

SUNSHINE COAST FLIGHT PATH CHANGES POST IMPLEMENTATION REVIEW (PIR)

Terms of Reference

Version v1.0

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FINAL – Tracked version for community information

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CHANGE SUMMARY

Version	Date	Change Description
0.1	18 September 2020	Document created
0.2	30 September 2020	Updated to include feedback from the Sunshine Coast PIR Community Meeting (19 September 2020)
0.3	09 December 2020	Updated to include feedback from the draft ToR public Comment Period (2 October - 4 November 2020)
1.0	29 January 2021	Updated to include feedback from the draft ToR public Comment Period (11 December 2020 – 17 January 2021) – Final document

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1 INTRODUCTION

Airservices conducts Post Implementation Reviews (PIRs) into flight path changes paths and associated airspace to assess the effectiveness of the changes that were implemented and to verify assumptions made about potential environmental and community impacts. Airservices PIRs include a review of:

- safety
- operations
- industry efficiency and operations
- environment (forecast noise impacts)
- community information.

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

Where feasible opportunities to minimise the effect of aircraft operations on the community are identified during a PIR, these are progressed through Airservices flight path change program to implementation.

2 PURPOSE

The purpose of this document is to describe the Terms of Reference (ToR) for Airservices environment, community and industry PIR for the Sunshine Coast flight path and associated airspace changes related to the Sunshine Coast Airport Expansion Project (SCAEP).

These changes were implemented by Airservices on 14 June 2020.

3 AIRSERVICES PIR OVERVIEW

Airservices conducts PIRs of flight paths in accordance with our National Operating Standards¹, which, in addition to guiding our environmental assessment of flight path changes, establishes the requirements conducting a PIR.

Our PIRs typically consider the following, noting some elements are completed immediately after implementation of the change, while others are completed later due to the review requirements:

1. **Safety**– this is completed after runway opening to ensure the implemented change is safe and compliant with relevant standards and requirements (this has been completed for Sunshine Coast)
2. **Operational implementation** (operations PIR) – this would normally be completed between three and six months post implementation, however COVID-19 has delayed this at Sunshine Coast
3. **Environment** -
 - Desktop noise modelling to analyse forecast noise levels, based on actual aircraft movements
 - On-site noise monitoring to measure actual aircraft noise levels
4. **Community information** -
 - Effectiveness (clarity, detail, accuracy, usefulness) of community information regarding forecast noise and expected operations
 - 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.

¹ Airservices Environmental Management of Changes to Aircraft Operations AA-NOS-ENV-2.100 Version 15, Effective 29 June 2019

Sunshine Coast Flight Path Changes post implementation review (PIR). Terms of Reference.

The safety and operations PIRs are generally performed within the first few months following implementation of the change. The aim at this PIR stage is to confirm that what has been implemented is safe, flyable and that all related procedures and documentation are correct.

The environment and community information PIR 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. This aim at this PIR stage is to confirm actual noise and air traffic operations and compare them to that which was modelled during project planning. It also aims to confirm if the information provided to the community about noise and aircraft movement was correct with the benefit of hindsight, to determine the effectiveness of Noise Abatement Procedures (NAPs) if applicable, and identify any opportunities to improve noise outcomes for the community.

The industry PIR is generally implemented in parallel with the operations PIR, with the outcomes also being considered in the environment and community PIR, particularly where improvements to flight paths or NAPs are proposed.

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

Where feasible opportunities to minimise the effect of aircraft operations on the community are identified during a PIR, these are progressed through Airservices flight path change program to implementation.

3.1 Sunshine Coast PIR

The safety PIR activities for Sunshine Coast Airport (Point 1) were completed by Airservices operational and technical staff shortly after implementation of the changes.

Airservices operational and technical staff will undertake the operational PIR activities (Point 2) in due course. The timing of these activities has been disrupted by COVID-19 and will be undertaken in conjunction with industry feedback activities.

This PIR will address points 3 to 5 above and will involve:

- presenting findings and recommendations in relation to noise outcomes, NAPs application, feasible improvements to noise and operations, and future considerations and learnings
- consideration of both community and industry interests in any decision-making

Where there is a possible flight path alternative or enhancement to the NAPs being investigated, the related noise and environmental benefits will be considered against any operational impact to industry, in keeping with our Flight Path Design Principles (FPDP). There is no weighting of community or industry interests in the FPDP, which seek to apply a balanced approach to decision-making.

4 OBJECTIVES

The objectives for this PIR have been developed by Airservices, following consultation with the Aircraft Noise Ombudsman (ANO), Sunshine Coast Airport, and the Sunshine Coast community:

1. Review the forecast noise levels in the Airservices environmental impact assessment (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](#)

Sunshine Coast Flight Path Changes post implementation review (PIR). Terms of Reference.

5. Engage genuinely with the community to provide opportunities to influence the outcomes of the PIR in accordance with Airservices [Community Engagement Framework](#).

These objectives will be measured to determine the success of this PIR.

A table with our methodologies to measure our performance against these objectives can be found at **Appendix A**.

5 BACKGROUND INFORMATION

The Sunshine Coast Airport Pty Ltd operates and manages the Sunshine Coast Airport under a lease from the Sunshine Coast Council (is not a federally leased airport).

The Sunshine Coast Airport is responsible for the safe and secure operation, maintenance, commercial development and strategic planning for the airport.

The Sunshine Coast Council, as the owner of the airport, undertook the Sunshine Coast Airport Expansion Project (SCAEP) to meet the travel needs of the community and support the region's economic growth. This included development of a new runway (RWY 13/31) and associated infrastructure including an upgraded taxiway system and apron extension.

The alignment of the new runway was chosen to optimise the use of prevailing winds and was influenced by a number of factors, which can be found on the Sunshine Coast Airport website.

Where a major change is proposed by a party other than Airservices (for example a new runway), the proponent for the change will submit an Environmental Impact Statement (EIS) via the relevant planning authority.

An EIS for the SCAEP was prepared by Sunshine Coast Council and received approval from the Queensland State Coordinator-General in May 2016. A copy of the EIS is available on the Coordinator-General's website.

The EIS included concept level flight path corridors of operation, associated aircraft movement assumptions, and noise impacts assessments.

Airservices was engaged to develop the proposed flight path design based on the approved EIS concept flight path corridors, and was required to environmentally assess the flight paths and procedures it developed. This was completed through the 2018 Targeted Environmental Impact Assessment (TEIA). Prior to implementation of the final flight path designs, which included some alterations to the design, an additional TEIA was completed in August 2019.

In October 2019, Sunshine Coast Airport released their Master Plan 2040², which included revised forecast operations and reflected the closure of Runway 18/36. The approved Master Plan also included the revised Australian Noise Exposure Forecast (ANEF) that is available through the Sunshine Coast Airport Aircraft Noise Information Tool³.

The new runway and associated flight paths commenced operations on 14 June 2020.

5.1 Aircraft Noise Ombudsman

In May 2019, the Aircraft Noise Ombudsman (ANO) commenced an investigation into complaints in relation to 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)*'⁴ which included two recommendations, which Airservices accepted.

² <https://www.sunshinecoastairport.com.au/corporate/masterplan2040/>

³ <https://www.sunshinecoastairport.com.au/corporate/expansion-project/aircraft-noise-information-tool/>

⁴ https://ano.gov.au/reportsstats/reports/Apr2020_ANO_Investigation_NewFlightPaths_SunshineCoast.pdf

Sunshine Coast Flight Path Changes post implementation review (PIR). Terms of Reference.

The first recommendation was in relation to development of a Third Party Framework. This Framework was developed by Airservices but does not have any influence on or relevance to this PIR so is not discussed further in this ToR.

The second recommendation was:

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 the recommendation has been satisfactorily addressed.

In response to this recommendation, it is noted:

- Consideration of identified community-suggested alternatives is identified as part of the Phase One scope in Section 7.1.1
- A community engagement process that provides genuine opportunities to influence decisions is addressed through the Principles identified in Section 8 and will be expanded upon in the Community Engagement Plan. "Decisions" in this context may relate to community suggested noise improvements, NAPs, air traffic control (ATC) operations, information provision, information presentation and other matters as relevant to this PIR
- The latest version of the [AA-NOS-ENV-2.100 \(NOS\)](#) will be applied to any flight path changes identified as feasible through this PIR. It will also apply to the delivery of the PIR in terms of the typical scope elements, noting additional engagement activity will be added specific to the ANO recommendation above
- Consideration of alternatives will not be constrained by the EIS concept flight path corridors.

6 PROCESS

6.1 PIR Administration

Airservices Environment and Community Manager will lead and manage the PIR as the accountable Airservices manager.

Airservices Community Engagement Framework (CEF), FPDP and NOS will apply as the core administrative tools for this PIR. These tools support the acquittal of our obligations under the *Airservices Act 1995*.

The NOS will apply to any community suggested alternative that is identified as feasible, including assessment against the Environment Protection and Conservation Act (*EPBC Act 1999*) criteria, which may require referral to the Commonwealth Minister for Environment. The FPDP will also apply to progression of any changes arising from the PIR.

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. This includes application of the latest version of *Airservices National Operating Standard (NOS) Environmental Management of Changes to Aircraft Operations (AA-NOS-ENV-2.100)*, which includes provisions around environmental assessment and community engagement, and the Flight Path Design Principles (FPDP).

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

6.2 Timing

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 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). Due to 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 community interests, Airservices is proposing a two-phase process:

Phase One – Investigation of identified community-suggested alternatives, modelling of existing noise impacts, and preliminary review of the effectiveness of community information regarding expected aircraft operations post-implementation (on 14 June 2020)

Phase Two – Noise modelling analysis activities, including desktop review (noise modelling based on aircraft type, altitude and location) and short-term noise monitoring (using on site noise monitoring) of actual aircraft operations, when aircraft movements have increased sufficiently to enable reliable analysis. We will also seek and review industry feedback regarding operational effectiveness and network efficiency.

The findings and data captured during phase one of the PIR will feed into the implementation of Phase Two to ensure a holistic PIR is completed.

7 PIR SCOPE

7.1 In scope

Airservices was responsible for the following changes at Sunshine Coast Airport, as part of the SCAEP, and as such these changes form the scope of the PIR:

Arrivals

- new area navigation (RNAV) and RNP-AR (‘Smart Tracking’) approaches to each runway end
- new Standard Arrival Procedures (STARs) to join onto the approaches
- replaced previously used visual approach from the south to RWY 13 with the STAR that terminates in the RNAV approach

Departures

- Standard Instrument Departures (SIDs) departures from both ends of the runway

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Airspace

- Expanded to the north and adjusted to the south to contain the new instrument flight procedures (~~see Figure 1~~)

Visual Terminal Chart

- Amended to reflect new airspace structure.
- Removal of published Visual Flight Rules (VFR) lane along the coastline

Noise Abatement Procedures (NAPs) – all hours

- NAP for preferred runway use for new runway
- NAP nominating use of the STAR for arrivals for all aircraft above 5700kg where possible
- NAP nominating use of the SID for departures for all aircraft above 5700kg where possible
- Removal of visual departure instructions
- NAP to preclude intersection departures from TWY A2
- Jet noise abatement climb procedure for RWY 13 (H24), except if SID cancelled by ATC at pilot request due weather
- Flight training procedures for circuit training on RWY 13 (right hand circuits)

General Aviation entry point

- Adjusted to connect to the RNAV approach from south to bring aircraft in over the water rather than over land

Document Changes

- En Route Supplement Australia (ERSA) changes to reflect the new RWY 13/31 and decommissioning of RWY 18/36 and Taxiway F

Not changed

- Brisbane Airspace which overlaps Sunshine Coast from the south

VFR route following the Bruce highway – aircraft must be at 1000ft when they enter the controlled airspace.

Phase One of this PIR will commence in February 2021.

Completion of the PIR (both phases) is proposed within 18 months, subject to the ability to capture representative aircraft movement and noise data. The appropriate timing for this will be determined by the number, mix of aircraft and ports of operation. Specific methodologies to be applied during each phase of the project will be shared with the community as part of the community engagement program.

7.1.1 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 (responding to recommendation 2a in the ANO report)
- Modelling of current noise impacts based on actual movement data (noting this will be limited to current COVID-19 impacted operations) with consideration of altitude and terrain
- 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).

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- Review of ATC traffic management (noting reduced aircraft movement volume) including application of NAPs, and management of GA operations (including IFR and VFR operations)
- Review of the extent to which NAPs can be enhanced (based on level of compliance and feedback from the community, industry and ATC)
- Review of Airservices community information (fact sheets and web content) regarding expected aviation operations, including identification of potential improvements to explain Airservices roles and responsibilities for air traffic management.
- Review of Airservices noise complaint data, investigations, summary and analysis related to Sunshine Coast Airport operations.

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 ATC)
- Findings resulting from preliminary industry and/or operational review conducted in Phase One (noting the main industry review will occur in Phase Two when aircraft movement stabilises).

Reporting will provide detail to demonstrate how a decision was made and on what grounds (including application of relevant criteria). These reports will be publicly available and subject to a community feedback period to confirm the accuracy of our reporting of community inputs and any need for further clarification of explanation of report findings. Where issues requiring further investigation arise from this feedback, we will respond accordingly.

7.1.2 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 RWY 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.
- Review of EIA community information against actual noise outcomes
- Engagement with the community on noise impacts and information
- Updated analysis of aircraft movement details based on actual aircraft operation, including tracking, altitude, NAPs adoption and compliance.
- Review of Airservices noise complaints data, investigations, summary and analysis related to Sunshine Coast Airport operations.

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 and N70 noise contours

Sunshine Coast Flight Path Changes post implementation review (PIR). Terms of Reference.

- 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.

Consistent with our current practice, Aviation Environmental Design Tool (AEDT) modelling technology will be applied to this activity, with relevant assessment provided as necessary to enable comparison to older Integrated Noise Model (INM) technology and other methods.

In the interest of clarity, Airservices Australia, through this PIR, will seek to identify opportunities to improve noise outcomes for the community, where practicable and where within the sphere of our control. Where an opportunity is identified that is outside our control, we will seek to discuss with the responsible party and provide further information to the community on this.

7.2 Other activities

Sunshine Coast Airport has commenced a review of their Fly Neighbourly Agreement. Information on operations outside tower hours and related NAPs will be provided to the community through this process. Relevant findings will be considered in this PIR. This information will be shared with the community in the interest of transparency.

7.3 Out of scope

The following are not part of this PIR:

- 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
- Assessment of ambient noise (however information can provided to the community on this)
- Airport hours of operation-
- Review of the 2014 EIS prepared by Sunshine Coast Council.

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

8 PRINCIPLES

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

- The International Association of Public Participation (IAP2) Spectrum of Public Engagement⁵ will be applied to PIR engagement. This will include indicating the level of engagement being applied during each interaction or activity.
- 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

⁵ https://iap2.org.au/wp-content/uploads/2020/01/2018_IAP2_Spectrum.pdf

Sunshine Coast Flight Path Changes post implementation review (PIR). Terms of Reference.

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.
- The PIR will consider and draw upon the most accurate, relevant and useful sources of information available and ensure that information provided to the community is sufficiently detailed, relevant, timely, accurate, fulsome and unbiased.
- Information supporting engagement activity will be provided in advance, in sufficient detail and in sufficient time for consideration ahead of the activity.
- Information in relation to noise impacts, consideration of community suggested alternatives and other findings of this PIR will be shared with the community in an open and transparent manner.
- Information that Airservices can provide on operations outside of its remit that may support community understanding or discussions with relevant agencies will be provided where available.
- 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”.

9 CONSIDERATION OF COMMUNITY SUGGESTED ALTERNATIVES

The ANO recommendation included “*consideration of identified community-suggested alternatives not constrained by the 2014 EIS*”.

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 timeframe will be discussed with the community at the commencement of phase one, noting that where differing opinions exist Airservices will attempt to strike a balanced outcome.

The process to be applied to this consideration is as follows:

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 elected representatives 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.

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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.

The process is undertaken in the order shown below, meaning; if a suggested improvement is not safe and operationally compliant, it will not progress further and will be discounted and the reasons will be provided.

The existing process for investigating community suggested improvements is:

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:
 - increase complexity 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 (impacting emissions and operational cost)?
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?

10 PIR ROLES

Airservices Australia – Airservices is the provider of safe, secure, efficient and environmentally sustainable services to the aviation industry. This includes Air Traffic Management, Aviation Rescue Fire Fighting Services, flight path and procedures design, and aeronautical information publication.

Airservices designs flight paths and procedures to link airport runways to the overarching airspace network. Airservices operates the tower and manages application of the NAPs and other procedures during tower hours. Airservices leads and conducts PIRs of changes it implements (generally IFR changes) according to internal standards.

Airservices is responsible for the safety of operations in Sunshine Coast Airport controlled airspace during tower hours. This includes air traffic management of:

- Schedule flight services
- Charter operations and freight operations
- Emergency services, general aviation and training operations.

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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. The ANO's investigation into the introduction of new flight paths at Sunshine Coast identified two recommendations, the second of which is being addressed through this PIR. The ANO will be engaged on the process for this PIR and will also monitor its implementation.

Community – The community of the broader Sunshine Coast region is invited to participate in the PIR. The community have insight and valuable feedback to contribute to the PIR, including the development of the ToR. The opportunities for participation are outlined in the Community Engagement Plan, which will also be subject to community input.

Industry – Industry will be engaged through the PIR to gather feedback on the new flight paths, NAPs and other operational elements. Preliminary feedback will be gathered during Phase One where available, with the main engagement occurring in Phase Two once air traffic movement stabilises.

11 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.

12 STAKEHOLDERS

Airservices will consult with the following stakeholders throughout the PIR:

- Community
- Sunshine Coast Airport
- Airlines, general aviation operators and industry associations
- Noosa Shire Council
- Sunshine Coast Council
- Sunshine Coast Community Aviation Forum (CAF).

Airservices will keep the following stakeholders informed throughout the PIR:

- Aircraft Noise Ombudsman
- Elected representatives – Federal, State and Local

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

13 RESOURCES

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

- Airservices Sunshine Coast Airport Airspace Changes⁶ 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 page⁷ for community information
- Airservices noise complaints data, investigations, summary and analysis related to Sunshine Coast Airport operations.

⁶ <https://engage.airservicesaustralia.com/sunshine-coast-airport-airspace-changes-runway-1331/widgets/249990/documents>

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

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14 DEFINITIONS

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
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
NAPs	Noise Abatement Procedures
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
SCAEP	Sunshine Coast Airport Expansion Project
TEIA	Targeted Environmental Impact Assessment
SID	Standard Instrument Departure
STAR	Standard Instrument Arrival
ToR	Terms of Reference
TWY	Taxiway
VFR	Visual Flight Rules

APPENDIX A – MEASURING OBJECTIVES

The objectives of this PIR will be measured against the following outcomes and evidence:

Objective	<i>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.</i>
What does good look like?	<p>Clear information provided on EIA modelling and associated actual noise monitoring noise levels</p> <p>Any variables that have affected this result are explained</p> <p>Any noise results that are higher than modelled are investigated and a reason provided for the result (that can be considered in looking at minimisation measures)</p> <p>Updated information provided to the community in a clear and accessible format, that is agreed to meet their information requirements</p>
Evidence	<p>Report provided to the community that addresses the above and provides clear recommendations in terms of:</p> <ul style="list-style-type: none"> – Clear and transparent findings – Learnings, including improvements to methodology and consideration of any relevant factors – Actions or recommendations (as appropriate) that may support minimising noise impacts on the community <p>Community information is produced and distributed through desired mechanisms</p>

Objective	<i>Review the effectiveness of the Sunshine Coast Airport NAPs and identify any potential improvements</i>
What does good look like?	<p>Community, industry and ATC have provided input on their experience of the NAPs to inform the assessment</p> <p>Community members understand the role of NAPs and what can be achieved through them</p> <p>Community members feel they have had an adequate opportunity to comment on the NAPs</p> <p>Opportunities to improve the NAPs (if relevant) are identified</p> <p>Opportunities to provide additional noise minimisation through NAPs are identified (if relevant)</p>
Evidence	<p>Information provided to the community on current NAPs – purpose, limitations, operational implications and other details recorded as of interest</p> <p>Report (as part of Objective 1 report) provided to the community provides a finding on the effectiveness of the NAPs – compliance, operational implications, noise minimisation implications</p> <p>Opportunities to improve the NAPs are identified (or broad satisfaction with their current application found)</p> <p>Opportunities to improve the NAPs progress through to implementation, where feasible.</p>

Sunshine Coast Flight Path Changes post implementation review (PIR). Terms of Reference.

Objective	<i>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</i>
What does good look like?	<p>Community is clear on the submissions process and are able to submit their ideas with confidence</p> <p>Submissions suggesting alternatives are received from the community</p> <p>Active discussion of these submissions is held with the community to fully understand the suggestion</p> <p>All suggested alternatives are investigated</p> <p>Results of the investigation of each alternative are shared with the community, including the opportunity to discuss and ask for clarification (potentially resulting in further investigation)</p> <p>Based on the above, any decisions made are clearly understood by the community</p>
Evidence	<p>Information provided to the community on submission process, information required to support assessment, and criteria for assessment</p> <p>Report detailing submissions received and assessment outcomes, including justification for result against various criteria</p> <p>Submitters of alternatives have all questions answered and are satisfied with the response provided</p> <p>Alternatives to improve noise outcomes progress through to implementation, where feasible.</p>

Objective	<i>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</i>
What does good look like?	<p>Industry is actively engaged in the PIR and offers feedback that adds value to the review</p> <p>Industry understand the requirement to balance the needs of the industry against impacts on the community and are open to discussing these</p> <p>Opportunities to improve network efficiency are identified and considered in a balanced manner applying the FPDP</p> <p>Industry satisfied with their level of involvement in the PIR</p>
Evidence	<p>Report detailing feedback received and opportunities investigated, applying FPDP to demonstrate balanced consideration of trade-offs and inter-relationships</p> <p>Opportunities to improve efficiency progress through to implementation, where feasible</p> <p>Request for feedback on the engagement process is positive</p>

Sunshine Coast Flight Path Changes post implementation review (PIR). Terms of Reference.

Objective	<i>Engage genuinely with the community to provide opportunities to influence the outcomes of the PIR in accordance with Airservices Community Engagement Framework.</i>
What does good look like?	<p>Community and Airservices have a productive interaction in relation to the PIR</p> <p>Community feels genuinely engaged and that information provided has been adequate to meet their needs</p> <p>Community understands the requirement to balance the needs of industry against the impacts on the community and are open to discussing these</p> <p>Agreed requirements for ongoing communication of aircraft operations are reached through the PIR</p> <p>Even where aircraft operations affect some communities, the members of those communities understand why the decisions to place operations in those locations was made</p>
Evidence	<p>Airservices Community Engagement Plan is accepted by the majority of the community as sufficient to meet their needs (resource and budget limitations notwithstanding)</p> <p>Engagement activity planned in the CEP is modified if needed due to emerging PIR issues or interests</p> <p>Airservices PIR Reports are accepted by the community as adequately documenting and explaining the findings of the PIR</p> <p>Request for feedback on the engagement process is positive</p>

APPENDIX B - STAKEHOLDERS

The following stakeholders are involved in the flight path change management process:

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. Should an Airspace Change Proposal result from a PIR (review of community suggested alternative) CASA will be the final approver of this change. CASA is also responsible for defining Circuit Training.

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 in line with the Master Plan and land use planning in and around the airport including future aircraft movements and schedules and development of ANEF. The Airport manages the Fly Neighbourly Policy.

Sunshine Coast Airport is a stakeholder for this PIR and will be consulted on operational matters and any proposed changes resulting from review of community suggested alternatives.

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. The Department is also responsible for setting the requirement for federally leased airports to produce ANEF, and the manner of Endorsement (Airservices)⁸.

Airservices may provide a briefing to the Department on PIR outcomes.

Department of Agriculture, Water and Environment – administers EPBC Act. The EPBC Act focuses Australian Government interests on the protection of matters of national environmental significance, with the states and territories having responsibility for matters of state and local significance.

The Department would be involved in assessing any proposed changes that trigger significance criteria under the EPBC Act.

⁸ https://www.infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasf/files/1.3_Guideline_A_attachment1.pdf