

# GOLD COAST RUNWAY 14 SOUTHERN DEPARTURES TRIAL (BANORA POINT GOLF COURSE)

Airservices proactively works with Gold Coast Airport and the community to minimise noise impacts where possible. At the request of the community, Airservices commenced a trial flight path change on 8 January 2015 for southern departures on Runway 14 from Gold Coast Airport with the aim of reducing the impact of aircraft noise on residents.

The trial was undertaken for 12 months, to cover normal seasonal patterns of runway use and allow the community the opportunity to provide feedback.

## WHAT WERE THE INTENDED OUTCOMES OF THE TRIAL?

Most of the aircraft departing from Runway 14 (to the south) fly over residential areas near the airport, including Banora Point and Chinderah. The 12-month trial involved implementing a new flight path that directed these jet departures from Runway 14 further to the south-west. This intent was to maximise tracking over the Banora Point Golf Course with the aim of reducing noise impacts for residents to the south of Gold Coast Airport. The pre-trial and trial flight paths are shown in Figure 1. The procedure was designed to ensure aircraft flew as close as operationally practicable to the middle of the golf course.

## WHAT WAS THE OUTCOME OF THE TRIAL?

Airservices considers the trial did not achieve the intended noise reductions. The trial also unintentionally concentrated flights over Farrants Hill. Due to this, and in consideration of community feedback, Airservices has decided not to implement the trial flight path permanently.

A review of the trial was undertaken and is available at [www.airservicesaustralia.com/projects/flight-path-changes/gold-coast](http://www.airservicesaustralia.com/projects/flight-path-changes/gold-coast). The review included

consideration of community feedback received and data from noise monitoring undertaken to determine whether there was any increase or reduction of noise experienced by local residents. The noise monitoring reports are available at [www.airservicesaustralia.com/publications/noise-reports/short-term-monitoring](http://www.airservicesaustralia.com/publications/noise-reports/short-term-monitoring)

Noise monitoring was conducted in March—June 2015 at Banora Point, Oxley Cove and Chinderah. Additional handheld noise monitoring was conducted in Farrants Hill and Banora Point. The results demonstrate the intended noise improvement was not achieved.

Modelling conducted in the trial's environmental assessment anticipated that Chinderah would receive a noise reduction of five decibels, a level considered likely to be noticeable and valued by the community. However, noise monitoring conducted during the trial found the actual noise reduction had only a 1.8 decibel difference\*, a level considered not able to be noticed. It is accepted that a change of at least three decibels is required for a change to be discernible to the human ear.

In Oxley Cove, noise monitoring found there had been a reduction of one decibel when compared to data collected in early 2014, also a level considered not able to be noticed. Noise monitoring conducted in other parts of Banora Point found there was a slight increase in noise levels when compared to 2014 levels; this is consistent with modelling conducted as part of the environmental assessment and was at levels not likely to be considered noticeable.

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\*All decibel differences referred to are based on a comparison of the results in the 2014 and 2015 noise monitoring reports (available online). In these reports, the decibel averages for an A320 aircraft were compared. The figures noted in this document are the actual difference in decibels as monitored (not an average difference).

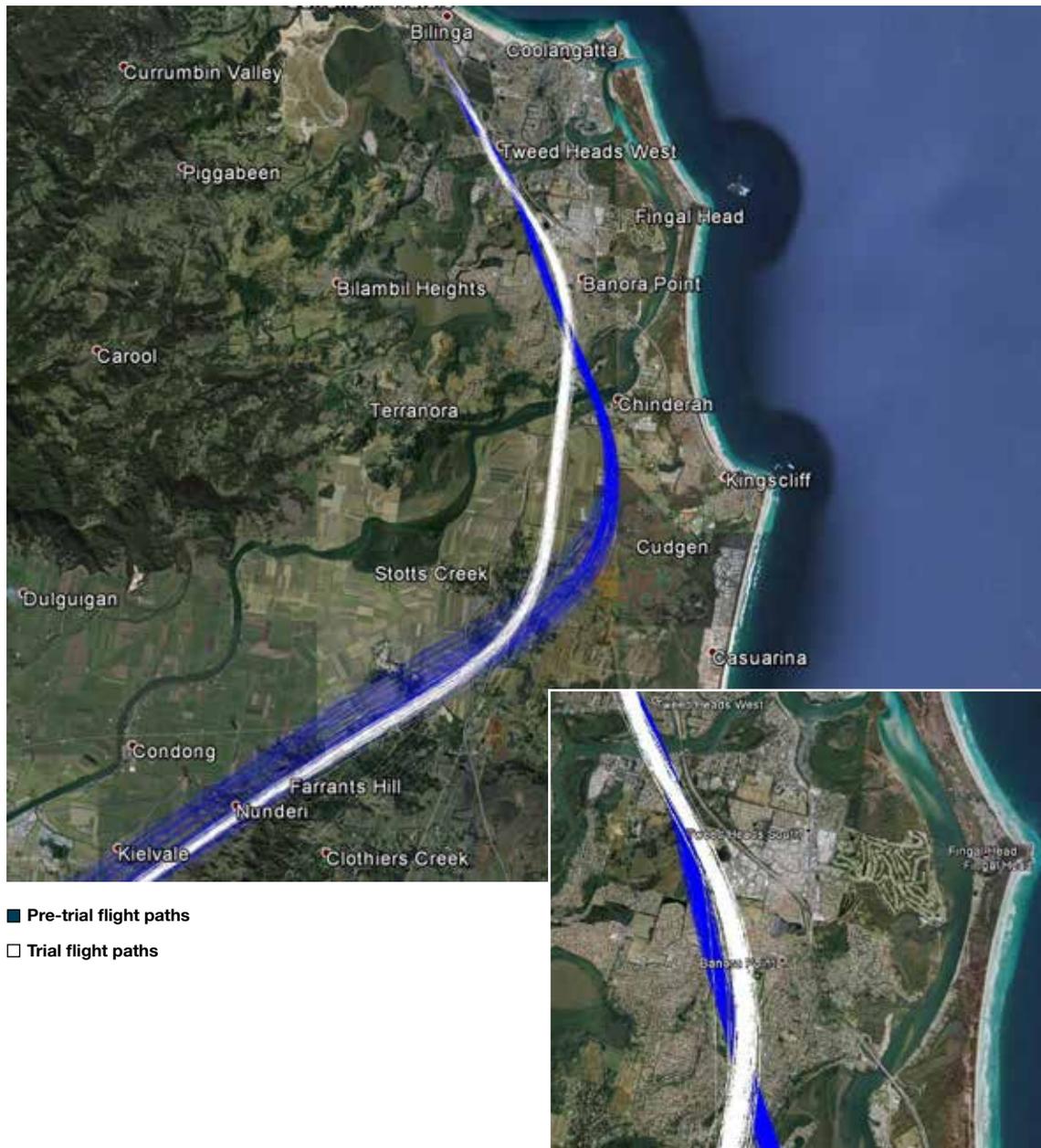
Further to this, there has been an unintended noise consequence of the trial for residents of Farrants Hill, a small, rural area 18 kilometres south of Gold Coast Airport. While Farrants Hill was previously overflowed by aircraft using the pre-trial flight path, design of the trial departure procedure has inadvertently concentrated flights over the area.

### WHAT HAPPENS NEXT?

The original flight path will be reinstated following procedure design work and once regulatory approvals are obtained. This work is expected to be completed by June 2016. In the meantime, the trial flight path will remain in place.

Airservices will continue to inform residents on any updates as they become available and will continue to work with Gold Coast Airport and the community to identify future noise improvement opportunities.

FIGURE 1: Pre-trial and trial flight paths



## QUESTIONS AND ANSWERS

### **What were the intended outcomes of the trial and what decision has been made?**

The 12-month trial involved implementing a new flight path that directed jet departures from Runway 14 further to the south-west to maximise tracking over the Banora Point Golf Course with the aim of reducing noise impacts for residents to the south of Gold Coast Airport.

Airservices considers the trial did not achieve the intended noise reductions and has decided not to implement the trial flight path permanently. Work to revert to the pre-trial departure procedure is now underway and will be completed as quickly as possible.

### **Why has Airservices decided not to permanently implement the trial flight path?**

Airservices has decided not to permanently implement the trial flight path, as it did not achieve its intended outcomes.

The five-decibel noise reduction modelled for flights over Chinderah was not achieved, the majority of feedback received was that the change was not valued by the community and there was an unintentional concentration of flights over Farrants Hill.

### **What did the noise monitoring show and did any areas receive noise improvements?**

Short-term noise monitors were placed in four locations between March and June 2015:

- Aveo retirement village, Banora Point
- Inverness Court, Banora Point
- Midship Court, Oxley Cove
- Tweed Heritage Caravan Park, Chinderah.

Additional handheld noise monitoring was conducted at Farrants Hill Road, Farrants Hill and Lochlomond Drive, Banora Point. The monitoring was intended to complement the short-term noise monitoring that was conducted. The locations chosen had been proposed by members of the community during consultation regarding short-term noise monitoring for the trial.

A slight reduction in aircraft noise was recorded at Oxley Cove and Chinderah, the reduction was less than three decibels, a level that is not likely to be noticeable and well below the anticipated five decibels.

Most other changes in levels of noise were also under the three-decibel threshold, which is accepted

as the amount of change likely to be perceived as noticeable. Noise monitor reports are available at [www.airservicesaustralia.com/publications/noise-reports/short-term-monitoring](http://www.airservicesaustralia.com/publications/noise-reports/short-term-monitoring)

### **What feedback was received from the community?**

Feedback was received from residents of Tweed Heads South, Banora Point, Terranora, Bilambil Heights, Chinderah, Cudgen, Farrants Hill, Clothiers Creek and Stokers Siding.

Community members who supported the trial were largely from Oxley Cove and Chinderah. Community members who opposed the trial were largely from Banora Point, Terranora, Farrants Hill, Clothiers Creek, Stokers Siding, Tweed Heads South and Cudgen.

Issues raised by residents opposed to the trial included that the trial was not achieving its intended outcomes, flights were not accurately tracking down the centre of the golf course and that aircraft noise had increased since the trial began. Residents who supported the trial suggested that the change had led to a decrease in overhead aircraft noise.

It is unfortunate that Airservices has not been able to achieve the desired noise improvement and we note that many people will be disappointed by this outcome, particularly those who provided positive feedback on the trial.

The feedback from the community formed an important part of our decision-making process, as did the data obtained from noise monitoring. However, the noise monitoring data showed that the noise reduction achieved was only between 1-1.8 decibels and not able to be noticed. Along with the unintended consequences of the trial for residents of Farrants Hill, which was previously overflowed by aircraft using the pre-trial flight path but the design of the trial departure procedure inadvertently concentrated flights over the area, it is appropriate to return to the pre-trial flight path.

### **Could the trial have been adjusted to further maximise tracking over the golf course?**

The trial maximised tracking over Banora Point Golf Course as far as was possible within the operational constraints of aircraft performance and flight path procedure design guidelines.

The design process included regular discussion with community representatives to align the flight path as closely as possible to their requirements, which were for flights to track down the centre of the golf course and no further east than the extended runway centreline.

### **What was the impact of the trial for Farrants Hill?**

The impact of the trial was that it concentrated flight paths over Farrants Hill. Before the trial, residents of Farrants Hill received a spread of tracks, however during the trial the tracks were concentrated and slightly lower due to the slightly shorter track miles.

### **Could adjustments have been made to the trial to reduce the impacts on Farrants Hill?**

Airservices considered a range of options when the unanticipated impact for residents of Farrants Hill became apparent. However, as adjustments were unable to be made without new noise impacts for other areas, Airservices decided not to proceed with any adjustments to the trial flight path.

### **How long will it take until the original flight path is reinstated?**

Work is underway to reinstate the original flight path by June 2016 and the trial flight path will remain in place until this work has been completed. This work includes ensuring the old flight path still complies with Civil Aviation Safety Authority (CASA) and air traffic control requirements. CASA will also have to validate the procedure (by flying it) and air traffic control will need to make system changes. Regulatory approval will be required before the flight path is reinstated as it was before the trial began, providing all safety requirements are met.

Airservices will continue to inform the community of the progress to reinstate the original flight path through the Gold Coast Airport Community Aviation Consultation Group and Aircraft Noise Abatement Committee and via our website [www.airservicesaustralia.com/projects/flight-path-changes/gold-coast](http://www.airservicesaustralia.com/projects/flight-path-changes/gold-coast)

### **Will there be any further trials in the near future to reduce noise at Gold Coast Airport?**

We acknowledge the concerns of residents for whom we have not been able to make a change to help them. Airservices is constantly seeking noise improvement opportunities and we are confident we have explored all available options for change in relation to a flight path over the Banora Point Golf Course. Airservices will continue to work with Gold Coast Airport and community members to identify future possible aircraft noise improvements.

### **What other initiatives has Airservices trialed to reduce the impact of aircraft noise at Gold Coast Airport?**

Airservices has investigated and in many cases implemented a number of options for noise improvements at the Gold Coast in recent years including:

- addressing the variations in right turns on southern departure flight paths so that aircraft more accurately fly the designated path
- implementing Smart Tracking for arrivals to Runway 14, also known as Required Navigation Performance, meaning aircraft can perform in accordance with a strict set of navigation parameters and make an approach predominantly over water
- reviewing noise abatement procedures in place at Gold Coast Airport. The review identified some potential areas for improvement, including the addition of more noise sensitive areas in pilot instructions to include more residential areas
- working with local parachute operator who had changed aircraft type to twin engine, as a result of the different aircraft the procedure could be changed to maximise flight over water to minimise noise impact
- developing noise-friendly procedures for helicopters in the Porpoise Point and Sovereign Island areas
- investigating the correlation between aircraft climb procedures and noise to determine if changes to climb profiles would reduce noise impacts
- trialling departures off Runway 14 (for aircraft departing to the south and heading to northern destinations) to turn between heading 020-090 (rather than concentrated at 090) was undertaken in 2010.