



Australian Aviation Network Overview

December 2023

Executive Summary

As 2023 came to a close, we saw a number of positive developments for the Australian aviation sector with jet fuel prices and inflation starting to ease, trade and travel conditions continuing to improve, and a whole-of-industry focus to increase capacity to meet demand.

With significant weather disruptions such as Cyclone Jasper, flooding at Cairns and severe storm activity across the East Coast in the second half of December, our industry has proven resilient to recover rapidly and work together in times of crisis.

Our centralised approach to airspace management ensured that Cairns could continue to be safely managed from our air traffic services centre in Brisbane to support essential service delivery during the cyclone and flooding. Nevertheless, the consistency of air traffic service levels in airspace volumes managed from Brisbane and at some regional airports remained below expected levels, and service variations over the Christmas and new year holiday period were a disappointing outcome both for ourselves and more importantly for our customers. Our program to increase staffing and improve internal business processes continues to be executed nationally, with specific and additional measures being deployed at our Brisbane Centre.

This Christmas holiday period recorded the strongest growth in international travel over the last four years, driven by popular tourism markets as well as China's strong recovery. At Sydney and Melbourne Airport, international demand has surpassed pre-pandemic levels ahead of domestic recovery. The uptick in international traffic was nevertheless offset by a contraction in domestic traffic that reflects the cyclical trend in business travel and general aviation activities leading into the holiday season. As of December 2023, the overall number of flights across the Australian aviation network were 97% of pre-pandemic levels, a slight reduction from the previous month.

The overall network performance in terms of on-time performance (OTP) declined in November 2023* and remained well below historical averages. Along with weather disruptions, our industry is still facing the lingering challenges in post-pandemic recovery where more resources and systemic improvements to business processes, in particular whole-of-network capacity planning, are required to return to long-term performance expectations.

*Note: At the time of releasing this report, the most recent OTP data released from Bureau of Infrastructure and Transport Research Economics (BITRE) was up to 30 November 2023.



We acknowledge and embrace a culture that celebrates diversity, inclusion, and equality for all. In making this statement we acknowledge Aboriginal and Torres Strait Islander peoples as the Traditional Owners and Custodians of the country on which we operate, now called Australia.

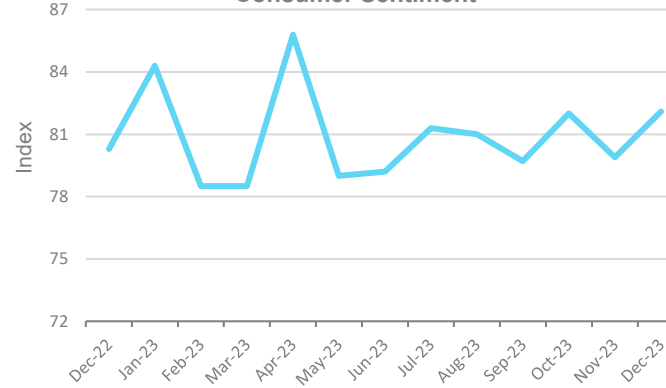
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Economic and social trends

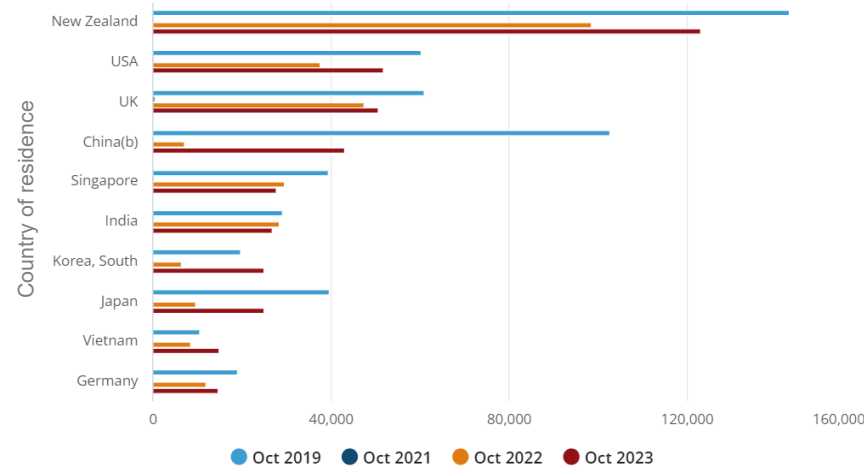
The operating environment for the Australian aviation sector remained challenging throughout 2023. However there are indications that key economic markers such as jet fuel prices and inflation are starting to stabilise, and trade and tourism particularly in the Asia Pacific region is continuing to influence aviation growth.

Figure 2. Westpac-Melbourne Institute Index of Consumer Sentiment



Source: Westpac Market Outlook ([website](#))

Figure 5. Short-term visitor arrivals – top 10 source countries (data available to October 2023 based on latest ABS data release)



a. Top 10 source countries based on month ending October 2023.
b. Excludes SARs and Taiwan.

Figure 3. Monthly Consumer Price Index (CPI) Indicator annual % movement
(data available to 30 November 2023 based on latest ABS data release)



Figure 6. Change in trade of goods, major corridors that represent ~45% of global trade in 2022 (2032 vs.2022, real 2010\$B)



Social factors

As our industry seeks a sustainable pathway to growth, whole-of-industry commitment to explore improvement to operational procedures, technologies and community engagement is required to ensure a balanced approach to aircraft noise, sustainability and social outcomes.

Figure 7. Aircraft noise complaints per complainant at major capital city airports



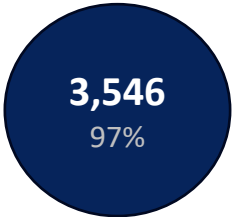
Source: Aircservices Noise Complaints and Information Service (NCIS)

Australian aviation and regional context

State of Australian aviation growth

In December 2023, international flights increased by 10.5% compared to the previous month. This was offset by 9.8% contraction in domestic flights that reflect the cyclical trend in business travel and general aviation activities leading into the holiday season. There was heightened leisure travel demand closer to Christmas, with 22 December 2023 recording the highest daily passenger transport flights in the last four years.

Average Daily Flights
(Dec 2023 and percentage of Dec 2019)



Total Domestic Flights
(Dec 2023 and percentage of Dec 2019)



Total International Flights
(Dec 2023 and percentage of Dec 2019)

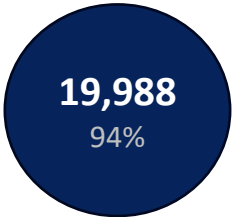


Figure 8. Domestic (top) and international (bottom) average daily flights compared to Airservices' forecast

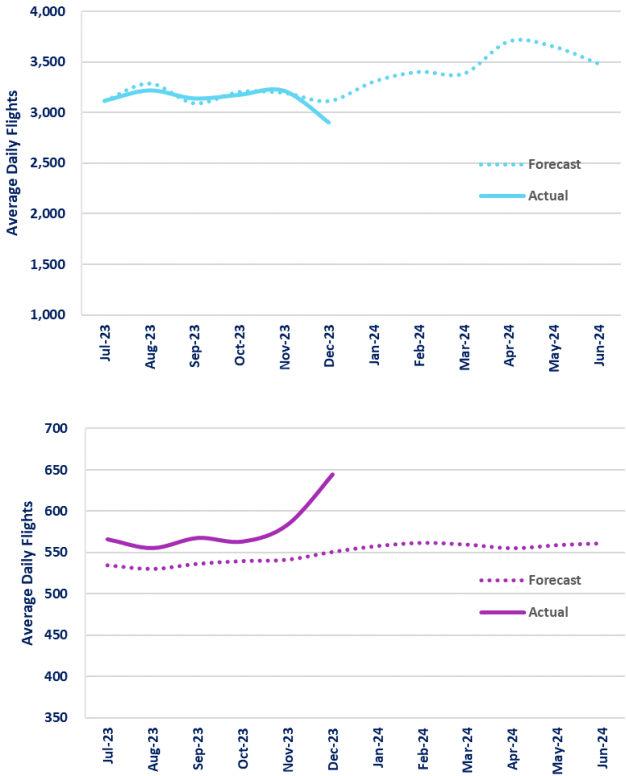
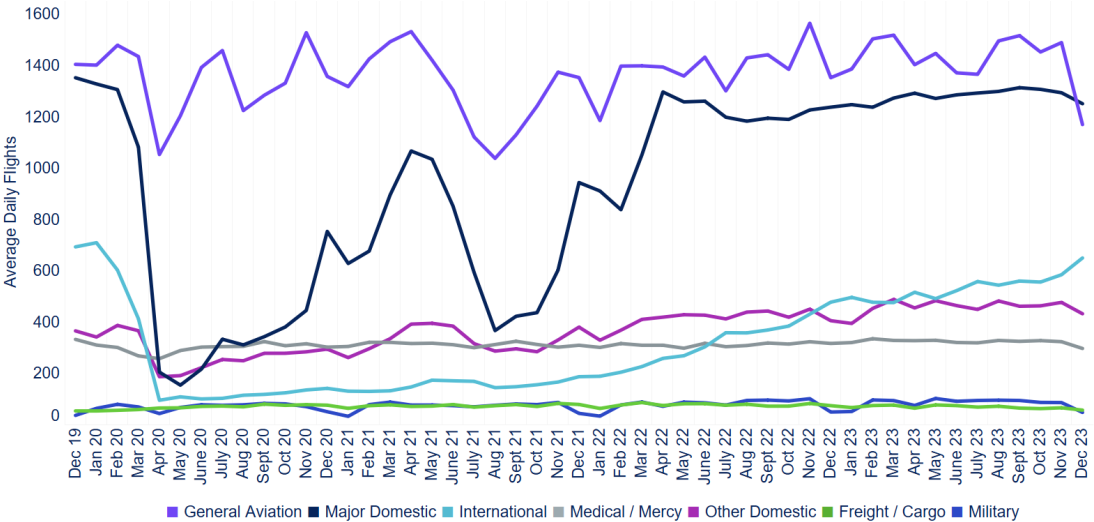


Figure 9. Average daily flights per month by industry segment

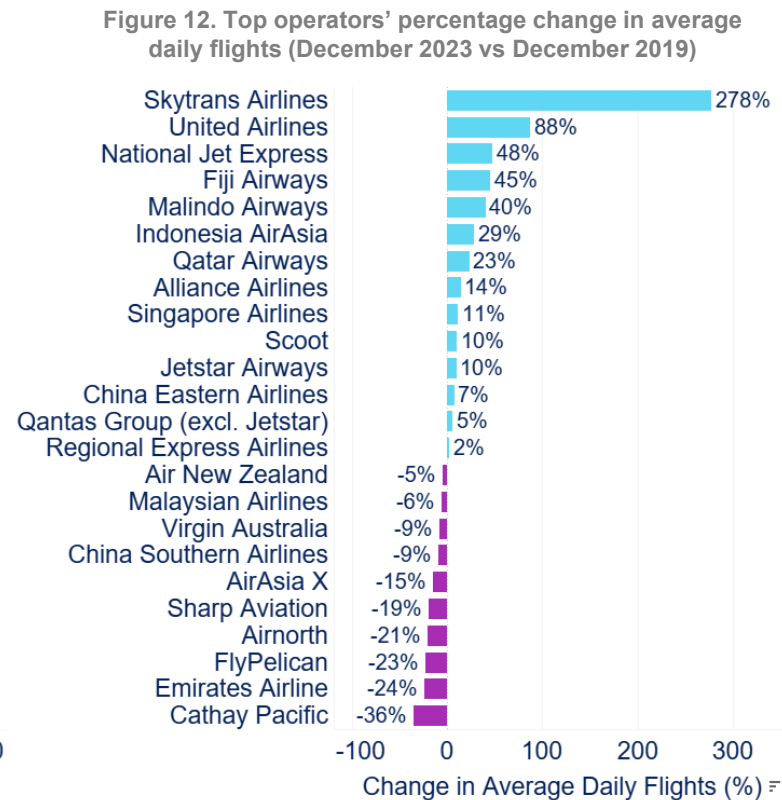
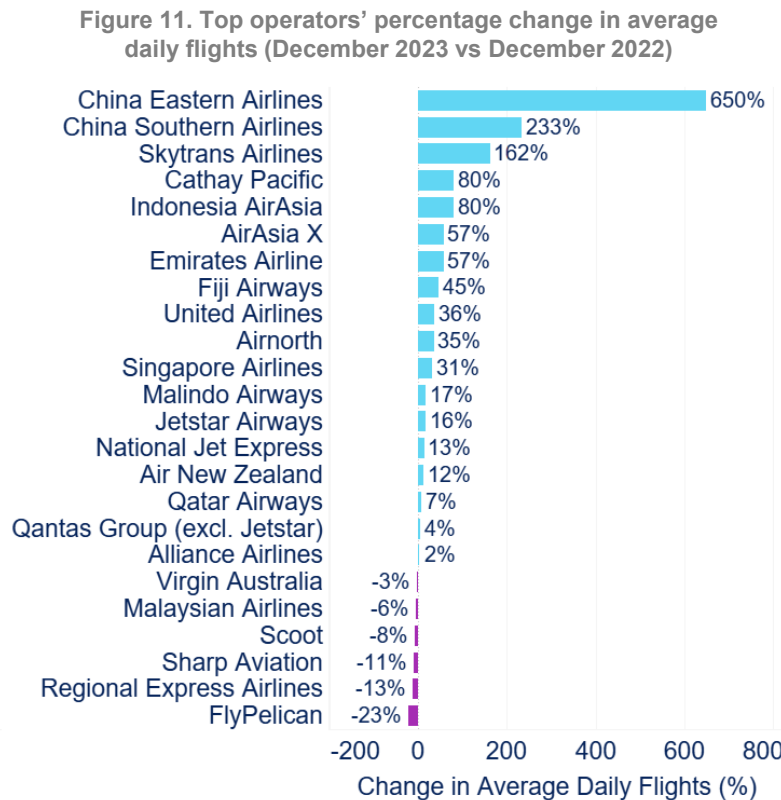
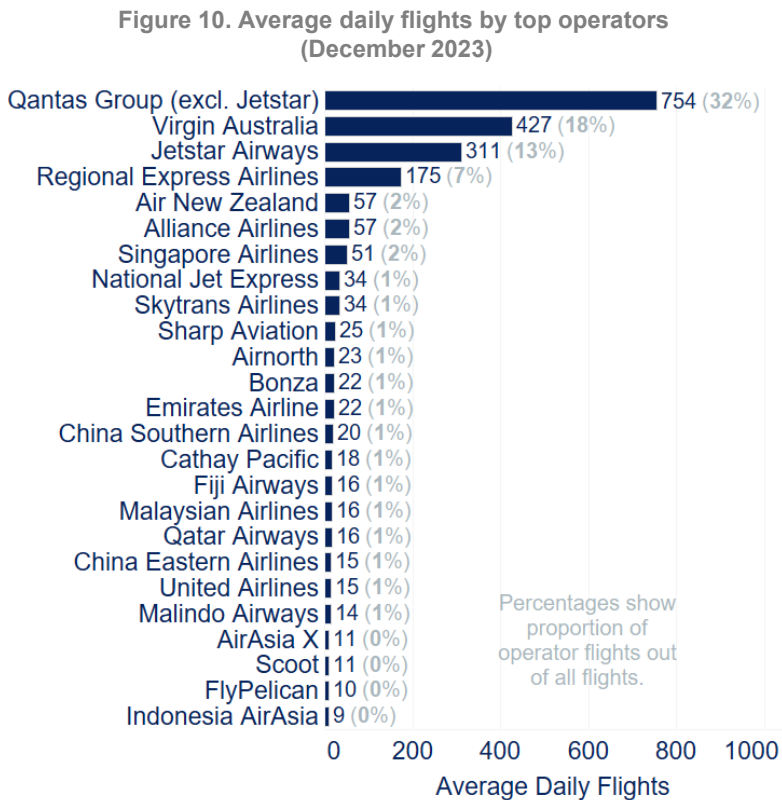


Source: Airservices ODAS

Source: Airservices aeronautical charge database (excludes some general aviation flights that are not subject to Airservices aeronautical charges; Airservices' forecast is as of June 2023).

Top aircraft operators

Growth continues to be dominated by international operators. Since November, Singapore Airlines, China Southern, Air New Zealand, United Airlines, Fiji Airways and Malindo Airways added multiple new services into the Australian network. Some operators are intensifying growth focus into Australia, leveraging the opportunity to fill capacity gaps, partnerships with domestic airlines and investment in larger aircraft. For example, United Airlines has surpassed Qantas as the most frequent operator between Australia and the United States.



Source: Airservices ODAS (excludes general aviation, cargo, military and medical/mercy flights)

Traffic flows from international markets

Asia Pacific markets continue to dominate the international traffic growth, reflecting the key tourism and trade networks between Australia and our neighbouring regions.

Figure 13. Percentage change in total flights by international markets in December 2023 vs December 2022

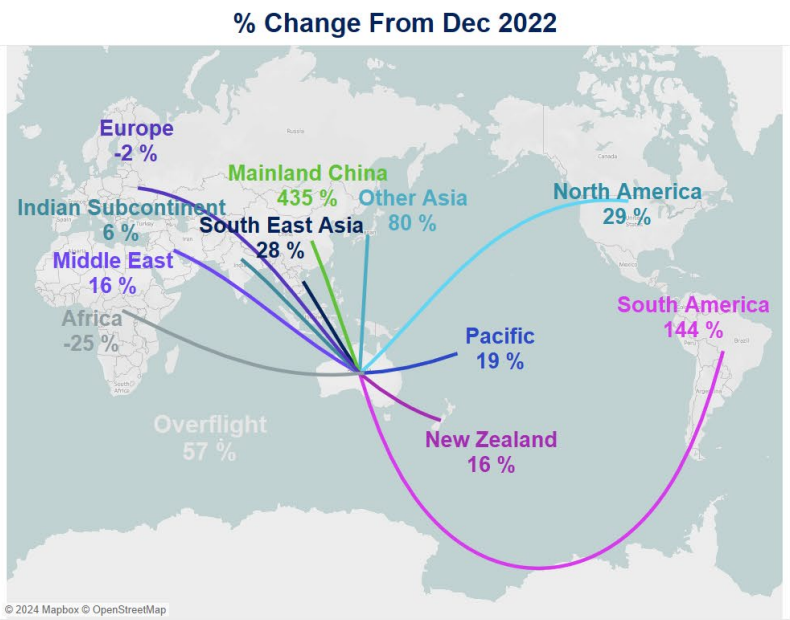
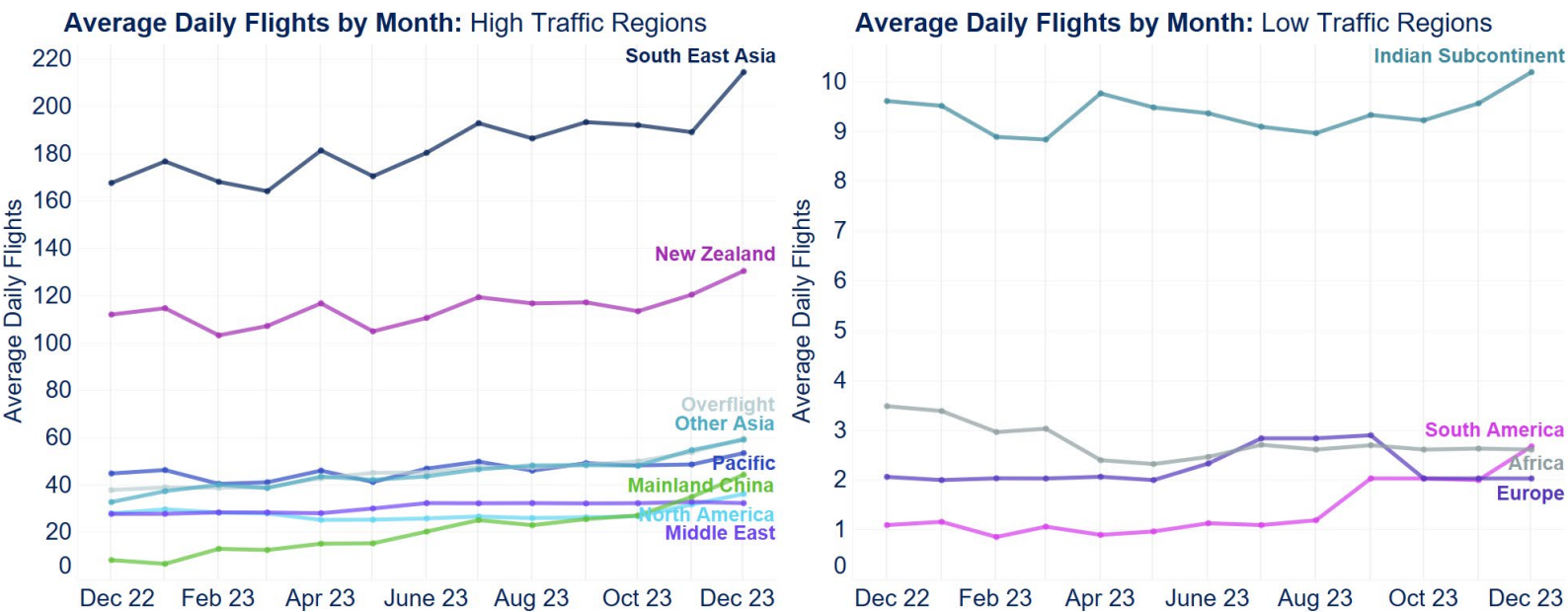


Figure 14. Average daily number of flights per month by international markets



Source: Airservices ODAS (excludes general aviation, cargo, military and medical/mercy flights)
For multi-leg flights, legs that start and end outside Australian airspace are not included.

Domestic network

Intra-state flights and network connectivity in Western Australia has grown significantly since 2019, driven by airline and charter operations servicing the mining industry. Ongoing monitoring of demand against airspace architecture, infrastructure and services is needed to maintain required performance levels.

Figure 15. Key route changes in the domestic network (December 2023)

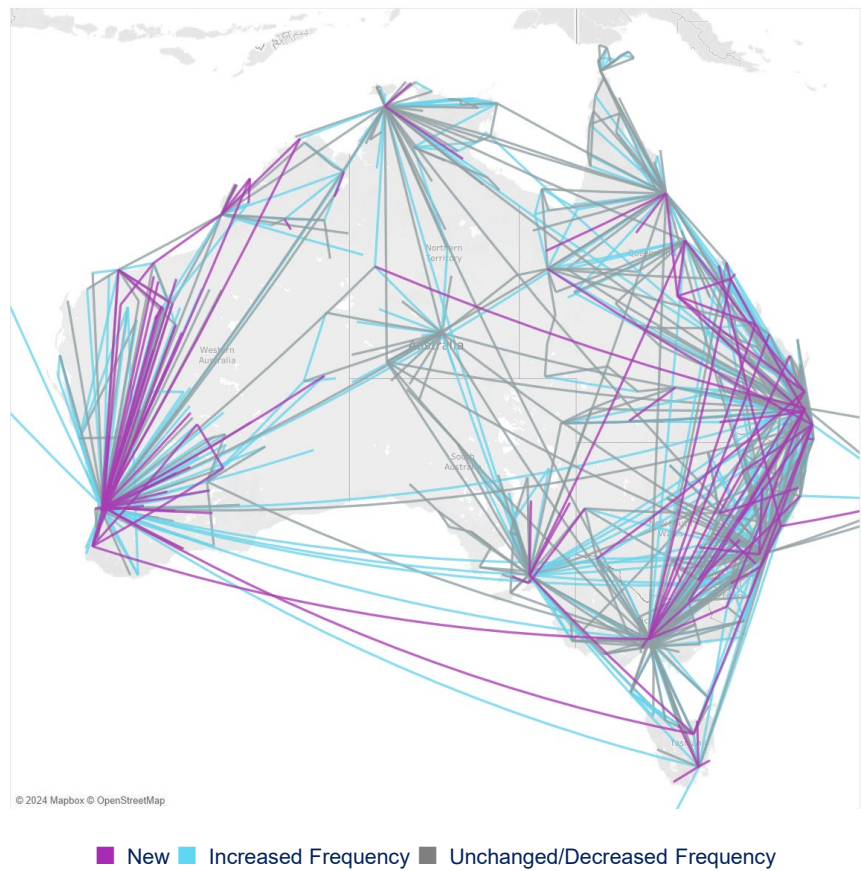
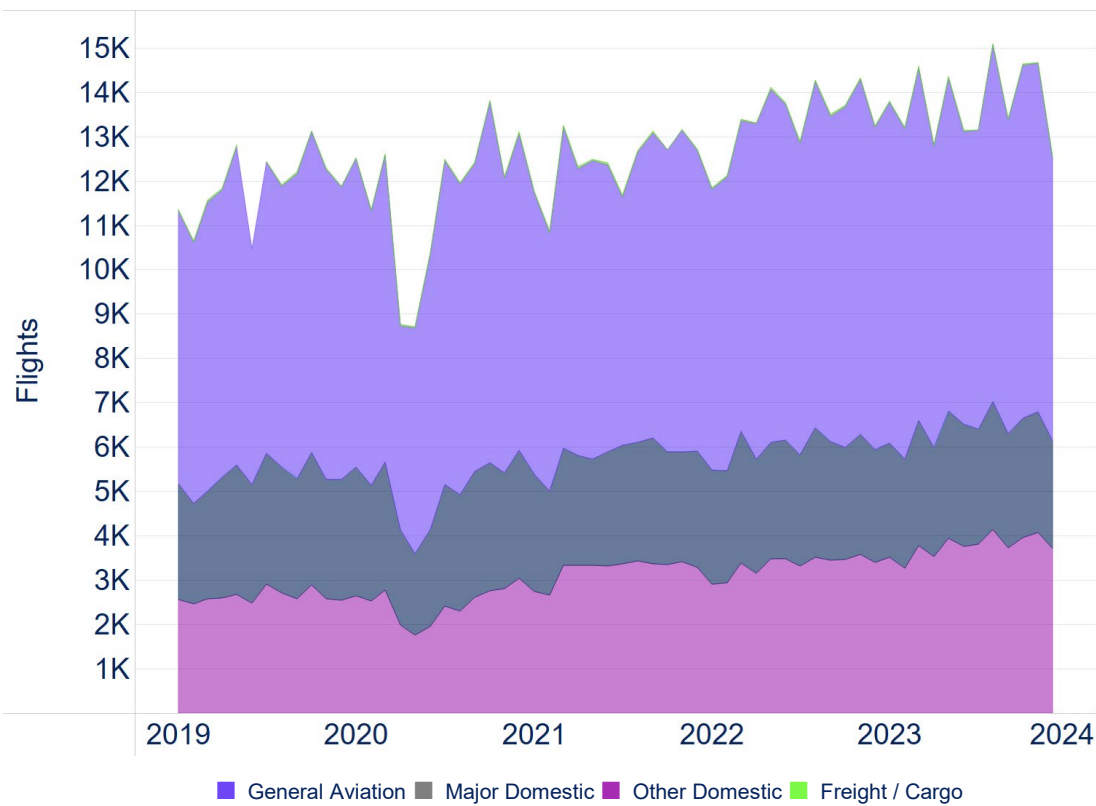


Figure 16. Monthly intra-state flights in Western Australia



Source: Airservices ODAS (includes airline, cargo, general aviation flights but excludes military and medical / mercy flights)
Only domestic city-pairs with more than 8 flights are shown in Figure 15.

Change in active fleet as a capacity indicator

The number of active aircraft fleet in Australia has increased above pre-pandemic levels, and fleet renewal is gathering momentum to drive increased capacity and operational efficiency, greater dispatch reliability and enhanced environmental outcomes.

Figure 17. Active Airbus and Boeing fleet in Australia and by region (comparisons across the December period in 2019, 2022 and 2023)



Figure 18. Change in total active Australian fleet (as of 31 December 2023 vs 31 December 2022)

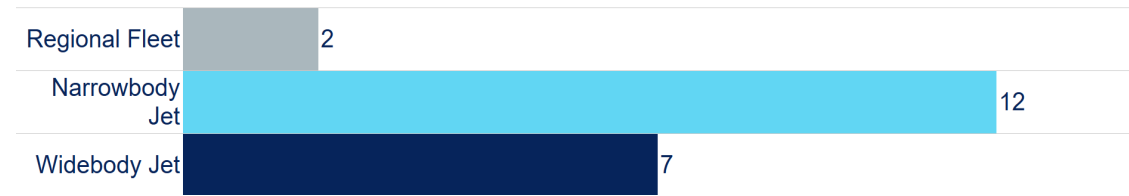
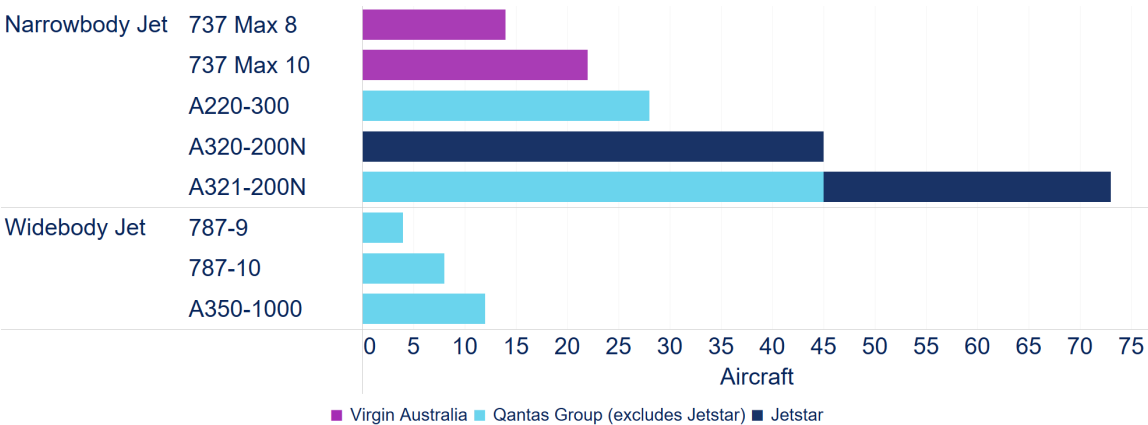


Figure 19. Aircraft on order for Qantas Group and Virgin Australia airlines (as of 31 December 2023)



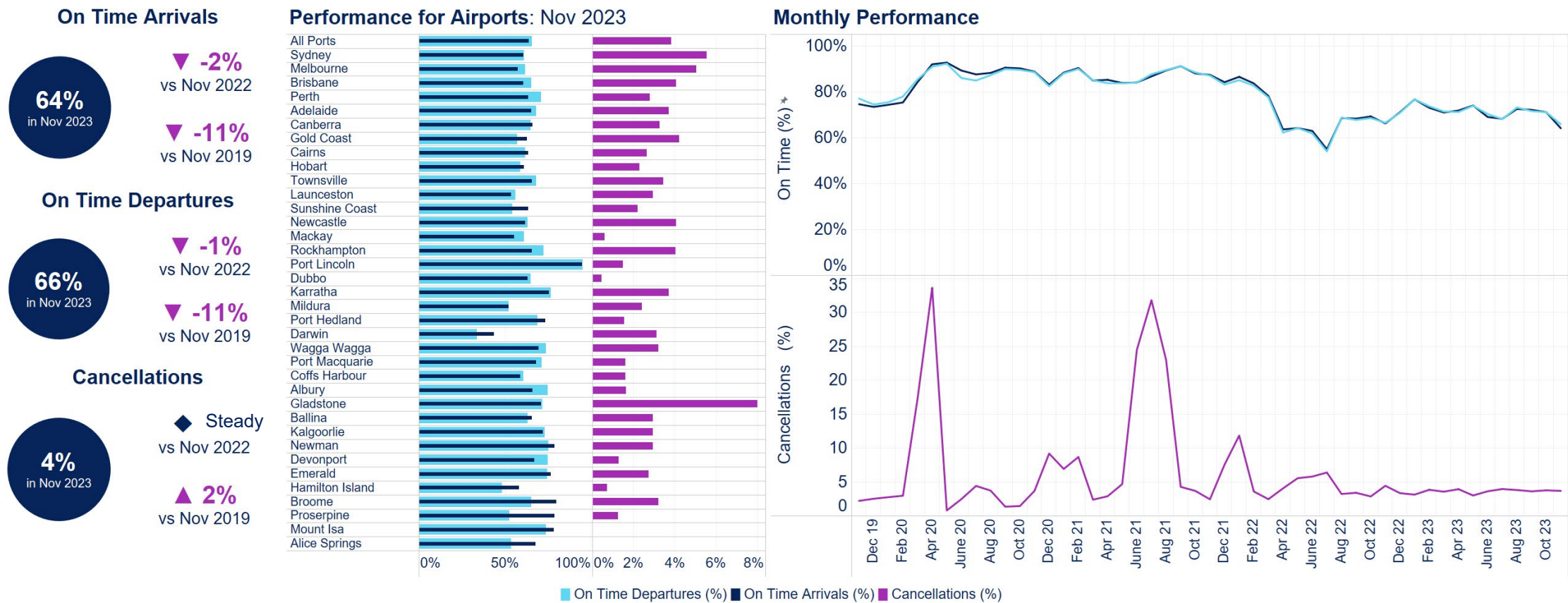
Source: Centre for Aviation Fleet (CAPA)

Australian aviation network performance

On-Time Performance (OTP)

The overall network performance in terms of OTP declined in November 2023 and remained well below historical averages. Along with weather disruptions towards the end of 2023, our industry is still facing the lingering challenges in post-pandemic recovery where more resources and systemic improvements to business processes, in particular whole-of-network capacity planning, are required to return to long-term performance expectations. While similar challenges are being witnessed in Europe, there are also learnings to be gained from a number of markets in America, Asia and Middle East with 2023 OTP above 80%.

Figure 20. Total industry OTP and cancellations (data available up to 30 November 2023 based on latest BITRE data release)



Airline Ground Delay Program (GDP) compliance

The majority of GDP across the East Coast in December 2023 were due to weather disruptions. However ad-hoc GDP was operated on four occasions at Sydney Airport and six occasions at Brisbane Airport in response to weather and staff availability issues in equal proportions. GDP compliance was notably lower on the days when there were ad-hoc changes to GDP in response to unforecast weather conditions or unplanned air traffic service variations. In addition, GDP non-compliance for flights arriving at the commencement of a peak period remains a challenge at Perth, leading to increased airborne delays for all flights. As an industry, measures to reduce demand/capacity imbalance are still required.

Figure 21. GDP compliance in December 2023 and trend over the last 12 months

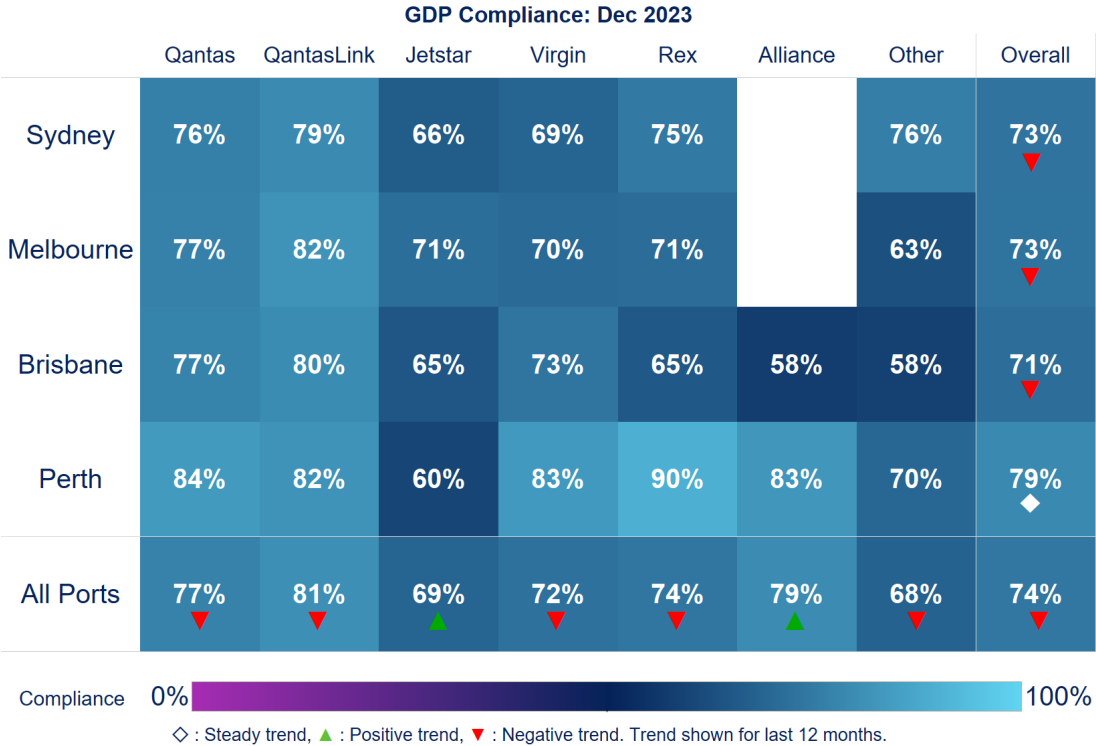
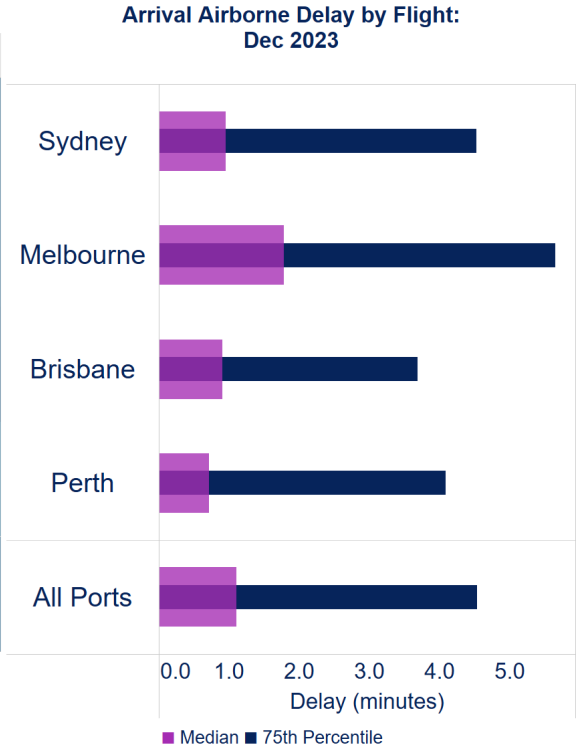


Figure 22. Arrival airborne delay per aircraft at major airports in December 2023

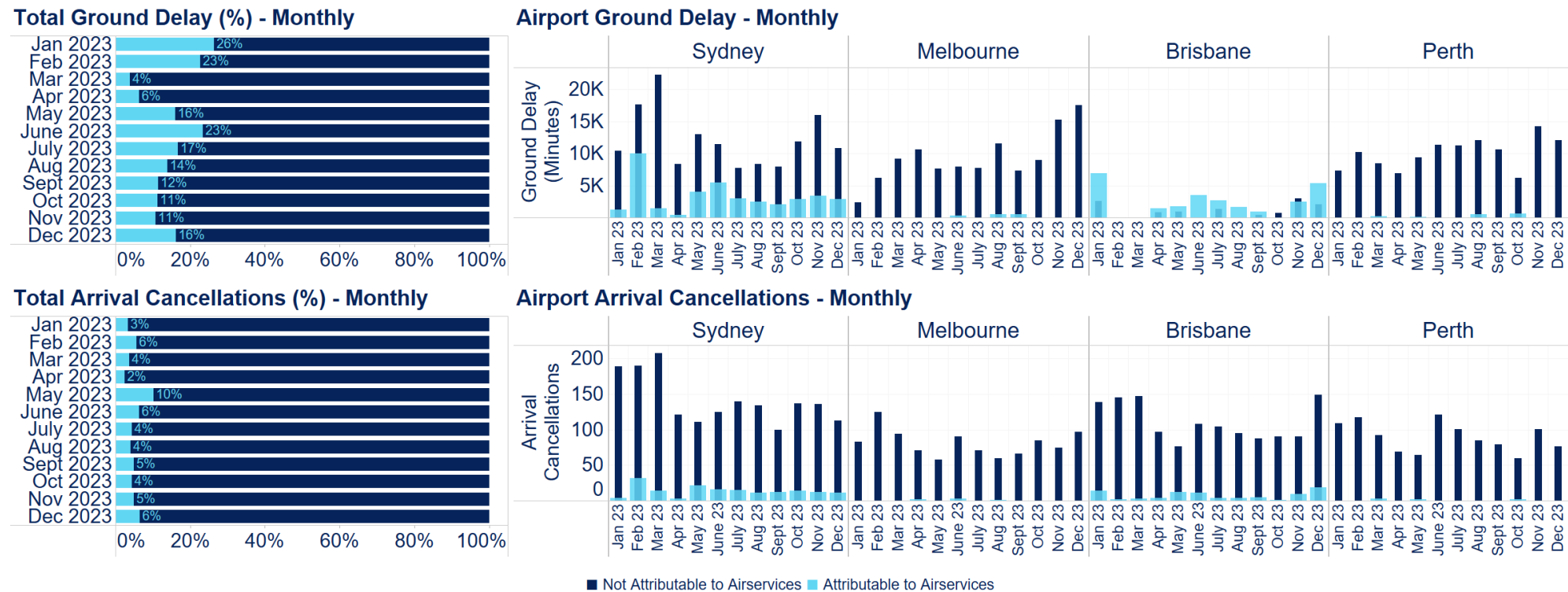


A GDP is an agreed industry plan to balance the demand (based on airline schedules) to the available runway capacity that is collaboratively agreed by Airservices, airlines and the Bureau of Meteorology based on weather and other operating constraints (refer to [GDP Fact Sheet](#)). GDP compliance represents the proportion of flights into an airport that departed compliant with their assigned GDP slot. GDP typically starts one hour ahead of a period where the number of scheduled flights exceeded the predicted available capacity at an airport.

Air traffic management outcomes

While overall air traffic management outcomes trended favourably in the first four months of the current Financial Year (2023-2024), staff availability challenges mainly in Brisbane contributed to recent decline in network performance particularly in the first and last week of December.

Figure 23. Air traffic management outcomes at major airports



Source: Airlines ODAS

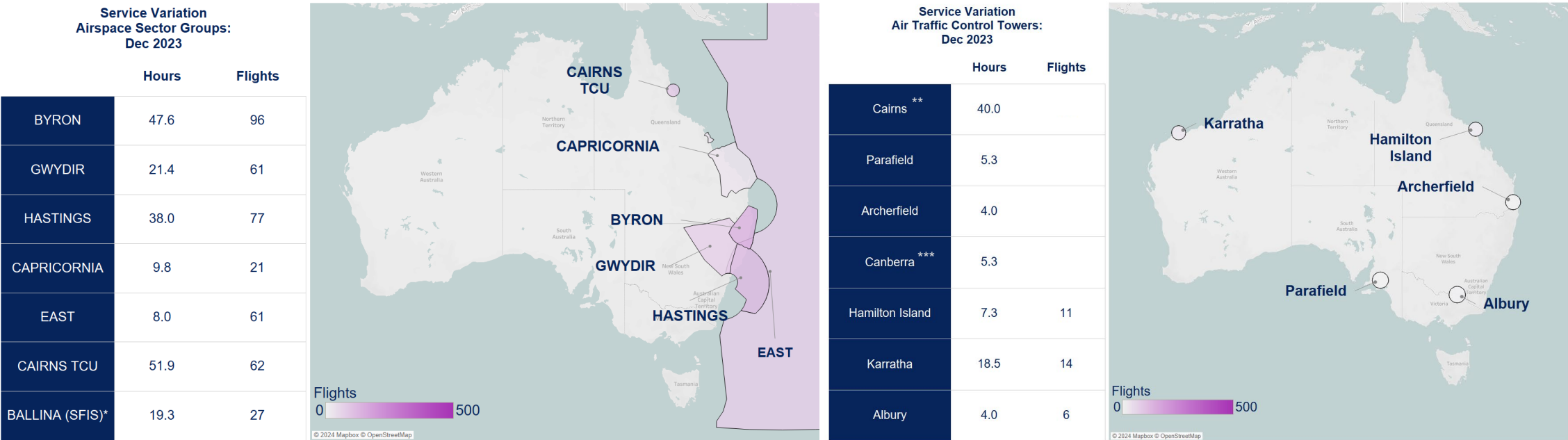
Airlines attributable ground delay and flight cancellations are only estimated for flights arriving at Sydney, Melbourne, Brisbane and Perth Airports, including measuring the flow-on effects into the subsequent hours at the arrival airport. Airlines is working with airlines, airports and stakeholders to refine the estimation method and identify complementary data to better understand causes of delays and cancellations.

As part of the actions to address the recommendations from the IATA review (published on [Airlines website](#)), the delay attribution and analysis methods are being reviewed in consultation with industry.

Air traffic management service provision

Consistency of air traffic service levels in airspace volumes managed from Brisbane Centre and at some regional airports remains below expected levels, and service variations over the Christmas and new year holiday period was a disappointing outcome for our customers. Our program to increase staffing and improve internal business processes continues to be executed nationally, with specific and additional measures being deployed at our Brisbane Centre.

Figure 24. Number of flights and hours during the periods when air traffic services delivered varied from published levels (December 2023)



Source: Airservices ODAS. Service variation comprises of Traffic Information Broadcast Areas / Temporary Restricted Areas and tower closure periods. During the periods of service variations at regional aerodromes, services in adjacent Class G airspace are generally unaffected (e.g. provision of flight, traffic information and safety alerting). Flights are estimated by historic airline, charter, cargo and medical flights that typically operate during the periods of service variations. General aviation, military and government flights are excluded.

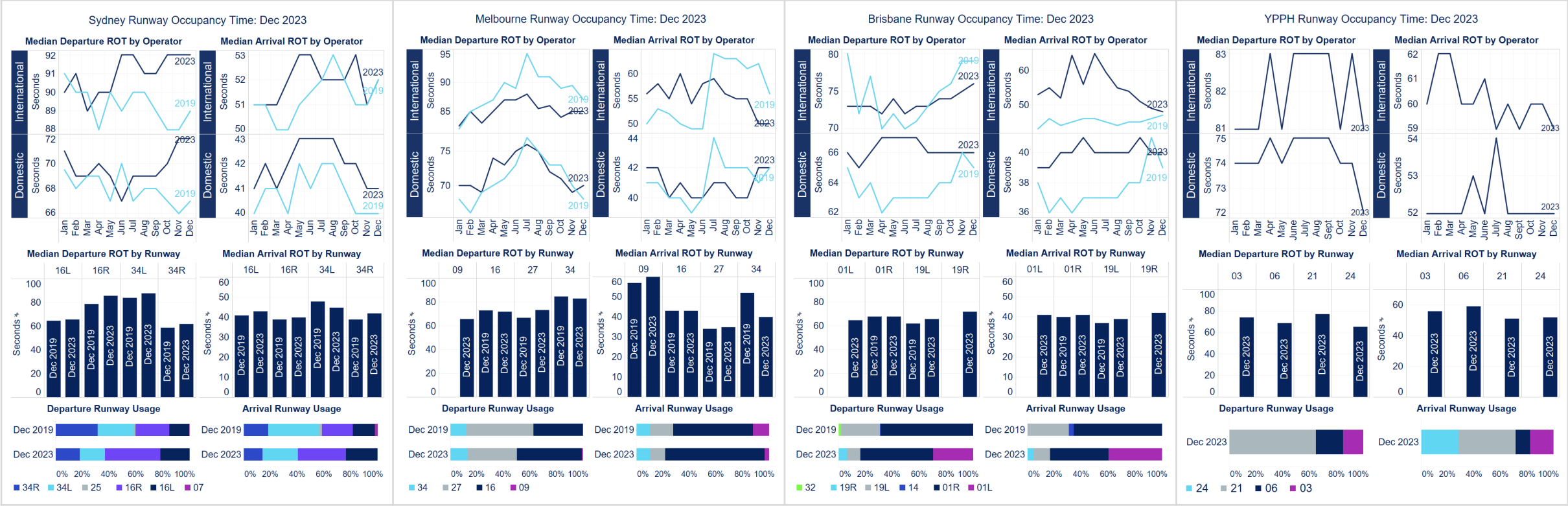
*At Ballina, Airservices provides Surveillance Flight Information Service (SFIS) from Brisbane Air Traffic Services Centre while the airspace classification remains Class G (i.e. entry into the airspace does not require air traffic control clearance)

** Cairns Tower was temporarily closed due to Cyclone Jasper and there was no further service variation.
***At Canberra Tower during the periods of service variation, the Canberra Approach service managed the airspace surrounding the airport to the ground. Instead of contacting the tower, aircraft contacted Approach directly for instructions.

Runway occupancy time

With rapid growth in international airline operations at Sydney, we are seeing runway occupancy times above pre-pandemic levels. Detailed analysis and industry workshop are planned in early 2024 to further understand the underlying drivers (such as pilot practices, experience with airport environment, aircraft performance, airport works and operational procedures) and flow-on impact; and jointly identify performance targets to optimise airport capacity utilisation.

Figure 25. Aircraft runway occupancy time at major capital city airports (December 2023)

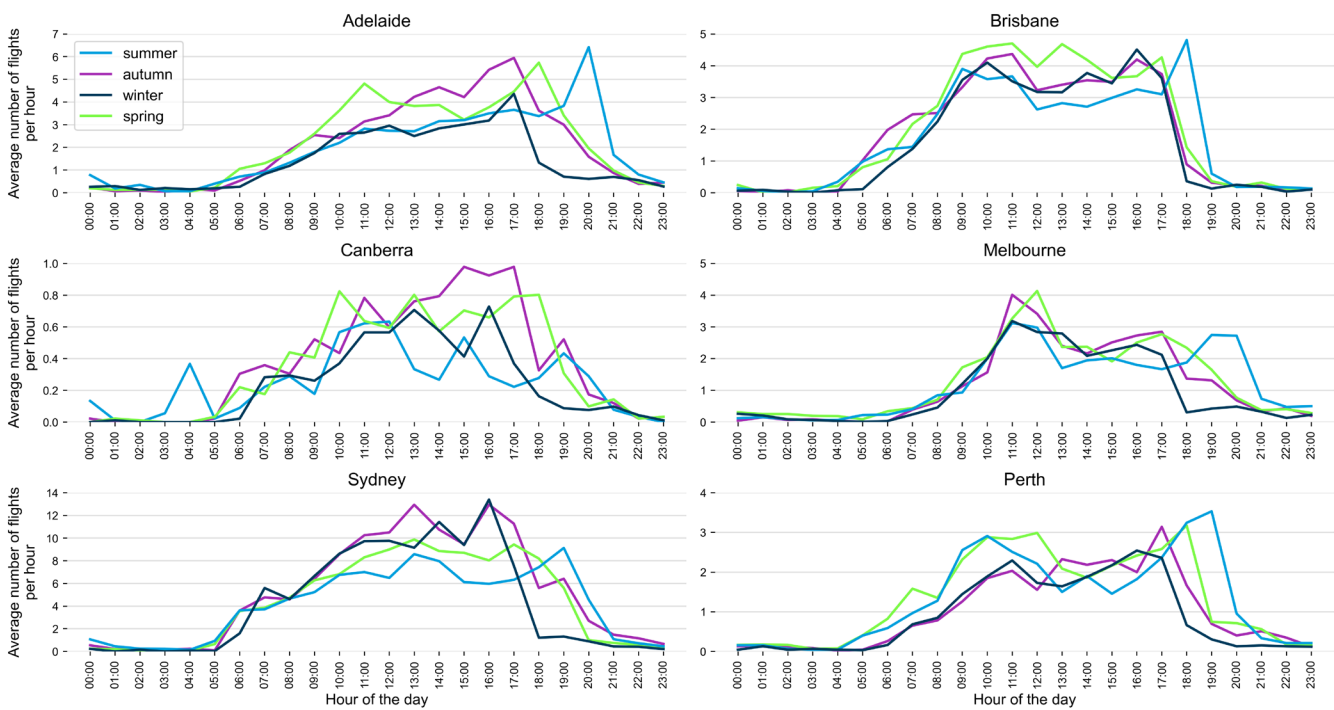


Source: Airservices ODAS (data for Perth in 2019 are not available, and Brisbane runway 01L/19R opened in 2020)
For departures, the runway occupancy time is calculated from when an aircraft enters the runway area until it is airborne and has left the runway area (overflies threshold at runway end or turned away from runway centreline).
For arrivals, the runway occupancy time is calculated from when an aircraft flies over the runway threshold until it has left the runway area after landing.

Drone activities

Drone activities have been influenced by weather, daylight hours and seasonal events. In 2023, this was reflected in above-average flight numbers in May, August and September, driven by school holidays and events such as Brisbane Riverfire, Royal Adelaide Show and the Gold Coast Open. Increased rainfall in January led to a large reduction in overall flights for the month, while warmer seasons saw drone pilots finishing their operations later to take advantage of the longer daylight hours. Understanding the behaviours of drone operators informs the controls to ensure their safe integration into the aviation network.

Figure 26. Average number of detected drone flights per hour within No-Fly Zones* at major capital-city airports (1 January to 31 December 2023)



Source: Drone detection equipment. Data is limited to drone activity detected by drone surveillance equipment installed at 29 controlled civil aerodromes. The Civil Aviation Safety Authority (CASA) can approve operations within the 3 nautical mile (5.5 kilometre) boundary and in the approach/departure paths of a controlled aerodrome (known as the no fly zone). Micro drones (<250g) are allowed to operate within 5.5 kilometres of a controlled airport consistent with the requirements of the Civil Aviation Safety Regulations Part 101 Manual of Standards (outside the approach/departure splay). All drones are allowed to operate in the outer runway splay of a controlled airport up to a height of 90 metres.

Figure 27. Number of detected drone flights per month within No-Fly Zones* at controlled civil airports (1 January to 31 December 2023)

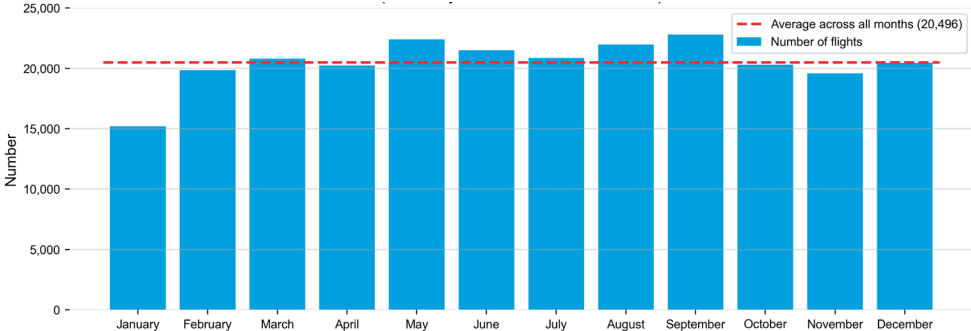
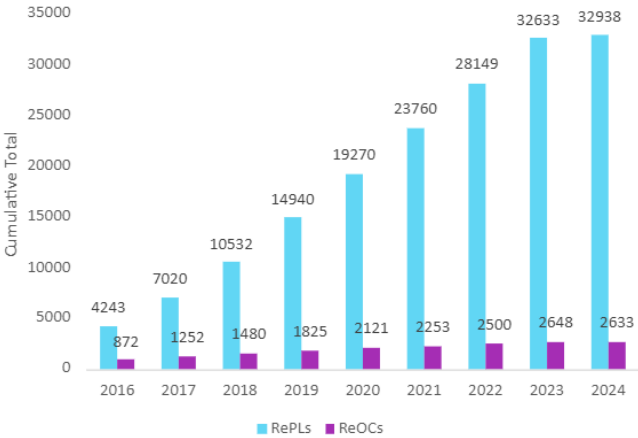


Figure 28. Cumulative totals of Remote Pilot Licences (RePLs) and Remotely Piloted Aircraft Operator's Certificates (ReOCs) (as of 3 January 2024)



Source: CASA. Remotely piloted aircraft operator's certificates (ReOCs) have an initial validity period of one year followed by three years once renewed. Remote pilot licences (RePLs) have a perpetual validity. The ReOC and RePL figures provided are cumulative totals.



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