



Australian Aviation Network Overview

January 2024

Executive Summary

The start of 2024 for the Australian aviation sector is marked by signs of moderately improving economic conditions and normalising patterns of growth.

After unprecedented pent-up demand in 2023, the growth rate of international traffic is starting to stabilise. We continue to see expansion of services from markets such as India and South-East Asian nations improving connectivity between Australia and popular tourism destinations and trade networks. However, flights from China remain 20% below 2019 levels, opening up opportunities for diversification from other international markets. Domestic traffic has stayed around pre-pandemic levels throughout this financial year.

Notwithstanding industry's investments in newer, greener and quieter aircraft, the pace of fleet renewal and aircraft capacity increase in Australia is slow. This reflects a trend towards maximising utilisation and load factors from existing fleet on the one hand, and ongoing challenges of parts and labour shortages faced by aircraft manufacturers and service providers. We have commenced work on better understanding the key drivers of network performance associated with the critical first rotation at major airports.

Weather disruptions have been the most significant capacity constraint this summer, as our industry experienced an acute period of disruptions impacted by successive cyclones and other damaging weather conditions on the East Coast. In these challenging times, close coordination, joint emergency committees and information sharing across the aviation ecosystem have ensured the safety of aviation operational workforce and the travelling public, and the rapid recovery of essential services.

Following a difficult month in December 2023 when one in every six delays were attributed to Airservices, overall air traffic management outcomes returned to an improving trend for this financial year to date. In January 2024 one in eight delays were attributed to Airservices. Importantly at Brisbane, the proportion of delays attributed to Airservices halved from the previous month to be at similar levels as that caused by airport works. Airservices program to minimise variation to our published services remains the key priority for the Airservices team to deliver month-on-month improvement.



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.

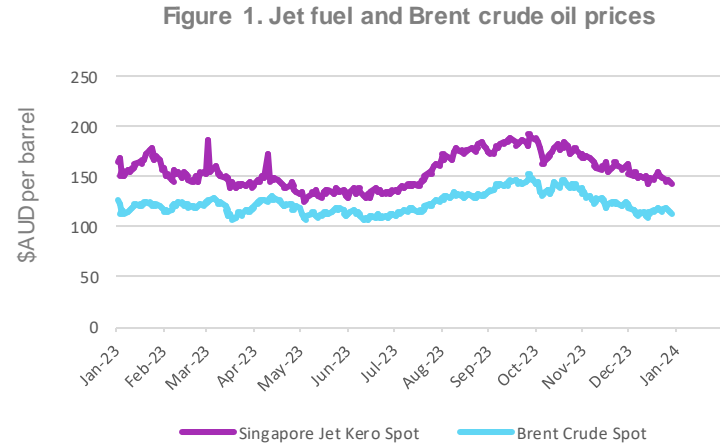
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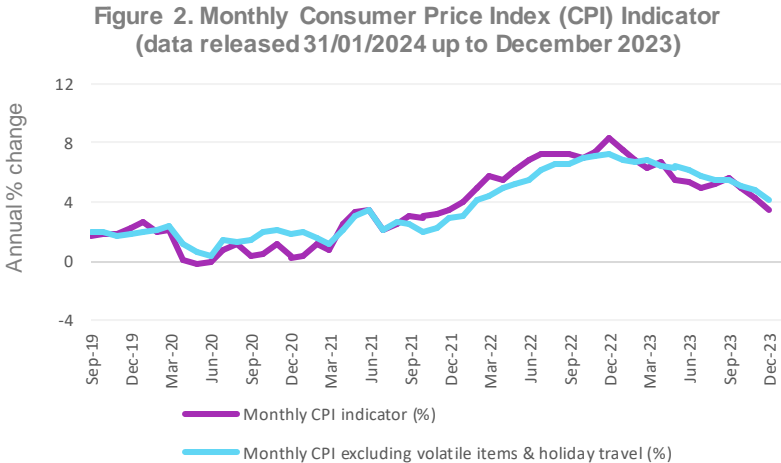
Economic and social trends

Economic factors

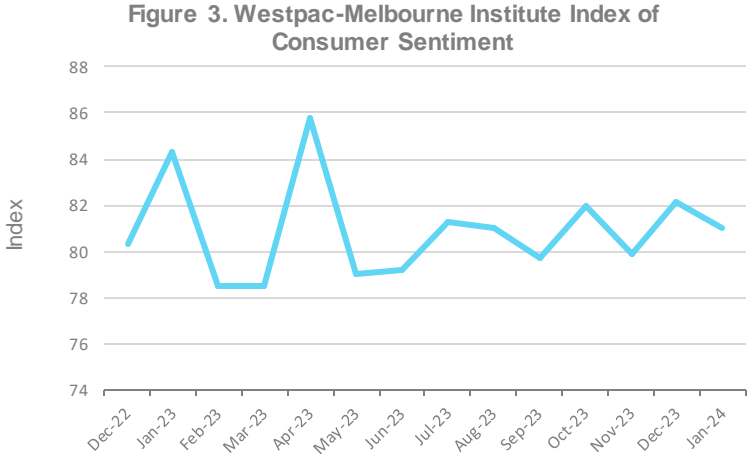
There are signs of improving economic conditions for the Australian aviation sector such as easing fuel prices and inflation, rising tourism expenditure in Australia and stronger projected growth in our neighbouring region. However geopolitical uncertainty, financial challenges in China as well as domestic cost-of-living pressures, air fares and competition remain risk factors for our sector.



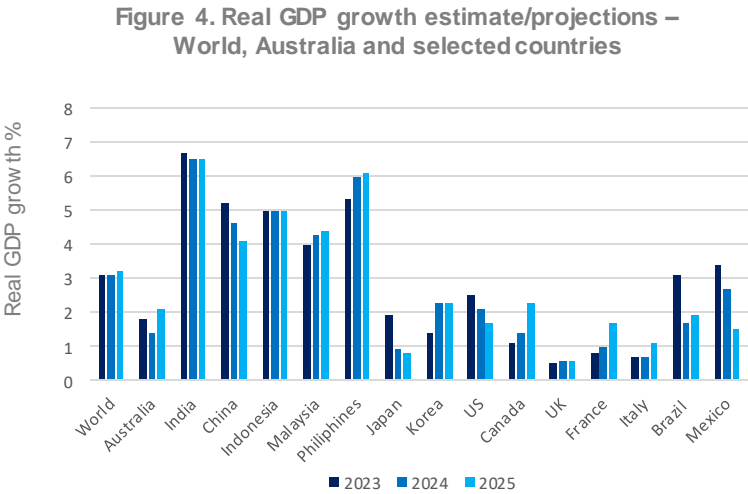
Source: Bloomberg



Source: ABS ([website](#))



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

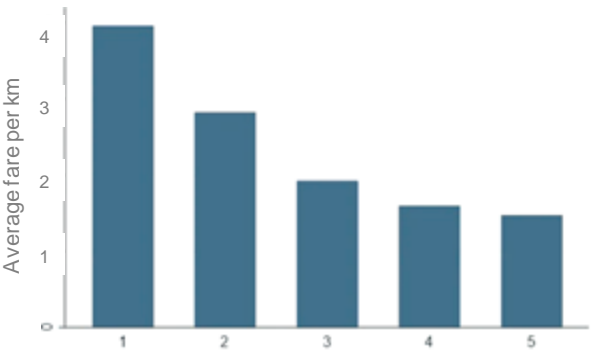


Source: International Monetary Fund ([website](#))



Source: Tourism Research Australia ([website](#))

Figure 6. Average fare per km by number of carriers on a route, based on top 200 routes by passenger traffic

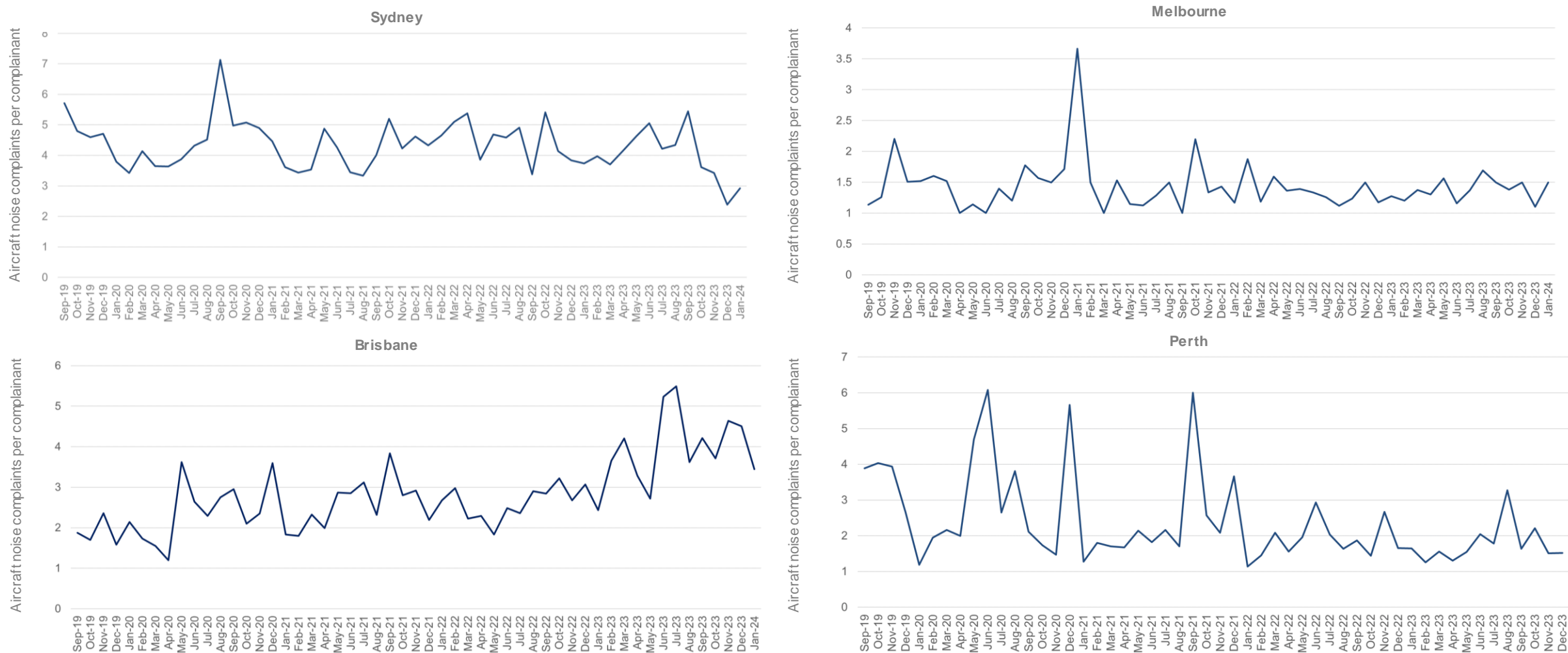


Source: OAG

Social factors

The intensification of aircraft noise complaints per complainant at Brisbane demonstrates the importance of community engagement and embedding a balanced approach to aviation growth and social impact when planning and executing aerodrome expansions and flight path changes.

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



Source: Airservices Noise Complaints and Information Service (NCIS)

Australian aviation and regional context

State of Australian aviation growth

After rapid recovery in the fourth quarter of 2023, the growth rate of international traffic started to stabilise in early 2024. Domestic traffic has stayed around pre-pandemic levels throughout this financial year. Normalising patterns of growth towards long-term average can be anticipated in 2024 and will depend on systemic capacity enhancements across the aviation industry.

Average Daily Flights
(Jan 2024 and percentage of Jan 2019)



Total Domestic Flights
(Jan 2024 and percentage of Jan 2019)



Total International Flights
(Jan 2024 and percentage of Jan 2019)

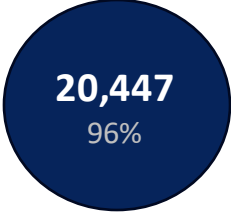


Figure 8. Domestic (top) and international (bottom) average daily flights compared to Airservices’ forecast

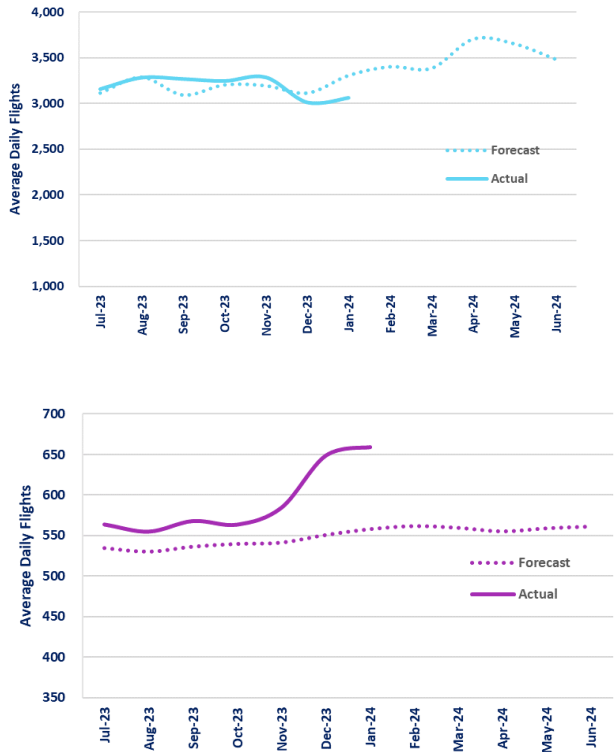
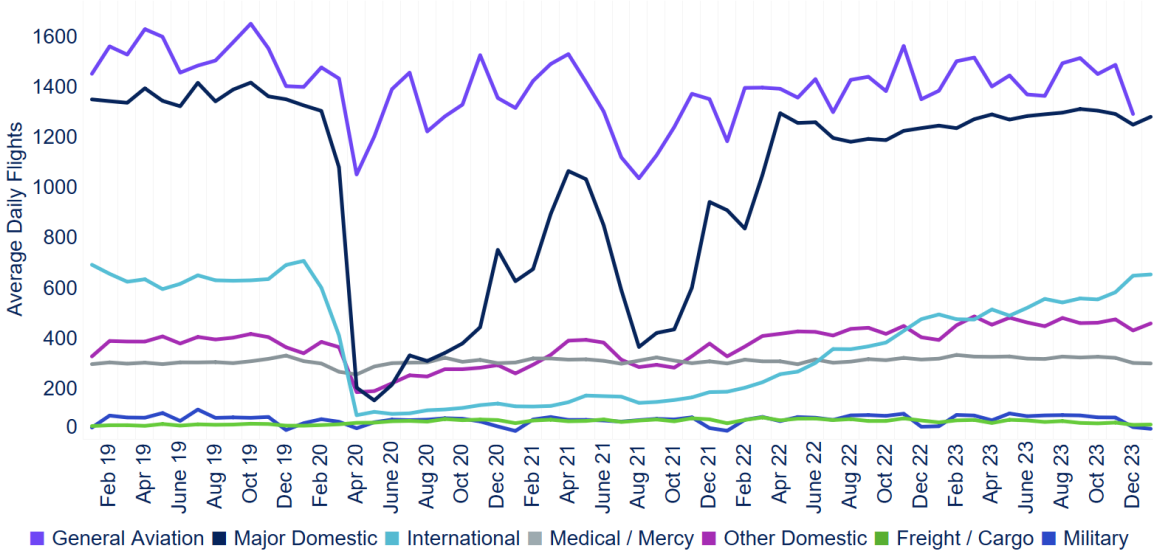


Figure 9. Average daily flights per month by industry segment



Source: Airservices ODAS (general aviation data in arrears by one month)

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 particularly those from South East Asia, India and Middle East. Airlines such as Emirates, Air India, Turkish Airlines, Singapore Airlines and Batik Air recently announced new services connecting Australia to popular tourism destinations. Flights from Chinese airlines as a whole are still 20% below pre-pandemic levels, opening up opportunities for diversification of international airline operations in Australia.

Figure 10. Average daily flights by top operators (January 2024)

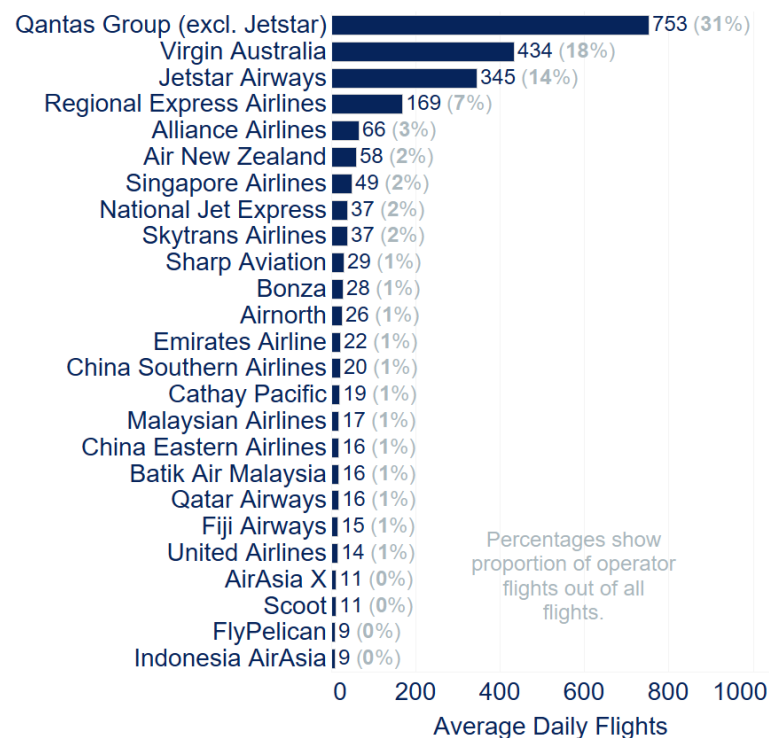


Figure 11. Top operators' percentage change in average daily flights (January 2024 vs January 2023)

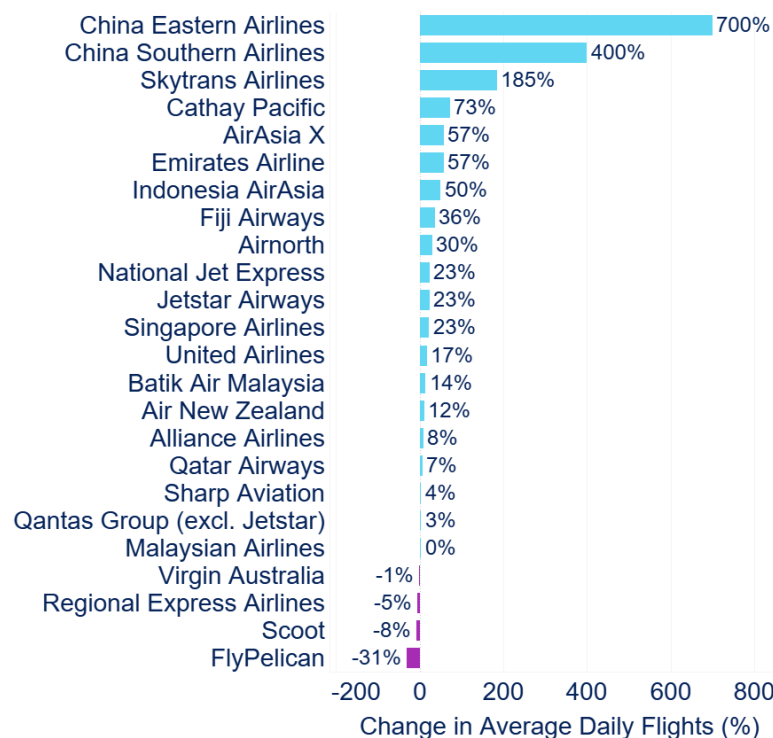
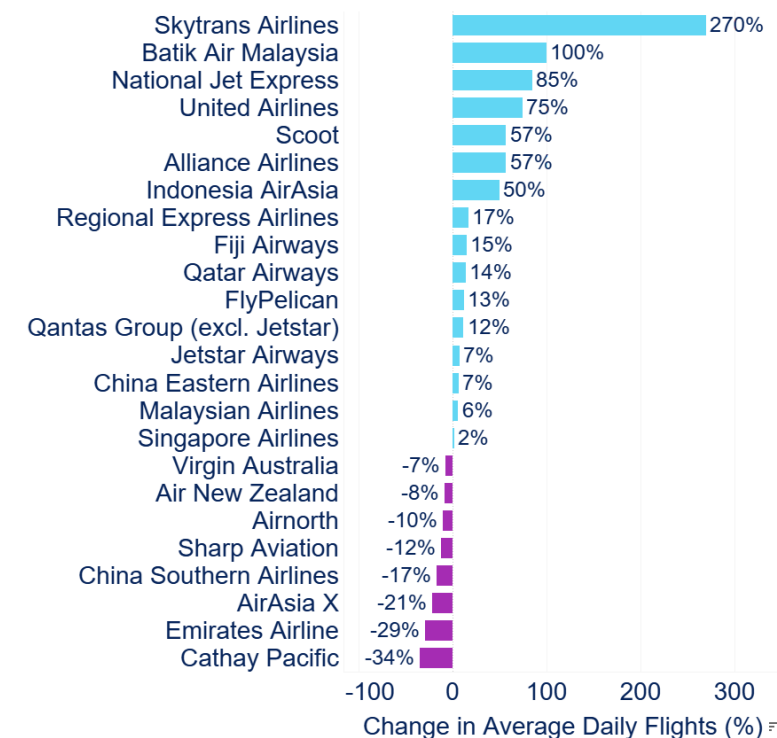


Figure 12. Top operators' percentage change in average daily flights (January 2024 vs January 2019)

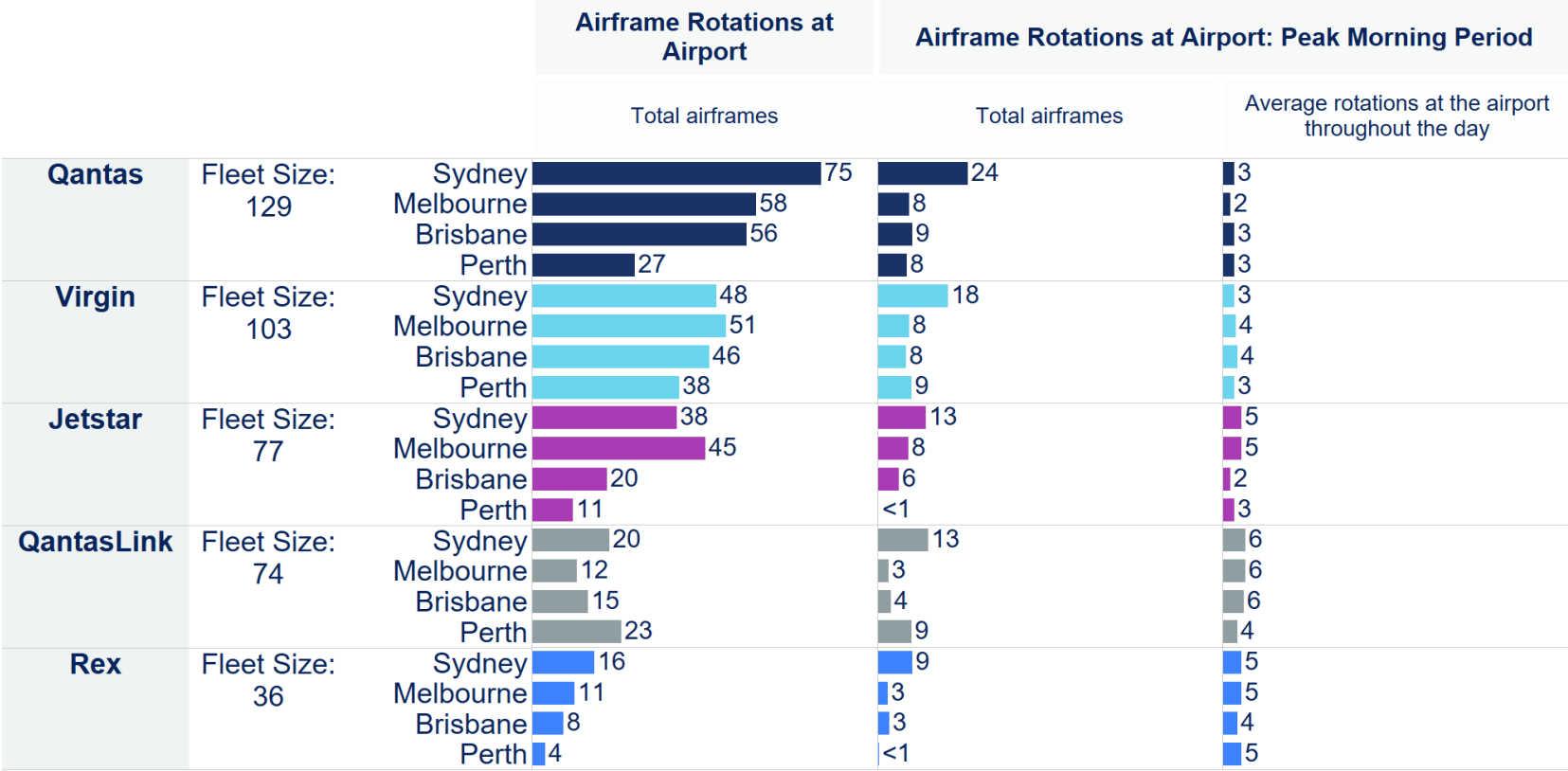


Source: Airservices ODAS (excludes general aviation, cargo, military and medical/mercy flights)

Domestic airlines' network

Across the top domestic airlines (Qantas Group, Virgin Australia and Rex), approximately one in every five of their aircraft operate at Sydney Airport during the first peak demand period of the day before rotating through the airport again multiple times a day. This highlights the importance of operational consistency in the first rotation period to minimise flow-on disruptions to the network. For example, in January 2024 on average 75 Qantas Group airframes rotated through Sydney Airport daily. 24 of these operated during the peak morning period and carried out three rotations daily through the airport.

Figure 13. Daily average fleet rotation of major domestic airlines (based on unique aircraft tail numbers) at major airports (January 2024)



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

Traffic flows from international markets

Open sky agreements and government support to stimulate trade and tourism are driving growth in markets such as India and South East Asian nations. This aligns with the global pattern that Asia Pacific region has dominated seven out of the top 10 world's busiest international routes.

Figure 14. Percentage change in total flights by international markets in January 2024 vs January 2023

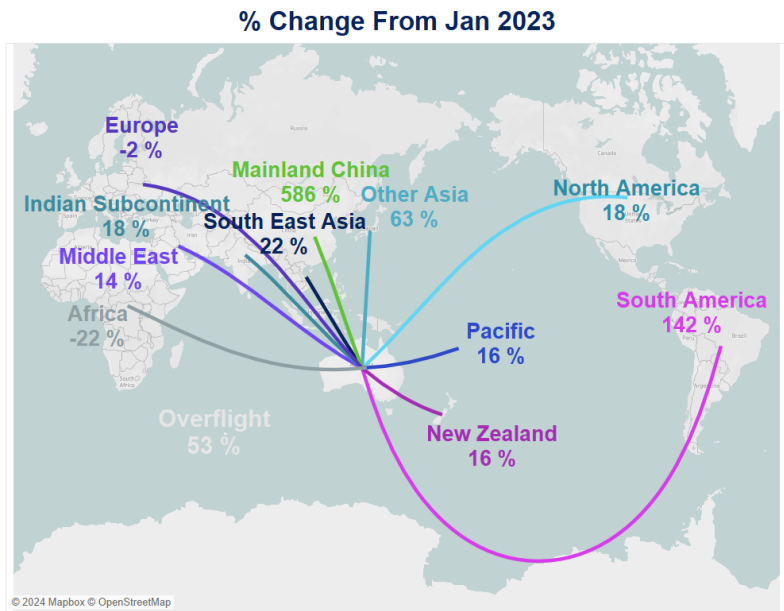
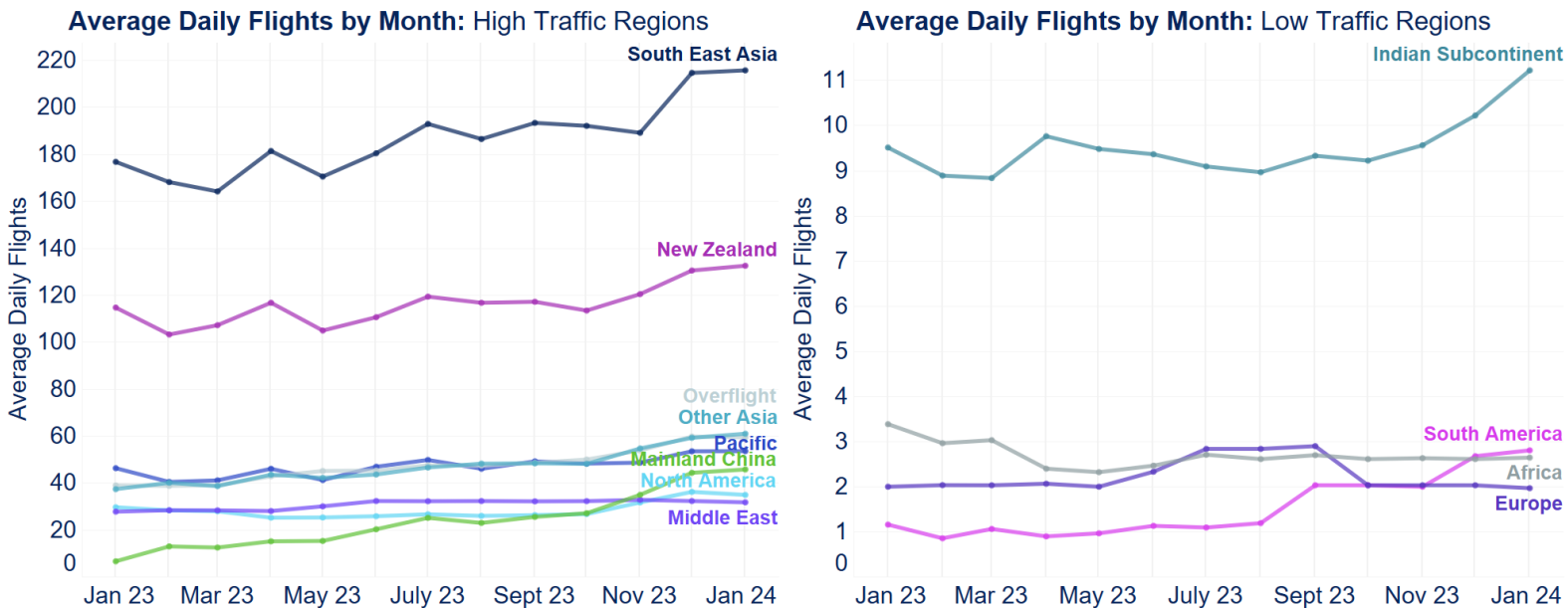


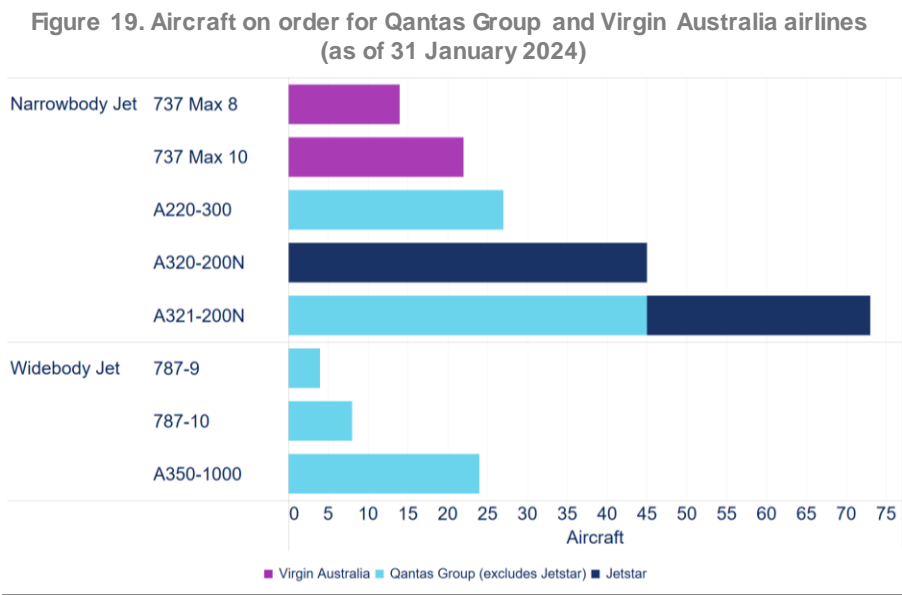
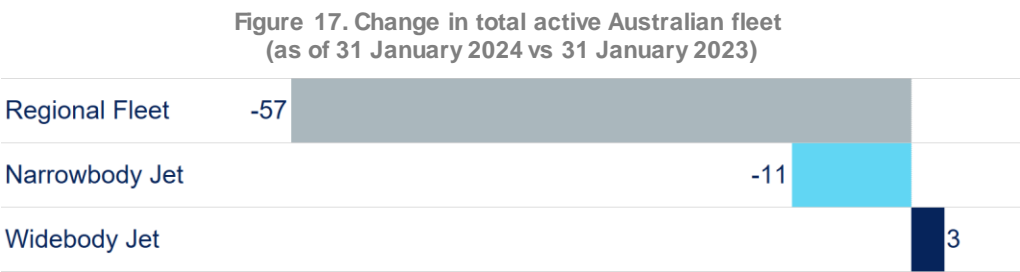
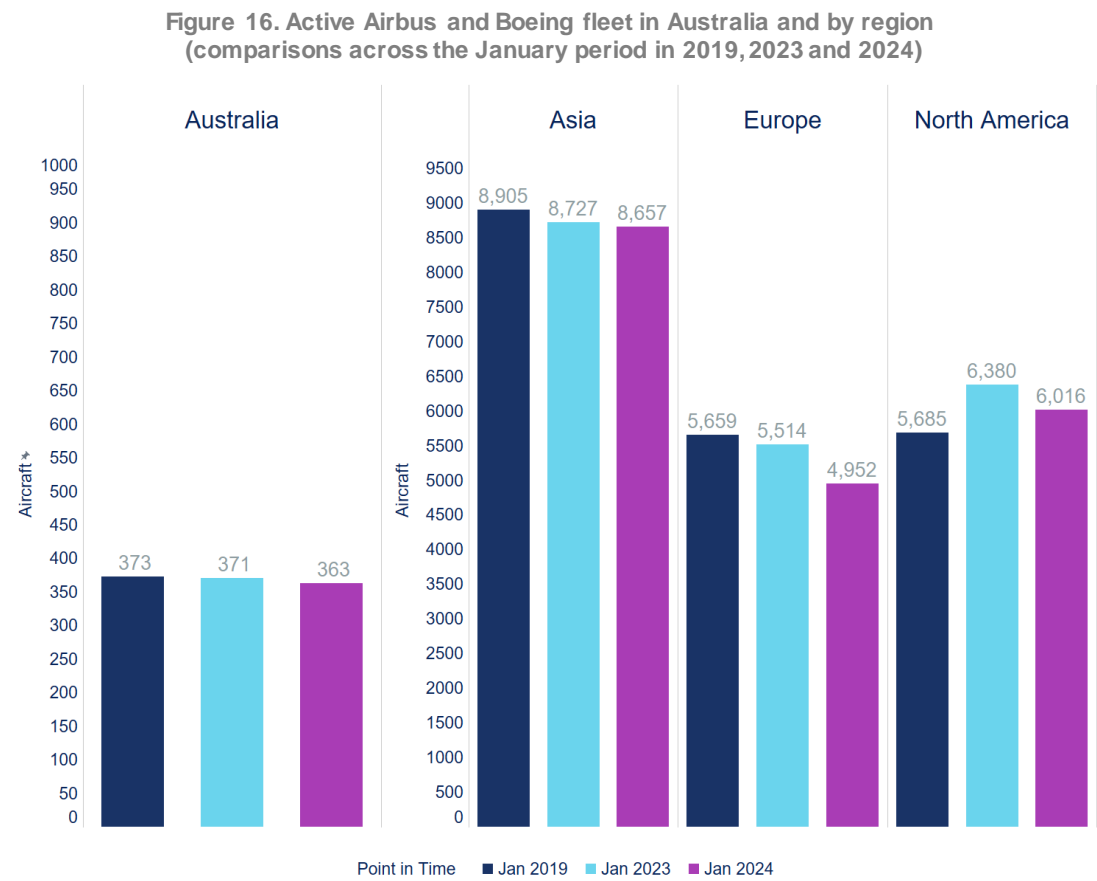
Figure 15. Average daily number of flights per month by international markets



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.

Change in active fleet as a capacity indicator

Investment in newer, quieter and greener fleet continues to be a key industry focus. While there has been a significant reduction in older regional fleet in Australia, the pace of fleet renewal and aircraft capacity increase is slow. This reflects a trend towards maximising utilisation and load factors from existing fleet on the one hand, and ongoing challenges of parts and labour shortages faced by aircraft manufacturers and service providers.



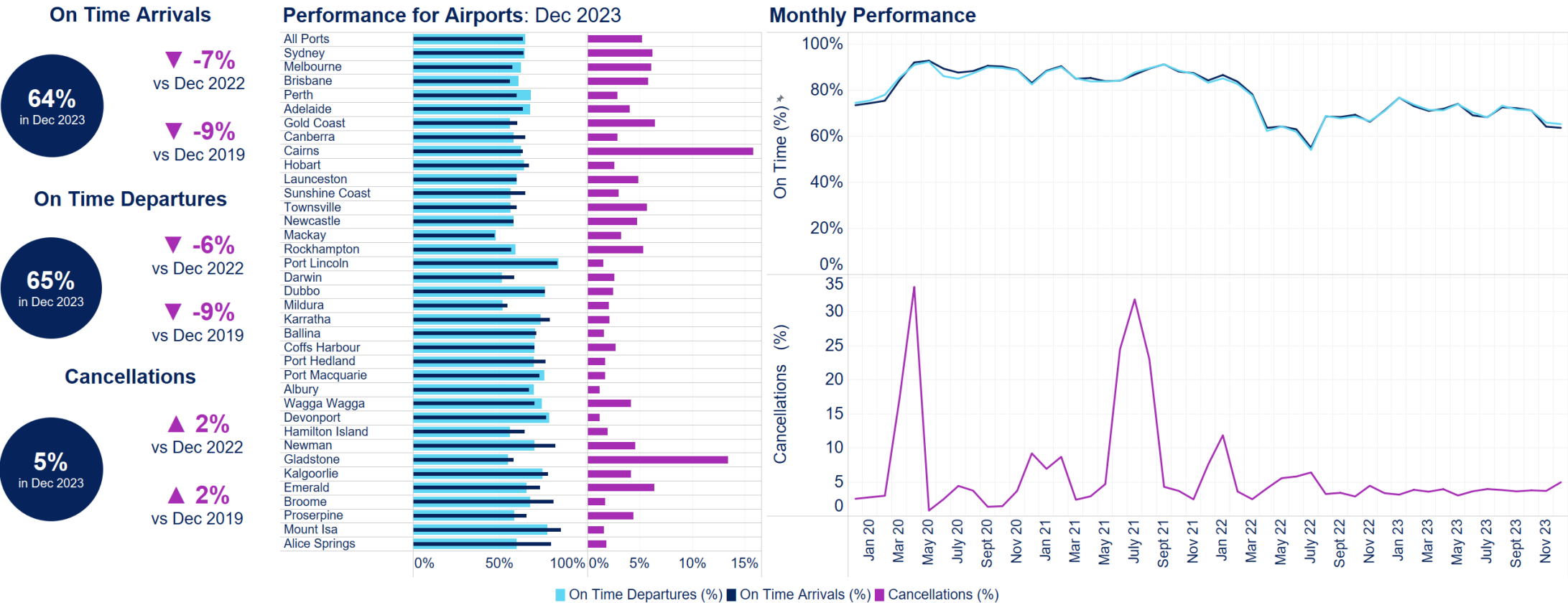
Source: Centre for Aviation Fleet (CAPA)

Australian aviation network performance

On-Time Performance (OTP)

In December 2023 OTP and cancellation rate worsened as our industry faced significant weather disruptions on the East Coast. Building resilience and improving OTP sustainably remains a key challenge for our industry in efforts to provide more consistent experience for the travelling public and meet long-term performance expectations.

Figure 18. Total industry OTP and cancellations (data available up to 31 December 2023 based on latest BITRE data release)



Source: BITRE ([website](#))

*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 31 December 2023.

Australian Aviation Network Overview

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Airline Ground Delay Program (GDP) compliance

Weather disruptions have been the most significant capacity constraint this summer, along with other disruptions like airport works, attributing to 88% of ground delays at the four major airports. GDP compliance, which is a key demand/capacity balancing tool to prevent airborne delays, decreased in this financial year to date. As demonstrated in Perth, late non-compliances particularly during morning peak demand period can lead to higher levels of tactical slots lost and airborne delays, in addition to ground delays assigned for GDP to balance demand/capacity.

Figure 19. GDP compliance in January 2024 and trend over the last 12 months

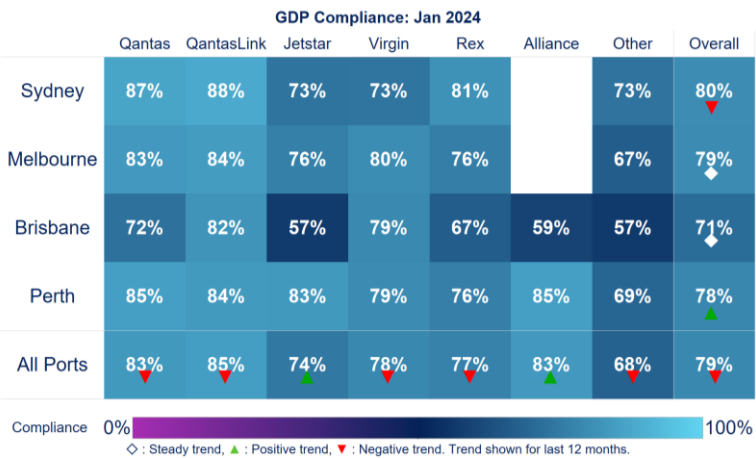
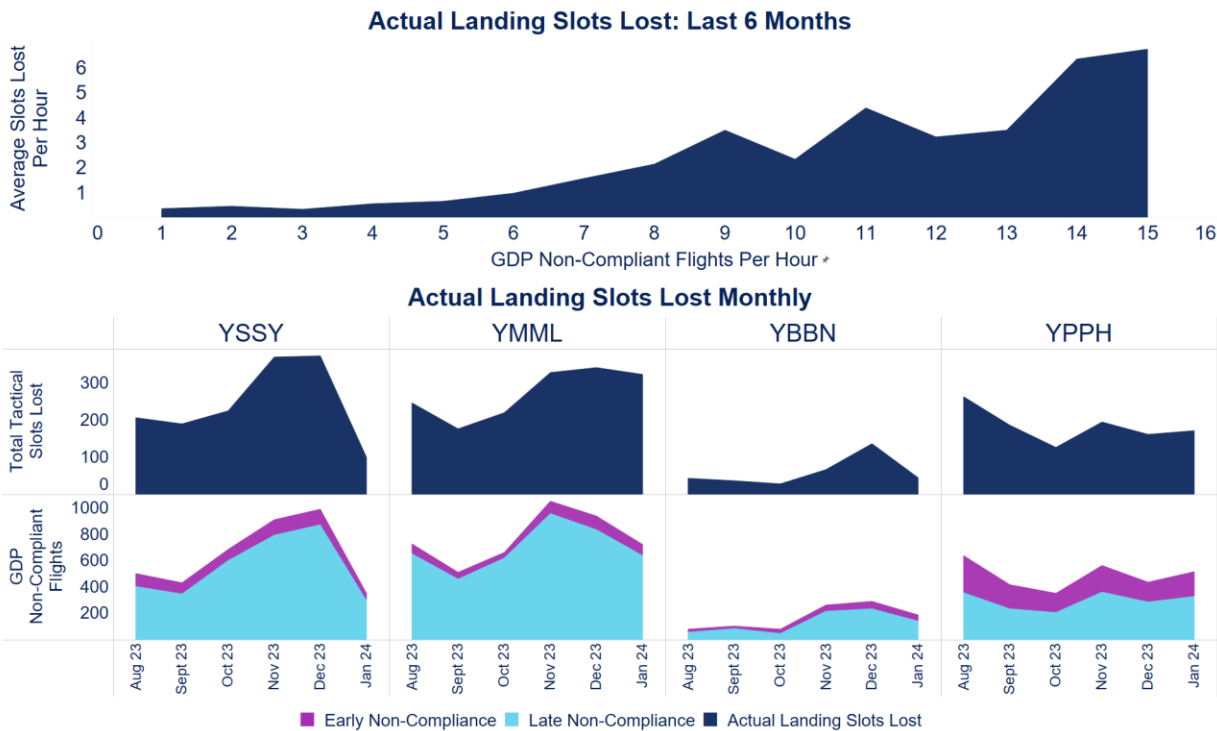


Figure 21. Key operating metrics during morning peak demand periods (January 2024)

		GDP In Place	GDP Compliance	Average Ground Delay per Flight (minutes)
Sydney	7 am	23%	94%	2.0
	8 am	23%	90%	5.3
Melbourne	7 am	45%	91%	1.5
Brisbane	7 am	0%		
Perth	9 am	48%	80%	1.4
	10 am	48%	79%	5.6

Figure 20. Actual landing slots lost (across all GDP ports) compared with GDP non-compliance



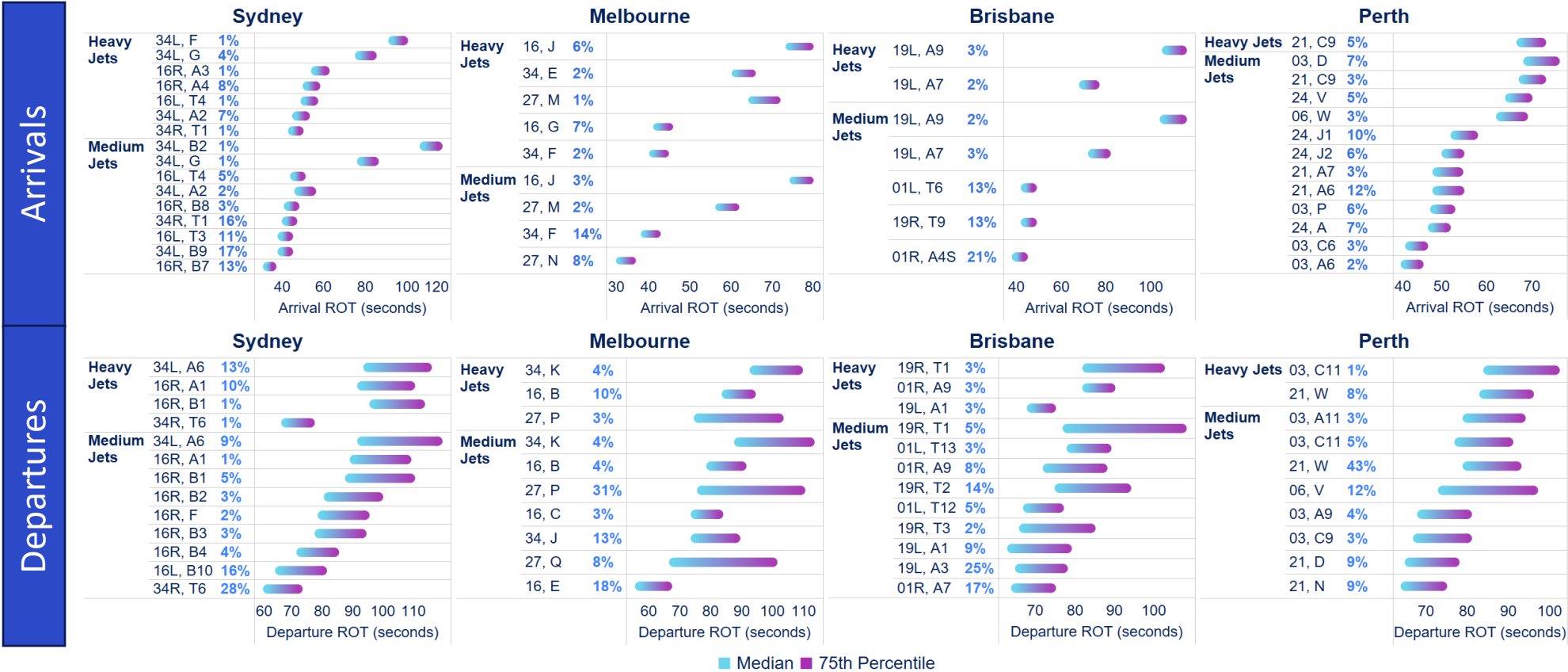
Source: Airservices ODAS

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.

Runway occupancy time

Runway occupancy time is an important factor in runway utilisation which is a critical measure for overall network performance. Analysis indicates broad variations in runway occupancy time. Influencing factors include aircraft size, airport layout, traffic mix, aircraft and operator performance factors.

Figure 22. Arrival and departure runway occupancy times (median and 75th percentile) at major capital city airports by runway and taxiway (January 2024). Taxiway usage percentages are shown in blue.

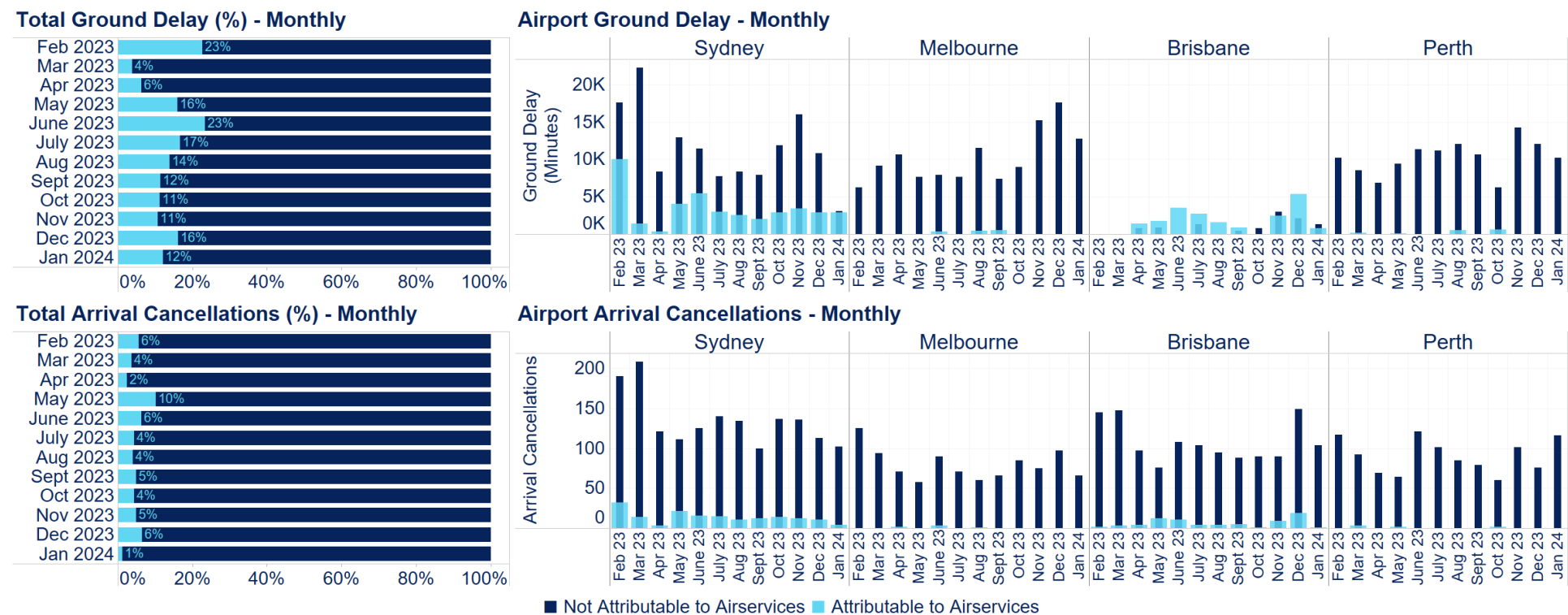


Source: Airservices ODAS (data for Perth in 2019 are not available, and Brisbane runway 01L/19R opened in 2020). Only taxiways with at least 1% usage are shown. For departures, the runway occupancy time is calculated from when an aircraft enters the runway area until it is airborne and has left the runway 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.

Air traffic management outcomes

In January 2024, air traffic management service outcomes returned to an improving trend for this financial year to date. For example, at Brisbane 38% of ground delays were attributed to Airservices which improved from the previous two months, while airport works and weather contributed to 36% and 26% of ground delays, respectively. At Sydney there was a significant improvement, with the lowest flight delays recorded over the past year. A third of these delays attributed to Airservices were due to the failure of Runway 16L Instrument Landing System Glide Path on 15 January. With thanks to the Department of Defence in facilitating the redeployment of a flight inspection aircraft from Perth to Sydney, the Glide Path returned to service on 18 January.

Figure 23. Air traffic management outcomes at major airports



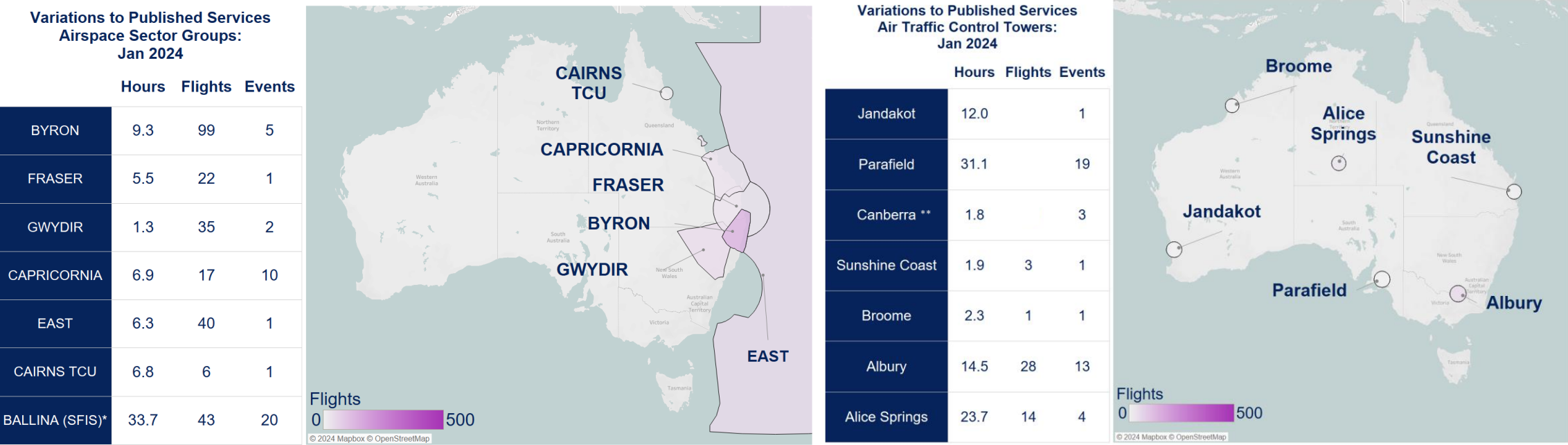
Source: Airservices ODAS

Airservices 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. Airservices 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 [Airservices website](#)), the delay attribution and analysis methods are being reviewed in consultation with industry.

Air traffic management service provision

The number of variations to our published services decreased this month, with concentrated efforts continue to bolster service resilience such as additional recruitment, resilience cross-training, staff engagement and improving our processes and systems.

Figure 24. Number of flights and hours during the periods when air traffic services delivered varied from published levels (January 2024)



Source: AircservicesODAS. Variations to published services comprises of Traffic Information Broadcast Areas / Temporary Restricted Areas and tower closure periods.

During the periods of variations to published services 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 variations to published services. General aviation, military and government flights are excluded.

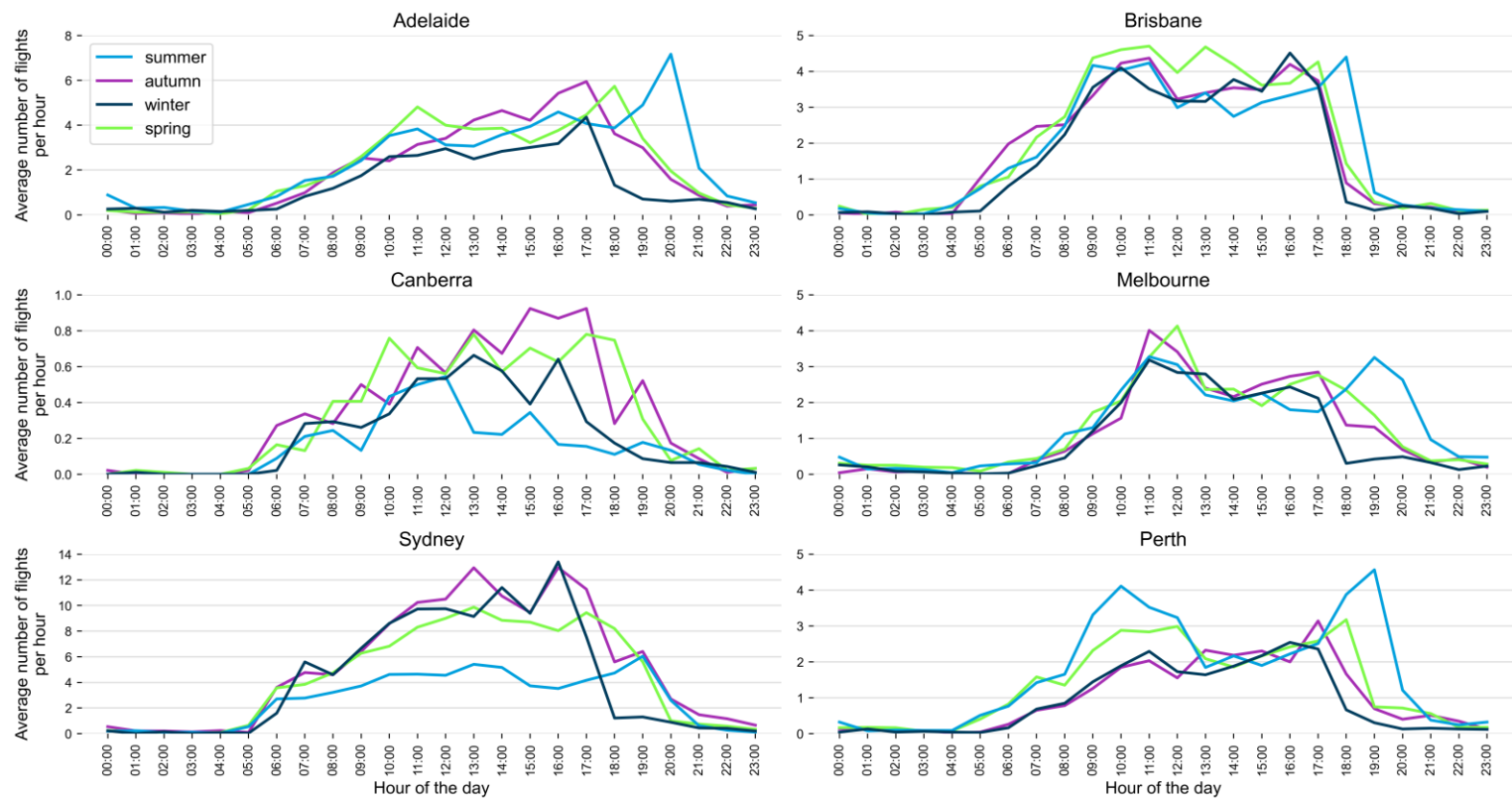
*At Ballina, Aircservices provides Surveillance Flight Information Service (SFIS) from Brisbane Air Traffic Services Centre while the airspace classification remains Class G (i.e. entry into the airspace does not require air traffic control clearance)

**At Canberra Tower during the periods of variations to our published services, the Canberra Approach service managed the airspace surrounding the airport to the ground. Instead of contacting the Tower, aircraft contacted Approach directly for instructions.

Drone activities

Weather has impacted drone activities on the East Coast in recent months. In locations without such disruptions, there remains higher level of drone activities during the holiday season. We continue to see drone pilots operating later in the day across the major capital cities taking advantage of daylight savings.

Figure 25. Average number of detected drone flights per hour within No-Fly Zones* at major capital-city airports (1 February 2023 to 31 January 2024)



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. A system outage in Sydney has limited available data.

Figure 26. Number of detected drone flights per month within No-Fly Zones* at controlled civil airports (1 February 2023 to 31 January 2024)

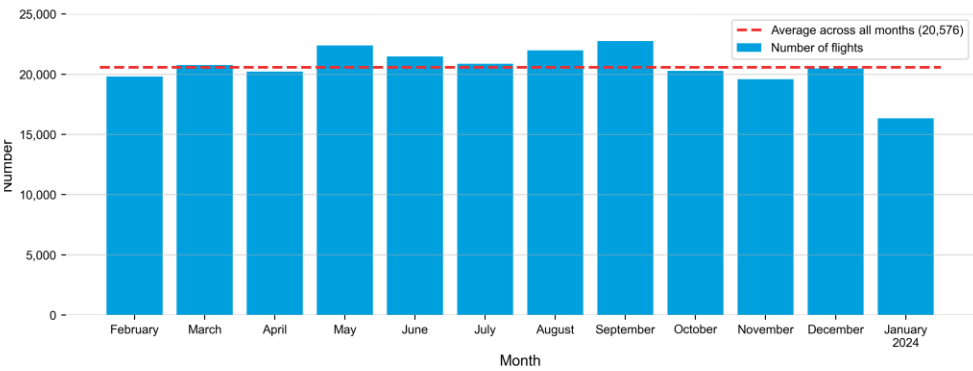
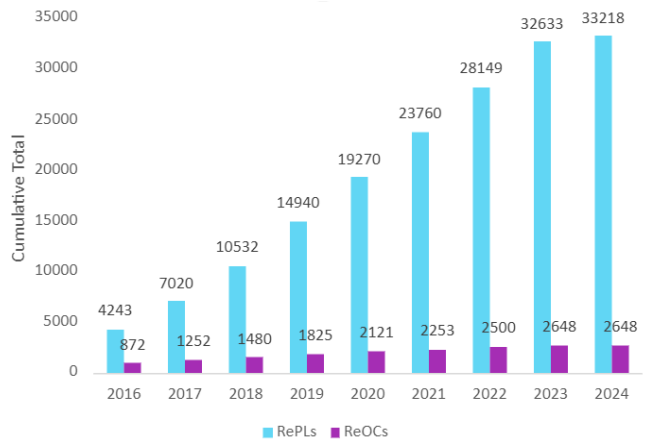


Figure 27. Cumulative totals of Remote Pilot Licences (RePLs) and Remotely Piloted Aircraft Operator's Certificates (ReOCs) (as of 5 Feb 2024)



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.



For more information
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