airservices australia

## Australian Aviation Network Overview September 2023

#### **Executive Summary**

The Australian aviation network recorded 13% growth over the last 12 months to September 2023.

Traffic patterns and rate of recovery vary across the network. There is diversification in route connectivity along the East Coast benefitting from the expansion of regional services and stimulating travel demand. Flights across all key international markets continue to increase but at a stabilising rate in September 2023, indicating that economic factors may be starting to impact demand.

The overall network performance improved in September in terms of on-time performance and consistency of published air traffic service levels with concentrated efforts and focus on the spring school holiday period.

Strengthening consistency and resilience as well as increased cross-industry collaboration continues to be a key focus to meet and exceed long-term performance expectations.



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 and social factors

The Australian aviation sector continues to face volatile economic conditions, while balancing increasing expectations around decarbonisation and management of aircraft noise impacts to secure aviation's social licence for growth.



Source: IATA fuel price monitor (website)

Figure 3. Unemployment rate (seasonally adjusted)







Figure 2. Consumer Price Index (CPI)



Figure 4. Monthly Aircraft noise complainants and CO2 emissions (tons) per 1000 flights

Source: Airservices Noise Complaints and Information Service (NCIS) and Airservices ODAS (flight data include all flights in the Australian Flight Information Region with flight plans)

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#### Domestic passenger demand

Available seat capacity is being matched to passenger demand, as the load factor (currently around 80%) approaches pre-pandemic levels. Rebuilding consumer trust remains a key challenge for our industry.

Figure 5. Monthly domestic Revenue Passenger Kilometers (RPKs) and load factor





Source: BITRE (Link)

Figure 6. Monthly domestic discount air fares



# Australian aviation and regional context

## Overall traffic compared to Airservices forecast

Domestic traffic was broadly in line with Airservices forecast. International traffic is recovering strongly above forecast in September 2023.



Figure 7a. Domestic daily average flights compared to Airservices forecast

Figure 7b. International daily average flights compared to Airservices forecast

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)

#### State of Australian aviation growth

The Australian aviation network recorded its busiest day since the pandemic on 28 September 2023, closely approaching the busiest pre-pandemic day of 26 September 2019. We are seeing a rebalancing across industry segments, with growth in international and domestic airline operations offset by general aviation and cargo flights returning to long-term norms.





Figure 9. Average daily number of flights per month by industry segment

Average Daily Flights by Month

Source: Airservices ODAS (full data for the General Aviation category are not available for September 2023)

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

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#### Top aircraft operators

74% of flights across the Australian network in September 2023 were operated by Qantas Group, Virgin Australian and Rex Airlines. Access to direct point-to-point services in the domestic regional markets is increasing. The growth trajectory of some regional airlines is facing labour and supply chain challenges. The international airlines that recorded strongest growth in September reflect key areas of overseas travel demand between Australia and South East Asia, the United States, China, the Middle East and the Pacific.



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

#### Domestic connectivity from Australian airports

The entrance of Bonza as well as ongoing mining operations served by regional airlines and charter operators are stimulating diversification of routes along the East Coast.



Figure 12. Unique city-pair routes from Australian airports domestically (September 2023 and percentage change vs September 2022)

◆ : No change, ▲ : Increase, ▼ : Decrease

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

Connectivity is a measure of unique city-pair routes. Only airports with at least 5 unique connections/routes are shown, and only connections with at least 2 movements per airline a week are included in the connectivity measure.

## Traffic flows from international markets

Figure 13. Percentage change in total flights by international

Notwithstanding the spring school holiday demand, flights across international markets stabilised in September 2023 compared to recent rapid rate of growth. This may suggest post-pandemic demand is being impacted by economic factors.



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.

## Change in active fleet as a capacity indicator

While major Australian airlines are progressing their aircraft renewal programs, labour and supply chain challenges experienced by aircraft manufacturing and repair organisations remain a key constraint in providing needed capacity to meet demand in the short term.

Figure 15. Airbus and Boeing annual aircraft deliveries to the end of September in the last three years			Figure 16. Active Airbus and Boeing Fleet by region (percentage change as of 30 September 2023 vs 30 September 2022)					Figure 17. Active aircraft fleet in Australia as of 30 September 2022 and 30 September 2023				Figure 18. Change in active Australian regional fleet as of 30 September 2023 vs 30 September 2022				
	Oct 2018/	Oct 2021/	Oct 2022/	Oct 2022/		Sept	Sept	Sept				Sept 2022 Se	pt 2023			
	Sep 2019	Sep 2022	Sep 2023		2019	2022	2023	% Change		717	20	12	Airbus	3		
Australia	5					361	362	▲0.3%	dy Jet	727			Boeing	-2		
		3	15	5 <sub>Australia</sub>	alia 379					737	190	193				
									vbc	A32N	1	9	Bombardier	-2		
									rov	A32X	83	79				
Asia		341	341 405			8,400	8,519	▲1.4%	Nar	A220			British Aerospace	-7		
	695			Asia	8,874				_	Other	3	1	do Hovilland	Q		
										747				-0		
										767	3	3	Embraer	0		
Europe	330	316	16 340		5,828	5,608	5,582	▼-0.5%	et	777						
				40 Europe					ل بر	787	22	25	Fairchild	-8		
										poc	A300			Fokkor	0	
North America		7 297	97 473	473 North America	5,669	6,193	6,176	▼-0.3%	dek	A330	32	32	FORKEI	-9		
									Ni	A350			SAAB	-17		
	347									A380	7	8				
														Other		

Source: CAPA Fleet Data





# Australian aviation network performance

## On-Time Performance (OTP)

The overall network performance in August 2023 improved in terms of OTP. However further efforts are required to meet or exceed long-term performance expectations.



Figure 19. Total industry OTP and cancellations by month (data available up to 31 August 2023)

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

Source: BITRE (website)

## Airline Ground Delay Program (GDP) compliance

Overall industry GDP compliance is around 80%, but on a downward trend. GDP non-compliance particularly at the commencement of the GDP period with busy traffic can lead to increased airborne delay, as seen at Perth during peak morning and afternoon periods. At Brisbane, two of the three GDP implementation in September and relatively lower GDP compliance indicate the challenges in responding to short-notice capacity constraints resulting from air traffic staffing issues. There is increased industry collaboration to seek improved planning and preparation for high-demand or capacity-constrained periods to drive GDP compliance and minimise delay impact.



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 a critical factor of airport capacity. Cross-industry collaboration and information sharing is underway to further understand the impact of runway management, aircraft size/types, traffic mix and airlines' operating procedures on runway occupancy time.



Figure 22. Aircraft runway occupancy time at major capital-city airports (September 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

Air traffic management service outcomes improved in September 2023, following concentrated efforts and focus on the spring holiday period.



#### Airport Ground Delay - Monthly





1 0000	0.01						
Jan 2023	3%						
Feb 2023	6%						
Mar 2023	4%						
Apr 2023	2%						6
May 2023	1	0%					
June 2023	6%	)					<
July 2023	4%						
Aug 2023	4%						
Sept 2023	5%						
	0%	20%	40%	60%	80%	100%	

#### **Airport Arrival Cancellations - Monthly**



#### Not Attributable to Airservices Attributable to Airservices

Figure 23. Air traffic management service outcomes at major airports (September 2023)

#### 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.

## Air traffic management service provision

Consistency of published air traffic service levels improved in September 2023. Airservices Performance and Customer Experience (PACE) program remains the priority focus to strengthen the consistency of air traffic service levels that influence the national network.



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

Source: Airservices ODAS (flights are estimated by airline, charter, cargo and medical flights, but excludes general aviation, military and government flights)

\*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)

#### Drone activities

There has been a net increase in detected drones within the No-Fly Zones of major airports and steady growth in individual remote pilot licences. Along with training, education and engagement with stakeholders in the uncrewed market, both civil and military sectors are actively investing in enhancing capabilities for detection and management of drone activities.

Figure 25. Breakdown of drones detected within No-Fly Zones at major Australian airports by take-off weight (September 2023)

1.3% 个

58 increase in micro

the same period last

27.4% 🗸

449 decrease in very

small (between 250g

the same period last

detections compared to

and 2kg) drone

year (2022)

year (2022)

(under 250g) drone detections compared to



Source: Drone detection equipment

No-Fly Zones refer to the 5.5 km boundary, and inner and outer runway splays. Percentages shown are across all detected drone flights.

Drone detection reports do not distinguish between authorised and noncompliant operations:

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 up to a height of 45 metres 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.

Figure 26. Drones within No-Fly Zones detected at major Australian airports (September 2023) and percentage change vs September 2022



#### Source: Drone detection equipment

The area of each circle is proportional to the count.

Data is limited to drone activity detected by drone surveillance equipment installed at 29 controlled civil aerodromes; and does not distinguish approved or allowed operations.

Percentage changes are calculated relative to September 2022.

#### Figure 27. Cumulative totals of Remote Pilot Licences (RePLs) and Remotely Piloted Aircraft Operator's Certificates (ReOCs) (as of 3 October 2023)



#### Source: CASA

Remotely piloted aircraft operator's certificates (ReOC) 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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