located at Alectown West, Mickibri and Wyanga – all three locations are sites for disused grain silos and sidings. A block point, comprising Up and Down location and yard limit boards to allow closer follow-on of trains, will be established at Tomingley West.

InLink, a joint venture of the BMD Group and Fulton Hogan, has overall responsibility for the 98.4 kilometre Parkes – Narromine reconstruction project, including the provision of earthworks and other civil engineering such as culverts. The track component is using 38,000 tonnes of 60 kg/m rail supplied under a \$51 million contract by Liberty Steel at Whyalla and, through a \$20 million contract, 200,000 concrete sleepers from Rocla at Braemar in the NSW Southern Highlands. The actual track laying is being delivered by the Fastrak Joint Venture comprising Unanderra-based Taylor Rail Australia Pty Ltd and United States-based Fluor Rail Services Pty Ltd. Taylor Rail and Fluor have worked with each other for more than 15 years on the east coast of Australia. Taylor Rail is providing a tamper and ballast regulator for the work. Forbes-based company Calvani Crushing is delivering more than 150,000 tonnes of ballast and 75,000 tonnes of capping material while Ausrock Quarries, located at Goonumbra, is providing 45,000 tonnes of ballast and 45,000 tonnes of capping under a \$2.1 million contract.

By the end of 2019 a total of 82.7 km of existing track had been removed and 38.5 kilometre of new track had been installed. The ARTC says that at that date \$46.7 million had been spent with local businesses, 84 such businesses had supplied to the project and 395 local residents had been employed. The entire Parkes – Narromine reconstruction is expected to be completed around the middle of this year.

In other Inland Rail news, Pacific National trains continue to deliver rail and sleepers to the Moree – North Star line. Upon completion of deliveries to that section the focus will move to the Narrabri – Moree line. Two networking events were held during January to allow the three shortlisted contractors for the Narrabri to North Star section to meet local businesses ahead of the awarding of a contract around mid-year. The three short-listed contractors are Lendlease Engineering Pty Ltd, RailFirst (a joint venture between Downer EDI and Seymour

Left (page 30): Operating in isolation from the rest of the rail network the ballast train used for the Parkes – Narromine line reconstruction is seen here on Tuesday, 21 January at Trewilga, seven kilometres south of Peak Hill, on its return journey to its “home” at Goonumbla where it will be loaded with more ballast. The train is powered by GL Class Goninan/GE units 110 and 112 bookending 26 CHAY wagons, two CHOY wagons and two CHTY plough wagons. Both locomotives and wagons are leased from CFCLA. Qube Logistics is the train’s operator. GL 112 was once painted in Freightliner livery when it was on long term lease to that operator.

Right: Looking south on Tuesday, 21 January from the Coradgery Road level crossing at Peak Hill reconstruction has commenced on the siding serving GrainCorp’s silos in the background with point work and signals installed. The reconstructed siding will be 1,106 metres in length. Approximately three kilometres further south a new Peak Hill (south) crossing loop of 1,945 metres is under construction.



White) and Trans4m Rail (a joint venture between Rhomberg Rail Australia, John Holland and SEE Civil). An Inland Rail regional office was opened in January at Moree to allow connection between the project and local residents and businesses. Crooble farmer and former Gwydir Shire Councillor Angela Doering will be the liaison person at the Moree office.

Hermidale siding commissioned

Although the \$300 million Parkes – Narromine reconstruction project currently dominates the regional NSW rail infrastructure scene, smaller projects, funded under the NSW Government’s Fixing Country Rail program, are delivering benefits to rail operators. The \$60 million rerailling and upgrading of the Junee to Griffith line is currently the largest project under this program.

However, another project funded under Fixing Country Rail, the provision of a multi-user siding at Hermidale, 666 kilometres from Sydney on the Nyngan – Cobar line, is starting to deliver benefits to rail operators and customers. Costing \$2.5 million the 1,330 metre siding serves the intermodal (unsealed) hard stand area at that location and eliminates the need for trains to “top and tail” locomotives on trains to Hermidale and load on the main line. The latter practice could block other trains serving Glencore’s CSA mine near Cobar (served by Qube) and the CBH Resources Endeavour mine at Elura served by Pacific National. However, CBH Resources announced on 13 December 2019 that the Endeavour mine was to be placed into Care and Maintenance mode. The decision was made as a result of the depletion of current known reserves and the time and cost required to access deeper known resources.



The Fastrak Joint Venture comprising Unanderra-based Taylor Rail Australia Pty Ltd and United States-based Fluor Rail Services Pty Ltd is responsible for track laying for the Parkes – Narromine upgrade. In this Tuesday, 21 January 2020 view Taylor Rail’s tamper and regulator are slowly moving forward along the freshly ballasted track between Mickibri and Peak Hill.



The siding is laid with pre-used rail displaced from the Parkes – Narromine line by the upgrade project mentioned earlier. The rails were transported by Southern Shorthaul Railroad to the site in May last year. Constructed with steel sleepers, the siding is equipped with the usual lever frame, points indicators and catchpoints at each end. During the siding's construction the new track was partially covered with soil placed on geotechnical fabric to allow the container handlers to move across the under-construction siding to reach container wagons standing on the main line. As it is located in Train Order territory, Location, Yard Limit and Shunt Limit Boards are provided. Work on the siding was completed by John Holland Country Regional Network (CRN) in early December.

In addition to its primary purpose of loading trains, the siding can be used for crossing trains. An example occurred on 27 December 2019 when Fletcher International Exports/Southern Shorthaul Railroad train No. 8849 powered by FIE class 001 was loading at the siding while Qube's No. 8863, powered by NRE units 1107 and 1108, arrived on the mainline and then moved in to the siding when the Fletcher train departed.

The siding's construction was prompted by increased mineral concentrate output, primarily lead, zinc and copper, from the two companies that truck their products to Hermidale for export through the ConPorts ship loader (owned by CBH Resources) at Carrington,

Newcastle. These are Aurelia Metals' Hera silver, lead, zinc and gold mine near Nymagee, 74 km south west of Hermidale and AERIS Resources' Tritton and Murrawombie mines, located between Hermidale and Girilambone – the latter being a former station on the closed Nyngan – Bourke line. Aurelia Metals Hera mine produced 6,599 tonnes of lead and 10,129 tonnes of zinc during last financial year while AERIS Resources combined output from its two mines was 26,852 tonnes of copper.

The siding is currently served by three rail operators – Pacific National, Qube Logistics and Fletcher International Exports/Southern Shorthaul Railroad. The latter also provides "reverse" business for the siding in the form of containerised cement railed from Port Botany and used by the mining companies (see photo, page 10, November 2019 *RD*). Three Omega container handlers are currently employed at Hermidale. With the mothballing of the Endeavour mine at Elura the Hermidale siding has acquired greater importance in terms of railing minerals out of the Cobar mining area. Being a multi-user siding, it can be used by other customers including local grain farmers that might want to hire a train to load grain from the area. However, while the current drought conditions prevail this would be unlikely. Grain trains have loaded at the site in the past, well before it became a formal loading point for minerals.



Above: The new siding at Hermidale, between Nyngan and Cobar, was being put to good use on Wednesday, 22 January, 2020 when Qube's No. 8861, comprising CFCLA Goninan/GE unit GL107 and 29 SQDY wagons, was being loaded with mineral concentrate containers for transport to Newcastle for export. The truck on the right was being loaded with containers for transport to one of the three mines using the siding while the "tanktainers" used for cement transport, stored on the right, are hauled by Fletcher International Exports/Southern Shorthaul Railroad from Port Botany to Hermidale. **Left:** Two Omega container handlers are at work in the dusty environment loading the train with "half-height" mineral concentrate containers for transport to Newcastle for export.

In addition to the commissioning of a new siding at Hermidale, Cobar line rail operators will benefit from the crossing loop/siding at Nyngan being lengthened by 390 metres to 838 metres. This work was completed by John Holland Country Regional Network in December 2019. The lengthened siding is seen in this Monday, 20 January view from the Moonagee Street (Mitchell Highway) level crossing.



In addition to the Hermidale siding the Cobar line will benefit from the lengthening of the crossing loop at Nyngan by 390 metres to 838 metres. This work was completed by John Holland CRN in December 2019. The additional rail for the extension was sourced by lifting the former rarely-used goods siding last August – a good example of recycling assets.

In commenting on the commissioning of the Hermidale siding NSW Parliamentary Secretary for Regional Roads and Infrastructure, Chris Gulaptis, said the new siding will improve efficiency for rail operators loading at Hermidale and should reduce supply chain costs. Mr Gulaptis said the NSW Government had so far committed to invest more than \$225 million into the Country Regional Network under the Fixing Country Rail Program since 2016.

The Fixing Country Rail program is a good example of how regional rail can benefit from a regular, ongoing injection of funding to upgrade infrastructure rather than leaving country lines to deteriorate and then suddenly either close them or have to obtain “crisis” funding to keep them open (as has happened in Victoria).

Lines such as Walgett, Naradhan, Cobar and Coonamble have all benefitted under the ongoing program to the extent that they are now equipped with steel sleepers, recycled heavier rail and concrete bridges, which allows them to accommodate heavier locomotives and trains and, importantly, remain intact with minimal maintenance during periods when few trains use them as applies to some of those lines during the current drought.



The Last Train to Carlingford

Chris Walters



Saturday 4 January 2020 was a day where Penrith in western Sydney was officially recorded as the hottest place on Earth and the dire bush fire crisis threatening the south eastern states of Australia became a global conversation. Buried well down in the day's news cycle was another, somewhat less dramatic turn of history for this was also the last full day of heavy rail passenger operation on the 'ugly duckling' of the Sydney Trains network – the seven-kilometre Carlingford branch line. The very last services on this otherwise minor, and comparatively under-utilised railway actually operated during the very small hours of Sunday 5 January but, despite local temperatures creeping into the mid-40s, it was the Saturday that saw large crowds turn out to farewell the branch ahead of its conversion and absorption into the under-construction Stage 1 of the Parramatta Light Rail route from Westmead to Carlingford.

The Carlingford line, along with the neighbouring Sandown branch, has always been an intriguing, if often overlooked chapter in Sydney's larger railway story. The line is actually two separate branches that came to form something of a 'mini railway network' which, despite sitting literally on the eastern fringe of the busy Parramatta CBD, never fully realised its proposed extent and potential. The branch was originally two separate private railways, the first opened in 1888 by John Bennett running from Clyde to Rosehill (to serve his 1885-built racecourse) with its own branch to nearby Sandown, and the second constructed by Benjamin Christian Simpson from Rosehill to Pennant Hills (later renamed Carlingford), which was completed in 1896. Originally this second line – which became quite notorious for its steep climb north from the Parramatta River, with the ruling grade being the 1:37 section from Telopea through to the terminus – was intended to push on through Castle Hill and up to Dural, but this was obviously never realised. The State Government took over both lines in 1901, with the Sandown line serving the industrial area (and its workers) east of Camellia and the Carlingford line serving market gardeners and passengers. The shared line was electrified to Rosehill in 1936 and this was extended to both Sandown and Carlingford in 1959.

Originally the shared Carlingford/Sandown line was a single-track route with the Sandown line connecting with the Carlingford line just south of Camellia Station. The shared section north from Clyde was

duplicated in 1902 to a point just south of Camellia Station where the Sandown line junction was then located. During mid-1992, both branches were re-signalled and the track layout at Rosehill/Camellia re-arranged – Sydney's last kerosene lit railway signals, a feature of the branch, were withdrawn at this time. The double track section was cut back to just south of Rosehill Station with a short single track section leading into the platform where the two branches then split. This had the effect of shifting the junction south by about 500 metres, with the eastern track through Rosehill now forming the Sandown line rather than the Up line, as had previously been the case. The two tracks ran in parallel to a point just south of Camellia Station, at which point the Sandown line veered due east to run through to the terminus. The passenger service to Sandown ended on 19 December 1991 and the last freight trains on the line operated in June 2010 (see September 2010 *Railway Digest*, from page 24). Following that special charters continued to operate as required along the Sandown line from Clyde to the racecourse platform at Rosehill right through into 2019.

Meanwhile, operations remained fairly consistent during the last few years of the Carlingford line's 'heavy rail' service, the noteworthy exception being that the branch hosted some of the last rostered workings of the non-air conditioned Comeng/Goninan S Set trains, which were regularly allocated to Clyde-Carlingford shuttles during the mid-week daylight services. Over time, these workings were more regularly shared with the slightly younger Goninan-built K and C set trains, before the S Sets were withdrawn from service on 28 June 2019, at which point the former S Set allocation was taken over permanently by the K and C sets. Evening and weekend work on the line was undertaken by a four-car Millennium M Set, and it was one of these trains – set M30 (cars D1062, N1562, N1563 and D1063) – which was rostered to work the line on Saturday 4 January 2020. M30 would spend the day running up and down the line, culminating in it running the last services early the following morning – run 49CL, the 00:34 last regular Up all stations service from Carlingford, run 49CM the 01:15 final Down service to Carlingford, and special run 49CN, a nominally empty car Up transfer from Carlingford to Flemington Maintenance Centre, which for this last occasion was scheduled to take passengers, stopping only at Clyde and Lidcombe.

Left (page 34): Millennium set M30 (cars D1062, N1562, N1563 and D1063) arrives in Carlingford with the final ever Sydney Trains service from Clyde on Sunday 5 January. Sydney Trains chief Howard Collins can be seen experiencing the moment from the cab of D1062.

Chris Walters

Right: Single-deck set Y1 (led by car C7495) crosses from the Carlingford to the Sandown branch at Camellia on Thursday 10 October 1991. Regular passenger services on the Sandown Line beyond Rosehill ended in December 1991 and from then on, race specials would operate to the Rosehill Racecourse platform, running forward to stable on the northern part of the Sandown line when required, until the wires were removed in 2002.

Chris Walters





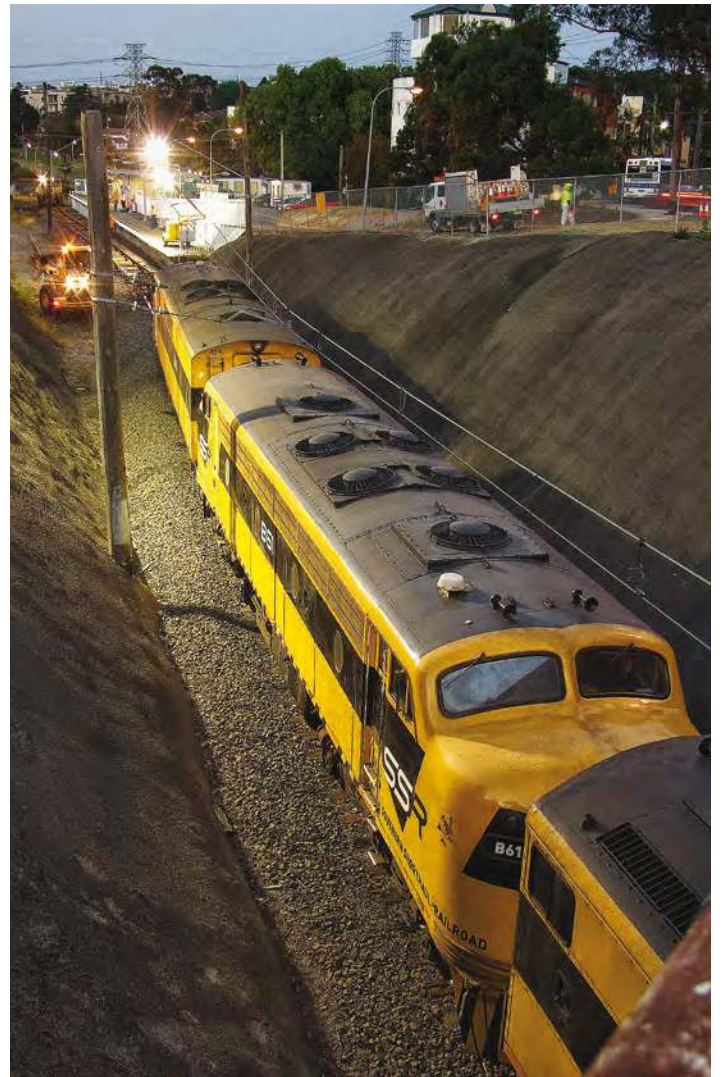
When the late Ken Winney visited Carlingford in 1950, electrification from Rosehill was still nine years away, and 20 class 2-6-4T 2007 was ready to return to Clyde with a three-car train of wooden end-platform carriages. The original weatherboard station building, destroyed by fire in December 1978, was in use, and not only did the terminus boast a run-around loop, but also a functioning goods yard. ARHSnsw Railway Resource Centre 434476

However, M30 was not the only train on the branch that stifling hot Saturday for Transport Heritage NSW, Historic Electric Traction, and Sydney Trains arranged for vintage single-deck 'red set' F1 (cars C7396, C3218, T4527 and C3426) to operate five return express shuttles between Clyde and Carlingford from 09:00 to 14:00. The normal Saturday morning timetable (operated by set M30) was adjusted slightly to accommodate the presence of F1, for the single-track Rosehill-Carlingford portion of the branch is a block section that can host only

one train at a time. That being the case, F1 and M30 were only able to cross each other between the junction at Clyde and the end of the double-track just south of Rosehill, or within Clyde Station itself. As was standard practice for the time, M30 operated into and out of Platform 1 at Clyde, while F1's first departure was from Platform 1, the remainder from Platform 3, and it used Platform 2 on returning from the branch. In between journeys up the branch, the vintage set shunted in to the Clyde Electric Storage Siding to clear the main lines through Clyde Station.

As a relative backwater of the Sydney system the Carlingford line tended to get the oldest rolling stock to serve out its final years. Here on a sunny Sunday afternoon 1 July 2012 a rather tired Mk 1 Comeng C3857 sits at the head of S53 ready to depart Clyde. These were the oldest S set cars (1972 vintage) and were withdrawn a few years before the later examples served out their last years on the Carlingford and Olympic Park lines. The Mk 1 cars were known by their partially smooth side panels and tapered cab and pantograph ends, later cars having continuous 'Budd' scalloped ribbing and a flat pantograph end, whilst the final S set cars had a flat cab end as well and different 'Pullman Standard' square fluting. Dominik Gienza





Southern Shorthaul Railroad veteran Clyde/EMD streamliners GM10, B61 and S317 make a rare appearance at Carlingford with a spoil train during a track work shutdown on Saturday 20 October 2007. Chris Walters



The major piece of infrastructure on the line is the steel truss bridge over the Parramatta River at Camelia, which replaced the original wrought iron lattice bridge in 1995. It was built to accommodate two tracks if required, so will be utilised by the new light rail line. In this view from the north side of the river, a Clyde-bound K-Set crosses the bridge on Thursday 2 January 2020. Basil Hancock



Above: Operating as train HK36, RailCorp 48 Class locomotives 4827 and 4819 top n' tail the AK test train in Carlingford Station on Wednesday 7 July 2010. Operating in push-pull formation was the only way for locomotive-hauled trains (steam, diesel or electric) to access the Carlingford line north of Rosehill, once the run-around loop had been removed from the terminus. Chris Walters

Below: One of the rarely photographed heritage stations on the line was Dundas, which although much modified still retained the original steam era wooden building. Here on the evening of Monday 13 August 2018 an untargeted S set awaits as new tower blocks loom behind it. Dominik Giemza





City of Parramatta Councillor Donna Davis, sensing an opportunity to bring the community together to both commemorate the closure of the old line and look forward to the new light rail development, commenced a social media campaign to promote travel on the line on the last day. That grew into a mini street fair that filled Carlingford Station's forecourt on the Saturday morning and ensured that a horde of locals and interested travellers descended on the branch for one last ride. Sydney Trains Chief Executive Howard Collins also spent the day at Carlingford and travelling up and down the line – including riding 'shotgun' on the very last train out of Clyde – meeting and greeting staff and passengers alike. Following the end of F1's shuttles, M30 resumed the regular weekend timetable and provided a welcome, air-conditioned haven for the crowds who continued to ride the line and visit the stations well into the night.

By the time that M30 made its final visit to Carlingford, arriving a few minutes late at 01:38 on Sunday morning, and then departing again

for the final time at 01:46 bound for Clyde and Lidcombe with minimal fanfare (although still quite a few people on board), contractors were already well into fencing off the station area ahead of demolition and early works. The line from Carlingford down to Camellia will be converted to form the north-eastern extent of the under-construction Stage 1 Parramatta Light Rail network. (See report and map on page 16 of this issue.) This will include duplicating the Camellia to Carlingford section to allow for a far more frequent service than the former 'heavy rail' operation could ever manage.

From Camellia, the light rail route will veer west to cross a new bridge over James Ruse Drive and proceed along Tramway Avenue into Parramatta itself while the former Sandown Branch to the east will be re-purposed to serve a new light rail depot adjacent to Grand Avenue. This latter corridor is also under consideration for being incorporated into Stage 2 of the light rail network linking Camellia with Olympic Park.

Above: Heritage single-deck 'red set' F1 (cars C7396, C3218, T4527 and C3426) approaches Carlingford station on the final day of operation. As the sign indicates, the section from Rosehill to Carlingford was a single track block section without any signalling, meaning only one train could be north of Rosehill at any one time. Dominik Giemza

Right: Standing room only in car T4527 as heritage set F1 heads down hill from Clyde to Carlingford during one of its special shuttle runs on Saturday 4 January. The temperature on the branch line that day hit and then exceeded forty degrees celsius, making for a sultry, if nostalgic experience on the non-air conditioned single-decker train. Chris Walters



Right: There is a certain irony as K set 74 pulls into Camellia on the second last day of operation on the branch, while a poster proudly proclaims and celebrates 132 years of operation on the Carlingford Line! David Potter

Below: Service 49AS, worked by Set K74 (made up of cars C3532, T4198, T4207 and C3541), rolls into the Carlingford terminus at 12.10pm on Thursday 2 January. A number of intending passengers snap their shots of the arrival on what was the ante-penultimate day of heavy rail services on the line. Security fencing at Carlingford made for a limited number of possible photographic angles... unless one was prepared to take to the sky! By Monday 13 January these rails had been removed, and within a few days the line had been pulled up all the way down to Rydalmere. Wayne Eade



South of Camellia the remainder of the branch through Rosehill Station and across Parramatta Road into Clyde Station will largely become redundant and the rails will most likely be lifted. The downside of this is of course the loss of a direct heavy rail service to Rosehill Gardens Racecourse (although the new light rail route will service the precinct's northern side), while the benefit is the removal of the road traffic disruptive level crossing on Parramatta Road. One portion of this section that will remain is the short distance from Clyde Station to the Mechanised Track Patrol Vehicle (MTPV) depot sidings on the western side of the branch just south of Parramatta Road, where Mermec-manufactured MTPV1 and MTPV2 are based. However, the exact nature of these changes remains to be seen.

In the meantime a new Route 535 bus service has been introduced to provide an interim replacement service running in both directions

between Carlingford and Parramatta Station that broadly follows the route of the old branch line between Carlingford and Camellia. The bus service runs nearby, but not directly to both Camellia or Rosehill Stations and skips Clyde Station all together. Transport for NSW claims Opal data demonstrates that most users of the former Carlingford line only used Clyde as an interchange point, and so a direct connection to Parramatta Station instead is being touted as an improvement for those customers who will use the Route 535 service. Demolitions and early works as part of the conversion of the Camellia to Carlingford section to light rail were expected to start during January, while the full Stage 1 of the light rail from Westmead to Carlingford is expected to open during 2023.

Many thanks to Ben Barnes, Steve Burrows, John Hoyle and Trent Nicholson for their assistance in preparing this article.





Above: Locals bid farewell to the second last stopping Up train at Telopea. Dominik Giemza

Below: Set M30 crosses Parramatta Road at Clyde with Run 49CL, the last regularly scheduled all stations service from Carlingford to Clyde just after midnight on Sunday 5 January 2020. Following this, set M30 still had one more Down service back to Carlingford to run, followed by a special express movement back to Clyde and Lidcombe to close down operations on the branch. The section from Clyde to Rosehill, including this notorious level crossing, does not form part of the light rail conversion plan, and so these rails are not expected to be retained. Chris Walters



Albany revisited and other travels!

Part two

Text and images by Phil Melling



In Part one, in the February issue, we travelled from Geraldton down to Cuballing in the Upper Great Southern, and on to Albany on Western Australia's south coast. In Part two, we visit Mount Kokeby, north of Cuballing, then head west to Bunbury, via the coal mining town of Collie, to check out the current operations on the west coast as we head back to Geraldton via Mandurah and Perth.

Saturday 17 August 2019

A trip north of Cuballing found reactivated DBZ2301, DBZ2302 and DBZ2305 now at Mount Kokeby CBH for driver training, this meant the only DBZ not seen on my travels was DBZ2310 (still owned by Aurizon but based at Picton, near Bunbury). I had my fingers crossed that 2310 might be out and about later in the day as I was heading over to Bunbury.

There are several ways to get to Bunbury "cross country" from Cuballing/ Narrogin and I was soon driving through the coal mining town of Collie. A stabled S class was on the Worsley Alumina coal set in Collie Yard.

I continued towards Bunbury via the Coalfields Highway and joined the South West Highway at Roelands and got ACN4147 on an empty Worsley Alumina train near the Collie River bridges. ACN4168 was stabled at Picton, so a visit to Bunbury was the next step to get a couple of tasks sorted out. With those jobs done I headed to Bunbury Port, two caustic soda trains were being loaded, one with sole operational DFZ2405 leading and the other with DBZ2310, just what I wanted to see!

DFZ2405 soon left the Port but unfortunately broke down on the way to Picton trapping the DBZ and its train. By the time rescue locomotive ACN4168 had arrived the sun had set, so it was time to rest up in Bunbury for the night.

Sunday 18 August 2019

As I was not meeting my daughter in Mandurah until lunch time, I got underway early and headed to Brunswick Junction to see what was around. I had heard that the DBZ was at the Worsley Alumina refinery at Hamilton.

ACN4143 on empty 1831 Worsley Alumina to Hamilton was the first train to be seen. ACN4143 is still carrying large RUOK logos. The next train was a loaded Alcoa alumina train led by P2513 heading to Bunbury Port.

After crossing P2513 at Burekup, ACN4168 headed through Brunswick on an empty alumina train. A shift in location onto the Collie line proved fruitful. ACN4147 was seen near Brunswick East on a loaded Worsley alumina train and I drove a little further along Beela Road and DBZ2310 on an empty Worsley Alumina caustic train arrived. I followed and photographed the DBZ back to Picton, where the failed DFZ2405 was stabled at the loco depot with P2507.

It was time to head north and I got to Pinjarra East Junction just in time to get PA2819 leaving the Alcoa complex with an empty caustic train to Kwinana. The PA must be one of the most travelled of the former Queensland Rail 2800 class having started life on the Queensland system, converted to standard gauge and used in New South Wales. Later 2819 headed west and was put back on narrow gauge, overhauled and emerged as PA2819. It now gets utilized on the South West main and is currently based at Kwinana. I was pleased to get the PA as it has escaped me on a number of occasions whilst in the South west.

It was now getting nearer to my catch-up time with my daughter, but I was able to get Hotham Valley Railways English Electric F40 on the climb to Dwellingup on a passenger train where it met steam loco W945 quietly simmering in the yard. All in all, a successful morning.



Left (page 42): ACN4147 on empty 7833 Worsley alumina train about to cross the Collie River at Roelands on Saturday 17 August 2019.
Above: Reactivated units DBZ2301, DBZ2302 and DBZ2305 are seen stabled at Mount Kokeby CBH on Saturday 17 August 2019. The locos were to be used for further driver training.
Below: DBZ2310 on a 7855 Worsley Alumina caustic train and DFZ2405 on 7924 Alcoa Wagerup caustic train at Bunbury Port on Saturday 17 August 2019.





Above: ACN4143 on empty 1831 Alumina train to Worsley Hamilton Refinery approaches Brunswick Junction early on Sunday morning 18 August 2019.
Below: P2513 is seen just north of Brunswick Junction on 7879 loaded alumina train from Calcine to Bunbury Port on Sunday morning 18 August 2019.





Above: DBZ2310 on 1852 empty Worsley Alumina caustic train descends the Darling Range near Olive Hill as it heads to Bunbury Port on Sunday 18 August 2019.

Below: PA2819 on 1238 empty caustic train to Kwinana heads through Pinjarra on Sunday 18 August 2019.



Monday 19 August 2019

I left Mandurah on Monday morning at peak hour; I had forgotten just how busy the roads get down that way! I made for Fremantle and managed to jag Watco Australia's two 422 class FL220/ HL203 working 2142 container train to North Fremantle, the last time I had got double headed 422's was back in Aurizon days when they used to work the North Fremantle container trains.

Once out of Perth I went home to Geraldton via the former Midland Railway route. I got to Moora CBH where CBH005 was stabled on portion of a grain train, further on at Watheroo CBH, CBH024 was shunting the rest of 2K53/ 2K54 grain after loading and for once was in the right location for a photo.

Heading onwards north ACN4145/ P2502 were seen south of Coorow on 2754 light engines from Narngulu going to Forrestfield, the ACN was being swapped out with a Picton-based ACN. At Yandanooka south of Mingenew I caught up with CBH006/ CBH001 on 2G51 loaded grain train to Geraldton Port. I was able to follow the train to just west of Mingenew and then headed the last 100km's or so to home.

In reviewing my travels, I was actually surprised that I was able to see all the DBZ locos, plus ACN, DFZ, P and PA classes from Aurizon, representatives from the CBH class (standard and narrow gauge), the Watco HL and FL double heading and the leased CFCLA VL loco. I was also able to visit locations and a train I had not seen for nearly 16 years and of course catching up with family.



CBH024 is shunting 2K53/ 2K54 grain wagons after loading at Watheroo CBH on Sunday 19 August 2019.





Above: Hotham Valley Railway's 1952-vintage ex-WAGR Beyer Peacock 4-8-2 W945 *Banksiadale* and former Midland Railway 1958-vintage English Electric A1A-A1A DE unit F40 near Dwellingup railway station on Sunday 18 August 2019.
Below: Watco Australia's FL220 and HL203 (formerly NSW Railways' 42220 and 42203 respectively) on 2142 container train to North Fremantle run past Fremantle Railway Station on Monday 19 August 2019.





The Fortescue Metals Group Iron Ore Wagons

Text and images by Peter Clark

Fortescue is the fourth largest iron ore producer in the world after BHP, Rio Tinto, and Vale (in Brazil). The company has holdings of more than 87,000 km² in the Pilbara region of Western Australia, making it the largest tenement holder in the state, larger than both BHP and Rio Tinto. The company was founded in 2003 by Andrew Forrest, who is the chairman and majority shareholder. Fortescue has expanded much more rapidly than the other two major Pilbara mining companies, and is more “highly geared” financially and as a result is more exposed to the fluctuation of iron ore prices compared to the two longer established operations. Of course, more recently, Gina Rinehart set up the Roy Hill mine and railway, which runs parallel to the FMG line into the Chichester ranges and is similar in many ways to the Fortescue operation.

In April 2008, Fortescue Metals Group opened a line from Cloud Break mine to Port Hedland. The line ran parallel to the existing BHP line for about two thirds of its length, crossing from the West side to

the East side at about the one third point. The line ran south east to the mines in the Chichester ranges. Later a branch to the Solomon Hub crossed the BHP line again, heading due west to the mines.

Fortescue followed some of the practices of the established mining operations as far as their rolling stock was concerned. They purchased locomotives to the same design as Rio Tinto were obtaining, and followed the Rio Tinto practice of married pairs of wagons coupled by a drawbar. But the wagons themselves were much larger with a 69m³ volume than even the largest Rio Tinto or BHP wagons, partly because these wagons had been designed for the much denser rock-like Brockman ore while later mines were producing Marra Mamba ore which is more like ordinary soil, and has a lower iron content. Fortescue’s wagons were also designed from the start for a 400 kN axleload, which the other systems had approached over a period of operation starting at 300kN.

Above right: On 4 July 2008, ore cars 1743 and 2744 built by CSR Zhouzhou trail an empty FMG train out of the unloading loop at Boodarie and across the Great Northern Highway. Note the end of train device, connected to the ECP brake system. Peter Clark
Right: A loaded FMG train approaches Boodarie led by SD70ACe-LC units 715 and 711 and SD90MAC 902 on 15 June 2015. Peter Clark





The original wagons were built by China Southern at Zhouzhou and the design adopted some features of wagons used by BHP, due to Fortescue personnel having had earlier experience on that system; the end panels and the reinforcement for the force from the car positioner arm. The first two CSR wagons had a similar side panel design to two groups of BHP stainless steel ore cars with flat sides. After some consideration, the design was varied to include offset sides, where the side panel slopes inward of the top rail, which prevents material building up behind the top rail during dumping. However other features of the side remained on the production wagons. The first two vehicles were converted as compressor cars, which provide compressed air for the brakes and power for the ECP brake system during dumping after the locomotives are removed. However, the operation of the wagons in married pairs connected by a drawbar is a feature adopted from the Rio Tinto operation.

The bogies are an interesting design. While they look like standard three-piece bogies to an American design, the side frames are linked by diagonal bars to retain their position square to the bolster and primary coil suspension springs are positioned above the axle boxes to reduce the effect of impact forces at rail joints and junctions in order to reduce the effect of the very high axle load. These primary springs are arranged similarly to those on the YMC bogies used on many Pacific National container wagons.

The original intention was to run trains of 240 cars, and the first order of cars from CSR included 970 vehicles, enough for four trains and five spare pairs of cars. The next order for ore wagons was placed with Qingdao rollingstock works, part of China Northern. These were of course to exactly the same dimensions as the original ore cars, since these are determined by the rotary tippler used for unloading at Boodarie, a suburb of Port Hedland.

Above: Compressor cars 9001 and 9002 are seen being placed on a loaded train awaiting unloading at Boodarie on 12 July 2008. These cars were converted from the two prototype cars 1001 and 2002. Note the flat upper sides that were replaced by the offset sides of the production wagons.

Below: FMG ore wagon 6746 is seen at the CRRC Yangtse factory on completion and before being coupled to car 5745. The pressed lower panels differ from those on the CRRC Qingdao built wagons. The bogies look similar to the original cars supplied by the then CSR. **Bottom:** CNR Qingdao-built vehicles 4232 and 3231 form part of a loaded train passing under the Great Northern Highway bridge towards Boodarie on 13 June 2015. The pressed lower panels are an obvious difference, as is the different colour scheme compared to the adjacent CSR-built vehicles.





Ore cars 1001 and 2002 form part of a loaded train arriving at Boodarie on 12 July 2008. These CSR cars were built towards the end of the first contract and replaced two earlier prototype cars.

These cars were made from stainless steel and the lower panels were pressed into a waffle-like pattern (a feature that subsequently appeared on CNR wagons for BHP and Rio Tinto). These cars weighed a little less than the original CSR cars, and were painted in blue grey rather than the grey of the CSR vehicles.

The CNR bogies were generally similar to those provided by CSR, except that shaped rubber pads were used as primary suspension in place of the coil springs on the CSR bogies. These also had diagonal bracing of the side frames but the actual bracing was more clearly visible in the CNR design.

As can be seen from the data tabulation, two large orders were placed for China Northern ore wagons, followed by smaller orders for both CNR and CSR wagons as vehicles were obtained to meet the need for rapid expansion during the mining boom.

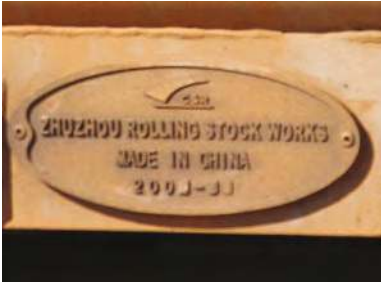
At least a few wagons were built to a modified design by CSR Yangtse with a stainless steel body and pressed lower panels similar to but not exactly like the CNR design. The author hasn't seen these (or hasn't been able to distinguish them from CNR wagons) so the number involved is not known. 3005+4006 and 5745+6746 are known examples.

Fortescue Metals Group

Ore Cars – (list not complete)	
1001+2002 to 1969+2970	China Southern
3001+4002 to 3883+4884	China Northern
5001+6002 to 5571+6572	China Northern
5801+5802 to 5975+6976	China Southern
7001+8002 to 7269+8270	China Northern
7301+8302 to 7303+8304	China Southern
Note: 3005+4006 and 5745+6746 are to a modified CSR Design with pressed lower panels	

Technical Details			
Length	11.15 m	Bogie Centres	6.97 m
Width	3.18 m	Bogie Wheelbase	1.829 m
Height	3.74 m	Wheel Diameter	965 mm
Capacity	117.5 t	Bearings	7" x 12" AAR Type G
Tare	22.5 t	Brake	Unit brake beams
Gross	140 t	Brake Control	ECP (EP-60 control valve)
Length (body)	10.35 m		

Right: The Builder's plate of a CNR ore car: 15 June 2015
Far right: The builder's plate of a CSR ore car: 15 June 2015
Below: The bogie of an empty CSR ore car departing Boodarie on 15 June 2015. The axleboxes and the pockets for the coil springs indicate that these bogies have primary suspension.
Below right: The bogie of an empty CNR ore car departing Boodarie on 15 June 2015. The rubber pads above the axleboxes provide much the same reduction in impact forces as the coil springs on the CSR bogies, and allow limited steering of axles in curves. The mounting points of the diagonal braces are visible next to the bolster springs.



Gauge mm	Qty	Class	Description	Builder - Location	Oct 19	Nov 19	Dec 19	Total
LOCOMOTIVES								
Aurizon								
1067	3	2700	GTL38-3 1500 kW Rebuilt from 2170 or 2300 #2703-2705	Progress Rail Qld	-	-	-	
Fortescue Metals Group								
1435	10	700	SD70 ACe-LCi 3200kW locomotives #722 - 731	Progress Rail Muncie USA	-	-	-	-
Pacific National								
1435	4	93	C44aci 3275 kW Co-Co d/e locomotives #9321-9324	GE USA (UGL Rail)	-	-	-	-
1435	5	TT	GT46C-ACe 3205 kW Co-Co d/e locomotives	Progress Rail	-	-	-	-
Watco								
1067	8	WRA	GTL22C-3 1680 kW diesel locomotives #001-8 (Queensland Grain Traffic)	NRE Mt Vernon Illinois	2	2	2	6
INTERCITY PASSENGER CARS								
Journey Beyond Rail Experience								
1435	6	BRG	Platinum Class Sleeping cars ex BRJ cars #221 267 269 271 917 999	CFCLA SA	-	-	6	6
1435	1	DF	Dining car rebuilt ex CDF Cafeteria car #226	CFCLA SA	-	-	1	1
1435	1	AFC	Dining Room-Lounge car ex CDF Cafeteria car #227	CFCLA SA	-	-	1	1
1435	1	HGM	Install 3 Mercedes Benz Diesel-Alternator Units Power Vans HGM 296, 298	CFCLA SA				
NSW TrainLink (Transport for NSW)								
1435	10		Six Car Dual Mode MU trains	Construcciones y Auxiiar Ferrocarriles, Spain	-	-	-	-
1435	9		Three Car Dual Mode MU trains	Construcciones y Auxiiar Ferrocarriles, Spain	-	-	-	-
PTC TransWA								
1067	6		Six Car DMU Train	Alstom Transport La Rochelle France-Perth WA	-	-	-	-
INTERURBAN PASSENGER CARS								
NSW TrainLink								
1435	10		Three Car Dual Mode MU trains	Construcciones y Auxiiar Ferrocarriles, Spain	-	-	-	-
Rail Connect (NSW TrainLink) Hyundai Rotem, Mitsubishi, UGL								
1435	139	DD	Double Deck Interurban EMU Driving Tlr Cars #9701-9772. 9801-9867	Hyundai Rotem ROK - UGL Rail	-	-	-	-
1435	139	DDA	Double Deck Interurban EMU Driving Tlr Cars #9301-9372. 9401-9467	Hyundai Rotem ROK - UGL Rail	-	-	-	-
1435	139	DN	Double Deck Interurban EMU Intermediate Motor Cars #8501-8572, 8601-8667	Hyundai Rotem ROK - UGL Rail	-	-	-	-
1435	139	DND	Double Deck Interurban EMU Motor Cars (PWD toilet) # 8301-8372, 8401-8467	Hyundai Rotem ROK - UGL Rail	-	-	-	-
1435	67	DNL	Double Deck Interurban EMU Intermediate Motor Cars (toilet) #8801-8867	Hyundai Rotem ROK - UGL Rail	-	-	-	-
1435	67	DT	Double Deck Interurban EMU Trailer Cars #9601-9667	Hyundai Rotem ROK - UGL Rail	-	-	-	-
V/Line								
1600	9	DM(D)	V'locity DMU (a/c) # 1180-1188	Bombardier Transportation Vic	-	1	-	1
1600	9	TM	V'locity DMU (a/c) # 1380-1388	Bombardier Transportation Vic	-	1	-	1
1600	9	DM	V'locity DMU (a/c) # 1280-1288	Bombardier Transportation Vic	-	1	-	1
1600	4	DM(D)	V'locity DMU (a/c) # 1189-1192	Bombardier Transportation Vic	-	-	-	-
1600	4	TM	V'locity DMU (a/c) # 1389-1392	Bombardier Transportation Vic	-	-	-	-
1600	4	DM	V'locity DMU (a/c) # 1289-1292	Bombardier Transportation Vic	-	-	-	-
1435	2	DM(D)	V'locity DMU (a/c) # 1193-1194	Bombardier Transportation Vic	-	-	-	-
1435	2	TM	V'locity DMU (a/c) # 1393-1394	Bombardier Transportation Vic	-	-	-	-
1435	2	DM	V'locity DMU (a/c) # 1293-1294	Bombardier Transportation Vic	-	-	-	-
SUBURBAN PASSENGER CARS								
Adelaide Metro								
1600	24	4000	EMU Driving motor #4023A-4034A, 4023B-4034B	Bombardier Transportation Vic	-	-	-	-
1600	12	4000	EMU Trailer #4023T-4034T	Bombardier Transportation Vic	-	-	-	-
KDR Yarra Trams (PTV)								
1435	30	E2	Flexity Swift Trams # 6051-6080	Bombardier Transportation Vic	1	-	-	30
1435	10	E2	Flexity Swift Trams # 6081-6090	Bombardier Transportation Vic	-	1	-	1
1435	3	W8	Rebuilt SW6/W6 Trams # 856, 928, 961	Bendigo Tramway Workshop	1	-		2
1435	3	W8	Rebuilt W6 Trams #	Bendigo Tramway Workshop	-	-	-	-
Metro Trains Melbourne (PTV)								
1600	20	M	EMU X'trapolis Driving Motor (a/c) #967-986	Alstom Transport Ltd (Poland - Ballarat Vic)	-	4	-	4
1600	10	T	EMU X'trapolis Trailer (a/c) #1684-1693	Alstom Transport Ltd (Poland - Ballarat Vic)	-	2	-	2
Evolution Rail (PTV)								
1600	130	D	HCMT EMU Driving Trailer 9001-9065, 9901-9965	CRRC Changchun RSW PRC - Downer Rail	-	-	-	-
1600	65	M	HCMT EMU Motor 9201-9265	CRRC Changchun RSW PRC - Downer Rail	-	-	-	-
1600	130	M	HCMT EMU Motor 9101-9165, 9801-9865	CRRC Changchun RSW PRC - Downer Rail	-	-	-	-
1600	65	M	HCMT EMU Motor 9701-9765	CRRC Changchun RSW PRC - Downer Rail	-	-	-	-
1600	65	T	HCMT EMU Trailer 9301-9365	CRRC Changchun RSW PRC - Downer Rail	-	-	-	-
PTA Transperth								
1067	82	CEA	EMU Driving motor cars (a/c) #	Alstom Transport La Rochelle France-Perth WA	-	-	-	-
1067	82	CET	EMU Trailer car (a/c) #	Alstom Transport La Rochelle France-Perth WA	-	-	-	-
1067	82	CEB	EMU Motor car (a/c) #	Alstom Transport La Rochelle France-Perth WA	-	-	-	-

Gauge mm	Qty	Class	Description	Builder - Location	Oct 19	Nov 19	Dec 19	Total
SUBURBAN PASSENGER CARS (CONTINUED)								
QueenslandRail								
1067	75	DMA	MU Driving Motor Car #3701-3775	Bombardier Savli, India	1	2	2	75
1067	75	DMB	MU Driving Motor Car #8701-8775	Bombardier Savli, India	1	2	2	75
1067	75	MA	MU Intermediate Motor Car #5701-5775	Bombardier Savli, India	1	2	2	75
1067	75	MB	MU Intermediate Motor Car with toilet #6701-6775	Bombardier Savli, India	1	2	2	75
1067	75	TA	MU Trailer Car (Pantograph) #4701-4775	Bombardier Savli, India	1	2	2	75
1067	75	TB	MU Trailer Car (Pantograph) #7701-7775	Bombardier Savli, India	1	2	2	75
Sydney Trains (Transport for NSW)								
1435	68	N	EMU Motor (a/c) #1625-1641,1725-1741; 1825-1841,1925-1941	Hitachi-CRRC CNR Changchun RSW PRC	-	-	-	-
1435	34	T	EMU Trailer (a/c) #1325-1341, 1425-1441	Hitachi-CRRC CNR Changchun RSW PRC	-	-	-	-
1435	34	D	EMU Driving Trailer (a/c) #1125-1141; 1225-1241	Hitachi-CRRC CNR Changchun RSW PRC	-	-	-	-
South East Light Rail (Transport for NSW)								
1435	60		Citadis X05 Trams #001-060	Alstom Transport Ltd.	-	26	-	54
Parramatta Light Rail (Transport for NSW)								
1435	13		Urbos 100 Trams	Construcciones y Auxilar Ferrocarriles, Spain	-	-	-	-
FREIGHT WAGONS								
Aurizon								
1067	264	VCDS/DL	Bar coupled pairs Coal Hopper Wagons #57409-57654	Bradken PRC	-	-	-	-
Tasmanian Rail								
1067	7	THEY	Cement Hopper Wagon #019-025	CRRC Sheyang PRC	-	No advice	-	-
TRACK MAINTENANCE EQUIPMENT								
Aurizon Infrastructure Services Group								
1435	1	SLM	Track Layer # 4	Aurizon Workshops Redbank Qld		No Advice		
1067	2	MMA	Refurbish Ballast Tamper Mk III # 49	QR Workshops Maryborough Qld		No Advice		
1067	1	MMY	Ballast Cleaner RM 902 #520	Plasser Australia NSW		Completed		1
1067	1	MMY	Ballast Cleaner Unit FRM 902	Plasser Australia NSW		No Advice		
1067	1	MMY	Ballast Cleaner Hopper Wagon (MFS 40)	Plasser Australia NSW		No Advice		
John Holland								
1435	10		Rail Guidance System for 10 Trucks	HMA Techniplan Qld		No Advice		
KDR Yarra Tram								
1435	2		ACM 105SP Hi-rail Overhead Wiring vehicle	Aust Crane & Machine Vic		No Advice		
Laing O'Rourke								
1435	1		REG012X - Plasser Theurer SSP303 Ballast Regulator	Select Plant Hire (Laing O'Rourke) - Maitland		No Advice		
1435	1		TAMP009 - Plasser Cat Line Tamper 09-32	Select Plant Hire (Laing O'Rourke) - Maitland		No Advice		
1435	1		REG010X - Kershaw 0925 Ballast Regulator	Select Plant Hire (Laing O'Rourke) - Maitland		No Advice		
1435	1		TAMP030 - TrussType Switch & Prod Turnout Tamper	Select Plant Hire (Laing O'Rourke) - Maitland		No Advice		
1435	1		REG006X - Kershaw KBR-875 Ballast Regulator	Select Plant Hire (Laing O'Rourke) - Maitland		No Advice		
1435	1		TAMP031 - TrussType Switch & Prod Turnout Tamper	Select Plant Hire (Laing O'Rourke) - Maitland		No Advice		
1435	1		REG007X - Kershaw KBR-875 Ballast Regulator	Select Plant Hire (Laing O'Rourke) - Maitland		No Advice		
Queensland Rail								
1067	2		Refurbish TR-10 Sleeper Insertor/Extractor	HARSCO Rail Brendale Qld		No Advice		
1067	2	MMA	09-16/32 CAT Tamper #MMA 081, 082	Plasser Australia NSW	1	-	-	2
1067	4	MMB	SSP 302 Ballast Regulator #MMB 064-067	Plasser Australia NSW	-	-	-	2
1067	2	MMA	Unimat 08-457 4S Switch Tamper #MMA 083, 084	Plasser Australia NSW	-	-	-	-
1067	2	MMB	PBR 500 Ballast Regulator #MMB 068-069	Plasser Australia NSW	-	-	-	-
1067	2	MMA	08-12 Split Head Tamper #MMA 085, 086	Plasser Australia NSW	-	-	-	-
PTA Transperth								
1067	1		Track Recording Car	Mermec Italia	-	-	-	-
Swietelsky Rail Australia								
1435	1		SSP302 Ballast Regulator	Plasser Australia NSW		No Advice		
Sydney Trains								
1435		-	One year contract for supply of Tamping tools.	Engenco WA		No Advice		
1435	4	-	Hirail Overhead Wiring vehicles	France		No Advice		
1435	2	NDZF	Track Carrier Wagon # 40051-40052	Bluebird Rail Operations SA		No Advice		

E & O E



Left: CRRC and Downer have completed eight seven car sets of HCMT trains and construction is continuing. Only HCMT set 2 has been used for test operation so far. Set 2 is stored in the Newport Car Sidings (under continuous security surveillance) and is seen there on 7 January, with driving trailer 9902 leading. The car numbering reflects recent practice by Sydney Trains, where the last two digits of the car number reflect the set number. Peter Clark

Below: An unidentified driving trailer car is seen on the traverser at North Williamstown on 8 January. The automatic coupler behind the retractable nose covers (seen extended on 9902 above at Newport) is visible in this view. The body is apparently externally complete and fully painted, missing only the blue “Gem” decals that complete the PTV colour scheme. Peter Clark



Corrections to the 2700 Class article

The article in *RD* November 2019, covering the introduction of the Aurizon 2700 Class contained a number of errors, partly due to the timing of the locomotive’s trials and the closing for press of the issue concerned, and partly due to the unavailability of one of our technical advisers at the time.

The main error concerned the electrical control system. The NREC system described, while used overseas, was not fitted to the 2700 class, which uses the conventional arrangement controlled by the EMD 2000 series computer control. Additionally, the traction motors were type D31, an upgraded version of the D29 used in the 2300, which allows a higher tractive effort. Also 2701, having been built as a 2470 class, has the smaller AR6G alternator rather than the larger AR10. 2702, built as a 2450 class, is the only 2700 with an AR10 alternator, so far. Minor changes to the height and width are noted, the extra width being due to the handrails now fitted.

A corrected tabulation is included below:

2701 – 2705			
Type	GTL 38C-3	Wheel Arrangement	Co’Co’
Engines	EMD 710G	Length	17.04 m
Cylinders	V-8	Width	2.82 m
Power	1490 kW	Height	3.9 m
Alternator	EMD AR6G	Weight	93.5 t
Motors	EMD D-31	Axle Load	153 kN
Builder	Clyde Qld/Progress	Tractive Effort	270 kN
			@11.5km/h
Introduced	2019	Maximum Speed	100 km/h
No. Built		Gauge	1067 mm



Zig Zag Railway – January 2020

It is mid-January 2020 and only a little over six years and once more the railway has been hit by another frightful bushfire. It was hit at both ends of the reserve with the first fire hitting the lower level off the Gaspers Mountain Fire, which came down into the eastern end of Lithgow via State Mine gully, which skirted the State Mine workshops and Museum, and were only saved by concerted action by the workshop employees and local fires. The fire then worked its way east, taking out a number of houses at that end of Lithgow, which were close to the bush.

A back burn on Friday 13 December along the Bells Line of Road was a disaster with it becoming out-of-control within a very short time and over the following days it proceeded to burn through the ridge line from Clarence back to Dargan, Bell and Mt Victoria. A drive along the Darling Causeway from Bell to Mt Victoria is a window into another world, with black being the predominant colour now.

So, in brief, commencing from the most easterly point, all bush is burnt from the end of the Newnes Junction extension, with some sleeper damage, though a full inspection has not been undertaken as there is more pressing damage elsewhere. Around Clarence Station, only the 1988-built station is intact with all other structures destroyed. That includes the brick and iron roofed toilet block, where only the walls survive, with the roof having collapsed into the interior. The structure is covered by insurance and will have to be demolished and rebuilt. So, no toilet facilities for the bus tour patrons who have regularly stopped there over many years. Lithgow Council had paid the cleaning and maintenance costs thereof for many years, saving the society a considerable sum. The small office building located about 50 metres behind the Clarence Shop that had over recent years also doubled as a dormitory facility for society members working on-site was destroyed. Some records were lost but it is not as bad as some social media outlets claimed. The station picket fencing was again substantially destroyed, also the safeworking hut on the platform, with the workings retrieved by member, Matthew Milroy, to be resurrected

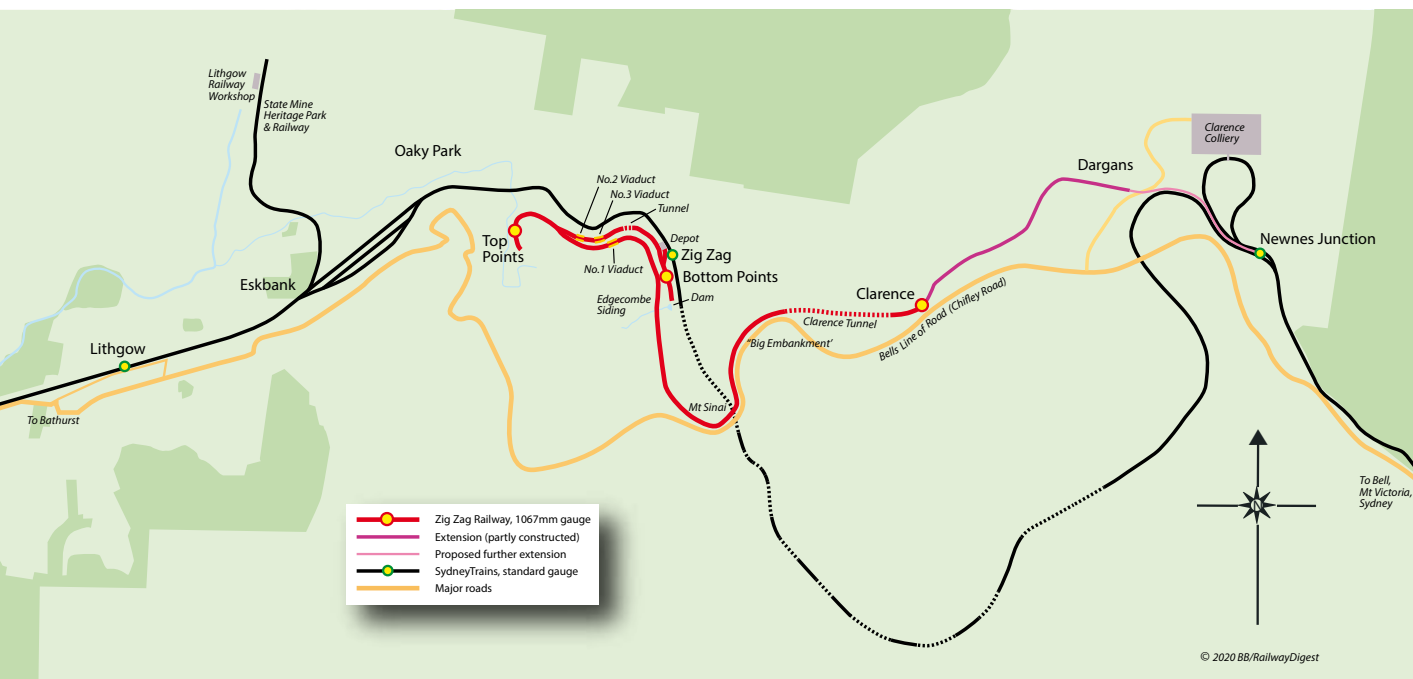
as much as possible. A pile of coal at the Lithgow end of the platform burnt for many days until a dump of thousands of litres of water plus a dump of soil helped extinguish that fire.

Sleeper damage was restricted to sections of track to the eastern end of the tunnel and along a section of recently laid track over the big embankment. Edgcombe Siding is the site of the most substantial damage with all the former SAR passenger carriages acquired in the 1970s now destroyed, including the former 1st Class sleeper Car 390, a six-wheel bogie vehicle. These cars had all been very heavily vandalised since the railway ceased operating in 2012 and they were stored in what was thought to be a secure location – a very bad decision in retrospect.

There are many downed trees along the track, though a number have already been cut-up and moved, as evidenced by the fact that a team of senior members have made a run along the full length of the line in a man car only a few days after the fire threat passed.

At Top Points, the original 1975 iron and timber station building was destroyed, as well as the historic timber overbridge (originally from Coorwull), however, the most recent station building from 1988 survived intact. Top Points Signal Box is still intact, albeit with vandalism unrepaired from the last couple of years. Most of its windows have been damaged.

Heading down Middle Road, there are a number of burnt out sleepers just downhill from No. 3 viaduct. At Rose Gardens, a spot just above the Bottom Points Depot, where a small hut had been installed years ago for changeover loco crews waiting to relieve fellow enginemen for crib breaks the hut was destroyed as well as the attendant signage. At Bottom Points there is little structural or other damage, except that all bush has been burnt out once again on both sides of the valley with many large trees destroyed and many more in a situation that classifies them as 'widow makers' now. That is, burnt out inside and potentially now very unstable and liable to drop at any time, without warning. Most of the semaphore signals have survived, except the one just east of Clarence Tunnel.



Top left (page 54): On Sunday 19 January, in pouring rain, Ben Lawrance directs the front end loader dumping ballast on new track on the Big Embankment. Shane O'Neil

Left: The remains of the section car involved in the 2011 accident that was a factor in the shutdown of the railway. The former Mt Isa Comeng 0-6-0DH loco behind was not damaged. However, a large 'widow-maker' tree above the locomotive could do it some real damage if it does drop before it can be safely cut-down. Shane O'Neil

Alongside Bottom Points Depot on one of the sidings above the depot, a section car that was involved in the infamous 2011 incident on Top Road, which led to the cessation of operations was burnt out. Incidentally it was stabled only metres away from the societies Mt Isa, 0-6-0 diesel locomotive, which was totally undamaged by the fire. The fire, this time also burnt out the depots electrical supply. However, the depots CCTV system is working powered by solar power, thereby ensuring some security in the depot.

On Sunday 19 January, a working day was quickly organised to repair a section of track over the big embankment, which had lost some sleepers as a result of the fire and to further stabilise the track. Some mechanical equipment was hired to aid in ballasting about 50 metres of track. The work was largely completed in deference to continuous steady rain on the day. About twenty members were on-site to perform the work including a number of new members that have been encouraged to join up by the considerable social media generated throughout the horrific current bushfire emergency.

Despite all the problems Zig Zag has endured over the last decade and more, members are still determined to resume operations sometime in the future.

'The Phoenix will rise' has become ZZR members' catch cry! Society members have always been optimistic, this has been instilled in all members ever since the days of long deceased Chairman John Cooper. Nothing is impossible, it just takes a bit longer.

Shane O'Neil



Above: C17 974 crosses Deep Creek, hauling the Mary Valley Rattler from Gympie to Amamoor on Sunday 19 January. Jarrod Mitton

Below: On the Puffing Billy Railway, recently restored ex-South African Railways 2-6-2+2-6-2 Beyer Garratt NGG16 129 storms up the 1 in 30 Emerald Bank on the afternoon shuttle service to Lakeside with a 15-car load on Tuesday 28 January. John Allerton





Arguably Australia's most famous steam locomotive, 3801 returned to the NSW Rail Museum at Thirlmere on Friday 24 January following a prolonged restoration, dogged by controversy, that lasted well over a decade. Mick James photographed the rejuvenated Pacific as it passed through Chester Hill on its delivery run. Following further testing and final painting, 3801 will be officially returned to heritage service.

CBD and South East Light Rail

What a sad disappointment! Having squashed onto the very last Sydney tram (to La Perouse on R1 1961) I never dreamed the day would come when trams (why the absurd 'light rail'?) would grace the city streets again. But the dream has come true, albeit some sixty years later. And despite the usual knockers, I believed it would be something special.

So with much anticipation I took my first ride this week. Suffice to say, I was glad to get off.

The only thing I can say positive is that the cars are magnificent in every respect, both inside and out. Except the exterior is often despoiled by huge advertisements (UTS have an enormous spread that just about covers one whole car). Why have a beautiful tram only to cloak it with ads, just for a few miserable thousands of dollars? (The Government has done the same on the equally stunning B-line buses.)

As for the journey (from

Circular Quay to Central), it was unbelievably tedious. I understand that the trams of 1961 did the same trip in about half the time! I can believe it.

Most stops are ridiculously located immediately after each intersection. My tram was held up interminably by lights at almost every major crossing, before it could finally arrive at the stop. Even then, at at least one stop the tram was held inexplicably, long after loading had been completed, and even though it had the next light in its favour. This wearisome process continued to Central, where I was glad to get off. I was so disenchanted I decided to catch the train back. But to add insult to injury, what should come in but an old S set! I thought they had all been retired.

Surely the tram stops should have been located (as they used to be) before each intersection. If the stops have to be located after each, surely the lights can be synched to favour each tram as it approaches. And why the unfathomable dwell times?

I believe the authorities should get someone up from Melbourne or Europe to give them some ideas on how to resurrect this second-rate outcome, that still holds so much promise.

*Tony Bull
Balgowlah, NSW*

CBD and South East Light Rail

The article 'Light Rail returns to Sydney's Centre' in the February issue does not mention the vital matter of capacity. The light rail system needs to have speed, comfort and reliability.

At time of writing, indications aren't good for any of these criteria but let's give it a chance to prove itself.

However, it also needs to carry enough passengers at peak hour to warrant its huge cost. The capacity ought to be at least 8000 per hour per direction, given that the population of the service area is growing. But 15 trams at 450 passengers each is only 6750. Especially if the service can't

sustain 15 trams per hour each way, the capacity shortcoming should be receiving urgent attention from the NSW government.

*Jim Donovan
via email*

Inland Rail

In reply to items from Ted Gay and Ron Brown in the January 2020 *Railway Digest*, I still think Stephen Miller's idea of a line leaving the Parkes-Narromine line, coming across to join the old Molong-Dubbo line, then to Dubbo East Fork is well worth while considering.

No new bridges would be needed. From Dubbo North Junction to Troy Junction on the Coonamble Line it is about two miles, with a further one and a half miles before the Talbragar River Bridge, thus giving plenty of moderately flat ground for a modern freight yard with plenty of hard standing room. This area is linked in all directions by major roads. The Dubbo town yard would only need to be used for local freight, and passage of

trains to Narromine and further west to Cobar.

If the current plan to cross the Western Line near Webbs Siding is carried out, a new bridge over the Macquarie River would have to be built, and a lot of very productive farming land would be lost in the building of the necessary exchange sidings in that area. All our thoughts on the matter of the Inland Rail route are probably too late but are worth putting forward.

The finishing of the Maryvale-Gulgong Line would cost a lot, but long term benefits would outweigh this in the savings of running costs and times to and from Newcastle. As for the building of a chord at Merrygoen, this would have been looked at in the past. Because of the differences in approaches and the ridge in that area, it would be very difficult to achieve. As I mentioned before there are long grades in both directions between Merrygoen and Gulgong and it is about 76 kilometres longer between Dubbo and Gulgong. If Stephen Miller's idea was adopted, and the Maryvale-Gulgong line was finished, the link from the old Molong-Dubbo line to Maryvale could be considered later but would require a bridge over the Macquarie River. Ron Brown mentions making a chord at Gulgong towards Mudgee. The Mudgee Line has many steep grades in both directions and the curvatures couldn't be improved to any extent, then you have the heavy grades east of Molong. The Wallerawang-Mudgee line would only be

suitable for a tourist circle, though it would create routing problems on the busy Ulan-Sandy Hollow section.

*Richard Bowman
via email*

Inland Rail

In reply to feedback by Ted Gay regarding the proposed route of Inland Railway, (RD, Jan 2020). I would like to assure Mr Gay that I thoroughly agree with his assertion that the existing freight yard in Dubbo would be insufficient for the new railway. However, I would like to refer him to my letter in (RD, Nov 2019) where I suggested that the new line could divert from the Parkes-Narromine near Peak Hill where it would approach Dubbo from the south along the former Dubbo-Molong Line. The line could then enter a bypass to the east of the city and join up with the Coonamble branch north of Troy Junction, where a new yard would be constructed. It is quite reasonable to question the ARTC Committee's decision to bypass Dubbo, because it is one of the most important cities in Inland NSW.

The construction of a new route parallel to existing lines between Narromine and Narrabri will lead to the duplication of infrastructure. The Coonamble and Walgett lines are relatively straight and gently graded and would be suitable to be upgraded to form part of a main line. If at least part of these existing lines were incorporated into the plan, it would dramatically

reduce the construction costs of the line. Incidentally, several decades ago there was a proposal to build a new railway to bridge the gap between Coonamble to Walgett. If this proposal materialised at the time it was planned, it could potentially save the ARTC millions of dollars. As for the matter regarding the missing link between Maryvale and Gulgong, I realize that there is probably not enough traffic between Dubbo and Newcastle to justify the completion of this unfinished line for now. However, this situation may change in the future, particularly if a container port was established in Newcastle. Thus, the eventual route of Inland Rail will have a bearing on the surrounding rail network, including the unfinished Maryvale to Gulgong Line.

One matter that has received little attention is the decline in freight traffic that will occur on the existing route via Sydney, once Inland Rail opens. Although this will certainly lead to fewer

trucks on the Newell Highway, there will be a sharp decline in traffic on the North Coast line, because it relies mainly on intermodal trains between Melbourne and Brisbane for its survival. Consequently, it is very unlikely that any grants will be allocated to straighten out this curvaceous route for the foreseeable future, and the remainder of the rail network in NSW will remain like a maze of outdated goat tracks. If funds were diverted into realigning and duplicating the coastal route, it would dramatically improve the operation of all services travelling between Sydney, Brisbane and Melbourne. Several months ago, there was concept revealed by Transport for NSW for a high-performance rail system throughout NSW linking Sydney with Port Macquarie, Orange, Canberra and Nowra. Diverting funds into the coastal route would help to achieve this objective.

*Stephen Miller
Rutherford, NSW*

Catchpoints

Regarding the caption for the cover photo of the February issue, a number of readers have pointed out that the Woolworths Store at the corner of George and Park Streets was previously a Bebarfald's Department store, not a Coles store as stated. The caption of the upper photo on page 15 of the same issue should read "...Bankstown line tracks were being altered to run through platforms 3 and 4 while **platforms 1 and 2** were taken out of service..."

The train in the photo on page 23 is actually a Down service to Sandringham that has just departed from South Yarra.

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

Australian Railway History

March 2020 issue out now! Just \$8.40

THIS MONTH INCLUDES:

**A DREAM ACHIEVED,
HELPING TO BRING THE
DARWIN RAILWAY TO
FRUITION**

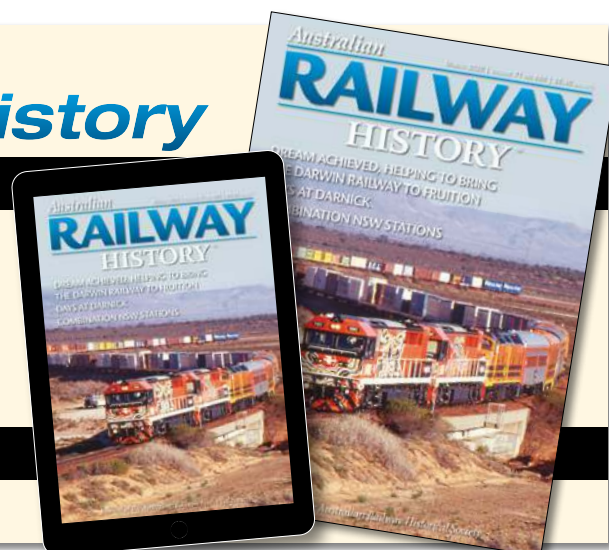
DAYS AT DARNICK

**NSW RAILWAY
COMBINATION STATION
AND RESIDENCES**

Available in Print & Digital

 @AusRailHistory

 #ausrailhistory





Shop online at www.arhsnsw.com.au

To: ARHS_{nsw} Sales, PO Box 206 Alexandria 1435 NSW
Have you a mail order enquiry? If so please call 02 9699 4595

\$
\$
\$
\$
\$

ARHS_{NSW} MEMBER'S DISCOUNT

postage & handling \$

ARHS_{nsw} Member Number**DELIVERY DETAILS:**

☐ My cheque/postal order for the above amount, payable to ARHSnsw is enclosed

☐ Please debit the above amount from my MasterCard or VISA account number

Expiry date

															-					
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--

SIGNATURE:

Australian Railway Historical Society NSW Division

THE RAILWAY BOOKSHOP



Central Station Grand Concourse
Monday to Friday 9.30am to 5.30pm
Saturday 10am to 4pm

Fast mail order service (use the order form)

Phone 02 9699 4595

MasterCard / Visa / PayPal Accepted

**ARHSnsw Members receive 10% discount
on new books and ARHSnsw Publications**

VISIT OUR WEBSITE

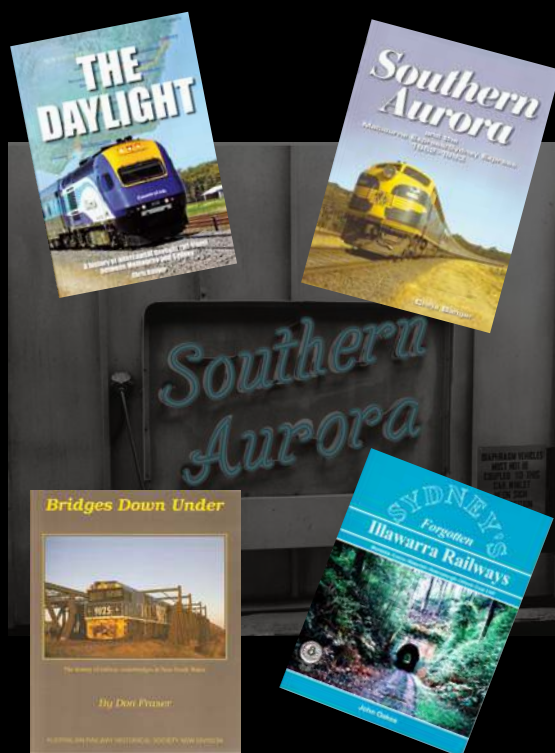
www.arhsnsw.com.au



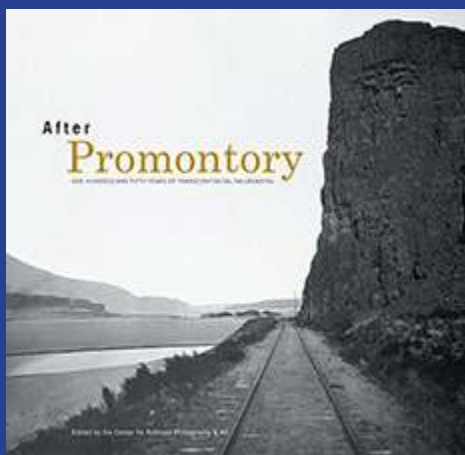
Prices are correct as at press time. Items sold and out of stock may vary in price.

ARHSnsw PUBLICATIONS

A CENTURY OF CENTRAL. McKillop, Ellsmore & Oakes. 160p	\$39
A GUIDETO AUSTRALASIAN LOCOMOTION. Walters/Baker/Peardon.	\$20
AUSTRALIAN RAILWAY HERITAGE GUIDE 2010 ARHSnsw 320p	\$25
BOILERS, BEAUFORTS & BOGIES. Chullora history. Longworth.	\$39
BONDITOTHE OPERA HOUSE. Budd/Wilson. Sydney's trams. ARHS	\$19
BRIDGES DOWN UNDER. Don Fraser. 2nd Edition	\$29
BY MUSCLE OF MEN AND HORSE. B. Phippen. 528p.	\$88
COAL, RAILWAYS & MINES of J & A Brown. BR Andrews	\$45
COAL, RAILWAYS & MINES of NEWCASTLE. BR Andrews 2Vol set	\$150
CROWN LAND TO CLOSER SETTLEMENT. N. Pollard. 264p.	\$65
SOUTHERN AURORA. Chris Banger. 2nd Edit (ARHSnsw). 224p	\$68
SYDNEY'S CENTRAL. 2012 Edition 64p.	\$18
SYDNEY'S FORGOTTEN CITY RAILWAYS. John Oakes 64p.	\$18
SYDNEY'S FORGOTTEN INDUSTRIAL RLWYS. J Oakes 208p.	\$25
SYDNEY'S FORGOTTEN MILITARY RAILWAYS. J Oakes 112p	\$22
SYDNEY'S FORGOTTEN PARK & RURAL RLWYS. J Oakes 128p	\$22
SYDNEY'S FORGOTTEN QUARRY RAILWAYS. John Oakes. 80p.	\$18
THE DAYLIGHT. Intercapital daylight Melb/Syd. (ARHSnsw). 352p	\$95
THE GOONDAH TO BURRINJUCK. 3rd Edit. 260p col/b&w HC	\$25
THE HAWKESBURY RIVER RAILWAY BRIDGES. B. PHIPPEN. 336p.	\$88
THE SHALE RAILWAYS OF NSW. 2015 edition. 256p	\$62*
TRIKING THE LENGTH: NSW Trikes. Jim Longworth ARHSnsw 240p	\$59*
WOLGAN VALLEY RAILWAY - ITS CONSTRUCTION. 32p	\$11*



News from the

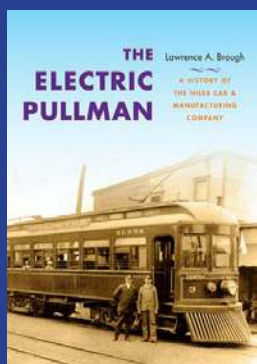
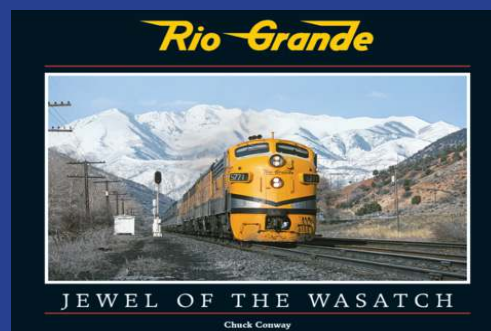


After Promontory - One Hundred and Fifty Years of Transcontinental Railroading

Celebrating the sesquicentennial anniversary of the completion of the first transcontinental railroad in the United States, *After Promontory: One Hundred and Fifty Years of Transcontinental Railroading* profiles the history and heritage of this historic event. Starting with the original Union Pacific—Central Pacific lines that met at Promontory Summit, Utah, in 1869, the book expands the narrative by considering all of the transcontinental routes in the United States and examining their impact on building this great nation. Exquisitely illustrated with full color photographs, *After Promontory* divides the western United States into three regions—central, southern, and northern—and offers a deep look at the transcontinental routes of each one. Renowned railroad historians Maury Klein, Keith Bryant, and Don Hofsommer offer their perspectives on these regions along with contributors H. Roger Grant and Rob Krebs. 320 pages, \$115

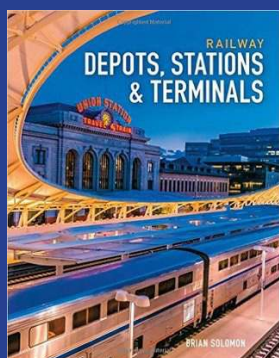
Rio Grande: Jewel of the Wasatch

This third volume covering the Denver & Rio Grande Western in the era of color photography examines the origins and ultimate demise of the D&RGW's Utah Division between Grand Junction, Colorado, and Ogden, Utah. Built by the same General Palmer who had contributed so much to the early Denver & Rio Grande in Colorado, the line across the eastern Utah desert to the Wasatch Front never had large precious mineral deposits as the siren song attraction for railroad construction. This road would rely on the more mundane carloads of coal, iron ore, and copper as its early mainstay. 208 pages, \$110



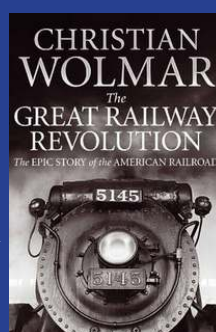
The Electric Pullman: A History of the Niles Car & Manufacturing Company

Entering an already crowded and established industry, the Niles Car & Manufacturing Company in Ohio began business with surprising success, producing well over 1,000 electric and steam railway cars—cars so durable they rarely needed to be replaced. That durability essentially put the company out of business, and it vanished from the scene as quickly as it had appeared, leaving little behind except its sturdy railway cars. The story of this highly regarded company spans just 16 years, from Niles's incorporation in 1901 to the abandonment of railway car production and sale of the property to a firm that would briefly build engine parts during World War I. Including unpublished photographs and rosters of railway cars produced by the company and still in existence in railroad museums, *The Electric Pullman* will appeal to railroad enthusiasts everywhere. 113 pages, \$65



Railway Depots, Stations & Terminals

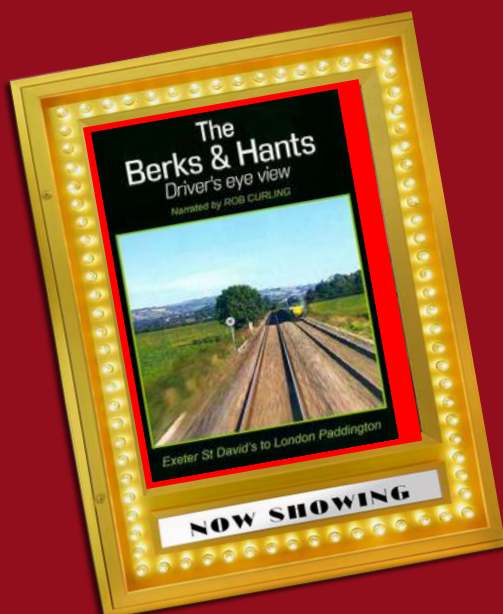
This is a unique book about some of the finest, most interesting, and most famous railway stations. Contemporary photographs, historic images, and postcard views provide an in-depth look at the architectural gems that dot the railroad landscape. 176 pages, \$45



Great Railway Revolution: The Epic Story of the American Railroad

In the 1830s, The United States underwent a second revolution. The opening of the Baltimore & Ohio line, the first American railroad, set in motion a process which, by the end of the century, would enmesh the vast(...). 420 pages, \$25

NOW SHOWING



The Berks and Hants

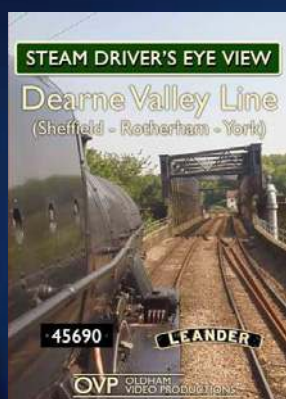
Exeter St David's to London Paddington Driver's eye view.

We join a brand new class 802 IET (Intercity Express Train) upon arrival at Exeter St David's station en route from Plymouth to London. Our train is formed of 10 coaches and calls at Tiverton Parkway and Taunton before branching off onto the so-called Berks and Hants route, a series of disparate lines connected together to form a shorter and more direct route from the South West to the Capital.

Running Time 125 min. DVD \$55



New Zealand Railscene 101 Running Time 60 min \$43



Steam Driver's Eye View- Dearne Valley Line

Join us for this unique journey as we ride with an ex-LMS Jubilee Class Steam Locomotive along the Dearne Valley Line in Yorkshire.

Running time 75min, \$39

Steam driver's Eye View - East Coast mainline vol.2

Join us for this unique journey along the northern section of the East Coast Mainline with one of the world's fastest class of steam locomotives, the LNER A4 Pacific.

Starting at sunrise from York, we depart in glorious weather conditions, passing the world famous National Railway Museum. As we continue along the racing stretch, we are on the four-track Mainline as far as Northallerton, where the line converges back to two-track. After briefly passing through the station platforms at Darlington, the spiritual birthplace of Britain's Railways, we speed away before making a short passenger stop at Durham. After leaving the famous University town, we drop down and cross over the River Tyne into Newcastle.

With live sound recorded from the locomotive, we bring the action right to you. This program also features commentary, titles & locations.

Locomotive Featured: Ex-LNER A4 No. 60009 'Union of South Africa'.
Running time - 120 minutes, \$39



Trackside latest releases \$36 each

Light Rail Part 5 Sydney CBD (101min.)

NSWGR's 48 Class (152min.)

Xplorer/Endeavour/Hunter Rail Cars (105min.)

Comeng V Set Interurbans (101min.)

Rail Freight Today DRS Profile

First established in 1995 to handle nuclear traffic DRS has grown over the years to become one of the UK's most innovative and powerful rail freight companies.

Running Time 70 min. \$39

