



AUSTRALIAN TIMETABLE
ASSOCIATION

TABLE TALK

AUSTRALASIAN TIMETABLE NEWS

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RAIL & TRAM NEWS

NATIONAL



Trans-Australian railway

Flooding from extensive rainfall led to the closure of the trans-Australian railway line between Tarcoola and Port Augusta in South Australia on the weekend of 22/23 January. The closure blocked Adelaide and eastern Australia from Western Australia and the Northern Territory.

The line did not reopen until 15 February due to various infrastructure issues caused by the deluge, including track washouts. The line manager, Australian Rail Track Corporation, said there were 18 locations along 300 kilometres of line that needed work before the line could be reopened. Assistance on the recovery program was provided by organisations including John Holland, Arc Infrastructure and Sydney Trains. **ABC NEWS, RAIL EXPRESS,**

Queensland Rail's executive general manager for Travel and Tourism, Martin Ryan, said in a statement "As a key tourism and transport operator, we take great pride in offering the best service possible both in our products and the customer service offering. Unfortunately, due to the ongoing impacts of complying with the latest Queensland Health guidance and ensuring the highest levels of safety are maintained for all our valued customers and staff, some of our services may be impacted with reduced staffing numbers".

Transport Minister Mark Bailey said that the government had adjusted isolation requirements for essential workers, including transport staff, which would ease pressure on QR.

The QR Travel website provides Greyhound Australia as a service alternative for people travelling to Charleville, Longreach and Mt Isa. **QUEENSLAND COUNTRY LIFE NEWS, QR TRAVEL**

QUEENSLAND



Some regional services suspended

Queensland Rail (QR) suspended some regional Queensland services due to COVID-related staff shortages in January.

From Monday 17 January, the **Westlander** (Brisbane-Charleville) and **Inlander** (Townsville-Mount Isa) services have been suspended until further notice.

From Monday, 24 January, the **Spirit of the Outback** (Brisbane-Longreach) was reduced to just one weekly service.

Yeronga reopening and Fairfield closure

Translink finally announced in February that **Yeronga** station would reopen on 14 March, however there will be no 'easy access', while much of the station will have temporary facilities to facilitate ongoing construction activities.

Meanwhile, from the same date, **Fairfield** station will finally close for around 8-9 months for Cross River Rail project works. StationLink bus route 109 continues to be available, while other local bus routes are also available from Fairfield, including 100 and 196.

The works at Fairfield will include reconstruction of platforms 1 and 2, a new platform 3, and new overpass with new lifts and stairs.

The changeover between the two stations was initially scheduled to take place on 13 December last year, but was delayed. **TRANSLINK, CROSS RIVER RAIL**

NEW SOUTH WALES



Sydney Trains

The state government announced in mid-February that the weekday timetable would resume operating on the Sydney Trains network from Monday 28 February, after consecutive weeks of patronage growth close to 10 per cent throughout most of January and February.

NSW TrainLink Regional services will continue to operate to the weekend timetable due to staff shortages resulting from COVID-19 impacts. **NSW GOVERNMENT**

Sydney Trains: Industrial action

Despite efforts to minimise the impacts of industrial action on passengers, adverse impacts were felt in February.

From **7 February**, industrial action included a ban on overtime for the fortnight. On the morning of Monday 7 February, a signalling workstation was unable to be manned for eight hours. With trains unable to operate on the T8 East Hills line between Turrella and Glenfield, significant delays and alterations were experienced. Many City-Macarthur services were diverted to operate express via Bankstown, while a shuttle train service operated between Central and Turrella via the airport. On the next morning, an unattended signalling workstation on the South Coast meant that services to/from the city ran only as far south as Unanderra. In the following days, discussions between the Transport Minister and unions led to an agreement to shelve the overtime ban for Signalling employees.

On Saturday **19 February**, both parties met at the Fair Work Commission (FWC), with the rail entities seeking to suspend/terminate the list of union bans planned to come into force from Monday. An agreement was reached whereby some items on the list were dropped from the planned action, with Transport representatives saying the last-minute agreement would enable trains to run on Monday.

On the night of Sunday **20 February**, another FWC meeting was arranged with Transport suggesting trains may not be able to run, despite the agreement struck the day before.

Monday 21 February

On Monday 21st, around midnight, the decision was made to suspend all Sydney Trains and NSW TrainLink Intercity services for at least 24 hours, with minimal to no replacement buses provided. This left many tens of thousands of passengers to either use alternative forms of travel, such as buses and light rail, or use any forms of private transportation, including taxi's and Uber to get where they needed to go. Some anecdotal reports suggested that charges that morning

for Uber rides surged to as much as \$330, with demand greatly outstripping the available supply. Excepted from this were NSW TrainLink interstate and freight services, which did operate on the day.

The day also saw a tit-for-tat verbal contest between Transport representatives, politicians and unions.

| | | |
|---|--------------------------|---|
| NSW Transport Minister | David Elliott | "Hijacking the city on the day it's supposed to come out of restrictions. I think we're going to have a large standoff right now because they cannot use Sydney's transport system for some sort of terrorist-like activity. They think that they're going to be able to get their way because the government is going to fold, this is all about them damaging the government 12 months before an election." |
| NSW Premier | Dominic Perrottet | "This is the Labor Party in bed with the union movement to cause mass disruption... the Labor-backed unions have been working on these strikes for many many months". |
| NSW Workplace Relations Minister | Damien Tudehope | "This is Industrial bastardry of the worst form. When they tell you they apologise for any inconvenience, never believe them! It's a lie. They are using the people of NSW as pawns in a political and industrial game." |
| NSW TrainLink chief executive | Dale Merrick | "We were hoping that this wouldn't happen but we respect the right of the union to undertake this action in relation to the development of the new enterprise agreement." |
| Rail, Tram and Bus Union Secretary | Alex Claassens | "Today's rail shutdown was a huge dummy spit by the NSW Government, supported by their federal counterparts. It's good to see they've now agreed to let the trains run again, workers will now go back to taking the protected industrial action we'd planned – action that really only transport management will notice, not commuters... We're ready to drive the trains whenever the NSW Government will let us" |
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|-------------------------------|-----------------------|--|
| Prime Minister | Scott Morrison | <p>“The union movement has decided to really pull the rug out on our first day back. This is just not how you behave and this is not how you treat your fellow citizens. We've had nurses, we've had teachers, we've had police officers and everyone working hard through the pandemic. We've got international arrivals opening up today and the union's welcome to them will be a train strike. I mean, this is not how this should be done.”</p> |
| RTBU social media post | spokesperson | <p>“First David Elliot lies about the non-existent 'rail strike', then accuses workers of being terrorists, and then lies about his lies. This bloke is simply not fit to be a Minister.”</p> |

The Sunday Telegraph revealed that the secretary of the state's Department of Premier and Cabinet, Michael Coutts-Trotter had been briefed at 21:30 on Sunday night that trains would be operating the next day, however operations would become “progressively degraded” as time passed throughout the day, with many in power, including the Transport Minister and Premier not knowing the decision to suspend services until Monday morning.

Reports suggest a call may have been attempted to Mr Elliott's phone overnight, however he did not answer. In the day's ahead, the Premier said “all ministers are available 24/7. That's my expectation as Premier” and continued “My expectation is that ministers are immensely connected to the operational matters that are occurring in their portfolio”, a reference to Mr Elliott's earlier comments that “ministers don't get involved in operational matters”.

The rail entities withdrew their legal action on Tuesday 22nd. **SYDNEY TRAINS, SEVEN NEWS, BUSINESS INSIDER, SKY NEWS, RADIO 2GB, NINE NEWS, THE SUNDAY TELEGRAPH, THE GUARDIAN**

Syd Trains: Skeleton timetable 22-26 Feb

With the continuation of the union's list of bans as part of its protected industrial action, from Tuesday 22 February, a base 30-minute timetable was implemented across most suburban lines in Sydney, and a 60-minute frequency on Intercity lines - henceforth referred to as the 'skeleton timetable'. This saw all train crew placed on their master roster sign on and sign off times, then made spare for their work time, with their shift working provided at the beginning of their shifts.

The skeleton timetable continued for the remainder of the week until at least Saturday 26 February (most scheduled late weeknight and the weekend

maintenance possessions were cancelled as a result). The timetable is based on the timetable used on Wednesday 20 October, when, as part of the union's program of protected industrial action on that day, almost 75 per cent of the fleet was warehoused, due to a ban on operating privately-maintained trains.

Refer to the November 2021 edition of *Table Talk* (page 2) for a line-by-line overview of this timetable, with trains operating every 30 minutes on most lines across the city, and every 60 minutes on Intercity lines.

NSW TrainLink Regional services, including the Bomaderry shuttle, Southern Highlands, Hunter and Bathurst Bullet services, were scheduled to operate to the weekday timetable.

Tuesday, 22 February

With the availability of Waratah A and B sets this time, all non-T4 services were operated by Waratah sets, while H sets operated South Coast services hourly between Waterfall and Wollongong only. Replacement buses were arranged to operate Lidcombe-Bankstown (**T3-05** at least every 10 minutes), Campbelltown-Macarthur (**T8-08** loop service every 20 mins), Wollongong-Port Kembla (**SCO-04**), and Wollongong-Kiama (**SCO-02**).

Also starting from Tuesday 22nd, additional **Central Coast Newcastle** peak services were added to depart Newcastle Interchange at 05:41 and 06:41, and to depart Sydney Terminal at 15:59, 16:57 and 17:57, while additional **Blue Mountains** peak services were added to depart Lithgow at 04:15, 05:09 and 06:10, and depart Sydney Terminal 15:18, 16:02 and 17:01.

Wednesday 23 to Friday 25 February

From 23 February, additional peak services were provided for some lines, as follows:

T1 Western: 07:19 & 07:53 ex Penrith (all to Granville, Lidcombe, Strathfield, Redfern, all to North Sydney), and 09:00 & 09:30 ex North Sydney (all to Redfern, Strathfield, Lidcombe, Granville, Parramatta, Westmead, Seven Hills, all to Penrith).

T2 Leppington: All services made an additional stop at Homebush. Extra trains 07:00 and 07:30 ex Leppington (all to Flemington [via Granville], Strathfield, Burwood, Ashfield, Redfern then City Circle).

T8 Airport: 07:13 & 07:43 ex Campbelltown (all to Revesby, Wollie Creek then all to City Circle [via Airport]), 08:19 & 08:49 ex Circular Quay (all to Sydenham, then Revesby), and 08:24 & 08:54 ex Circular Quay (all to Glenfield [via Airport]). From Friday 25th, the T8-08 replacement bus frequency was doubled to operate every 10 mins.

T9 Northern (and T1 North Shore): 07:08 and 07:41 ex Hornsby (all to Burwood, Redfern, all to Hornsby).

South Coast: Trains extended to run hourly between Sydney Terminal and Kiama, with changed times. Shuttle service also introduced between Thirroul and Port Kembla, enabling Sydney services to skip stations

between Woonona and Fairy Meadow (inclusive). As a result, the replacement bus service was able to be dropped. From 19:30, services from Port Kembla extended to Sydney Terminal, while services from Kiama terminated at Wollongong.

Central Coast Newcastle: Trains no longer stopping between Hornsby and Berowra, with replacement bus route **T1-01** provided instead, scheduled to operate every 30 mins Hornsby-Berowra. From Thursday 24th, this bus service was doubled to operate every 15 mins. For Thursday 24th and Friday 25th, several AM and PM Shore services were added into the schedule:

- 06:03 Wyong to Blacktown
- 06:33 Wyong to Blacktown
- 07:07 Gosford to Central
- 15:35 Sydney Terminal to Gosford/Newcastle Interchange
- 15:38 Blacktown to Wyong
- 17:08 Blacktown to Wyong

A consequence of a concurrent ban on service transpositions, where a train is cancelled on any line with a skip-stop stopping pattern, there is an additional increase in waiting times between services at smaller or outer city locations.

On Sunday 27 February, services across the network resumed operating to the latest Standard Working Timetable, while from Monday 28th, the regular weekday timetable resumed – the first time in almost two months. The Special Train Notice issued for the week's working, however, does advise that some selected weekday peak services will not operate. **SYDNEY TRAINS**

Inner West light rail

Inner West Light Rail (L1) services resumed operating from Saturday, 12 February. This followed a four-month period of bustitution along the line as a result of the temporary withdrawal of the Urbos 3 fleet of trams for investigations and repairs.

Efforts to repair the CAF-built vehicles are expected to last until October this year, with the trams expected to be gradually reintroduced as repairs are completed for each set.

In the meantime, 6x Alstom Citadis vehicles from the CBD South East Light Rail line (L2/L3) have been borrowed and modified to provide an interim 15-minute service. L2 and L3 line services continue to operate to the reduced weekend timetable throughout the week, in part to accommodate this plan.

Additionally, L1 services are running along the entire stretch of the line, between Central Grand Concourse and Dulwich Hill, rather than just to Lilyfield (as initially planned), following works and testing along the entire stretch of line to ensure the trams could safely operate in revenue service.

In addition to these trams running every 15 minutes, the **2L1** replacement bus (Central Grand Concourse-The Star) has been retained, although it has reverted

to a peak-only operation running every 15 minutes 07:00-09:00 and 15:00-19:00 to support the increased patronage on that section.

The **F10** Blackwattle Bay ferry has also been retained for the moment, still running every 30 minutes during the day, seven days a week. **ABC NEWS**

Sydney Metro Southwest

Construction started in October on the Marrickville stabling facility for the upcoming extension of Sydney's sole working Metro line from Chatswood through to Bankstown. The facility will have capacity to hold 16 Metro trains. This adds to the work already in place to expand the existing Rouse Hill facility.

Meanwhile, works are underway at Bankstown under a \$45 million contract to deliver preliminary systems modifications and support the upcoming station extension for terminating Metro services. An existing crossover for the heavy rail network, located east of the station will be removed imminently. **RAIL EXPRESS (2)**

VICTORIA



Metro Trains: New timetables

Further information is now available about timetable changes across Melbourne's suburban Metro Trains network, effective Sunday 13 February, as follows:

- Cranbourne shuttle services have timing adjustments to improve connections with other services at Dandenong.
- Additional dwell time for Cranbourne services at Dandenong has been removed.
- More trains now stop at Malvern on weekday intra-peak and weekend daytime periods (a total of 524 each week).
- The timing of early weekend morning services have been adjusted to bring them into line with the daytime pattern.
- Expanded use of Kananook stabling facility.
- On V/Line's Gippsland line, services will experience an extra minute in journey time, along with changes to departure times at Southern Cross and Richmond to accommodate Metro trains stopping at Malvern.

Metro Trains says that this timetable requires 207 trains to run the morning peak timetable, and 197 trains for the evening peak, while an extra 50 weekly services have been added to the Cranbourne Line.

The Working Timetables will be available in the Association's March Distribution List. **LEN REGAN, ROSS MORRISON, METRO TRAINS**

Further works

The pipeline of disruption continues in Victoria, as a result of various infrastructure projects being undertaken, as part of the government's self-styled "Big Build".

Metro Trains

By June, two level crossings are set to be removed at Glenroy and Hallam, while in the same areas, two reconstructed stations will come into use.

The Cranbourne and Pakenham lines will see sections experiencing bus replacement in March, and on the Craigieburn and Seymour lines in late April.

Yarra Trams

Track renewal will cause two weeks of disruption to route 72 services, beginning 30 April.

V/Line

Also from 30 April, replacement coaches will run between Warrnambool and Geelong for works on the Warrnambool Line Upgrade until 28 May. **ROSS MORRISON, VICTORIAN GOVERNMENT**

Sunshine station upgrade

The state government has announced that, as part of the Airport Rail project, Sunshine will get an additional platform, which will be used by regional services. Existing plans for the station upgrade will include platform extensions to cater for nine-carriage VLocity trains and a second concourse. Construction is due to commence in the middle of this year.

The state's Transport Infrastructure minister, Jacinta Allan, said "with most people travelling directly between the airport and their home, Melbourne Airport Rail Link route via Sunshine provides a solution that benefits most Victorians through good connectivity to the existing metropolitan and regional rail network". **INFRASTRUCTURE MAGAZINE**

SOUTH AUSTRALIA



Network closedown: 18/19 Feb

All lines across Adelaide's rail network were closed down over the weekend of 18/19 February, due to works to integrate the electrified Gawler line with the rest of the rail network. Replacement buses were provided to operate along each line.

At this stage, the Gawler line is slated to open in April, with only three new electric trains expected to be available for service. All 12 new trains are not expected to be operating until March 2023.

Meanwhile, the state's transport minister, Corey Wingard, has also revealed that costs on the Gawler Electrification Project have blown out by \$127 million. Mr Wingard said this was due to COVID-19 restrictions

and the longer than expected use of replacement buses. **ABC NEWS**

Festival season brings free transport

The state's Infrastructure and Transport Minister, Corey Wingard, announced that Adelaide would have free public transport over the city's festival season. Each week from 12:00 Friday to 24:00 Sunday, all trips on the rail, tram and bus networks will be free of charge between 18 February and 20 March.

An additional ADLOOP tram service has also been scheduled to operate on Friday and Saturday nights throughout this period, as well as on the night of Sunday 13 March, running every 20 minutes running South Terrace-Festival Plaza-Botanic Gardens-South Terrace.

Extra O-Bahn bus services will also operate on these nights, while routes 141, 142, 144, 271, 273, 98A/C and 99A/C are impacted by related road detours only on Friday, Saturday and Sunday nights throughout this period. **ADELAIDE METRO**

WESTERN AUSTRALIA



Late night services

Transperth advises that from Friday 4 February, fares are now payable on services post-midnight on Friday and Saturday nights. **TRANSPERTH**

Transwa: Future disruption

Transwa has provided advance advice that its Australind service will be disrupted for up to 18 months from early 2023, due to works for level crossing removal and MetroNet projects. No further detail has been provided regarding the impact on the service, except that the operator intends to undertake consultation later in the year, including a survey.

Projects to be undertaken will include the Byford Rail Extension, Thornlie-Cockburn Link and the removal of the Victoria Park-Canning level crossing. **TRANSWA**

NEW ZEALAND



Auckland update

From Tuesday 8 February, trains on the Auckland suburban network resumed operating to the regular timetable.

Meanwhile, Auckland Transport also announced in late January that it had awarded a contract to Spanish builder CAF to supply and maintain 23 new trains, adding to the 72 three-carriage AM-class trains already on the network. **AUCKLAND TRANSPORT, SCOOP NEWS**

Hamilton-Auckland service

The 'Te Huia' service, operated by KiwiRail, between Hamilton and Auckland has had its times adjusted again, with two return services operating on weekdays into The Strand station in central Auckland. The service is desperate for increased patronage following a haemorrhaging of money since it commenced last year. The extension was hoped to fix one of the key previous complaints about the service - its termination on the outskirts of the city (Papakura).

The end-to-end trip between Frankton and The Strand is timetabled to run for 145 minutes.

Waikato Regional Council's chairperson, Russ Rimmington, said a good start had been hit by the COVID-19 suspension in August. Not only did fare revenue drop each month between April and August, but the suspension from September to November inclusive saw \$625,000 in outgoings for no return, although its monthly deficit was down sharply during this period compared to when it was in service.

The good news for Te Huia is that its trial has been locked in for a five-year period, in a time where trials generally only last between 12 and 24 months. It may just be Te Huia's saving grace. **NEWSHUB**

there is continued uncertainty around when passenger service levels will be returned to normal. The uncertainty comes from three points:

- passenger demand
- recruitment hesitation to train new drivers/staff due to COVID-19 impacts
- implementation of the December spending review, along with the Department for Transport's (DfT) financial challenges.

"The key statistic, which is the scary stat, is that, regardless of Omicron [wave], we never actually hit 50 per cent of pre-COVID commuter ticket sales," he says. "In the autumn, [the industry] peaked at about 49 per cent. In terms of any-time tickets, we never actually got back to 50 per cent, and I think that is one of our fundamental challenges and it is actually a key part of the backdrop to almost every other conversation."

Mr Haines suggested that there needs to be an optimised solution for the railway, which is not currently in place. Demand for services also varies across the country. "If you talk to people in Birmingham, for example, what they say is 'we could live with two trains an hour if they were even interval, but what we've got at the moment is a timetable that has taken a train out, so you've got a 20 minute gap and a 40 minute gap'," he says.

Ultimately, he said any changes will be a political decision. "The decision needs to be based on those three different factors, and we shouldn't pretend it is only one of those factors which are in play."

Speaking to International Rail Journal, Rail Delivery Group (RDG) said that by the end of February, service levels should recover to around 85 per cent of pre-COVID levels. This follows recent reductions caused by the Omicron variant of COVID-19, where service levels dropped to 78 per cent. However, while demand is expected to increase, RDG has confirmed it will monitor trends and forecasts and make further adjustments if required to keep supply ahead of demand for the foreseeable future. An industry source said that 17,000 trains are currently operating every day, but that demand was only enough for 11,500 trains, despite travel restrictions being relaxed from January 27.

Mr Haines also questioned the long-term appetite of the Treasury to continue covering the funding shortfall in the railway. Since the introduction of Emergency Measures Agreements in March 2020, which transitioned to Emergency Recovery Measure Agreements in September, he says the figure is approaching £20 billion. He suggested it would be wrong if the industry wasn't being challenged on its cost base - "They wouldn't be doing their jobs," he said. **INTERNATIONAL RAIL JOURNAL**

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- Manukau Bus Station
- Botany Town Centre
- Papakura Train Station
- Downtown Ferry Terminal
- Parnumare Train Station
- AUT City Campus (WA Building)

Lost property
Auckland One Rail
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Phone: 09 969 7777 (8.30am - 4.30pm Monday to Friday)

Pukekohe, Papakura to Britomart
Southern Train Timetable

Pukekohe
Papakura
Takanini
Te Mahia
Manurewa
Homai
Puhinui
Papatotote
Middlemore
Otahuhu
Penrose
Ellerslie
Greenlane
Remuera
Newmarket
Parnell
Britomart

A7 Metro
Effective 26 July 2021

INTERNATIONAL

UK: Timetable uncertainty

Network Rail's chief executive, Andrew Haines, says

Table Talk – March 2022

London: Fare increase

Transport for London have announced that fares will rise from 1 March by an average of 4.8 per cent, as the agency starts to work towards financial sustainability

by the second quarter of 2023. The agency is under strong pressure financially owing to impacts from the COVID-19 pandemic and the 2016-21 fare freeze.

Tube zone 1 fares will rise by 10 pence, as will tram and bus single fares, while the daily travel cap will increase by 30 pence to £4.95.

Meanwhile, London's mayor, Sadiq Khan, confirmed in mid-February that legal requirements for Londoners to wear a face mask on the Transport for London network will soon be removed, which follows the UK government's earlier removal of restrictions.
INTELLIGENT TRANSPORT, BBC NEWS

UK: Tesco cargo contract extended

The United Kingdom's largest supermarket chain, Tesco, announced in January that it has extended its

relationship with Direct Rail Services to haul supplies for the retailer across England, Wales and Scotland for another three years.

It follows the introduction of haulage of refrigerated supplies in December between the Port of Tilbury, England and Coatbridge, Scotland. *RAILFREIGHT.COM, REUTERS*

US: Freight robberies

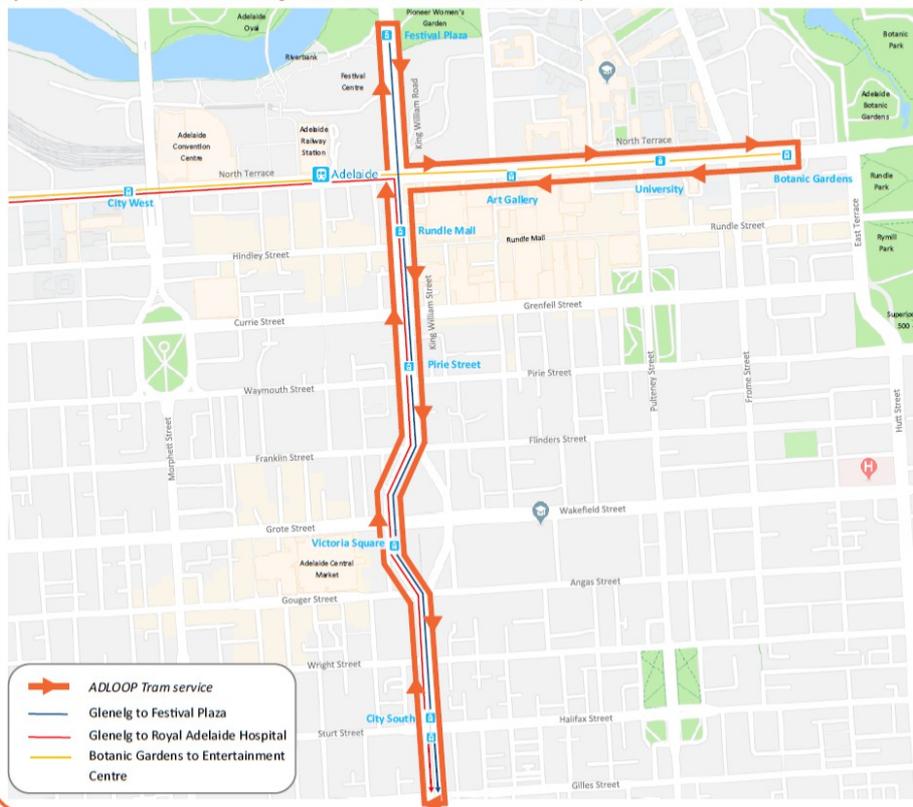
ABC News reports a spate of robberies of freight train containers in the city of Los Angeles over the past few months, with shredded boxes found across rail lines. Union Pacific had announced in December it would improve fencing and security in an attempt to halt the surge, including the use of drone surveillance. It said there was a reported 160 per cent surge in the activity over the 12 months to December 2021. *ABC NEWS*

ADLOOP Tram service

Friday nights: 18 Feb, 25 Feb, 4 March, 11 March & 18 March
Saturday nights: 19 Feb, 26 Feb, 5 March, 12 March & 19 March
Sunday night: 13 March



Between mid-February and mid-March, a special ADLOOP tram service will operate select Friday, Saturday and Sundays in addition to standard tram services. The ADLOOP service will loop the north, east and south ends of the city in a clockwise direction, following the route shown on the ADLOOP Map



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 adelaidemetro.com.au
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China: More high-speed lines open

The Hangzhou-Shaoxing-Taizhou Public-Private Partnership-funded high-speed rail line opened to passengers on Saturday, 8 January. Trains operate at up to 350 kilometres per hour along the 267 kilometre line, which includes nine stations, and also connects with a number of other high-speed lines. The line reportedly cuts travel times between Hangzhou and Taizhou in half (from two hours to just one hour). The private consortium, Fosun Group, which provided 51 per cent of funding for the construction, has a 30-year contract to operate the services on the line.

Meanwhile, on 26 December, part of the Rizhao-Lankao high-speed line also opened to passengers (section Qufu-Zhuangzhai). *INT'L RAIL JOURNAL*

Qatar: Tramway opens

The first line of Qatar's catenary-free Lusail tramway opened on Saturday, 1 January. The line has a fleet of 28x Alstom Citadis X05 tram vehicles each measuring 32 metres in length. Alstom also provided track construction, power supply and signalling system works (Urbalis 400 CBTC) for the project.

The six-station line, part of the Orange line, will be operated by a consortium including Keolis for 20 years. Services operate every five minutes, seven days a week.

From November 21 this year, Qatar will host the FIFA World Cup football tournament. *RAILWAY TECHNOLOGY, THE PENINSULA NEWS*

ENDS

BUS & COACH NEWS

QUEENSLAND



Spring Hill Loop

Translink and Brisbane City Council have extended the operating hours of the fare-free Spring Hill Loop service (route 30) as part of a two-year trial.

Since Monday, 24 January, the loop's weekday operating hours are 06:00 to 21:30, 07:56 to 21:30 on Saturdays and 08:00 to 19:00 on Sundays. *TRANSLINK*

NEW SOUTH WALES



Industrial action

Transport for NSW advised that on the morning of Friday 18 February, some timetabled region 10, 12 and 13 (Transdev) services would not operate in the early morning due to industrial action. Services were expected to be back to normal by 08:00. *TRANSPORT FOR NSW*

Route 859 improvements

Perhaps distracted by other issues facing the agency, on 25 February, just days before commencement, Transport for NSW announced that south-west Sydney weekday-only route 859 (Carnes Hill Marketplace-Edmondson Park), operated by Interline, would have over 400 extra services added each week.

Commencing on Monday 28 February, as part of the agency's Growth Services Program, residents in Edmondson Park, Horningsea Park, West Hoxton and Carnes Hill can enjoy a dramatic extension to operating hours and improved connections to trains at Edmondson Park station.

On weekdays, the new timetable provides for a doubling of service frequency:

- Buses every 15 minutes during the morning and afternoon peaks (previously every 30 mins), and every 30 mins in the inter-peak (previously hourly), and an hourly service where the operating hours have been extended.
- The first morning service now departs Carnes Hill two hours earlier (04:21), while the last service of the day now departs Edmondson Park 3.5 hours later (23:10).

Meanwhile, the route will also now operate on weekends and public holidays, with:

- ex Carnes Hill, buses depart 05:47, 06:47, 07:45 then every 30 mins to 18:45, 19:47 then hourly to 22:47.
- ex Edmondson Park, buses depart 06:15, 07:15, 08:15, 08:42 then every 30 mins to 19:12, then hourly to 23:12.

TRANSPORT FOR NSW

Newcastle express 10x

In April, Newcastle Transport plans to start operating a new express bus service between Charlestown and Newcastle Interchange. Designated route **10x**, the peak-only limited stops route will operate every 30 minutes with 18 trips timetabled on each weekday.

In a late February statement, Keolis Downer's general manager of Hunter, Emmanuel Genlot, said that Keolis

Downer was “making the final changes to the timetables and will consult with our drivers before information is released in March”.

The start of the new route will coincide with service changes due to be made to other routes in the region. **PAUL BROWN, NEWCASTLE TRANSPORT**

CDC Hunter Valley Buses service changes

A new route and route amendments have been put in place to support access to the new Maitland Hospital, effective from Monday, 10 January. Routes impacted include:

- **187** (Green Hills Shopping Centre to Wilton Drive) - Route path and timetable adjustments.
- **189** (Green Hills Shopping Centre to Thornton via Chisholm) – Route path and timetable adjustments.
- **179** (Green Hills Shopping Centre to North Rothbury via Maitland) - Extension of route to service Huntlee Estate.
- New route **188** (Green Hills Shopping Centre to Woodlands Estate via Maitland Hospital).

Meanwhile, routes 136, 137, 138, 140, 141, 145, 178, 180, 181, 182, 183, 403, 404 also experienced timetable adjustments. **HILAIRE FRASER, CDC HUNTER VALLEY BUSES**

AUSTRALIAN CAPITAL TERRITORY



Route 53 temporary diversion

Due to roadworks on Liversidge Drive in Acton, route 53 services were partially diverted via McCoy Circuit from 31 January for a period of approximately five weeks. The diversion map is provided below. **TRANSPORT CANBERRA**



TASMANIA



Sainty's acquired by Kinetic

International private transport operator Kinetic has acquired family-owned Launceston coach operator Sainty's. The company's services were integrated into the Tasmanian Redline business from 1 February, including routes 775, 776, and 777. **AUST'N BUS & COACH NEWS, TASMANIAN TRANSPORT DEPARTMENT**

SOUTH AUSTRALIA



Minor timetable adjustments

From Monday 31 January, over a dozen bus routes across Adelaide received adjusted timetables catering for a mixture of operational and school requirements.

- **140**: 15:20 trip ex Currie Street now departs five minutes later.
- **H30, X30, N30, 530**: No longer services bus stops from Coorara Avenue (stop 11) to Moules Road (stop 21).
- **320**: The 15:30 trip ex King George Avenue now departs 15 minutes later.
- **500, 501 and 502**: These routes now service bus stops 37D and 37E at Montague Road.
- **M44**: All services now use stops A1, Z1, 1, 2 and 3 on Anzac Highway.
- **681**: The 20:42 and 21:42 services at Arooma Road now depart two minutes later.
- **H23, H33, 452, 750B, 751**: Some timing point changes.
- **411**: The trip ex Parafield Gardens High School now departs 14:30 on Mondays and 15:20 on other weekdays.
- **462**: Adjusted bus stops in Angle Vale.
- **835**: An extra trip operates only on school days, departing 07:59 ex Ridge Road at Lobethal.

Meanwhile, new school bus services are now also operating to service the new Riverbanks College and Aldinga Payinthe College. Both receive four morning and four afternoon trips. **ADELAIDE METRO**

WESTERN AUSTRALIA



Transperth timetable changes

With the launch of the Purple CAT, from Sunday 27 February, routes 23, 24, 25, 26, 27, 28, 96, 102, 103, 107, 995, 998 and 999 will undergo changes.

The changes aim to reduce duplication along the routes and also remove trips with poor patronage in the western suburbs. Apart from minor timing changes (including 28 and 995), services will change as follows:

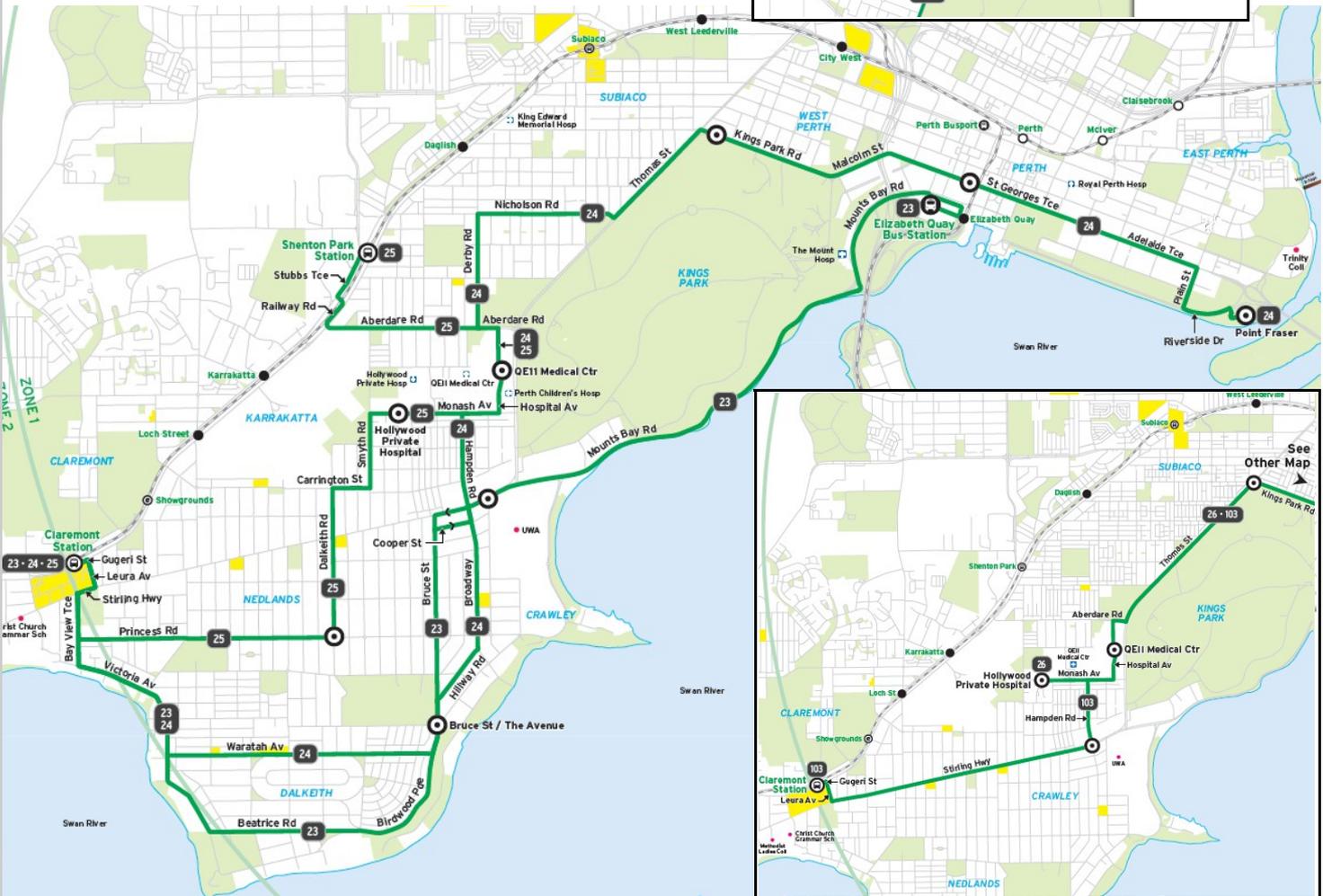
- **Purple CAT** - operates from Elizabeth Quay Bus Station to University of WA via QEII Medical Centre.
- **23** – Small route change to operate via Leura Avenue in Claremont.
- **24** (East Perth to Claremont): The service frequency of the inward weeknight service is halved to every 60 minutes.
- **25** – Now operates from Shenton Park Station to Claremont (previously Elizabeth Quay Bus Station to Claremont).
- **26** (East Perth to Hollywood Private Hospital): The weekday service level is halved to every

30 minutes as the Purple CAT duplicates much of this route.

- **27** (East Perth to Claremont): The East Perth terminus has been moved from the WACA to Terrace Road.
- **96** (UWA South to Leederville Station): Weekday off-peak service level is halved to every 30 minutes.

Article continues next page >

Below: Various Transperth route maps (source: Transperth).



- **102** – Some late night trips on Mondays to Saturdays withdrawn due to poor patronage.
- **103** – Now runs from Perth to Claremont Station (previously East Perth to Fremantle Station).
- **107** (Claremont Station to Fremantle Station): Weekday off-peak Claremont to Peppermint Grove short trips have been discontinued, resulting in an hourly frequency on the entire route (previously 30 mins between Claremont and Peppermint Grove). Evening services are also discontinued.
- **998/999** – CircleRoute now operates via Claremont Station.

School-related trip time changes also impact 374 and 787 from the same date. **HILAIRE FRASER, TRANSPERTH**

NEW ZEALAND



Aucklanders return to buses

Auckland Transport (AT) added extra buses in late January in response to larger than anticipated patronage levels with workers returning after the Summer holidays, and prior to the planned resumption of regular weekday timetables on Tuesday, 1 February.

From Tuesday 18 January, AT said it had added 50 morning and afternoon peak trips across routes NX1, NX2, Tamaki Link, 22, 24, 25, 27, 70, 75, 95, 97, and 762.

The agency's general manager of metro services, Stacey van der Putten, said "It's been great to see so many Aucklanders back on our buses this week. This week we experienced a bigger than expected increase in on-peak passengers, so we're working hard to provide additional services where they're needed most". She also acknowledged that the Western train line closure for City Rail Link works had contributed to increased patronage on board inner west and Great North Road route buses, despite the availability of replacement buses.

"Despite the increase in passenger numbers this week, on Monday [17 Jan] our bus patronage was sitting at only 50.8 per cent of pre-COVID levels for this time of year, and overall our bus network had enough capacity for about 75 per cent", she said.

Meanwhile, Auckland Transport has also confirmed that the West Auckland Busway will not be completed until mid-2023, owing to delays in the project caused by COVID-19 impacts. **NZ HERALD, STUFF.CO.NZ**

Auckland: Temporary service reductions

From Monday 28 February, some trips on selected routes will be temporarily suspended across West Auckland until further notice, due to driver shortages impacting operator Pavlovich Coachlines.

While express routes **132X** and **133X** have been wholly suspended, other routes have selected trips not operating:

- Route **66** – 08:15, 14:30 & 17:00 ex Port Chevalier Beach, and 15:45 ex Sylvia Park.
- **112** – 09:00 ex Westgate.
- **114** – 08:15 ex Hobsonville.
- **133** – 08:12 ex Henderson, and 08:50 & 15:05 ex City Centre.
- **134** – 06:07 ex Henderson, and 14:25 ex City Centre.
- **138** – 07:50 & 18:20 ex New Lynn.
- **152** – 07:15, 15:45, & 17:45 ex Henderson.
- **154** – 14:00, 15:20, & 18:00 ex Henderson.

Auckland Transport said in its announcement that the decision to remove the two express routes was made as there was an alternative all stops service still available for passengers to travel to their destination. When service reduction is required due to driver shortages, the agency said that removing a one-way express bus can prevent the cancellation of at least two other trips which in turn can reduce the severity of the effect of the cancellation and the number of people affected. The agency also confirmed it had taken patronage by school students into account, and that the first or last trips of the day, as well as trips with ferry connections, had been retained. **AUCKLAND TRANSPORT**

Christchurch: Normal services resume

Metro Christchurch has reinstated nearly all of its temporarily suspended bus services. The bus routes that were previously impacted by driver shortages (see last month's *Table Talk*, page 15) have now resumed the full weekday timetable (since Monday, 31 January).

The only exception to this is the Orbiter (in both directions), which is now operating with a service every 15 minutes (instead of every 10 mins), which is still an improvement from January, when it was running to a Saturday timetable on weekdays. Metro have issued an online PDF timetable file with the reduced service timetable, effective from 31 Jan. **METRO CHRISTCHURCH**

Wellington: Tawa on-demand trial

Metlink says it will run an on-demand bus trial for the Tawa community in the coming months. It will be provided in conjunction with partners Via and Mana Coach Services.

According to Metlink's General Manager, Scott Gallagher, "with 63 per cent of residents living in the eastern and western parts of Tawa, many have to walk

up to 30 minutes to reach a train station”, with “park & ride facilities at capacity and steep, hilly terrain, it’s not surprising that a significant proportion of Tawa residents prefer to drive to work instead of catching public transport”.

Although not funded by the National Land Transport Fund, Metlink says that it hopes that the trial will prove a number of clear benefits to support future funding for a regional roll-out. **METLINK**

Hamilton: Reduced weekday timetable

From Monday 21 February, Hamilton’s weekday bus services moved to a reduced timetable, caused by a combination of driver shortages and COVID-19 impacts.

Waikato Regional Council’s manager of public transport services, Andrew Wilson, said that cancellations may still occur at short notice due to driver sickness, COVID close contact restrictions, or staff awaiting COVID-19 test results. He said the focus on the work behind the reduced timetable was to maintain the busiest route services, service reliability, and maintaining school services.

Impacted routes include 1-5, 8-14, 16-19 and RC (Rototuna Circular).

Services on weekends and public holidays, as well as the Orbiter, Comet, 4N Flagstaff North, and regional services are not impacted, at this stage. **THE WAIKATO TIMES, BUSIT.NZ**

Hamilton: Upcoming new services

The launch of Hamilton’s future “flagship” **Meteor** service has been delayed, owing to the ongoing bus driver shortage. Previously anticipated to launch in February, the east-west service, which will replace routes **2** (Silverdale) and **8** (Frankton), has at this stage been delayed until at least May.

Further route changes will include:

- Routes **3** (Dinsdale) and **9** (Nawton) halved to an hourly service.
- Route **9** truncated (will stop at Rotokauri Transport Hub instead of running across to The Base).
- The 07:35 **Orbiter** anti-clockwise and 15:20 clockwise “school assist” trips will be withdrawn, with Meteor services available.

BusIt notes that the proposed Meteor bus will also not use the Transport Centre, but instead nearby new bus stops on Bryce Street “to ensure travel times are kept to a minimum”.

The postponement also means that an initial Meteor route diversion (via Knighton and Edinburgh Rds) due to works at Ruakura Road will not be required.

Meanwhile, the new **Flex** on-demand service is now operating in Hamilton on late Friday and Saturday nights (18:00-04:00) running door-to-door to get people in and out of the CBD. An introductory zero fare was

available from 14-29 January, with a capped \$NZ2 one-way fare charged from February.

The **Flex** vehicle is used on weekdays (10:00-16:00) on the Hamilton Airport service. **BUSIT.NZ, THE WAIKATO TIMES**

ENDS

FERRY & SHIP NEWS

QUEENSLAND



Reduced ferry services

Continuing on from last month’s item, from Monday 28 February, the CityCat and Bulimba to Teneriffe Cross River ferry services operate to a reduced timetable due to ongoing staff availability issues from COVID-19.

Friday services instead run to the Thursday timetable, while Saturday services instead run to the Sunday timetable. On Friday and Saturday nights, the last CityCat services depart at 22:15 (ex UQ Lakes and Northshore Hamilton).

NEW SOUTH WALES



Sydney Ferries

Staff shortages continued to plague timetabled services across February, with some days continuing to experience over a dozen ferry cancellations. **TRANSPORT FOR NSW**

ENDS

DOMESTIC



Link adds flights

Link Airways announced in mid-February that it has re-added morning flights from both Brisbane and Melbourne to the western New South Wales city of Orange. The flights resume after a hiatus caused by COVID-19 impacts, with the airline reportedly now operating 75 per cent of its pre-pandemic schedule.

WIN NEWS CENTRAL WEST

Qantas challenges Rex

For the first time in nearly two decades, Regional Express (Rex) will have competition for the Broken Hill market, with QantasLink announcing it will commence two weekly return flights operating Sydney-Broken Hill from 8 April. Rex's last competition came in the form of Horizon Airlines, before it fell into receivership in 2003.

Meanwhile, in February, Rex reported a \$36.7 million loss in the first six months of this financial year. Despite a strong 82 per cent increase in passenger numbers using Rex's services, revenue only increased by a corresponding 60.5 per cent, in light of competition with Virgin and Jetstar. Its load factor also fell in the half from 60.7 to 53.4 per cent. *ABC NEWS, THE DAILY TELEGRAPH*

INTERNATIONAL



International border reopening

The country's borders reopened on Monday 21 February, with many dozens of flights touching down across a number of the country's international airports. It follows almost 24 months of restrictions and closures, as part of the various state and federal government's response to the evolving COVID-19 pandemic.

Qantas resumed its Sydney-Dallas Fort Worth route on 16 February, while it plans to restart its Brisbane-Singapore and Sydney-Manila/Jakarta routes on 27 March, then Sydney-Denpasar on 28 March and Brisbane-Los Angeles 1 April.

Following the reopening announcement by the Prime Minister, Qantas said the strongest demand to inbound flights was coming from the United States and United Kingdom, while interest was also strong from South Africa, India and Canada.

Emirates is also boosting flights into the country, with Melbourne-Dubai recommencing from mid-February, and Sydney-Dubai return flights doubled from 1 March.

British Airways is returning to Australia after a long hiatus, with Sydney-Singapore-London restarting on 29 March.

Qantas meanwhile will shun Western Australia until at least June, instead continuing with its Darwin-London route, although despite the board's hostilities with the WA state government over its handling of its borders throughout the pandemic, chief executive Alan Joyce said "The dilemma we have... is that Perth has maybe two million people and Darwin has 150,000 people. So the demand you get out of Perth to London and back for business, for tourism, for visiting friends and relatives, is bigger". Meanwhile, Qantas also recently confirmed that its Darwin-Dili route will become permanent, with an increase to five flights per week from July. *AUSTRALIAN AVIATION, ABC NEWS*

US: Budget carriers merge

In what has been reported to be a \$US 6.6 billion deal, American budget carriers Spirit and Frontier have announced a merger to create the country's fifth largest airline, operating flights across the United States, the Caribbean and Latin America.

Frontier shareholders will take more of the merged entity with 51.5 per cent of shares and seven out twelve seats on the new board of directors. *SAMCHUI.COM*

Airbus secures multiple new orders

Multiple international airlines have recently signed up to order new aircraft from Airbus for a mix of passenger and cargo flights.

On 16 December, **Qantas** announced it had ordered a minimum 20x A321XLR and 20x A220-300 aircraft, with "rights" for up to another 94 aircraft consisting of various models. Qantas said they were undergoing fleet renewal, and that the Jetstar discount offshoot would be included in the program, with pre-existing orders with Airbus already signed.

Outside Australia, **Singapore Airlines** signed on for 7x A350F widebody air-freighters, with an option for another five. The A350Fs will replace their existing Boeing 747-400Fs, with expectations of saving 40 per cent in fuel on a like-for-like comparison.

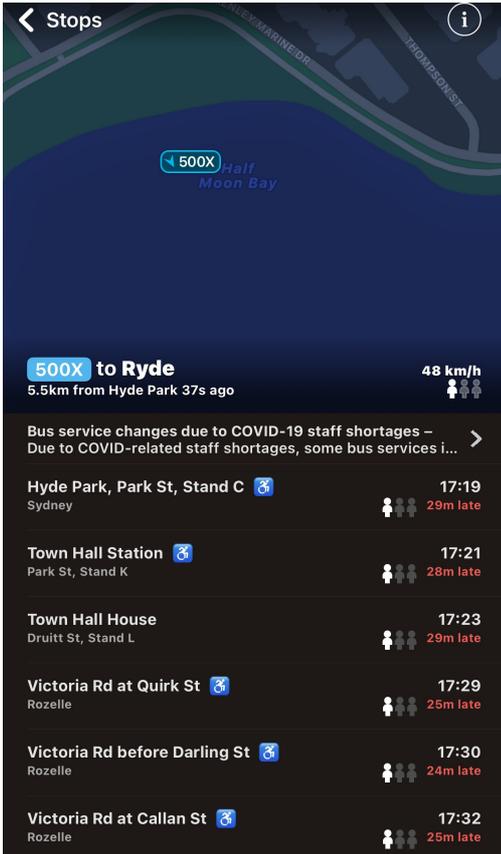
Meanwhile, **Air France-KLM** secured its order of 100x A320neo and A321neo aircraft, with an option for a further 60. The airline plans to use these planes on European medium-haul routes, including at its discount offshoot, Transavia. A "letter of intent" was also signed for 4x A350 airfreighters, with an option for a further four, which Air France/KLM Group can substitute for Airbus' A350 passenger aircraft. *SAMCHUI.COM (2) (3)*

ENDS

ODD SPOT 1

Drivers “potentially” stop real-time data

A Transport for NSW notification about limited real-time data for bus services in Transit Systems regions 3 and 6 in January. It was interesting to see the Transport notification effectively legitimise the union claim of 'inconsistent wages' (see image right).



Limited bus real-time data

Real-time bus tracking is limited in Sydney's south west and inner west.

Many buses are not reporting real-time data in regions 3 (Transit Systems south west) and 6 (Transit Systems inner west). This is potentially related to [ongoing industrial action](#) over inconsistent wages for drivers. Drivers are deactivating Opal readers, which are where we get the real-time GPS tracking data from.

In the absence of real-time information, scheduled timetable information will be shown. Apologies for the inconvenience.

Started Sunday 2 January

ODD SPOT 2

Water Bus?

Either the driver has just thrown the GPS unit into the water, or State Transit had a new water bus (see image left). At the time of report, the bus was reportedly doing 48 kilometres per hour in Half Moon Bay, a State Transit bus 500X, running a tad late on the afternoon of 7 January.

As part of the ongoing transfer of government bus operations to private enterprise, the region seven route was taken over by Busways North West on 9 January.

TALKING IN-DEPTH

Disruption guide: Wellington

Wellington, New Zealand's public transport agency, **Metlink**, provides this helpful customer guide on causes of delays and disruptions to their journeys (dated 31 March 2021), available from their website, helping the layman understand circumstances surrounding delays and incidents which variously impact the delivery of timetabled services.

Worksite speed restrictions

Worksites are often setup near the tracks so that KiwiRail can perform maintenance work on the line without cancelling services. Services must run at reduced speed past these worksites for the safety of the workers around the site.

Tunnel gas level restrictions

Safety restrictions for gas levels in the Rimutaka tunnel require extra waiting time (usually an hour) before trains can resume. This includes freight trains that share the line with passenger services.

Points faults

Points allow the trains to be guided from one track to another to change direction or route. These are used at some stations, railway junctions and sidings. When a set of points stop working they require the train crew or KiwiRail to electrically isolate and manually operate the points to ensure it is safe for the train to proceed over them. This process must be repeated for each set of faulty points and this can cause significant delays. The train crew may have to restore power to the defective points and manually return the points to their previous position after the train has passed over them leading to further delays.

Signal faults

A signal relays information to the train driver on the state of the line ahead. These are red, yellow and green lights which provide direction on speed or tell the driver to stop. If a signal stops working the train staff follow procedures to safely pass. The driver may have to contact the control centre and get the okay to proceed. The train is also likely to travel slower through the area controlled by the signal as an additional safety measure. If a driver passes a stop signal it is a serious safety breach. The service is halted while the driver is replaced and an investigation is conducted.

Signals faults often require manual paperwork to be signed off by Train Control before trains can restart, meaning extra delays while waiting for paperwork to come through. This also applies to areas of the network where there are no signals.

Mechanical faults

Trains are machines and they do break down. We have a regular maintenance programme for each vehicle but they do sometimes break down when in service. It can be a compressor failure which means the brakes lock or doors won't open or close properly. We get repair crews, replacement trains or buses out as soon as we can. At peak times we operate as many of our vehicles as possible to meet growing demand and can't always send replacement trains quickly.

Your safety is top of mind and you need to follow the instruction of the train crew on waiting inside the vehicle until it is okay to move to another train or bus. If you are stuck on board a train during a disruption pleased be assured that you are in the safest place you can be, the train crew and Network Control must ensure that the track and surrounding area (including the overhead power lines) is safe before evacuating a train and passengers will only be moved from a train as a last resort – we will always look to getting the train moving again rather than evacuating a train.

Depending on where the breakdown has taken place it could be some time before the train gets moving again or before the train is evacuated – in these situations the train staff will constantly be keeping you up to date with progress and if you have any concerns please feel free to speak to any of our on-board staff.

Overhead power faults

Matangi trains are electric and powered by overhead lines. If there is a power cut or something hits the overhead lines, the trains won't run. We do have auxiliary power supplies which will mean that the trains will continue to operate even if there is power cut in the suburb they are passing through. If a vehicle carrying a high load hits the power lines these will need to be repaired before services can resume. We ask you to remain inside the carriages until we are certain that there is no danger of live power lines.

The Wairarapa services and KiwiRail passenger and freight services are diesel which is why they can continue to operate when we have a power failure.

Broken down freight service

We share the rail network that runs through the Wellington region. KiwiRail operates freight and passenger services. A broken down freight train can cause delays as the Metlink services may not be able to pass. Sometimes the freight service will need an additional locomotive which takes time to organise and dispatch.

Emergency services incident

If there is an incident near the track, the Police, Fire and Ambulance can close the line. These incidents might include a trespasser, a car crash or spill, or medical incident involving a passenger or one of our staff at a station or on board a train. It may include turning the power off in that section of the line. We need to give them the space to do their job, and once they are finished we need to make sure the track is undamaged and safe to use before services can return to this section of track.

Weather

We know you can't beat Wellington on a good day but we also know that we are very exposed to winds and storms. Train services can be disrupted by snow, slips, floods, fallen trees, and other debris on the tracks. In severe storms we have had issues with flooding at stations as well. We do monitor severe weather warnings and we aim to give advanced notice where weather has the potential to impact on our train and bus services.

Hot weather may see speed restrictions in place if tracks become heated and there is a risk that they are out of alignment. Cold weather can mean that ice forms on the tracks causing slipping or on overhead wires meaning that they arc. The software on the Matangi can recognise some of these issues and slows the train to a safe low speed.

Ice on overhead wires

During the colder winter months ice can form on the overhead wires which supply electricity to each Matangi carriage. The ice can cause arcing (bouncing and sparking) or limit the amount of power being provided to each carriage causing fluctuations in the power supply. Matangi have software designed to safely protect them from these electrical fluctuations by temporarily blocking power to prevent any damage to the train. If this happens repeatedly then the train needs to be reset which can cause delays.

The Hutt Valley Traction Upgrade project will improve reliability of the overhead wire electrical supply in extreme weather as the tensioning will be upgraded from fixed to auto-tensioning. This will make the overhead power supply more reliable in extreme weather, both hot and cold. The Kapiti Line already has auto-tensioning. The Wairarapa services do not experience issues with ice on the overhead wires as they are hauled by diesel locomotives so do not depend on the overhead wires to run.

Heat restrictions

Hot weather can create issues for the rail network. Rails in direct sunshine can be as much as 20°C hotter than air temperature. Because rails are made from steel, they expand as they get hotter, and this can cause misalignments. The rail network is monitored by a remote system, which measures the temperature of the track and the air temperature. When these reach a certain point, usually 40°C, heat inspections are carried out. Temporary speed restrictions are introduced in selected locations as a precautionary measure.

Work is done throughout the year to prepare the rail for warmer weather in summer and to minimise the impact of speed restrictions due to heat. An extensive amount of heat de-stressing takes place across the network each year. Heat restrictions are a common problem with rail networks around the world.

Speed restrictions

Train drivers are instructed to reduce speed on some parts of the track or the whole track if there is damage or repairs are underway. This is to ensure passenger and train crew safety. It often means that services don't run to the scheduled timetable and impacts on later services on the line. Matangi trains can travel at speeds of around 100 kilometres per hour (km/h). Speed restrictions can reduce speeds to 40km/h or slower. After an earthquake or weather event the trains may be instructed to reduce speed to 40km/h to ensure there has been no damage to the tracks.

Earthquakes

The Wellington rail network is closely monitored, particularly when we have earthquakes. We use GeoNet's MM rating (Modified Mercalli Intensity Scale), which measures the intensity of a quake. The base shaking data comes from 300+ strong motion accelerometers which have been installed as part of the EQC-funded GeoNet programme. Any seismic activity which records an MM rating of over 6 means that the National Train Control Centre contacts local staff for an assessment of how the quake was felt in the area and what measures should be taken to ensure the safety of everyone on the network (both customers and staff). We have developed response criteria for levels of ground-shaking based on rail damage from previous earthquakes as well as research with GNS. A response plan is developed and agreed.

If the earthquake intensity is severe, the initial response plan may include immediate stopping of all trains to allow a review of the Peak Ground Accelerations (PGA) measurements and damage inspections if necessary. Lesser intense earthquakes may require speed restrictions to be temporarily put in place.

Slippery tracks

Trains need traction with the track to work. Falling leaves can stick to damp rails, and passing trains compress them into a smooth, slippery layer that reduces the ability grip. Dew, ice, frost and salt spray/waves can also cause tracks to become slippery.

When the tracks are slippery train drivers have to brake earlier when approaching stations and signals to avoid overshooting, and accelerate more gently to avoid wheel-spin and ensure your safety. Our signalling system also uses

electric currents in the track to locate trains but leaves can make this system less accurate by interrupting the connection between the wheel and the track. Again, for safety reasons, we need to leave longer gaps between trains, which also means delays.

Maintenance and repairs

We conduct regular inspections of our trains and have structured maintenance programmes for our fleet. There are occasions when a higher number of trains require maintenance and repairs. This can cause services to have fewer than normal carriages or on rare occasions, a service to be cancelled. You will see "reduced seating" in some of our alerts or service updates. This is likely to be due to a reduced number of carriages, more crowding and you may want to wait for a later service.

Gungahlin Place to Alinga Street

Weekdays

| | | | | |
|------------------------|------------------------|------------------------|------------------------|--------------------------------------|
| 6:00am to 7:00am | 7:00am to 9:30am | 9:30am to 3:30pm | 3:30pm to 6:30pm | 6:30pm to 11:00pm ¹ |
|------------------------|------------------------|------------------------|------------------------|--------------------------------------|



Saturdays

| |
|-------------------------|
| 6:00am to 12:30am |
|-------------------------|



Sundays & Public Holidays

| |
|-------------------------|
| 7:00am to 11:00pm |
|-------------------------|



1. Last service 11:00pm (except Friday: 12:30am)

Alinga Street to Gungahlin Place

Weekdays

| | | | | |
|------------------------|------------------------|------------------------|------------------------|--------------------------------------|
| 6:00am to 7:30am | 7:30am to 9:00am | 9:00am to 3:00pm | 3:00pm to 7:00pm | 7:00pm to 11:30pm ² |
|------------------------|------------------------|------------------------|------------------------|--------------------------------------|



Saturdays

| |
|-------------------------|
| 6:00am to 01:00am |
|-------------------------|



Sundays & Public Holidays

| |
|-------------------------|
| 7:00am to 11:30pm |
|-------------------------|



2. Last service 11:30pm (except Friday 01:00am)

Canberra Light Rail 'Frequency Guide' (source: Canberra Metro).

About Table Talk

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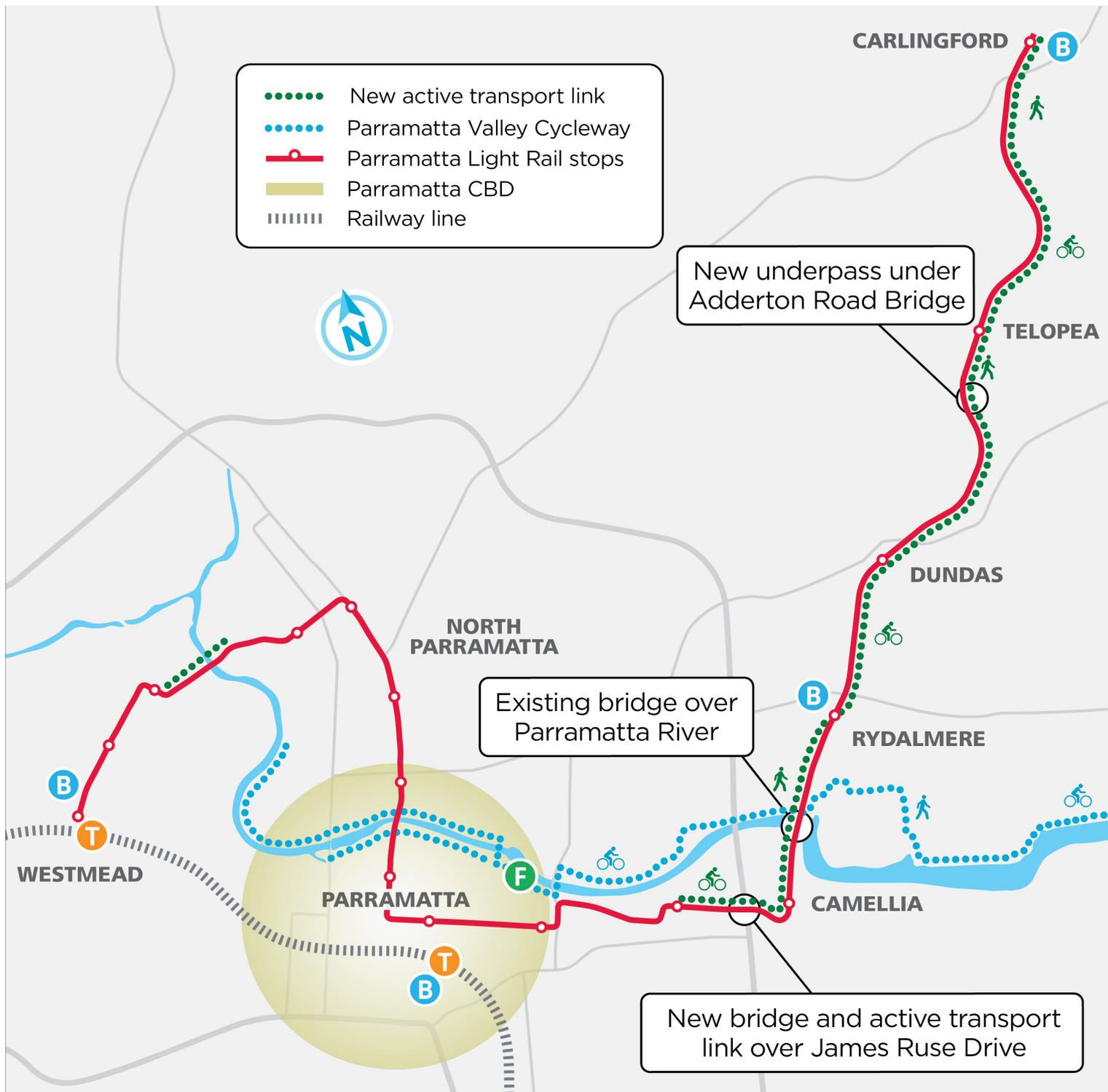
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Above: Parramatta Light Rail's 'active transport' links (source: Parramatta Light Rail project site):

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