

Australian Aviation Network Overview

November 2023

Executive Summary

In November 2023, the overall number of flights across the Australian aviation network has reached 98% of pre-pandemic traffic levels.

We are seeing an acceleration in international traffic growth ahead of Airservices' forecast. This marks a shift from the early stages of recovery which was driven by a rebound in domestic air travel. This recent development reflects rapid traffic recovery from China and expansion of services from international airlines across the Asia Pacific region, the Middle East and United States. International capacity at Sydney and Melbourne Airports is close to pre-pandemic levels, and strong demand is expected to continue into the Christmas holiday period.

In contrast, the rate of domestic traffic growth is slowing, constrained by ongoing workforce and supply chain challenges and unpredictable demand outlook due to cost-of-living pressures.

While industry performance has stabilised over recent months, delays and cancellation rates are still notably higher than pre-pandemic levels. Continued cross-industry collaboration is needed in tackling the causal factors of delays, balancing demand/capacity within the constrained market conditions and building resilience to improve outcomes for the travelling public.



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.

Report content

1	
Economic and social trends	4-6
2	
Australian aviation and regional context	7-12
3	
Australian aviation network performance	13-20





Economic and social trends

Economic factors

While there are signs of stabilising inflation and jet fuel prices, the Australian aviation sector is still facing workforce availability and supply chain constraints in a volatile operating environment.





Figure 3. Monthly domestic airfares (best discount)



Source: Bloomberg

Figure 4. Job vacancies





Source: Westpac Market Outlook

Figure 5. Global Supply Chain Pressure Index (standard deviation from the index's historical average as an indicator of supply chain constraints)



Source: Federal Reserve Bank of New York (website)



Figure 6. Short-term visitor arrivals - top 10 source countries (based on month ending September 2023)



Australian Aviation Network Overview

Social factors

With the return of large international aircraft operations and overall industry growth, aircraft noise-affected communities are increasingly lodging multiple complaints about the same operations. All parts of the aviation sector have a role to play to meet our shared social responsibility and enhance community outcomes through better planning, investment in environmentally friendly aircraft and technology, and community-by-design procedures.



Source: Airservices Noise Complaints and Information Service (NCIS)



Australian aviation and regional context

State of Australian aviation growth

In November, the overall number of flights across the Australian aviation network has reached 98% of pre-pandemic levels. An acceleration in international traffic growth has been offset by a slowing rate of growth in domestic traffic. International demand has been bolstered by strong inbound travel for visiting family and relatives, and visa changes to boost tourism from markets such as India, China, Malaysia and Vietnam. In contrast, domestic demand has plateaued indicating the effects of cost-of-living pressures and rebalancing across industry segments.



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

Figure 10. Average daily flights by top operators

(November 2023)

Post-pandemic growth has been dominated by a small number of international carriers that service popular tourist destinations in neighbouring countries (e.g. Fiji, Singapore, Malaysia); or those that continue to provide long-haul capacity (e.g. United Airlines, Qatar Airways). Traffic from China is recovering at a sharp rate, further driving faster-than-expected international recovery.

Figure 11. Top operators' percentage change in average

daily flights (November 2023 vs November 2022)

Qantas Group (excl. Jetstar) Virgin Australia Jetstar Airways Regional Express Airlines Alliance Airlines 65 (2%) Air New Zealand 53 (2%) Singapore Airlines 39 (2%) National Jet Express 36 (2%) Sharp Aviation 30 (1%) Airnorth 26 (1%) Emirates Airlines 22 (1%) Bonza 18 (1%) Cathay Pacific 17 (1%) Malaysian Airlines 16 (1%) China Eastern Airlines 14 (1%) Fiji Airways 16 (1%) China Eastern Airlines 13 (1%) United Airlines 12 (1%) FijPelican 11 (0%) Malindo Airways 11 (0%) AirAsia X 19 (0%) Air Niugini 8 (0%) 8 009 (34% 440 (19%) 8 009 (34% 440 (19%) 9 (10%) Air (10%) Air Niugini 8 009 (34% 440 (19%) 9 (10%) Air (10%) Air Niugini 8 00% (10%) 4 000 (10%) Air Asia X 19 (0%) Air Niugini 8 00% (10%) 4 000 (10%) Air Niugini 8 00% (10%) 4 000 (10%) Air Asia X 19 (0%) Air Niugini 8 00% (10%) 4 000 (10%) Air Asia X 19 (0%) Air Niugini 8 000 (10%) Air Asia X 19 (0%) Air Asia X 10 (0	b) China Eastern Airlines AirAsia X Skytrans Airlines Cathay Pacific China Southern Airlines Emirates Airline Fiji Airways Malindo Airways United Airlines Airmorth Air New Zealand Air Niugini Singapore Airlines Qantas Group (excl. Jetstar) Jetstar Airways National Jet Express Qatar Airways Sharp Aviation Virgin Australia Alliance Airlines Malaysian Airlines Scoot Regional Express Airlines	200% 179% 143% 86% 57% 40% 38% 33% 24% 18% 14% 10% 10% 10% 10% 10% 2% 0% -9% -14%	367% Skytrans Airlines National Jet Express United Airlines Scoot Fiji Airways Qatar Airways Alliance Airlines Malindo Airways Qantas Group (excl. Jetstar) Jetstar Airways Malaysian Airlines China Eastern Airlines AirAsia X Air New Zealand Virgin Australia Sharp Aviation Regional Express Airlines Singapore Airlines Singapore Airlines Airnorth Emirates Airline Air Niugini Cathay Pacific China Southern Airlines FlyPelican	22 23 10' 8% 5% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	57% 50% 43% 40% 3% 3% %	290%
0 200 400 600 800 100	- 0	100 0 100 200 300	0 400	-100 0	100	200 300
Average Daily Flights		Change in Average Daily Flig	ahts (%)	Change in	Average D:	ailv Flights (%) =

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

Figure 12. Top operators' percentage change in average

daily flights (November 2023 vs November 2019)

Domestic network

There are now 189 city pairs connecting capital cities with regional airports and 79 regional city pairs, operating a minimum of two return flights daily. This represents an overall 5% increase in city pairs above 2019 levels. However the trend is not uniform. Growth has been driven by leisure travel and mining activities in Queensland and Western Australia; while reduced intensity is observed on some routes as domestic operators move to direct point-to-point services rather than traditional hub-and-spoke model. Notwithstanding growth aspirations, there has been a recent scale-back or deferral of services by regional airlines due to workforce and aircraft availability challenges.



Figure 13. Domestic capital-capital, capital-regional, and regional-regional route changes (October 2023 vs October 2019)

Increased Flights Decreased Flights No Change in Flights Added Route Removed Route

Source: Airservices ODAS (includes airline, cargo, general aviation flights but excludes military and medical / mercy flights) Only domestic city-pairs with more than 60 flights are shown.

Traffic flows from international markets

Figure 14. Percentage change in total flights by international

International recovery gathered pace in November, led by China, the United States and Other Asia markets which recorded 29%, 18% and 14% increase in flights respectively compared to the previous month. Sydney and Melbourne Airports are reaching pre-pandemic level of international activities. Strong international demand is expected to continue into the Christmas holiday period.

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.

Australian Aviation Network Overview 11

Change in active fleet as a capacity indicator

Figure 16. Active Airbus and Boeing fleet in Australia and by region

Aviation capacity, in terms of active fleet, in Australia and globally is still below pre-pandemic levels. The Australian airline fleet is in the early stage of transformation towards more efficient and environmentally friendly aircraft, following the start of Boeing 737 Max operations for Virgin Australia and Bonza this year and Qantas preparing to receive new Airbus models. The pace of fleet renewal, however, continues to be impacted by ongoing supply chain constraints among aircraft manufacturers.



Figure 17. Change in total active Australian fleet

Source: Centre for Aviation Fleet (CAPA)





Australian aviation network performance

On-Time Performance (OTP)

The overall network performance in terms of OTP and cancellation rate has stabilised but remains below long-term averages. Sydney-Armidale, Melbourne-Sydney, Canberra-Sydney recorded highest cancellation rates in October. As our industry reputation and trust is closely tied to these performance metrics, increased transparency and collaboration to better understand and address the causes of delays and cancellation is needed.



Figure 18. Total industry OTP and cancellations by month (data available up to 31 October 2023)

On Time Departures (%) On Time Arrivals (%) Cancellations (%)

Source: BITRE

Source: BITRE (website)

Industry reputation

Based on RepTrak research and surveys with the Australian general population with age 18+, Australian airlines' and airports' reputation has weakened in recent years, with positivity dropping significantly in July-September 2022 at the time when there was a sharp decline in the industry on-time performance. The airlines' reputation has remained at this lower level since. As for airports, the proportion of positive views and negative views are returning to pre-pandemic levels.



Mar-17 Oct-17 Mar-18 Jun-18 Sep-18 Nov-18 Mar-19 Jun-19 Sep-19 Nov-19 Mar-20 Q2'20 Q3'20 Q4'20 Q1'21 Q2'21 Q3'21 Q4'21 Q1'22 Q2'22 Q3'22 Q4'22 Q1'23 Q2'23 Q3'23

Airline Ground Delay Program (GDP) compliance

An ongoing challenge remains late GDP non-compliance for flights arriving at the commencement of a peak period. As a consequence, throughput is being reduced at the start of a peak period, with non-compliant flights needing to be accommodated later. This results in airborne delays for all flights, even those compliant with the GDP, and delays are cascaded over the entire peak period. Throughout November, this situation frequently affected operations at Perth and Sydney.



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 <u>GDP Fact Sheet</u>). 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

International operations generally have recorded higher runway occupancy time. Further analysis is underway to understand any potential correlation between go-around events, airport throughput and runway occupancy time. Engagement with international airlines and associations has progressed in efforts to jointly assess the drivers of runway occupancy time and improve predictability of airport capacity.



Figure 23. Aircraft runway occupancy time at major capital-city airports (November 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.

Aviation network performance

Overall air traffic capacity levels in terms of attribution to ground delay and arrival cancellations at Sydney and Brisbane Airport deteriorated in November, due to workforce availability challenges that have also been impacted by operational training activities.

Figure 24. Air traffic management outcomes at major airports (November 2023)



Airport Ground Delay - Monthly



Total Arrival Cancellations (%) - Monthly

Jan 2023	3%						
Feb 2023	6%						
Mar 2023	4%						
Apr 2023	2%						
May 2023	1	0%					1
June 2023	6%						1
July 2023	4%						
Aug 2023	4%						
Sept 2023	5%						
Oct 2023	4%						
Nov 2023	5%				1		
	0%	20%	40%	60%	80%	100%	

Airport Arrival Cancellations - Monthly



Not Attributable to Airservices Attributable to Airservices

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

Consistency of air traffic service levels in airspace volumes around Brisbane and a number of regional airports still needs to be improved. Airservices' Performance and Customer Experience (PACE) program remains the priority focus to improve workforce deployment, protect holiday peak demand periods, and minimise disruption to aircraft operations and the travelling public.



Figure 25. Number of flights and hours during the periods when air traffic services delivered varied from published levels (November 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)

**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.

Drone activities

There is continued growth in the drone market as reflected in a steady increase in remote pilot licences and increased drone detections at lower levels near capital-city airports where approvals are not required and impact on air transport operations is limited. Airservices has commissioned a study of the use of commercial drones in Australian skies over the next two decades which will be published to inform the development of services for this market and ensure their safe integration into the aviation network.



Figure 26. Cumulative totals of Remote Pilot Licences (RePLs) and

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.

Figure 27. Detected drone flights within No-Fly Zones (i.e. 5.5.km, inner and outer runway splays) at capital-city airports in November 2023 and percentage change vs November 2022



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. 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 no-fly zone). All drones are allowed to operate in the outer runway splays of a controlled airport up to a height of 90 metres.

For more information stakeholder@airservicesaustralia.com

airservices australia

www.airservicesaustralia.com