

# Noise Action Plan for Brisbane

Brisbane Airport Community  
Airspace Advisory Board  
Presentation

## Meeting 3

22 November 2023

# Content

1. Status update
2. Actions from previous meetings
3. Climb profile/height requirement investigation
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5. Remaining 2023 activity
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# Noise Action Plan for Brisbane

## Package One – Strong, transparent and representative governance (Development and implementation Q1/2 2023)

**Recommendation 1.1** – Oversight, management and assurance program: Airservices will support government and other stakeholders in the establishment of oversight, management and coordination functions to support flight path change delivery, as well as development of assessment frameworks and independent assurance mechanisms.

**Recommendation 1.2** – Industry-wide communications planning: Airservices will work with industry stakeholders, government and community to develop effective communications plans supported by all relevant organisations and agencies, to ensure that information provided is consistent, clear and transparent.

**Recommendation 1.3** – Meaningful engagement process: Airservices will work with government, community and industry stakeholders to develop effective community engagement plans and tools, to ensure communities are adequately engaged, have the opportunity to input to decision-making and that the metrics used to make decisions are understood and transparently reported against.

**Recommendation 1.4** – Long-term Noise Action Plan: Airservices proposes the recommendations in this report form the initial version of the Noise Action Plan. This plan will implement noise mitigation measures which are well-planned, tracked, reported against, and supported by community and industry stakeholder involvement.

## Package Two – Maximise flights over the water (Development and implementation in 2023)

**Recommendation 2.1** - ATC Operating Plan to extend the use of SODPROPS: Airservices will develop an ATC Operating Plan, examine options to extend the use of SODPROPS and implement associated design enhancements.

**Recommendation 2.2** - Reduce ATC workload and complexity associated with SODPROPS: Airservices will engage with Defence in relation to Amberley airspace, ATC procedures and specific flight paths that constrain SODPROPS operations.

**Recommendation 2.3** - Modify specific SODPROPS flight paths and ATC procedures: Airservices will review options to reduce track miles and emissions associated with SODPROPS operations, update ATC procedures to optimise final approach efficiency and review options to reduce the impact of over water operations on affected communities.

**Recommendation 2.4** – Reduce the impact of overnight operations on communities.

## Package Three – Reduce the frequency and concentration of flights over communities (Development during 2023 and implementation in 2024)

**Recommendation 3.1** – Reduce the frequency and concentration of flights over communities: Airservices will develop options for departure and arrival paths over the city to allow for noise-sharing and to reduce the occurrence of communities being subject to both arrival and departure operations. Airservices will also develop options to reduce the impact on communities of non-jet tactical operations, flight paths further from the airport, merge points and hold downs. In addition, Airservices will introduce opportunities for greater use of advanced navigation technology where this improves community noise outcomes.

## Package Four – Optimise the performance of the wider Brisbane airspace system (Development in 2023 and 2024, implementation from 2025)

**Recommendation 4.1** – Introduce noise sharing through new operating modes: Airservices will develop options to connect flight paths to all runway ends to provide greater flexibility for noise sharing, and investigate a range of modes, including segregated and semi-mixed modes, to provide periods of respite for communities.

**Recommendation 4.2** - Introduce multiple arrival routes over the city: Airservices will develop options for multiple arrival routes which can be alternated on a planned schedule to provide respite to communities. This will be completed in parallel with an already planned IT system upgrade.

## Acronyms list

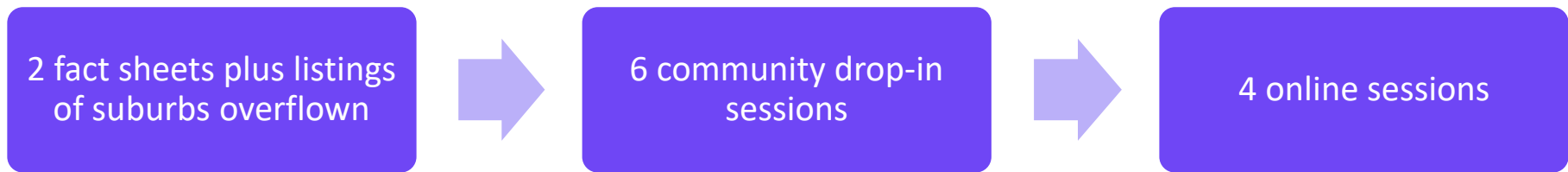
Term	Definition
AEDT	Aviation Environmental Design Tool
ANEF	Australian Noise Exposure Forecast
ANO	Aircraft Noise Ombudsman
ANOMS	Aircraft Noise Monitoring and Management System
ATC	Air traffic control
CAF	Community Aviation Forum
CASA	Civil Aviation Safety Authority
CEF	Community Engagement Framework
DER	Departure End of Runway
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EPBC Act 1999	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
ERSA	En Route Supplement Australia
FPDP	Flight Path Design Principles
GA	General Aviation
H24	24 hour operations
IAP2	International Association of Public Participation
IFR	Instrument Flight Rules
INM	Integrated Noise Model
NADP	Noise Abatement Departure Procedure
NAP	Noise Abatement Procedure

Term	Definition
NCIS	Noise Complaints and Information Service
NFPMS	Noise and Flight Path Monitoring System
NOS	National Operating Standard
ODAS	Operational Data Analysis Suite
PIR	Post Implementation Review
RNAV	Area navigation approach
RNP-AR	Required Navigation Performance – Authorisation Required (‘Smart Tracking’)
RWY	Runway
TEIA	Targeted Environmental Impact Assessment
SID	Standard Instrument Departure
SODPROPS	Simultaneous Opposite Direction Parallel Runway Operations
STAR	Standard Instrument Arrival
ToR	Terms of Reference
TWY	Taxiway
VFR	Visual Flight Rules

# 1. Status update

## Phase 3

Engagement: 1 November – 10 December 2023



## Topics

- Reduced concentration of daytime flight paths west of the airport
- Night-time arrivals (all locations).

Also shared:

- Final *Communications Approach* (updated with community feedback)
- *Noise Improvement Trials Assessment Report*
- Phase 1 Options Assessment Report – 4 week feedback period
- Baseline model – open to feedback.

# 1. Status update

## Package 1 commitments for 2023

Recommendation	Description	Status
1.1	Commence consulting with the Government-appointed independent airport community forum	<b>Complete</b>
1.1	Establish governance mechanisms including an assurance check by the Department	<b>Complete</b>
1.2	Community engagement on proposed communication approach for delivery of changes in response to the PIR, including confirming operating principles	<b>Complete</b>
1.4	Increase public reporting and transparency of operations, including SODPROPS use, NAPs application, aircraft tracking and altitude, noise information and complaints	<b>In progress</b> Phase 2 feedback from community on draft reporting structure and content under review

## Package 2 commitments for 2023

Recommendation	Description	Status
2.1	Developing options to increase use of over water departures during the day	<b>In progress</b> Phase 2 feedback from community on options to enable use of SODPROPS during daytime hours under review
2.2	Expand the use of SODPROPS mode by increasing capacity, enhancing decision-making criteria, and developing flight path changes for daytime operations	<b>In progress</b> Phase 2 feedback from community on initial enhancement options under review Work on further enhancements being progressed – update to be provided before the end of 2023
2.3	Develop proposals to increase height and over water operations for SODPROPS to reduce the impact on bayside communities	<b>Complete Phase 1</b>
2.4	Develop proposals to reduce the impact of overnight operations	<b>Complete Phase 1 and 2</b>

## Package 3 commitments for 2023

Recommendation	Description	Status
3.1	Development of baseline model for pre-NPR and current NPR operations	<b>Complete</b> Static model in use as part of options engagement Interactive online model has been released to support Phase 3 engagement and for feedback
3.1	Develop proposals to reduce the impact of concentrated flight paths to the west of the airport	<b>In progress</b> Phase 2 feedback from community on initial noise sharing proposals under review Phase 3 options to reduce overlap of arrival and departure paths subject to engagement



## 2. Actions from previous meetings

No.	Action	Response
1.11	Information and data on expected aircraft movements and previous and proposed impacts	Baseline model provides previous and proposed impacts. Expected aircraft movements to be added to baseline model – BAC to provide
2.6	ATC meeting with AAB members	Date and time options provided to Secretariat to share with members - Wednesday, 29 November - Tuesday, 12 December - Wednesday, 13 December 9am-11am or 1pm-3pm
2.7	Intersection departure trial	<i>Update to be provided today</i>
2.13	Envirosuite to provide a paper that explains the different noise measurements and their purposes	Circulated out of session
2.14	Secretariat to organise an out of session meeting between the Chair and Airservices to discuss the NCIS complaints reporting.	Discussions between Chair and Airservices ongoing. Discussions also with current ANO.
2B.4	Airservices to provide Phase 1 outcome slides to members for review.	Complete
2B.7	Airservices to investigate and provide an answer on why a particular day measured in the 2018 EA report for Brookfield/Samford Valley was chosen.	<i>Response to be provided today</i>

## 2B.7 Action regarding 2018 Environmental Impact Assessment

- Airservices Australia reviewed the design and data against the criteria in our National Operating Standard which sets the standard for our assessments.
- Assessment was based on a representative 'busy day' schedule that was developed using operational forecasts. This representative day (not a specific day) was assessed over three time periods: day, evening, and night.
- The representative day included all operational modes; that is, it did not focus on any particular wind direction.
- The summer weekday operational forecast was used as a worst case, as historical data shows this to be the busiest operational period at Brisbane Airport.



### 3. Climb profile/height requirement investigation update

#### Review of options to trial a minimum climb profile or height requirement

To achieve a noticeable noise improvement (greater than 3 decibels) aircraft need to be 50% higher at the point they cross the first community.

Current altitude at closest community (Ascot ~6km from airport) = ~3300ft  
(average based on a 737-800)

Height requirement to achieve noticeable noise difference = ~5000ft

To achieve this altitude aircraft would need to climb at a gradient of 24% from take-off, measured from the departure end of the runway.

The current climb gradient is approximately 16% on average, measured from the departure end of the runway.

Any stipulated climb gradient needs to consider all aircraft types and performance factors – short haul (lighter) vs long haul (heavier) flights.

Aircraft that cannot meet a stipulated climb gradient would have that departure route cancelled and would be tactically directed, changing where they would fly.

Airlines are being engaged to determine the climb gradient their fleet are able to achieve. Early responses indicate 20+% is not achievable.

Final outcome to be provided next meeting.



## 4. Issues register

	Issue	Response
9	Airservices to report to AAB meetings on the amount of go arounds, near misses, fuel/other dumping by aircraft, and emergencies reported	Further clarification required
10	Independent Technical Panel of Experts for Community Representatives	<i>For discussion at this meeting</i>
12	Concerns raised on the lack of public availability of Airservices' environmental assessments	Airservices undertaking internal review



## 4. Independent Technical Expert

- **Think Research (UK)** have been appointed to provide the Independent Review Assurance Services for the Noise Action Plan for Brisbane.
- The independence of this role is key to ensuring the flight path designs are challenged appropriately to establish transparency and build trust with both the community and industry stakeholders.
- Think Research have an extensive international experience in conducting airspace reviews and providing technical assurance support across the UK, Europe and Canada.



## 5. Remaining 2023 activity

Current Phase 3 engagement – online and drop-in

- Tips for using baseline mode to be posted in response to questions received

Implementation of:

- Permanent extension of SODPROPS
  - to 8am on Saturday and Sunday
  - from 8pm on Saturday evening
- Turboprop early turn prior to 6am
- Turboprop departures from new runway between 5am and 6am removed
- Safety change to WACKO SID from the new runway replaced with SID from the legacy runway

Phase 2 options assessment

End of 2023 summary on Engage Airservices:

- What we have delivered
- What is coming in 2024
- Outcome of review of remaining Package 2 items:
  - SODPROPS operating plan
  - Tactical over water operations

Community survey



# Questions?