TABLE TALK

TOP TABLE TALK – PLAN NOW OR QUALITY OF CITY LIFE WILL DECLINE, SAYS INFRASTRUCTURE AUSTRALIA

by Simon Benson, the Australian*, 23 February*

The Federal government's peak infrastructure agency has warned that the country's major capital cities were facing a "watershed" moment that would lead to a decline in the quality of life and economic productivity if governments failed to plan for significant population growth over the next 30 years. In a major report [released on 23 February], Infrastructure Australia claims that unless all levels of government address "unplanned growth", the major cities' global liveability ranking will begin to fall, with poorer access to jobs, schools, housing, and green space. The report explicitly rejects cutting population growth, and acknowledges there are "anxieties", saying the economic opportunities created from globally competitive cities would otherwise be lost.

Infrastructure Australia warns that governments must start planning for another 12 million people within the next 30 years. While commending the federal government's $50 billion infrastructure program, it says this is about addressing current congestion and productivity issues. "Inaction is not an option, nor is business as usual," the report says. "If we fail to effectively anticipate and respond to growth, the likely results will be declining economic productivity, increasing environmental pressures and a marked reduction in each city's quality of life."

In a series of "scenario planning" models, the 134-page report says Sydney and Melbourne are on track to grow to the current size of New York, London or Hong Kong by 2046 but will be crippled unless a national reform agenda is established to address critical infrastructure needs. This would involve significantly increasing investment in "timetable free mass-passenger transport", particularly to major employment centres, user-pay road systems, and higher density dwellings connected to employment centres. The report said Australians would have to adapt to the transformation of the major cities, including Brisbane and Perth, which by 2046 would become the size of current-day Sydney.

Infrastructure Australia chief executive Philip Davies claimed that the decisions of government today would have "multi-generational" impacts if not the right ones. While not recommending specific infrastructure projects, Mr Davies said subway and metro systems such as London, Hong Kong and New York would be needed to cope with the transport needs of the size of the estimated populations. "The type of city we choose to live in today will have a dramatic impact on our journey to work, congestion on our roads, cost of housing and access to public transport, schools, hospitals and our public parks in the future," Mr Davies said. "The truth is we cannot have it all. It is unrealistic to expect that the family living on the quarter-acre block on the outer suburbs of Sydney will have a metro service on their doorstep, but it is also unrealistic to think that we can have a big backyard living in the centre of the city.'' At the current population rate, the equivalent of a city the size of Canberra would be added every year. Sydney's population is forecast to grow another 2.5 million.

The report says Sydney will come under "significant pressure", including a doubling of the hours spent on congested roads, almost one million more journeys on public transport and a 70% rise in the demand for schools. "Without further investment, public parks and open spaces will become increasingly crowded with average hectares of open space per 1000 residents at the citywide level to decline from about 8ha to 5ha," the report says. "Infrastructure Australia modelled highly centralised, and low- and medium-density growth scenarios for Sydney. "Sydney's transport networks generally performed better under the high-density and medium-density scenarios, and worst under the low-density scenario."

Sydneysiders are spending 200,000 hours every day struck in traffic jams across town in the morning peak hour. By 2046, that will double to 400,000 hours. But the report says this could be addressed, even making

commuting trips shorter, if the future growth is based around where new employment will be created.

Melbourne faced similar challenges with its population expected to grow by 2.8 million people, adding 6.3 million additional daily trips on the road network. "If Melbourne goes down the low-density path of unplanned development on the fringe of the city, and there is no further investment in social infrastructure, our research found that people will be able to access up to 140,000 fewer jobs in one hour of travel," the report says.

About 305,000 fewer people will have easy access to a hospital, up to 250,000 fewer people will have easy access to schools and up to 330,000 fewer people will have easy access to university. Mr Davies said there was reason to be optimistic considering that Australia had four cities among the world's 10 most liveable cities and said the federal government's Cities Deals was one mechanism to begin addressing the problem by bringing together all levels of government.

The report can be accessed at http://infrastructureaustralia.gov.au/policy-publications/publications/future-cities.aspx

RAIL AND TRAM NEWS

ARTC: Inland Freight Railway
Feasibility design contracts have been awarded for the four sections of Inland Rail between Brisbane and Toowoomba. Three of the contracts, covering Gowrie to Kagaru, have been awarded to the Future Freight Joint Venture (Aecom and Aurecon). They are worth a combined $28 million. The fourth contract, for the section from Kagaru to Acacia Ridge and Bromelton, has been awarded to Hatch for $3.5 million. The three sections covered by the Aecom/Aurecon contract will eventually be delivered via a Public Private Partnership. They cover the most technically complex section of Inland Rail requiring major tunnelling through the Toowoomba ranges.

Aurizon: Central Queensland coal network
Aurizon has announced cuts to its maintenance spending on the Central Queensland coal network (CQCN), which it estimates will reduce the network's capacity by 20 million tonnes per annum.

A draft decision from the Queensland Competition Authority (QCA), which says Aurizon can only earn $3.9 billion in revenue operating the CQCN, has forced it to make maintenance changes, slashing capacity, the company said. The QCA draft decision's maximum allowable revenue figure – which will take effect retrospectively from FY17 to FY21 – is $1 billion lower than the figure Aurizon believes it should be allowed to earn over the same period. Aurizon will make a detailed response to the QCA's draft by 12 March, and a final decision is expected later this year.

But Andrew Harding, Aurizon's chief executive, said on 12 February it will be forced to pre-empt the QCA's "extremely disappointing" access deal by cutting back on maintenance spending, in turn hurting network capacity.

When the QCA released its draft decision last December, it suggested Aurizon spend less on maintenance in the new regulatory period than it did in the prior period, despite the combined assets being worth $1 billion more – an increase of 20% – and a forecast 15% increase in coal moved.

In the past, Harding said, Aurizon has varied maintenance work times and scope to meet customers' requirements, allowing trains to pass during the work schedule. "Going forward, Aurizon will prioritise lowest-cost maintenance over flexibility (with no trains passing)," he said, "a process advocated by the QCA and its consultants. Flexibility maximises the throughput of coal services for customers, However the QCA's draft decision states this is an inefficient maintenance practice. This is not a decision we have made lightly given the impacts to Aurizon's own business and to the Central Queensland coal supply chain, including miners, ports and rail operators and the flow-on effects to regional economies and government royalties. However, Aurizon has little choice given the significant financial impact and the retrospectivity of the QCA process."

The move led Aurizon to downgrade its above rail coal volume outlook to 210-220 million tonnes in FY18, from prior guidance of 215-225 million tonnes.

Queensland Rail: Toowoomba line
The heights of 11 rail tunnels on the Toowoomba and Little Liverpool Ranges in Queensland are to be increased, with foundation and preparation works now underway. The first tunnel will be heightened in April, during a major track closure. Once the works are completed at all 11 sites – in approximately 12 months trains loaded with containerised freight will be able to travel from the Darling Downs and South West Queensland Regions directly to the Port of Brisbane.

"The lowering of 11 rail tunnel floors on the Toowoomba and Little Liverpool Ranges will create the clearance necessary to transport 9'6" high cube freight shipping containers via rail, increasingly being used to export goods," Queensland's Transport Minister Mark Bailey said.

Bailey further stated that the $48 million in upgrades were part of the government's effort to get more freight on rail and improve the competitiveness of the region's agricultural sector. Raising the height of the tunnels would mean, he said, that rail will become a more "attractive and viable" option for industries wanting to improve efficiency by using larger containers to get export commodities to the Port of Brisbane. At present, only 2% of all freight arriving at the Port of Brisbane

comes on rail – approximately 30,000 containers out of 1.2 million – a fall from around 13% in 2003.

The 11 tunnels – including two tunnels on the Little Liverpool Range at Laidley and nine tunnels on the Toowoomba Range – are heritage listed, having been constructed in the 1860s on Australia's first main rail line through the Great Dividing Range.

Aurizon: Galilee Basin coal railway

Aurizon is withdrawing its application for federal funding to build a rail corridor in the Galilee Basin, delivering a further blow to the Adani Carmichael mine project. On 9 February, Aurizon's managing director and CEO, Andrew Harding, said that while the operator was in "ongoing discussions" with several entities looking to develop mines in the Galilee Basin, no "definitive contractual arrangements" had been established. "Our NAIF [Northern Australia Infrastructure Fund] application is, in part, predicated on having customer contracts secured. Given this is unlikely to occur in the near future we believe it is prudent to withdraw the NAIF application," he said.

Harding indicated that Aurizon continued to support to development of the basin and left open the possibility that the operator would be open to developing the rail corridor if the situation were altered in the future. "If market circumstances change and our discussions with potential customers progress to commercial arrangements we will look at all possible financing arrangements to develop the rail solution."

A hypothetical rail line would allow resources companies to have their commodities transported from the huge thermal coal basin to the east coast and the Abbot Point coal terminal, opening up the area for development and enabling the Adani mine project.

Queensland Rail: Commonwealth Games, April

The number of services on the Gold Coast rail line will be tripled, and trams will operate 24 hours a day during the Commonwealth Games from 4 to 15 April. The Queensland government released its 2018 Commonwealth Games Transport Plan on 4 February. Six million extra journeys are expected on South East Queensland's transport and roads network.

However, rail services elsewhere in southeast Queensland will be reduced by up to half in some instances to accommodate services every eight to 10 minutes on the Gold Coast line. **Beenleigh line** passengers will be the hardest hit, with a merger with Gold Coast services. Trains will stop at only Park Road, Yeronga, Coopers Plains, Altandi, Woodridge, Loganlea or Beenleigh. Despite the increased service on the Gold Coast line, total network services will be reduced by 6% from the already restricted timetable, due to a severe driver shortage. Beenleigh line services will be:

Friday 30 March-Monday 2 April: Hourly

Tuesday 3, Wednesday 4 April and **Monday 16 to Friday 20 April**: Peak: Every 15 minutes. Off-peak: Every 30 minutes

Thursday 5 to Sunday 15 April (period of the Games): No Beenleigh trains. Gold Coast trains will stop at South Brisbane, Southbank, Park Road, Yeronga, Coopers Plains, Altandi, Woodridge, Loganlea and Beenleigh. Passengers to/from other stations will have to use substitute buses. These will be:

Bus route	Description	Peak	Off-peak	Serving
610	Altandi to Park Road all stops	7.5 mins	15 mins	Sunnybank, Coopers Plains, Salisbury, Rocklea, Moorooka, Yeerongpilly, Yeronga, Fairfied, Dutton Park
611	Loganlea to Altandi all stops	7.5	15	Loganlea, Kingston, Woodridge, Trinder Park, Kuraby, Fruitgrove, Runcorn
613	Beenleigh to Loganlea all stops	15	30	Beenleigh, Holmview, Edens Landing, Bethania, Loganlea
614	Beenleigh to Edward St, City express	15	30	Beenleigh, Loganlea, Sunnybank, Altandi

The government is also banking on the arrival of three New Generation Rollingstock trains from India to make their "high frequency" plan work.

Queensland Rail: Major closures

In the build-up to the Commonwealth Games, the Gold Coast line was closed on the weekend of 10/11 February.

The entire Inner City network was closed on the weekend of 17/18 February. No trains moved between Bowen Hills and Corinda/Yeerongpilly/Murarrie. Doomben line trains terminated at Woolowin, meaning these passengers had to change twice.

Mary Valley Railway reopening

Following reconstruction, the Mary Valley Railway expects to resume operation of its heritage trains in "Autumn 2018". Operation will, at this stage, only be from Gympie to Amamoor, 23 km. A draft timetable on

their website, https://www.maryvalleyrattler.com.au/tickets-and-timetable/ shows morning, midday and afternoon trains on Wednesdays, Saturdays and Sundays. It is hoped to reopen the remaining 17 km to Imbil later.

Eastern Australia: Grain harvest
Weather events during the growing season on Australia's east coast drove a 54% decrease in GrainCorp's winter crop volume in 2017. The company received 5.6 million tonnes of grain during the 2017 winter harvest. During the 2016 winter harvest, GrainCorp received 12.1 million tonnes.

In Queensland, receivals dropped 69% from 1.8 million tonnes to just 557,000 tonnes, as growers battled dry conditions and limited soil moisture. Receivals were down 68% in New South Wales, from 6.6 million tonnes to just 2.1 million tonnes. "For the first time since at least 2011, New South Wales growers delivered less into the GrainCorp network than their Victorian counterparts. This reflects the extremely dry conditions across the western districts … Overall, quality in northern NSW was good however volumes were drastically down. Southern NSW suffered from a combination of weather events and frost which compounded quality and quantity issues."

Victorian growers had a relatively strong year, with receivals down just 21% from 3.7 million tonnes to 2.9 million tonnes. "While harvest was interrupted by weather on a number of occasions, Victoria achieved a recent record, with over 150,000 tonnes being received in a single 24-hour period. In this case, many sites stayed open for 20 hours to enable growers to get grain into the system before a forecast storm."

GrainCorp operates seven ports along Australia's east coast, with a mixture of containerised and bulk export services. Domestic demand took priority during the 2017 winter season, however, as local consumers looked to secure supply. "Domestic grain flows are being drawn north as supplies are under pressure across northern New South Wales and Queensland. Geelong remains GrainCorp's busiest port, which reflects the strong production year Victorian growers have enjoyed. Over 600,000 tonnes have been exported this harvest through Geelong as Australian grain remains sought-after in our key export markets."

ARTC: Hunter Valley closedown
A major closedown of the ARTC Hunter Valley network occurred on 20 to 23 February, with preparation works involving drones to film sections of track. Over 120 projects worth more than $20 million took place including bridge repairs and replacements, re-railing, rail grinding, track reconditioning, signal works, and other corridor maintenance tasks.

Drones that film in 4k video were used to perform technical bridge inspections, which, according to ARTC's Hunter Valley group executive Wayne Johnson, make difficult work that once required long hours safer and more efficient. "Using drones to inspect critical structures like rail bridges is just one of the technology solutions we have been employing to make our rail network safer, more efficient and reliable. A drone removes the need for slow moving equipment, harnesses and the dangers of working at heights and there is the added benefit of being able to record the inspection for future reference and review in high resolution," he said.

NSW TrainLink: Future Canberra line trains
It is believed that one option being considered for NSW TrainLink's future long-distance passenger trains, or possibly only for the Canberra-Sydney trains, is for electro-diesel propulsion. This will allow electric traction within the Sydney suburban area, and specifically will allow Canberra line trains to operate via the Sydney Airport stations, a potentially valuable additional source of passengers. A decision will be made in 2019.

Sydney Trains WTT
Sydney Trains did not issue a new Working Timetable for 18 February (when the ARTC issued a new WTT) because of the then driver shortage. They are expected to issue a new WTT in May.

Sydney Trains: Timetable failure on 8 & 9 January
Following is the text of the official review released on 15 February:

Scope of the Review
This report responds to the Minister for Transport's requirement for the Secretary for Transport and the Chief Executive of Sydney Trains & NSW TrainLink to conduct a joint review on how the network can recover from major incidents with cumulative impact that were seen on 8 and 9 January 2018.

Introducing the 2017 Timetable
On 26 November the 2017 Timetable was introduced resulting in an increase of more than 1,500 weekly services in response to a significant increase in demand. Since its launch, in normal circumstances the Timetable operates successfully, meeting targets for on-time running and reliability, and responds as well as the prior timetable to typical scenarios for a routine network incident with potential to disrupt services. However, the ability to recover from the cumulative impact of major incidents was particularly unsatisfactory on 8 and 9 January 2018.
To confirm the 2017 Timetable was ready to be implemented, it was subjected to an independent assurance process prior the decision to proceed. For several weeks including the whole of December the new timetable performed satisfactorily with 13,574 peak services at 92.7% punctuality and 96,620 total monthly services at 92.3% punctuality. This is very similar to the December 2016 timetable performance, with 8% more services being delivered compared to the previous timetable.

Analysing the Incidents

During the PM peak on Monday 8 and the AM and PM peaks on Tuesday 9 January 2018, train services experienced widespread delays and cancellations that caused major disruption, platform crowding and longer journey times than normal, which was highly unsatisfactory and frustrating for customers. These disruptions arose from a rare combination of causes, the cumulative impact of which has exposed some previously unidentified weaknesses in the underlying approach to provisions made for recovery from unplanned incidents and events.

On Monday 8th January a series of incidents occurred including a train delayed leaving Parramatta due to crew availability on the day, a minor infrastructure failure, a train mechanical issue, a sick passenger delaying services and a freight train incident. Individually these events may have led to a disruption with only minor service impacts that could have been recovered without serious delays. However the cumulative effect of their almost simultaneous occurrence, compounded by underlying issues we have now identified, resulted in major widespread disruption in the PM peak with lengthy delays to some services, and only 60.8% of services meeting the punctuality target. While the AM peak achieved 91.3% punctuality, due to the PM peak outcome, of a total of 3,016 services across the entire day, only 2129 or 70.6% were punctual.

On Tuesday 9 January there were further major disruptions caused by three separate lightning strikes that occurred early in the morning affecting power supply for signals infrastructure in four locations, together with a power supply failure at Penrith. The resulting disruption meant that the AM peak operated at only 60.6% punctuality and the PM peak was delivered at only 25.9%. Of the 3,021 daily services on Tuesday 9th, only 978 or 32.4% were punctual. While the disruptions on the 8th and 9th January resulted in massive inconvenience to customers, this level of disruption from unplanned events is not unprecedented. Weather and infrastructure failures similarly impacted both suburban and intercity networks under previous timetables. For example, in November 2013 a lightning strike disabled both the primary and back-up train signal systems at Strathfield signal box, resulting in 1018 services being delayed or cancelled. In April 2015 storms affected the network from the Hunter to the Illawarra, including the Sydney suburban region, delaying or cancelling 2807 services over two days.

Managing the complexity of the Sydney rail network

A key underlying contributor to the networks historic and continuing vulnerability to major disruption is the fact that over the past century Sydney's suburban and intercity rail system has evolved into complex network with features that are not typical of modern rail networks in similar size cities. The lines in Sydney's network are often referred to as being 'tangled', meaning there are numerous conflicts and interactions between each line, with multiple branches, crossovers and junctions. This means that when incidents and delays do occur they have the potential and a tendency to cascade across multiple lines, compounding disruption for customers and creating complexity which makes timely recovery far more challenging than it would be if the network was untangled.

Over the past decade several network investment programs have been implemented that partially untangled the network. This simplification is referred to as network sectorisation. A fully sectorised network from both an infrastructure and crewing perspective, has each line operating completely independently, which increases efficiency, and delivers capacity and reliability benefits. Should incidents occur, sectorisation means they have less impact on other lines because disruptions are contained to a single sector of the network.

The 2017 Timetable was designed to achieve a further level of network sectorisation, particularly on the network's critical western corridor, where the number of conflicting points along the corridor was reduced by 46%. The timetable also fully separated Liverpool to Leppington and East Hills to Campbelltown services at Glenfield. However, despite the investment program over recent decades, the capability to operate a timetable that is completely sectorised remains constrained by the legacy of existing infrastructure. The disruptions on 8th and 9th January 2018 were compounded by these limitations, particularly for the T1 and T2 services, as recovery on these lines is particularly hampered by their entangled nature.

In the medium to long term, further investment in network infrastructure, including stabling locations, track configuration and junction removal will be essential to providing more capacity, greater reliability and more resilience to major incidents. In the nearer term, these incidents highlight the need to review strategies to minimise the spread of disruption for a range of potential high impact events and formalise a set of incident recovery protocols within the constraints of the current network. In the short term, further work should be completed to develop incident scenarios for higher impact disruption, with associated recovery plans aimed at containing the impact of incidents.

Crew resourcing

As is standard when developing train timetables, there were several iterations of the draft timetable created throughout the process. Each new draft introduced new services that meant a greater number of shifts were needed to be filled by train crew. Established methods of planning and producing crew deployment plans and schedules were based on legacy systems built up over a number of years. Whilst enabling successful launch of previous timetables (most recently the 2013 timetable) it is now apparent they need to be modernised using latest technology to accommodate the scope of future timetables.

The disruptions on 8 and 9 January have also shown that the business tools and protocols that underpin planning and managing crewing and scheduling to meet operational requirements of timetables now need to be revised and further developed. Specifically, they need to be capable of modelling and analysing a range of degraded network operation scenarios and proactively identify the measures needed to sustain service delivery.

At a more granular level, in the process of optimising crew resources to support the timetabled services, the number of locations and frequency of crews changing between trains was increased 14% (sic - actually 18%) (previously 1515 and now 1781). In addition, the time allocated for crew to walk between trains was shortened from 10 minutes to between 5 and 7 minutes. Train crew changeover locations increase from 15 to 19, meaning crew are more dispersed.

Experience since its launch has demonstrated that while these crewing parameters are viable for the 2017 Timetable under normal operating conditions and with routine unplanned events, they do not provide enough flexibility to support recovery when multiple incidents combine to substantially degrade the network (as happened on 8 and 9 January). On both these days, when a series of disruption events occurred together, these crew scheduling parameter settings triggered a multitude of missed train crew connections, the effect of which cascaded across the network. These same conditions made recovery a more difficult and lengthy process than the previous timetable.

On 8 and 9 January overall crew availability was also impacted by two other temporary conditions:
- the need for additional crew to relieve crew that had been scheduled to work their normal day off on New Year's Eve, which fell on a Sunday, increasing levels of leave;
- the requirements of the Hornsby Junction shutdown, which meant additional drivers were required to support the special timetable for the project works and for training to familiarise crew with the new junction layout.

While these conditions were known and planned for, the provisions made left insufficient reserve capacity to deal with the magnitude of disruption that occurred. The lesson learned is that some additional reserve crew capacity is needed to support the network in recovering from events that potentially have significant impacts. Accordingly, in Post Implementation Reviews of the 2017 Timetable, minor adjustments to scheduled services should be considered, aimed at reallocating crew resources from services with very low patronage levels during off peak periods to provide extra capacity for incident recovery during peak periods.
In addition, while existing measures are in place to increase the number of train crew for the next

timetable change, the disruptions on 8 and 9 January indicate it would be prudent to accelerate recruitment to accommodate the more intensive labour requirements necessary for recovery from major and or cumulative incidents, as well as to counter the effects of ongoing targeted recruitment campaigns by rail operators in Queensland and in Victoria, where higher rates of pay are offered to operate driver-only services.

The incidents of 8 and 9 January also highlighted limitations in legacy communication systems between the Train Crew Assignment Centre (TCAC), train crew and the Rail Management Centre (RMC), impacting the ability to optimally reposition available crew to support recovery efforts. Upgrade of this system also needs to be prioritised as part of the new Rail Operations Centre (ROC) that is currently in delivery.

Customer communications
The disruption on 8 and 9 January 2018 triggered the deployment of extra ancillary staff under existing protocols to: increase resources to high risk locations (Lidcombe, Central, Town Hall, Wynyard, Parramatta and North Sydney), implement crowd management at stations to ensure platform capacity was not exceeded; identify lengthy service gaps and communicate the disruption and alternative travel options, such as buses, to customers.

There were service gaps at CBD stations which meant that on several occasions due to large crowds and to keep customers safe, access to platforms was closed off at Central, Town Hall and Wynyard. While there was an existing mechanism for the Rail Management Centre (RMC) to communicate with station management staff via the Train Location System notice boards and SMS alerts, during the Incident insufficient information was available.

It was very difficult for frontline staff to advise customers of specific train running information such as arrival time, destination and stopping pattern. When services did arrive, especially at Central, the stopping pattern often changed due to crew availability and crew relief issues. As a result, the only information that could be provided to customers was generic disruption information. This was exacerbated by the need for incident management staff to organise replacement bus services, in addition to managing and communicating with customers.

During these incidents (and more generally since the new timetable has been implemented) frontline staff and their leaders have worked under demanding circumstances to do their best to deliver services to customers. Their efforts have mitigated the potential impacts of the underlying issues identified in this report.

Recommended actions

his review has identified that the following actions would enable the network to better recover from major incidents.

- Review strategies for potential high impact events and formalise incident recovery protocols within the constraints of the current network infrastructure
- In Post Implementation Reviews of the 2017 Timetable identify opportunities to make minor adjustments to scheduled services to reallocate resources from running services with very low patronage levels in off peak to providing extra capacity for incident recovery during peak service periods.
- In consultation with the unions, revise the business rules and practices for crew changeover; and implement a staged plan to realign crew deployment and arrangements for changeovers.
- Plan and produce an independently assured revised forward forecast of crew requirements for all known variations from normal operating conditions with increased reserve provisions for network recovery.
- Accelerate the program for recruitment of new train drivers, and match to the revised forward forecast.
- Commission an in-depth review by an independent party to define a program to upgrade systems, tools and protocols for crew resourcing and scheduling that enable scenario testing to optimise network resilience provisions.
- Upgrade TCAC to enable more effective communication between TCAC, train crew and the RMC/ROC. Build further resilience into the IT network to support automated real-time crew scheduling, tracing and communications.
- Transfer responsibility of sourcing replacement buses to Transport for NSW, allowing Sydney Trains to focus on customer management during network disruptions, to improve on customer communication and crowd management

The report can be accessed at https://www.transport.nsw.gov.au/news-and-events/media-releases/report-actions-to-boost-rail-resilience

Following release of this report, Sydney trains CEO Howard Collins acknowledged Sydney Trains' new timetable contributed to significant delays on 8 and 9 January, but says with more and more passengers using the railway every year, the timetable is here to stay. On 15 February Collins and Transport for NSW secretary Rodd Staples delivered a report into the significant outages in January, which spurred on an enterprise agreement debate between the operator and workers over pay, conditions, and the capacity of the network to handle the new timetable, which was introduced late last year.

"For several weeks, including last December, the timetable delivered 92.7% peak punctuality – similar to the old timetable in December the year before – this is despite delivering 8% more services," Collins said. "While the timetable has proven it meets reliability targets during normal operation and routine incidents, when we have significant incidents our resources become stretched too quickly. With unprecedented growth in train patronage meaning we need to carry more and more people every year, this is the timetable that Sydney needs."

Staples said the report's eight recommendations would improve network resilience. "We apologise to customers, who showed extreme patience for two

consecutive days last month as they were tested by disruptions to a level rarely seen," Staples said. "While network incidents and triple lightning strikes were the catalysts for the disruptions, the network was vulnerable because of two underlying issues. Our rail network is complex and tangled, which means when things go wrong, flow on effects can be crippling. There were also underlying crew availability problems, caused by a number of factors, which meant we weren't able to recover quickly by getting enough drivers where we needed them. The report recommends priority actions to ensure when multiple disruptions happen, we are able to get the trains moving again sooner for our customers."

Sydney Trains will accelerate the hiring of more drivers and cut some services late at night. Short-term measures include reducing services with "very low patronage" during off-peak periods to improve incident recovery during the morning and evening peaks, recruiting more drivers and upgrading old communication systems. Transport for NSW secretary Rodd Staples said it was too early to say how many services would be cut but "it will be very small in terms of the number of customers that will be affected. We are not going to touch the peak at all. I would love to say hand on heart that we won't have this incident

again [but] we will have a lot of action here to minimise the likelihood of this happening again."

Leaked documents state that Sydney Trains had warned before the timetable was introduced that delays were likely to be "cumulative and irrecoverable" during peak periods following incidents. But Mr Staples said the rail network would still have faced significant challenges if the old timetable had been in place at the time of the incidents last month. "No doubt the fact that we are running more services a day does make that harder to recover, but I would not point the finger at the timetable per se as the underlying issue," he said.

Mr Staples conceded that there "isn't a quick fix" to the challenges facing the network. "Realistically it's decades of work and we are in the middle of that now," he said, citing construction of a new $20 billion metro rail line. "In the short term, we have to do better at planning for these incidents and having associated recovery plans."

There will be another timetable change later this year to cater for the six-month closure of the Epping to Chatswood rail line in Sydney's north, which will be converted to carry single-deck metro trains. While it was too early to reveal the actual dates of the line's closure, Mr Staples said the timetable changes would be "be nowhere as significant as last year's change".

Sydney second airport: Rail connection

A plan to build a rail link to Sydney's second airport is expected to be unveiled soon by the Federal and NSW governments. This is expected to include an extension of the South West railway from Leppington. This has been on the drawing board since 1994 and long considered the most likely first option for a train connection to the airport. The quickest that trains could run along an extended line from the airport to Sydney's CBD would be about 50 minutes.

The more ambitious plan is anticipated to be a new heavy rail line to be built in three stages between Sydney's north-west and Campbelltown in the south via Western Sydney Airport and St Marys at a cost of perhaps $30 billion.

Transport planners doubt the rail links will be built by the time the airport is due to open in 2026, but expect their eventual construction to be funded partly by a "value-capture" model whereby levies are imposed on developments close to stations. State Labor leader Luke Foley has said the new airport needs a rail link "from day one".

Sydney Trains: Delays 13 February

A fire in a construction site near Circular Quay station caused train services through the station to be suspended soon after 0900 on Tuesday 13 February. Delays persisted throughout the day and into the evening.

Canberra Tram construction

As at late February, there is major progress on construction of the Canberra Tramway. There is a significant difference north and south of the *Table Talk* editorial address in Downer. On the northern section, most of the track is laid, or at least, the track base. There are many poles, and the first overhead wiring has appeared. On the southern section, utilities relocation, and some road widening is still underway, although some track has also been laid. The depot at Mitchell with associated trackwork, is well advanced.

Metro Trains Melbourne: Delays 14 February

High winds across Melbourne on Wednesday 14 February brought a tree down across the railway near Jolimont. Services were disrupted for hours.

Metro Trains Melbourne: Dandenong line

Metro Trains were replaced by buses between Westall and Dandenong from 30 January to 14 February to allow driver training on the new Skyrail alignment. On the weekend of 10-11 February V/Line trains were also replaced by buses.

From Thursday 15 February scheduled trains commenced using the first 1.5 km section of new alignment. Trains heading inbound now begin their first ascent outside Yarraman station before dipping again and then rising once more at Noble Park, where a gleaming new station has been built. The rail then drops to the ground at Sandown Park before passengers are given a clear contrast of the alternative option of putting rail under roads, as trains enter the trench approaching Springvale station.

There has been plenty of discussion around the merits of putting road over rail but the report in the *Age* newspaper said that those who took the trip on Thursday commented on how smooth the ride was, as well as the sweeping view of the surrounding suburbs. For all the talk of looking into people's backyards, the trains were too quick to focus in on any one house. Eyes are drawn towards the horizon and a clear view of the Dandenong Ranges, rather than someone's clothesline.

Metro Trains Melbourne: Train performance

An analysis of train performance from 2001 to 2018 has found the Frankston, Pakenham, Cranbourne and Lilydale lines had the most cancellations and delays. The Frankston line had 862 cancellations — or an average of 72 a month — in 2017, the worst performer. More than 9500 trains have been cancelled along the line over the past 10 years.

Other lines also fared poorly. On the Cranbourne line, an average of nearly 52 services a month bypassed the City Loop over the past year. The Lilydale line had the highest number of shortened services, with nearly 1700 journeys cut short over the past year. More than 760 trains bypassed the City Loop on the Pakenham line, with a further 602 services shortened and more than 500 others cancelled. Pakenham commuters also suffered the worst punctuality, with 13% of trains not arriving on time.

On **Yarra Trams** route 64, from Brighton East to Melbourne University, had the highest rate of cancellations in the past 12 months with more than 800 scheduled services cancelled

V/Line: WTT 28 January and 25 February
The V/Line corporate website now contains links to the new Working Timetable for down trains on the Warrnambool line with effect from **28 January 2018**. However, the schedules for up trains have not been posted. See https://corporate.vline.com.au/Network-Access/Network-service-plan

Minor alterations were introduced to the V/Line WTT from **25 February** in connection with the introduction of Fleet Plan FP48A incorporating additional 3 car VLocity units (3VL72 and 73). The alterations are to platforms at Southern Cross, routings in the inner Melbourne area, and minor alterations to times of some empty trains.

V/Line: Albury line
In January the North-East line recorded its worst monthly punctuality result since November 2016, with just 56.2% of services arriving on time. The November 2016 figure was 55.2%. V/Line has a target of 96% for reliability and 92% for punctuality

"We continue to work closely with ARTC to improve the track's condition and enable us to offer a service that our customers deserve and expect," V/Line chief executive James Pinder said. "We have teams from different parts of the business regularly meeting with ARTC and as part of those discussions, we provide advice on maintenance priorities. V/Line would like to sincerely apologise to Albury line passengers for the disruption to services during January. Engineers have been working hard to maintain our standard gauge fleet and it was pleasing to see an improvement in reliability last month, but we recognise there is still room for improvement."

The ARTC says it remains committed to working closely with V/Line and other Victorian government agencies to address the "broad range of causal factors contributing to V/Line's poor performance". "In relation to the track, ARTC does have some temporary speed restrictions in place – which depending on the direction of travel may be between five and nine minutes over the total journey," an ARTC spokesman said. "These are well within thresholds that allow for trains to arrive on time and ARTC continues to meet all of its lease obligations for the North East Victorian track with the Victorian Government. "We are aware that V/Line does apply additional speed restrictions on their rolling stock and we have been working constructively with them and other Victorian agencies to identify a broad range of improvements that can be implemented to improve the quality of the rolling stock and track to meet the needs of passengers. We hope to be able to report on these initiatives soon."

V/Line has four sets of locomotives and carriages to maintain services on the Albury line. The timetable calls for two sets. Hence there is 100% back-up.

Despite this, on almost every day in late January and early February, trains were cancelled. The first to be cancelled usually seems to be the 0705 down and 1245 return. Sometimes two out of the three daily trips were cancelled.

On Sunday 18 February among the trains cancelled was the 1720 from Albury. The replacement bus only got as far as Chiltern, before this too broke down. After two hours delay, the passengers completed their journey to Melbourne via taxis.

From 0600 Saturday 17 March until 1800 Monday 19 March the line from Melbourne to Albury is closed for ARTC maintenance work. All V/Line and NSW TrainLink passenger trains are replaced by buses.

V/Line: Geelong line
More than 220 trains were cancelled on the Geelong line in January as V/ Line had its worst punctuality result in 12 months. Just 2217 trains out of 2697 arrived on time, or 82%, well short of its punctuality target of 92%. It is the 38th time in the past 41 months V/Line has failed to meet its target. The punctuality target allows trains to run up to five minutes 59 seconds late and still be considered on time.

Cancelled trains increased from 63 in December to 228 in January.

V/Line CEO James Pinder said Victoria's fourth warmest January on record was a major contributor to the poor performance. "Safety is our number one priority, so we enforce heat speed restrictions on really hot days because the steel tracks expand in the heat. We have made improvements on the Geelong line so trains can now travel at 130km/h when the temperature reaches 36 degrees, and slow down to 90km/h when the temperature hits 39 degrees." Mr Pinder said maintenance work on the line was under way.

V/Line: Murray Basin Rail Project
The 87-km freight railway between Maryborough and Ararat has been re-opened, with driver training beginning at the end of January. It has been upgraded as part of the Murray Basin Rail Project, jointly funded by the Australian government ($240 million) and the Victorian government ($200 million). The Maryborough-Ararat line upgrade is part of Stage 2 of the MBRP. Stage 2 also includes gauge conversion and upgrade works on rail freight lines between Maryborough and Yelta, and Ouyen to Murrayville.

A phased return of freight services to the Mildura line is also underway, with sections of the track progressively opening from south to north, as part of the Murray Basin Rail Project. The Mildura/Merbein line has re-opened after conversion to standard gauge. The first freight train departed Melbourne on Wednesday 31 January and arrived Merbein next morning.

The first standard gauge freight train on the converted Mildura line operated on 20 February – an empty grain

train from Melbourne to Birchip operated by Southern Shorthaul Rail.

Bendigo Trams

Bendigo's tourist trams might be available again to local commuters. Authorities hope that from April, people will be able to buy a yearly commuter ticket which is expected to cost $70-80. Tram commuter service ended in 1972 when the then owner, the Victorian State Electricity Commission, closed it down.

Bendigo Trams CEO Peter Abbott, said he has been looking at how the tram service can improve. "We think there's more of a market there for a short ride passenger … rather than taking the whole tour." In response, a new ticketing system — including the commuter pass — will be introduced, in part to get more people to visit the city's tram depot, but also to boost local passenger numbers. "Paying for parking now in the CBD area of Bendigo can be discouraging," Mr Abbott said. So we want people to use the tram instead of using their car and be part of the sustainable transport plans for Bendigo. There's an opportunity for locals to use that tram and maybe go in and do some shopping, or have lunch and things, in the middle of town."

The remaining section of track runs through Bendigo from the Central Deborah Goldmine in the south to the Joss House Chinese Temple in North Bendigo. It is forecast that Bendigo could be home to 200,000 people — about double the current total — by 2050.

Tasmanian election

The Labor Party promised that, if elected in the 3 March election, it will ensure the Hobart to Brighton rail corridor is protected for future passenger transport uses and will allocate $14 million in its first term for significant "make ready works" on the Hobart rail corridor. Both parties promised improved bus services.

Labor also promised to "commit $3 million over five years to fund the establishment of new tourist rail experiences." It specifically mentioned:

- Hobart to Bridgewater (alongside a possible commuter rail service)
- Derwent Valley line
- Enhancement of the West Coast Railway
- Devonport to Wynyard
- Launceston to Bell Bay
- Burnie to Roseberry/Zeehan.

There appear to be no published Liberal Party policies concerning railways.

Adelaide Metro: Tram timetable
22 January

A new timetable for the Adelaide tramway was issued dated 22 January 2018. It can be accessed at https://www.adelaidemetro.com.au/timetables/trams Off-peak frequencies are Mon-Fri day 10', evening 20'; Saturday till mid-morning 15' then 10', Sunday day 15', evening 20'.

Adelaide Metro: Information

For a track diagram of the tram extensions currently under construction in the Adelaide CBD go to https://www.infrastructure.sa.gov.au/public_transport_projects/city_tram_extension/news_And_publications and click on "City Tram Extension Project Brochure".

For an official (but out-of-date) track diagram of the Adelaide suburban railway and tramway systems go to https://www.dpti.sa.gov.au/rail_network_access and click on "Adelaide Rail and Tram System". Track diagrams of Adelaide's railways and tramways are also available on http://www.sa-trackandsignal.net/ These diagrams are, in fact, more detailed and more up-to-date, but unofficial. (This site also provides diagrams of all SA railways, all ARTC and JHR lines, and most current and future standard gauge freight lines in Australia.)

South Australian election

SA Premier Jay Weatherill has indicated the likelihood of more tram extensions as part of a $2 billion jobs and infrastructure package for the SA election of 17 March. The Entertainment Centre extension was announced almost a decade ago, and Mr Weatherill has since added to the network with an $80 million upgrade currently underway to add one new stop on King William Road and three others on North Terrace. Labor released a major transport plan ahead of the last state election that proposed tram extensions running to areas including Outer Harbor, Henley Beach and Prospect. It has recently hinted some of those projects or a city loop could be revived. In addition, seven more level crossings will be abolished.

The Liberal Party promised a "new road, rail and air freight corridor", by-passing existing road and rail corridors through the suburbs and around the Adelaide Hills to avoid the heavily populated areas of the existing freight routes, and take freight directly to Port Adelaide.

Genesee and Wyoming Australia: Eyre Peninsula

Following completion of repairs to Thevenard jetty, gypsum trains resumed from Kevin to Thevenard in October 2017.

Aurizon: WA Iron ore to end?

US-based iron ore miner Cleveland-Cliffs has announced that it will likely exit mining operations in Australia this year. Cliffs is Aurizon's largest iron ore client, exporting product from its Koolyanobbing mine via a processing facility at Esperance port on WA's south coast.

TranzScenic: 20 February

As the remnants of tropical cyclone Gita lashed New Zealand's South Island on Tuesday 20 February, the TranzAlpine passenger train Christchurch to Greymouth and return, was cancelled.

Thanks to Tony Bailey, Graham Duffin, Scott Ferris, Victor Isaacs, Geoff Lambert, Dennis McLean, Ross

Morrison, Len Regan, *www.railexpress.com.au, www.railpage.com.au, Catchpoint, Railway Digest, Transit Australia, Age, Australian, Border Mail* (Albury-Wodonga), *Courier-Mail, Daily Telegraph, Geelong Advertiser, Herald Sun,* and *Sydney Morning Herald* for Rail news

BUS NEWS

New South Wales

The NSW government is privatising bus services in Sydney's inner west. **Transit Systems** will take over from the state-run operator in July. Transport Minister Andrew Constance claims this will result in extra services on four of the region's busiest bus routes. "Within six months the new operator will introduce around 270 extra weekly services across three popular routes, between Kingsgrove and the city, Burwood and the city and Chiswick and the city." The inner-west region has been one of four in NSW in which buses are run by the government-owned State Transit Authority. The latest decision takes the number of regions in the hands of private operators such as Transdev and Hillsbus to 12. Transit Systems' contract will start on 1 July and run for eight years, and includes a review after five years to ensure its performance is up to scratch. The company already has contracts with the state government to operate other routes in Sydney's west such as those at Parramatta, Fairfield and Liverpool. About 1200 bus drivers are affected by the latest decision to privatise services. In all, STA has about 3700 drivers in Sydney and 12 bus depots.

From Monday 12 February, almost 50 additional services each week were added to routes 688, 689 and 692 in the **lower Blue Mountains**. Additional services were introduced on weeknights and on weekends on route 688 (Penrith to Emu Heights) and 689 (Penrith to Leonay). These will provide later services on weeknights and more services on weekends. Weekday evening and weekend services on the existing route 688 Penrith to Emu Heights and Leonay loop service, will be withdrawn and replaced by the new services on routes 688 and 689. Route 692W (Winmalee to Springwood) has additional services across the week with later services to be introduced on weekdays and weekends. Existing weekend services are also being re-spaced on routes 692H and 692Y for a more consistent timetable.

Recent Timetable booklets by TransitGraphics
by Hilaire Fraser

TransitGraphics produced timetable booklets for many bus companies effective 26 November 2017 or later, with the exception of Premier Illawarra's route 59 from Novotel Wollongong Northbeach to Illawarra Regional Airport which was effective 30 October 2017. Those timetables as shown by the Newcastle Transport 21 22 25 28 timetable have a black header with a blue "B" for bus emblem superimposed. The actual effective date is given on the first page inside the timetable. The advantages of these timetable booklets over the on demand timetables found on www.transportnsw.info is that they often cover several routes along the one corridor or in the same area, have route maps and when professionally printed are in compact DL size. The Transdev timetable booklets are now for single routes and the advantage of having a corridor timetable has been lost. Red Bus on the Central Coast has printed timetables and they were featured in the recent ATA December Distribution List. Rover Coaches has also printed timetables and they will be featured in ATA's March Distribution List. Printed versions of the Punchbowl Bus Company, Port Stephens Coaches and Newcastle Transport timetables have been sighted. Below is a list of recent TransitGraphics timetable booklets, company by company, as found on their websites. They are effective 26 November unless otherwise stated.

Forest Coach Lines (all effective 15 January 2014)
194 St Ives Chase to City
195 196 197 Macquarie University and Gordon to St Ives Chase and Mona Vale
260 Terrey Hills to North Sydney
270 L70 271 273 274 Terrey Hills, Belrose and Davisson to City
277 278 Killarney Heights and Castle Cove to Chatswood
279 281 282 283 284 Chatswood District to Frenchs Forest
280 Chatswood to Warringah Mall.

Transdev North
556 Lindfield to East Killara
558 Chatswood to Lindfield
560 Gordon to West Lindfield
562 Gordon to Macquarie University
565 Chatswood to Macquarie University
571 Turramurra to South Turramurra
572 Macquarie Uni to Turramurra
573 Turramurra to Fox Valley
575 Macquarie University to Hornsby
576 576T Wahroonga to North Wahroonga
577 577P Turramurra to North Turramurra
579 Pymble to East Turramurra
582 Gordon to St Ives
586 Pennant Hills to Westleigh
587 Hornsby to Westleigh
588 Hornsby to Normanhurst West
589 Hornsby to Sydney Adventist Hospital
592 Brooklyn to Mooney Mooney
594 594H City Express
595 Hornsby to Mount Colah
596 Hornsby to Hornsby Heights
597 Hornsby to Berowra
598 Hornsby to Asquith
599 Berowra to Berowra Heights.

Transdev South
452 Beverly Hills to Rockdale

453 Percival St to Rockdale
455 Kingsgrove to Kogarah
900 Parramatta Free Shuttle
901 Holsworthy to Liverpool
902 Holsworthy to Liverpool
902X Holsworthy to Sandy Point
903 Liverpool to Chipping Norton
904 Fairfield to Liverpool
905 Bankstown to Fairfield
906 Parramatta to Fairfield
907 Bankstown to Parramatta
908 Merrylands to Bankstown
909 Bankstown to Parramatta
911 Auburn to Bankstown
913 Bankstown to Strathfield
914 Greenacre to Strathfield
915 Lidcombe to Uni Sydney Cumberland
916 Chester Hill to Guildford
922 East Hills to Bankstown
923 Panania to Bankstown
924 East Hills and Panania to Bankstown
925 East Hills to Lidcombe
926 Revesby Heights to Bankstown
927 Padstow to One Tree Point
947 Kogarah to Hurstville
958 Rockdale Plaza to Hurstville
959 Hurstville to Bald Face
961 Barden Ridge to Miranda
962 Bankstown to Miranda & Cronulla
963 Menai to Alfords Point
965 Sutherland to Woronora
967 Como West to Miranda
968 Bonnet Bay to Miranda
969 Cronulla to Sutherland
970 Miranda to Hurstville
971 Cronulla & Miranda to Hurstville
972 Southgate to Miranda
973 Miranda to Yowie Bay
974 Miranda to Gymea Bay
975 Miranda to Grays Point
976 Sutherland to Grays Point
977 Miranda to Lilli Pilli
978 Miranda to Dolans Bay & Port Hacking
985 Cronulla to Miranda
986 North Miranda to Miranda
987 Cronulla to Kurnell
988 Cronulla to Caringbah
991 Heathcote to Sutherland
992 Engadine to Kingswood Road
993 Woronora Heights to Miranda
996 Engadine to Heathcote East
M90 Liverpool to Burwood
M91 Hurstville to Parramatta
M92 Sutherland to Parramatta
S1 Cabramatta to Lansvale
S2 Sefton to Chester Hill
S3 Chisholm Road to Auburn
S4 Fairfield to Chester Hill
S5 Milperra to Padstow.

Maianbar Bundeena Bus Service
989 Maianbar to Bundeena.

Transit Systems
800 Fairfield to Blacktown
801 Badgerys Creek to Liverpool
802 803 Parramatta and Miller to Liverpool
804 Parramatta to Liverpool
805 Cabramatta to Liverpool
806 Parramatta to Liverpool
807 Cabramatta to Cecil Hills
808 Fairfield to Liverpool
809 Merrylands to Pemulwuy
810 810X 811 811X Parramatta to Pemulwuy and Merrylands
812 813 Fairfield to Blacktown, Prairiewood and Bonnyrigg
814 Fairfield to Smithfield (Chifley St)
815 Mt Pritchard to Cabramatta
816 Greenfield Park to Cabramatta
817 Fairfield to Cabramatta
818 Merrylands to Westmead
819 Liverpool to Orange Grove
820 Merrylands to Guildford
821 Guildford to Smithfield Industrial
822 Merrylands to Guildford
823 Warwick Farm to Liverpool
827 Liverpool to Carnes Hill
829 Parramatta to North Parramatta
835 Prairiewood to WSU Penrith
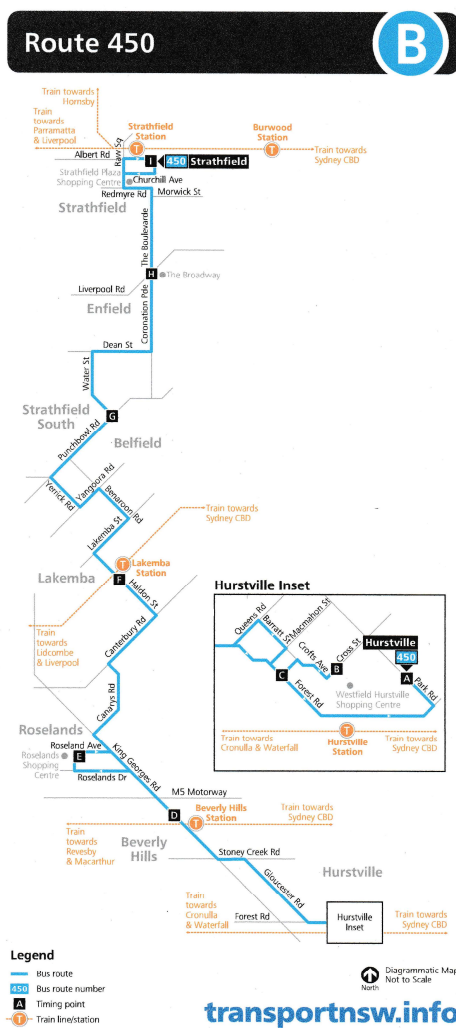S10 Heckenberg to Miller
T80 Parramatta to Liverpool.

Busabout
31 32 Camden to Cobbitty, Werombi & Warragamba
38 39 40 Camden to Spring Creek, The Oaks, Mowbray Park and Belimbla Park
49 889 Camden and Campbelltown to Menangle and Razorback
841 Narellan to Leppington
877 878 879 880 Campbelltown to Eschol Park, Eagle Vale, Leumeah and Minto
881 882 883 883K Campbelltown to Leumeah, Ruse and Kentlyn
884 884W 885 Campbelltown to Airds, Bradbury and Wedderburn
886 887 888 Campbelltown to Ambarvale Rosemeadow and Wollongong
890 891 892 893 898 Campbelltown to Mt Annan, Narellan and Harrington Park
890C 894 894X 895 Campbelltown to Camden and Camden South
896 Campbelltown to Oran Park
899 S17 Camden to Narellan and Catherine Field.

Punchbowl Bus Company
446 St George Hospital to Roselands
450 Hurstville to Strathfield (map next page)
939 941 Hurstville & Greenacre to Bankstown
940 Hurstville to Bankstown
942 Lugarno to Campsie
943 Hurstville to Lugarno
944 Mortdale to Bankstown
945 Hurstville to Bankstown
946 Roselands to Bankstown

953 954 955 Hurstville to Connells Point, Hurstville Grove and Mortdale
S14 Lakemba to Mt Lewis.

Route 450

Newcastle Transport (all effective 14 January 2018)
11 Charlestown to Newcastle
12 Maryland to Merewether Beach
13 Glendale to Newcastle
14 Belmont to Newcastle
21 22 25 28 Mt Hutton, Charlestown & Broadmeadow to Newcastle
23 24 26 27 47 Wallsend and Jesmond to Broadmeadow and Newcastle

29 45 Swansea to Belmont and Glendale
41 43 48 Belmont to Mt Hutton & Warners Bay
42 44 46 Wallsend & Cardiff to Charlestown, New Lambton Heights & Warners Bay.

Stockton Ferry

Port Stephens Coaches (effective 30 January 2018)
130 131 132 133 134 135 Port Stephens to Newcastle.

Rover Coaches (all effective 14 January 2018)
160 163 Cessnock to Morisset and Newcastle
161 162 165 167 168 Cessnock Local Services
164 166 171 172 Cessnock, Kurri Kurri & Maitland.

Hunter Valley Buses
179 180 401 402 403 404 Singleton local, Branxton and Maitland (2 December 2017)
182 183 189 Rutherford to Tenambit and Thornton
262 263 Cameron Park to Charlestown
267 268 West Wallsend to Glendale and University
273 Toronto to Fassifern
274 275 276 Toronto to Coal Point and Wangi Wangi
278 279 280 281 Morisset to Morisset Peninsula and Cooranbong.

Red Bus
15 16 19 24 25 26 30 47 Wyong to The Entrance
17 18 19 21 22 23 28 Gosford to The Entrance
19 29 45 48 Bateau Bay Square
20 40 41 42 43 44 Gosford City.

Premier Illawarra
59 Novotel Wollongong Northbeach to Illawarra Regional Airport (30 October 2017)
75 Shellharbour City Centre to Calderwood.

In addition, TransitGraphics have prepared A4 maps to accompany on demand timetables found on www.transportnsw.info for State Transit, Interline and Hillsbus.

Queensland

The shuttle bus tender to transport hundreds of thousands of Commonwealth Games athletes, officials, spectators, workers and media representatives has been awarded to Wangaratta Coachlines.

Thanks to Hilaire Fraser, Lourie Smit and *Courier-Mail* and *Sydney Morning Herald* for Bus news.

FERRY NEWS

Manly Fast Ferries: In December the use of the Opal Card was extended to two Manly Ferry Fast Ferries routes, Circular Quay to Manly and Darling Harbour to Manly via Milsons Point. The payment system is called OpalPay and fares charged are set by the operator and do not have the multi trip and cap discounts of the general Opal fare system. The NSW government has also announced that OpalPay is available on some Captain Cook Ferry routes.

Cruise ships: Due to overcrowding at Sydney several cruise lines have reduced their calls. Royal Caribbean Cruise Line will base 'Voyager of the Seas' in Singapore and China in the 2018-9 season. 'Radiance of the Seas' will be based in Melbourne. Cunard's 'Queen Elizabeth' will be based in Melbourne between February and March 2019 for three cruises. 'Carnival Legend' will operate ten cruises from Melbourne this year. P&O will transfer 'Pacific Jewel' to Brisbane from September to November 2018.

Calls have been made for Sydney to increase the number of berths for the cruising market and some estimates put the losses as around $30-$40m in tourist spend which will have a flow on effect to the rest of the tourism industry.

NZ Cook Strait: KiwiRail have purchased the 'Kataki' from Irish Continental Line to cater for increasing traffic and are pushing for new terminals at Wellington and Picton to handle larger ferries and to withstand earthquakes.

Thanks to Steven Haby and the *Log* (journal of the Nautical Association of Australia) for Ferry news.

AIR NEWS

Domestic

Tigerair Australia will end services between Brisbane and Perth, and Brisbane and Whitsunday Coast from 1 March.

FlyPelican will commence direct services from Newcastle to Adelaide from March. The flights of 2 hours 10 minutes will depart Adelaide on Tuesdays at 0630, Wednesdays 1515 and Thursdays 1630, and from Newcastle on Tuesdays at 0950, Wednesdays 1835 and Fridays at 1950. As they do not have an aircraft that can fly that distance they are to use Alliance Airlines (who have a base in Adelaide).

Qantas (or a subsidiary) commenced a service between Melbourne and Kangaroo Island in December 2017.

Broome is to be served from Darwin thrice weekly in the Dry season by **Air North**.

International

Avalon will become a second international airport in Victoria. **AirAsia** is to fly daily from Avalon to and from Kuala Lumpur by late 2018. It is understood that a new terminal will be built for international flights including customs facilities.

Singapore Airlines subsidiary **Silk Air** is to fly Singapore to Broome in the Dry season.

Thanks to Victor Isaacs, Ross Morrison, Tris Tottenham and the *Australian* for Air news.

LETTERS TO THE EDITOR

*John Kerley writes about the **busiest air routes** in the world in 2017 which placed Sydney-Melbourne second with 54,519 flights a year:*

I note that in the February issue of *Table Talk*, Brendan Whyte doubts the average figure of 149 flights per day on the Melbourne - Sydney corridor. However checking the timetables of Qantas, Virgin, Jetstar and Tigerair confirms that this figure is indeed correct. Taking Tuesday, 17 April 18 as a sample, there are 32 Qantas, 27 Virgin, 18 Jetstar and 7 Tigerair flights from Melbourne (including Avalon) to Sydney scheduled, a total of 84. Including the return legs, this makes 168. In addition there are the flights of the international operators. Of course, there are fewer flights at weekends and we know that all scheduled flights do not necessarily operate. Nevertheless the average figure of 149 is very plausible. Qantas and Virgin both have flights taking off every 15 minutes during the peaks, an average of a take off and landing every 3.75 minutes from the main operators alone.

I had always thought that Melbourne-Sydney was the busiest in the world. I am rather disappointed to find we are only second! It also makes one think that there might be a market for a Very Fast Train on this route!

*Tris Tottenham writes about **Newcastle Transport**:*

Having received a copy of the Newcastle Transport changes thanks to Geoff Hassall and the ATA Distribution Service, is it any wonder passengers have no idea when the routes and destinations that are printed on the reverse of the map are in error? (When I worked in the traffic office in Sheffield of the South Yorkshire PTE, everything was cross checked.) In other words, proof reading has not been carried out.

I refer to routes 25 and 47. Route 25 runs from/to Charlestown not Gateshead. Route 47 runs to Jesmond (not mentioned in the text).

Tris Tottenham writes about **misleading Apps**:

I am disgusted with Apps (especially in NSW) that show an operator's services but not those of other operators' routes that run into their area. Examples are:

- Busways, Campbelltown, where Interline terminate at Campbelltown Hospital and also don't show Picton Coaches.
- Newcastle map that says other operators "operate in this area" on the periphery of the region.

ODD SPOT

Two platforms have been erected in Melbourne's City Square to facilitate sticky-beaking of construction of the underground Town Hall station over the next few years. The platforms have the appearance of railway carriages.

About *Table Talk*