

# Australian Aviation Network Overview





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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#### Executive Summary

July 2024 was a really challenging month for the Australian aviation industry due largely to disruptions from adverse weather, CrowdStrike outage and Rex's suspension of Boeing 737 services.

Against this backdrop, the Australian aviation network still recorded 4% growth from the previous month in terms of daily average flights, driven by the school holiday period and Paris Olympic Games.

The recent improvement of industry on-time performance reversed in June 2024 mainly impacted by adverse weather. Coordinated cross-industry measures to better prepare and respond to these events are being progressed, including joint development of what-if scenarios and alternative demand/capacity balancing plans. These measures will strengthen network reliability and deliver a more consistent experience for the travelling public.

July 2024 recorded the lowest level of Airservices attributable ground delays since reporting on this metric commenced in January 2023. Notwithstanding our efforts to limit the impact of our capacity constraints, the consistency of our performance still needs to improve. Increasing operational resourcing and improving flexible workforce deployment remains our top priority to eliminate air traffic management (ATM) attribution to delay and improve the operations of the network as a whole.





# Economic and social trends

#### **Economic factors**

The start of FY2025 is marked by a number of positive economic developments, such as a surge in Australian tourism to Japan driven by a weak Yen, decreasing airfares and increasing business travel demand. However, jet fuel supply issues, cost-of-living pressures and global economic uncertainty continue to pose concerns for our industry growth.



Figure 4. Australian dollar exchange rate



Source: RBA (website) - data released 30/7/2024 up to June 2024



Source: ABS (website) - data released 31/7/2024 up to June 2024

Figure 5. Domestic air fares by fare class



Real Restricted Economy (13 Month Moving Average)
Real Best Discount (13 Month Moving Average)

Source: BITRE (website)





Source: ABS (website) - data released 12/7/2024 up to May 2024

Figure 6. Overnight trip expenditure on domestic air fares for Australians by reason



Source: TRA (website) - data released 30/7/2024 up to March 2024

#### Social factors

We have seen a slight reduction in aircraft noise complainants nationally, but an increase in complaints. The intensity of community concerns with aircraft noise remains a shared challenge for our sector. This will receive increasing prominence with the Senate Inquiry into the impact and mitigation of aircraft noise which commenced in February. Whole-of-industry alignment to mitigate aircraft noise around local residential areas is critical to our industry's social licence to operate and grow.

Figure 7. National trend in aircraft noise complaints and complainants



14

12

10

8

6

4

Ω

Aug-23

Figure 9. Monthly CO2 emissions savings from optimised User Preferred Routes (UPR) across oceanic and cross-continental airspace

#### CO2 savings from route optimisations



14

12

10

8

6

2

0

Aug-23 Sep-23

Oct-23 Nov-23 Dec-23 Jan-24 Feb-24 Mar-24 Apr-24

Figure 8. Monthly noise complaints per complainant for major airports (last 12 months)



#### Noise Complaints per Complainant



Source: Airservices Noise Complaints and Information Service (NCIS) and Airservices ODAS

May-24 Jun-24 Jul-24

6

Perth





# Australian aviation and regional context

#### State of Australian aviation growth

In July 2024, the Australian aviation network recorded 4% growth from the previous month in terms of daily average flights benefiting from the school holiday period and Paris Olympic Games.



Source: Airservices aeronautical charge database. Excludes some general aviation flights that are not subject to Airservices aeronautical charges. Airservices' forecast proposed as of July 2024 and is subject to review by ACCC.

Source: Airservices ODAS (excludes helicopters). 'General Aviation: Flight Training' is one month in arrears.

## Top aircraft operators

Most international and domestic airlines recorded solid growth in July 2024 compared to the previous year. While China Eastern has increased capacity well above pre-pandemic levels, other major carriers for the Chinese market such as Cathay Pacific and China Southern are still below historical capacity levels.



Figure 12. Average daily flights by top operators (July 2024) with % change from July 2023 and % change from July 2019

Source: Airservices ODAS (includes airline flights only).

#### Domestic network

The mining sector continues to drive strong growth in passenger flights at regional aerodromes in Western Australia and Queensland. This is putting pressure on the regional network, leading to congestion and delays especially during peak periods. At the end of July 2024, the suspension of Rex's Boeing 737 services impacted 10 routes which are serviced by alternative airlines.



Source: Airservices ODAS (includes airline movements only). International flights are included. Metropolitan Class D airports are in 'Other'.

\*Class C includes military airports (Darwin, Townsville, and Williamtown).

Source: Airservices ODAS (includes airline flights only).

#### Traffic flows from international markets

Figure 15. Percentage change in total flights by international

Europe, South East Asia, China, and New Zealand all recorded over 20% growth compared to the previous month. These markets reflect the popular tourist destinations for the July school holiday and the effects of the Paris Olympic Games, including introduction of a new direct route between Paris and Perth in July 2024.



Figure 16. Average daily flights per month by international markets

Source: Airservices ODAS (includes airline flights only). For multi-leg flights, legs that start and end outside Australian airspace are not included.

#### Australian fleet

Fleet renewal in Australia is progressing slowly, with one new Jetstar A320 entering service in July 2024. Regional airlines are facing challenges in maintaining operational reliability due to the ageing fleet.



Figure 17. Australia's fleet by aircraft status

(number of aircraft)

Figure 18. Aircraft on order and service status for Jetstar, Qantas Group, and Virgin Australia (as of July 2024 and change vs June 2024)

Operator Group	Aircraft Type	Status	Jul-24	Change
Virgin Australia	737 Max 8	On Order	7	0
		In Service	7	0
	737 Max 10	On Order	22	0
	A350-1000	On Order	24	0
Qantas Group (excl. Jetstar)	A321-200N	On Order	47	0
	A220-300	On Order	26	0
		In Service	1	0
	787-10	On Order	8	0
Jetstar	A321-200N A320-200N	On Order	23	-1
		In Service	14	+1
		On Order	45	0

Figure 19. Australia's active passenger fleet age (average in years)



Source: Centre for Aviation Fleet (CAPA) data, as of 29 July 2024.





# Australian aviation network performance

## On-Time Performance (OTP)

Based on the most recent data to the end of June 2024, the overall industry OTP in Australia declined largely due to weather disruptions. OTP in other markets, especially in Europe, has also decreased, affected by their summer weather challenges as well as industrial actions.



Figure 20. Total industry OTP and cancellations (data available up to 30 June 2024 based on latest BITRE data release)

Figure 21. Average arrival OTP by region, based on the top ten performing airlines (June 2024) for all regions except Australia (top eight), with change compared to previous month

Region	On Time Arrivals	Change from previous month
Global	83%	▼3%
Asia Pacific	80%	▼2%
Europe	76%	▼8%
Latin America	84%	▼3%
Middle East & Africa	86%	▼2%
North America	73%	▼1%
Australia	77%	▼2%

On Time Departures (%) On Time Arrivals (%) Departure Cancellations (%) Arrival Cancellations (%) All Cancellations (%)

#### Drivers of OTP: First Rotation Performance

Departure punctuality for first rotations out of Sydney, Melbourne, Brisbane and Perth is typically better than arrival punctuality for first rotations into these ports. First rotation arrival punctuality impacts international connections and day-trip business travel, particularly on the East Coast. Less than 10 per cent of first rotations at major East Coast airports are affected by a Ground Delay Program (GDP), suggesting that factors other than air traffic flow management (ATFM) capacity are dominant drivers for first rotation performance.

Figure 22. Domestic first rotation punctuality by departure airport (top) and arrival airport (bottom) per month (January 2023 to July 2024)



#### Departure Punctuality (First flight out)



Arrival Punctuality (First flight in)

Source: Airservices ODAS (includes airline flights only).

Estimated departure and arrival punctuality provide a proxy for OTP by assessing on-time take-off and landings based on information available to Airservices ahead of the official BITRE OTP data. Departure/arrival punctuality based on scheduled and actual take-off/landing times with a 15min allowance. It is an estimate based on domestic flight data available to Airservices for Qantas Group (incl. Jetstar), Virgin Australia and REX. Airservices is working with airlines and stakeholders to refine the estimation method and identify complementary data to better understand causal factors.

#### Drivers of OTP: Delay components

Delays at the turnaround process remain the largest component of overall delays, followed by reactionary delays from earlier rotations and in-flight delays. In-flight delays follow a seasonal pattern specifically at Perth because of strong winds which reduce the buffer in block-times. The increasing trend in in-flight delays at Perth also reflects the ongoing challenge of demand in excess of capacity during peak morning and afternoon periods.



Figure 23. Total contribution of delay components to OTP (January 2023 to July 2024) and average flight values per month by airport

Source: Airservices ODAS (includes airline flights only).

The delay presented is an estimate based on domestic flight data available to Airservices. Airservices is working with airlines and stakeholders to refine the estimation method and identify complementary data to better understand causal factors.

\*The ATFM system allows airlines to change GDP slots to respond to reactionary delays, which may allow a GDP slot to be obtained closer to the updated departure time. Therefore, the additional ground delay as result of a GDP can appear low but should be considered in conjunction with reactionary delay.

## Ground Delay Program (GDP) application

The network was severely constrained in July 2024. This was largely attributed to single runway operations at Sydney due to strong crosswinds, including the day after the CrowdStrike outage limiting recovery capability, and low visibility operations at Melbourne (four occurrences) and Brisbane (one occurrence requiring ad-hoc GDP). Consequently, July saw the highest application of simultaneous GDPs on the East Coast for 2024 to date and a 33% increase in ground delay across the network. GDP compliance dropped below 80% for the first time in four months. Runway works at Brisbane did not require the application of a GDP but contributed to increased airborne delays.



**GDP** Compliance



Multiple GDP Application (East Coast)



Ad-hoc GDPs









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 (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.

## Air traffic management outcomes

July 2024 recorded the lowest level of Airservices attributable ground delays since the reporting on this metric commenced in January 2023. Notwithstanding our efforts to limit the impact of our capacity constraints, the consistency of our performance at Brisbane and Sydney still needs to improve. Increasing operational resourcing and improving flexible workforce deployment remains our top priority to eliminate ATM attribution to delay and improve the operations of the network as a whole.



#### Source: Airservices ODAS.

Flights impacted are estimated as scheduled to arrive at the four major airports during a period with slot reduction attributable to Airservices. ATFM delay (GDP) and flight cancellations attributable to Airservices 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 <u>Airservices website</u>), the delay attribution and analysis methods are being reviewed in consultation with industry.

## Air traffic service provision

The number of variations to published airspace services and industry impact continued to trend downwards. However, service levels at a number of regional towers have declined. Concentrated efforts to increase in-flow of additional air traffic controllers are underway to return to published hours of service in these locations.



Figure 29. Number of flights and hours during the periods when air traffic services delivered varied from published levels (July 2024)

#### ♦ No change ▲ Increase ▼ Decrease Change is based on comparison to the previous 12-month average.

#### Source: Airservices ODAS.

Variations to published services comprise of 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 approximations by historic airline, charter, cargo and medical flights that typically operate during the periods of variations to published services, noting the exact reasons for flight impacts cannot be directly inferred from information on flight times or tracks. General aviation, military and government flights are excluded. Airservices is working with airlines to refine the estimation method to better understand the impact of variations to published services. Service variations are with respect to published services as per ERSA including any approvals by CASA for temporary amendments.

\*When there is a variation to published Surveillance Flight Information Service (SFIS) at Ballina, standard Class G services as regulated by the Civil Aviation Safety Authority (CASA) are still provided by Brisbane Air Traffic Services Centre.

## Runway Occupancy Time (ROT)

Optimising use of runway procedures and available infrastructure, such as rapid exit taxiways, is key to airport efficiency during peak periods. Periodic collaborative review with airlines, airports and air traffic services is in place to build a shared understanding of factors that contribute to ROT such as standing take-offs, exit speeds and preferred taxiways.

Figure 30. Medium and heavy jet runway occupancy times (5<sup>th</sup> to 75<sup>th</sup> percentile) during peak periods by runway, taxiway, and aircraft type at major capital-city airports (July 2024). <u>Only rapid/oblique exits are shown for arrivals</u>. Departure runway occupancy times are higher during crossing/intersection modes at Melbourne and Perth due to operational requirements.

Figure 31. Example of B789 touchdown and exit speeds at Sydney 16R A4 (rapid exit taxiway) for the same operator during peak periods (July 2024), and the impact on runway occupancy time



Source: Airservices ODAS (Brisbane runway 01L/19R opened in 2020). Only groups with at least 1% of flights 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.

#### Drone activities

The number of drone flights has increased significantly in multiple locations across Queensland. This coincides with school holidays associated with increased tourists visiting warmer destinations, as well as local sporting events such as mountain biking, marathons and fun runs, and music and food festivals.



Figure 33. Number of drone flights within No Fly Zones of northern civil controlled airports July 2024 (compared with daily average for 1 July 2023 to 30 June 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 (<250 g) 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 splays). All drones are allowed to operate in the outer runway splays of a controlled airport up to a height of 90 metres.

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