

SUNSHINE COAST FLIGHT PATH CHANGES POST IMPLEMENTATION REVIEW (PIR)

Terms of Reference

Version v0.2

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DRAFT – For Community Comment

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CHANGE SUMMARY

Version	Date	Change Description
0.1	18 September 2020	Document created
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1 INTRODUCTION

Airservices conducts Post Implementation Reviews (PIR) of flight path changes that include:

- safety
- operations
- industry efficiency and operations
- environmental impact assessment (EIA)
- community information and engagement.

The safety and operations PIR is generally performed within the first few months following implementation of the change. The PIR of the EIA and community information is generally performed 12 to 18 months after implementation to enable a period of data capture and analysis based on actual operations and any seasonal variations.

The outcomes of PIRs are used by Airservices to inform well-rounded future change decision making and the continuous improvement of our processes.

2 PURPOSE

The purpose of this document is to describe the Terms of Reference (ToR) for the PIR of Airservices EIA and community information that supported the Sunshine Coast flight path changes associated with the Sunshine Coast Airport Expansion Project (SCAEP). These changes were implemented by Airservices on 14 June 2020.

3 PIR PROCESS OVERVIEW

Airservices conducts PIRs of flight paths in accordance with our National Operating Standards.

A PIR typically considers the following:

1. Safety and operational implementation (safety and operations PIR)
2. Environmental impact assessment:
 - Desktop noise modelling to analyse forecast noise levels, based on actual aircraft movements
 - On-site noise monitoring to measure actual aircraft noise levels
3. Community engagement:
 - Effectiveness of community information regarding forecast noise and expected operations
4. Investigation of community suggested alternatives, including review of flight paths and noise abatement procedures (NAPs)
5. Industry feedback on safety, operational efficiency, environmental performance and flyability.

While this ToR addresses the PIR scope and requirements for EIA and community information, it also provides a broad outline of industry involvement to ensure transparency of other matters that are taken into consideration when determining PIR outcomes.

4 OBJECTIVES

The following objectives have been developed by Airservices, following consultation with the ANO, Sunshine Coast Airport, and the Sunshine Coast community:

1. Review the forecast noise levels in the Airservices EIA against actual aircraft movement data and noise levels post-implementation, and provide updated information to the community
2. Review the effectiveness of the Sunshine Coast Airport NAPs and identify any potential improvements
3. Identify opportunities to minimise the impact of aircraft operations on the community, including investigation of community suggested alternatives, and consider these against Airservices [Flight Path Design Principles](#)
4. Seek and consider feedback from industry: airport, airlines, general aviation operators and industry associations, to identify opportunities for potential improvement to operational and network efficiency and consider these against Airservices [Flight Path Design Principles](#)
5. Engage genuinely with the community to provide opportunities to influence the outcomes of the PIR in accordance with Airservices [Community Engagement Framework](#).

5 BACKGROUND

In 2018, Airservices commissioned GHD, a global professional services company, to conduct a Targeted Environmental Impact Assessment (TEIA)¹ of Airservices proposed flight path changes at Sunshine Coast Airport. The TEIA was completed in March 2019, and considered a range of environmental impacts including noise, emissions, noticeability, and Matters of National Environmental Significance (MNES).

The TEIA was released on Airservices website on 7 June 2019. Following community engagement and the development of the final flights, the TEIA was updated, and TEIA version 2 was released on the Engage Airservices² website in August 2019.

In July 2019, Airservices released the [Sunshine Coast Airspace and Flight Path Changes Proposed Final Design and Consideration of Feedback Report](#) which summarised the community engagement and consideration of feedback that informed the final flight path design.

In October 2019, following community engagement, Sunshine Coast Airport released their Master Plan 2040³, which revised the forecast operations based on the airport's decision to close Runway 18/36 due to safety risks. The Master Plan 2040 also contained the updated Aircraft Noise Exposure Forecast (ANEF). Airservices validated the ANEF, and this was the basis of the update to Sunshine Coast Aircraft's Noise Information Tool⁴.

On 14 June 2020, the new Sunshine Coast Airport Runway 13/31 commenced operation. Airservices instrument flight procedures were also implemented on this date.

The implementation of these published flight paths and the supporting information form the basis of the EIA and community information PIR.

¹ Since July 2019 these are referred to as environmental impact assessments (EIA)

² <https://engage.airservicesaustralia.com/sunshine-coast-airport-airspace-changes-runway-1331/documents>

³ <https://www.sunshinecoastairport.com.au/corporate/masterplan2040/>

⁴ <https://www.sunshinecoastairport.com.au/noisetool/>

5.1 Aircraft Noise Ombudsman

In May 2019, the Aircraft Noise Ombudsman (ANO) commenced an investigation into Airservices flight path changes at Sunshine Coast.

The ANO provided Airservices with the report '*The Investigation into complaints about the introduction of new flight paths in Sunshine Coast (April 2020)*' which included two recommendations, which Airservices accepted.

Airservices should, as soon as practicable, design an effective post- implementation review (PIR) process for the Sunshine Coast flight path designs, that does not perpetuate design constraints requiring alignment with EIS concepts, and which encompasses:

- a. *consideration of identified community - suggested alternatives*
- b. *a community engagement process that provides for genuine opportunities for community contributions to influence decisions*
- c. *application of the latest version of Airservices' National Operating Standard (NOS) Environmental Management of Changes to Aircraft Operations (AA-NOS-ENV-2.100).*

These ToR have been consulted with the ANO to ensure this recommendation has been satisfactorily addressed.

6 PIR PROCESS AND SCOPE

The timeframes for this PIR take into account the substantial reduction in scheduled flight operations at Sunshine Coast Airport that has occurred due to COVID-19 restrictions, and the lack of certainty about when operations may stabilise after the re-opening of state borders.

Until operations at the airport return to a level of stability, it is not possible to:

- seek comprehensive feedback from industry about the impacts and benefits of new flight paths
- obtain representative and reliable data for the purposes of noise modelling analysis based on actual aircraft movements or from short-term noise monitoring, including:
 - N60, N65 and N70 noise contours require aircraft movements to be representative of typical "busy day" operations at the airport (as assessed in the EIA)
 - L_{Amax} noise levels from actual aircraft operations compared against those modelled in the EIA using some of the same aircraft types (Airbus A320 and Boeing B737-800). At lower traffic volumes this would require an extended noise monitoring period to collect sufficient, representative data to allow an accurate assessment against the modelled levels in the EIA.

The normal timeframe to conduct a PIR analysis of aircraft movement and noise levels for the Sunshine Coast Airport change would be between June 2020 and May 2021 (the 12 month period immediately following implementation of the new operations). As a result of the COVID-19 impacts on aircraft movements, this analysis period could be delayed by six to 12 months while the aviation industry recovers and commences return to "normal" operations.

To ensure the timely commencement of the PIR, and in particular to address key community interests, Airservices is proposing a two-phase process:

Phase One – Investigation of identified community-suggested alternatives, and effectiveness of community information regarding expected aircraft operations post-implementation (on 14 June 2020)

Phase Two – Noise modelling analysis activities, including desktop review and short-term noise monitoring of actual aircraft operations (when aircraft movements have increased sufficiently to enable reliable analysis). Seek and review industry feedback regarding operational effectiveness and network efficiency.

6.1 In scope

Airservices was responsible for the following changes at Sunshine Coast Airport, as part of the SCAEP:

- Instrument flight procedures (IFPs), including Standard Instrument Departures (SIDs), Standard Instrument Arrivals (STARs) and instrument approach procedures
- amended visual approach procedures
- Noise Abatement Procedures (NAPs) during tower hours
- Visual Termination Chart (VTC) changes
- AIP/ERSA⁵ circuit and training information.

In addition, Airservices is responsible for safety of operations in Sunshine Coast Airport controlled airspace during tower hours:

- Air traffic management of schedule flight services
- Charter operations and freight operations
- Emergency services, general aviation and training operations.

Phase one of this PIR will commence in October 2020. Completion of the PIR (both phases) is proposed within 18 months, subject to the ability to capture representative aircraft movement and noise data.

6.1.1 Phase One Scope

The following is in scope for Phase One:

- Consideration of community-suggested noise alternatives submitted during the pre-implementation engagement period (2019) and during this PIR
- Review of scheduled Instrument Flight Rules (IFR) operations compliance with published approach and departure procedure designs (noting operation at a reduced aircraft movement volume), including:
 - flight path track compliance
 - NAPs (during tower hours)
 - Industry feedback (if available).
- Review of ATC traffic management (noting reduced aircraft movement volume) including application of NAPs, and management of GA operations
- Review of the extent to which NAPs can be enhanced
- Review of community information regarding expected aviation operations, including identification of potential improvements to explain Airservices roles and responsibilities for air traffic management.

We will publish a report on our website that consists of:

- Transparent consideration of community-suggested alternatives using the Flight Path Design Principles
- Findings of community-suggested alternative investigations
- Findings of the review of NAPs effectiveness and application (including airport and air traffic control)
- Findings resulting from any industry and/or operational review conducted in phase one.

⁵ Aeronautical Information Publication/En Route Supplement Australia

SUNSHINE COAST FLIGHT PATH CHANGES

Where community suggested alternatives for flight paths are assessed as safe, efficient, operationally feasible, and environmentally appropriate, Airservices flight path change management process will apply in accordance with the latest version of *Airservices National Operating Standard (NOS) Environmental Management of Changes to Aircraft Operations (AA-NOS-ENV-2.100)*.

Where this would result in an associated change to Sunshine Coast Airport airspace, the Airspace Change Proposal process with the Civil Aviation Safety Authority (CASA) will apply.

6.1.2 Phase Two Scope (within 18 months)

The following is in scope for Phase Two:

- Seek feedback from airlines, industry representative bodies, Sunshine Coast Airport and general aviation operators on the operational efficiency, performance and flyability of flight paths, air traffic management practices inside controlled airspace, NAPs, and the effects of the change on overall network efficiency
- Consideration of the opportunities identified by ATC and/or industry to enhance the operational efficiency and performance of flight paths, air traffic management procedures and overall network efficiency, using the Flight Path Design Principles
- Desktop noise modelling comparing actual operations against modelled/forecast operations, including updated assumptions based on the closure of Runway 18/36
- Based on the outcomes of the desktop noise modelling review, a short-term noise monitoring program will be implemented to analyse modelling assumptions and EIA findings. Potential noise monitoring locations will be identified in consultation with the community.
- Updated analysis of aircraft movement details based on actual aircraft operation, including tracking, altitude, NAPs adoption and compliance.

We will publish a report on our website that will include an analysis of the post-implementation aircraft noise impacts based on the results of the analysis above.

The post-implementation noise analysis will consider the following noise metrics:

- N60, N65 and N70 noise contours
- L_{Amax} (maximum single event noise levels) for specific, representative aircraft types (as applied in the EIA)
- a comparison of modelled noise levels against measured noise levels where noise complaints have been received post-implementation.

6.2 Other activities

Sunshine Coast Airport has commenced a review of their Fly Neighbourly Agreement. Airservices will be consulted as part of this review. Relevant findings will be considered in this PIR.

6.3 Out of scope

The following are not part of this PIR:

- Visual Flight Rules (VFR) operations outside controlled airspace (including outside tower hours)
- High level route structure review (high altitude flight paths that connect various airports across the country)
- Changes to airspace for which Airservices is not the arbiter (e.g. Amberley military airspace, Danger Area D629 - Flight training areas)
- Changes to Brisbane Airport airspace.

Please note: Airservices has no regulatory enforcement function in relation aircraft operations.

7 PRINCIPLES

The following principles will be applied to delivery of this PIR:

- The International Association of Public Participation (IAP2) Spectrum of Public Engagement⁶ will be applied to PIR engagement. This will include indicating the level of engagement being applied during each interaction.
- Wherever possible, Airservices will seek to apply the level of the Spectrum of Public Participation that affords the greatest level of influence.
- The community will be able to influence the outcome, where practicable (i.e. safety is our most important priority and cannot be compromised).
- A community engagement plan will be prepared and provided to the community for comment prior to commencing with formal community engagement activity. This plan will confirm how, when and at what engagement level (IAP2 Spectrum) community engagement will occur.
- All assumptions being relied on during the PIR will be identified and shared.
- Decision-making processes will be clearly defined for each decision item.
- Decisions will be documented in PIR reporting, including community, industry and other inputs, Airservices response and the resulting outcome.
- Information supporting engagement activity will be provided in advance, in sufficient detail and in sufficient time for consideration ahead of the activity.
- Airservices will provide appropriate Airservices technical staff to support engagement during the PIR.
- Airservices will seek to involve other agencies/organisations in engagement activity where possible.
- Where considering noise impacts, the “degree of change” will be considered, as well as the “number of people affected”.

8 CONSIDERATION OF COMMUNITY SUGGESTED ALTERNATIVES

The ANO recommendation included “*consideration of identified community-suggested alternatives*”.

Airservices regularly investigates community suggested improvements to the operation of the flight paths and procedures it has implemented. The existing process for these investigations will be applied to the consideration of alternatives as part of this PIR. This includes:

1. **Safety and operational compliance assessment** – does the change comply with international and national safety and design standards?
2. **Operational efficiency and feasibility assessment** – is the change flyable and efficient? Also does it:
 - add significant burden to operations (the work of air traffic control in managing the air space or pilot workload in flying the flight path)
 - increase track miles for industry (creating additional emissions and operational cost)?

⁶ https://iap2.org.au/wp-content/uploads/2020/01/2018_IAP2_Spectrum.pdf

3. **Environmental assessment** – is the change environmentally appropriate? Does the change:
 - reduce noise levels or the number of people impacted
 - affect new communities
 - better share the impact of noise in keeping with our Flight Path Design Principles (we do not consider proposals that seek to move aircraft noise from one community to another as responsible)
 - result in greater track miles for industry (and thus greater emissions)
 - impact areas of national environmental significance and noise sensitive sites
 - impact areas of future residential development or areas of high tourism value?
4. **Network assessment** – does the change:
 - have flow on effects or require changes to other procedures or flight paths
 - impact or benefit overall network efficiency
 - involve a cost
 - have a benefit appropriate to the cost?

The community can submit alternatives at any time during the PIR, however, a formal community suggested alternatives engagement period will be delivered through this PIR. This will involve:

1. Initial call for submissions – via direct correspondence with community groups and posting of information on *Engage Airservices*. Sunshine Coast and Noosa Councils, State and Federal MPs will also be made aware of this call for submissions and asked to share this information widely.
2. Submission period – two to three months.
3. Investigation period – two months (subject to the number of submissions received).
4. Feedback and clarification – via direct response to submitters, community meetings and posting of response/reports on *Engage Airservices*.
5. Further investigation – as required for alternatives found to be feasible or to respond to further questions/suggestions received from the community.
6. Final summary report – providing the findings of investigation of all alternatives submitted, including next steps with any found to be feasible.

9 ROLES

Airservices Australia – Airservices is the provider of safe, secure, efficient and environmentally responsible services to the aviation industry. This includes Air Traffic Management, Aviation Rescue Fire Fighting Services, flight path and procedures design and publication. Airservices designs flight paths and procedures to link Airport runways to the airspace network. Airservices operates the tower and manages application of the NAPs and other procedures during tower hours.

Civil Aviation Safety Authority (CASA) – Government body that regulates Australian aviation safety, including licensing pilots, registration of aircraft, approval of airspace changes and overseeing safety. CASA validates the instrument flight procedures Airservices produces (to ensure they are safe and flyable) and is the ultimate approver of Airspace Change Proposals.

Sunshine Coast Airport Pty Ltd – Private owner and operator of Sunshine Coast Airport under a lease from Sunshine Coast Council. Responsible for the safe and secure operation, maintenance, commercial development and strategic planning for the airport. Decision-maker for all “on airport” activities including new runways and infrastructure requirements. Manages Fly Neighbourly Policy.

Sunshine Coast Council – Owner of the airport and proponent for new runway project.

Department of Infrastructure, Transport, Regional Development and Communications

(DITRDC) – responsible for the design and implementation of the Australian Government's infrastructure, transport and regional development policies and programs. Department responsible for approving airport infrastructure projects for federally leased airports, and considers the advice of the Commonwealth Minister for Environment and Airservices in making its decisions.

Aircraft Noise Ombudsman – Responsible for conducting independent reviews of Airservices Australia's and Defence's management of aircraft noise-related activities, including noise complaints, community engagement processes related to aircraft noise and presentation and distribution of noise-related information.

10 AIRSERVICES PIR TEAM

The PIR team will consist of the following:

- Environment and Community Manager
- Director Operations – Terminal Services Brisbane
- Operations Manager – Terminal Procedures
- Operations Manager – Sunshine Coast Tower Procedures
- Flight Path Design Manager (Chief Designer)
- Airports and Environment Manager
- Senior Noise and Environmental Specialist/s
- Industry Engagement Manager
- Customer and Industry Engagement Advisor
- Community Engagement Manager
- Community Engagement Specialist/s
- Noise Complaints Information Service Manager.

11 STAKEHOLDERS

Airservices will consult with the following stakeholders throughout the PIR:

- SCA Chief Executive Officer, or delegate
- Airlines, general aviation operators and industry associations
- Community.

Airservices will keep the following stakeholders informed throughout the PIR:

- Aircraft Noise Ombudsman
- Elected representatives – Federal, State and Local
- Sunshine Coast Community Aviation Forum (CAF)

Airservices will seek submissions from stakeholders for consideration as part of the PIR.

12 RESOURCES

The Airservices PIR team will have access to the following information and data:

- Airservices Sunshine Coast Airport Airspace Changes⁷ reports including, but not limited to:
 - *TEIA - Airservices Australia Proposed changes to flight paths at Sunshine Coast Airport (Version 2 August 2019)*
 - [Sunshine Coast Airspace and Flight Path Changes Proposed Final Design and Consideration of Feedback \(July 2019\)](#)
 - Fact Sheets
 - Stakeholder presentations
- Sunshine Coast Airport Noise Abatement Procedures
- Industry, community and air traffic control feedback submissions received during this PIR
- Other stakeholder submissions received during this PIR
- Airservices Noise and Flight Path Monitoring System (NFPMS) noise monitoring data, including data from temporary noise monitors
- Airservices Aircraft Noise Monitoring and Management System (ANOMS) for flight track data information
- Airservices Operational Data Analysis Suite (ODAS) for flight and route information (if required)
- Airservices Sunshine Coast Engage Airservices Project web page⁸ for community information
 - Airservices noise complaints data, investigations, summary and analysis related to Sunshine Coast Airport operations.

13 DEFINITIONS

Within this document, the following definitions apply:

Term	Definition
ANO	Aircraft Noise Ombudsman
ANOMS	Aircraft Noise Monitoring and Management System
CAF	Community Aviation Forum
CASA	Civil Aviation Safety Authority
GA	General Aviation
IFR	Instrument Flight Rules
NAPs	Noise Abatement Procedures

⁷ <https://engage.airservicesaustralia.com/sunshine-coast-airport-airspace-changes-runway-1331/widgets/249990/documents>

⁸ <https://engage.airservicesaustralia.com/sunshine-coast-airport-airspace-changes-runway-1331>

Term	Definition
NFPMS	Noise and Flight Path Monitoring System
NOS	National Operating Standard
ODAS	Operational Data Analysis Suite
PIR	Post-Implementation Review
ToR	Terms of Reference
VFR	Visual Flight Rules