HOBART AIRSPACE DESIGN REVIEW POST IMPLEMENTATION REVIEW (PIR)

Terms of Reference

Version 1.0

Effective Date: 28 January 2021

CHANGE SUMMARY

Version	Date	Change Description
0.1	27 November 2020	Document created
0.2	30 November 2020	Clarification Section 2.1
1.0	28 January 2021	Document updated to reflect community feedback (changes marked with change bar)

CONTENTS

1 PURPOSE

The purpose of this document is to describe the Terms of Reference (ToR) for the Post Implementation Review (PIR) of Airservices Environmental Impact Assessment (EIA) and community information that supported flight path changes implemented by Airservices at Hobart Airport on 7 November 2019.

2 BACKGROUND

In September 2017, Airservices implemented Standard Instrument Arrival (STARs) routes and Standard Instrument Departure (SIDs) routes at Hobart Airport.

Following community concern about these flight paths and the associated environmental assessment and community engagement, Airservices committed to a comprehensive review of the Hobart SIDs and STARs. This was known as the Hobart Airspace Design Review (the Review) and was conducted between January 2018 and March 2019.

At the conclusion of the Review Airservices released the following reports:

- *Hobart Airspace Design Review – Proposed Design Feedback Consultation Summary Report (Version 1.0, 21 March 2019)* that summarised the community feedback received through engagement activities undertaken between 31 October 2018 and 7 January 2019
- *Hobart Airspace Design Review Final Report (March 2019)* that described the final design and summarised the consideration of feedback that informed that final design.

The Review included an EIA of the proposed design for consultation, and an EIA Addendum on the final design that had been shaped by the community feedback. The EIA, EIA Addendum and other community engagement resources, information and summary of activities, were provided on Airservices website and *Engage Airservices*. EIAs were also undertaken for changes to the Tasmanian high level routes and new procedures for the relocated Very High Frequency Omni-directional Range (VOR)[1]. Information about these changes was provided on Airservices website and *Engage Airservices*.

The new instrument flight procedures, SIDs, STARs, Noise Abatement Procedures (NAPs), VOR procedures, high level routes and airspace changes, were implemented on 7 November 2019.

2.1 Aircraft Noise Ombudsman

In October 2017, the Aircraft Noise Ombudsman (ANO) commenced an investigation into Airservices flight path changes at Hobart Airport. In April 2018, the ANO provided Airservices with the *Investigation into complaints about the introduction of new flight paths in Hobart* report that included 13 recommendations related to a range of improvements to Airservices processes and practices, including environmental assessment methodology and criteria, community engagement practices and capability, and consideration of social impact in the flight path change management process.

Airservices accepted and implemented these recommendations in full, and they were progressively closed by the ANO in 2019 and 2020.

The ANO has been consulted regarding the Hobart Airspace Design Review PIR process and the development of the ToR.

[1] A VOR is a ground based navigation aid for aircraft.

3 SCOPE

3.1 In scope

The PIR will include a review of all changes implemented by Airservices on 7 November 2019.

The following are in scope for the PIR:

- Instrument flight procedures (SIDs, STARs and approaches) and the use of the VOR
- Noise Abatement Procedures (NAPs)
- Tasmanian high level route changes, associated with the Hobart Airspace Design Review
- Supporting environmental assessments
- Community information regarding aircraft operations and forecast noise.

4 OBJECTIVES

The following are the objectives of the PIR:

1. Validate the assumptions and forecast noise levels in the Airservices EIAs of the final design (*EIA of proposed changes to Standard Instrument Departures and Standard Arrival Routes at Hobart Airport, Version 1.3, 8 November 2018* and *EIA Addendum, Version 2.3, 28 March 2019)* high level routes (*EIA of Proposed New Route Structure for Hobart Airport, Version 1.0, 10 April 2019*) of and VOR procedures (*EIA of Hobart Airport – VOR Relocation, Version 1.0, 31 January 2018*) against actual aircraft movement data
2. Review community information to ensure it reflects the most up to date information regarding the use of the flight paths, procedures, routes and actual aircraft noise levels
3. Identify opportunities to minimise the impact of aircraft operations on the community
4. Provide stakeholders with the opportunity to submit flight path alternatives including amendments to NAPs.

As part of validating the assumptions of the EIAs for the Hobart PIR we will examine the application of our “newly overflown” assessment criteria, with consideration of actual noise levels obtained through noise monitoring and aircraft movements. This will be achieved by using the original methodology with consideration of actual operational conditions, with the objective to identify any potential improvements to newly overflown criteria and application.

Where community suggested alternatives for flight paths are initially considered as safe, efficient, operationally feasible, and environmentally appropriate, the 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 proposals for changes to flight paths and/or procedures are determined to progress, the Airservices *Flight Path Design Principles* will apply.

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

Airservices will engage with the community in accordance with Airservices Community Engagement Framework, including providing feedback on the ToR and the draft PIR Report.

5 PIR OVERVIEW

The PIR process consists of the following core activities:

- **Desktop noise modelling** comparing the assumptions and findings of the EIA with actual aircraft movement data
- **On-ground short-term noise monitoring** to augment the desk-top review and provide actual aircraft noise data within the N60 noise contours
- **Review of community information** regarding forecast aircraft noise and operational impacts on community against actual aircraft movement data, and provision of updated information where required
- **Consideration of stakeholder feedback** regarding the safety, operational management, efficiency and community noise impacts of the flight paths, including community suggested alternatives to flight paths and/or procedures.

5.1 Timeframe

The timeframe for a PIR is determined by having access to sufficient and representative aircraft movement and noise data to ensure accurate and valid analysis.

The PIR is planned to occur between November 2020 and June 2021 (commencing approximately 12 months after implementation of the change).

Between the months of November 2019 and February 2020, Airservices was able to obtain post-implementation representative aircraft movement data for both ends of the runway (Runway 12/30) reflective of the seasonal operations at this time (summer season). However, because of the COVID-19 impacts on aircraft movements, Airservices was not able to collect representative data for other periods of the year when Runway 30 is mainly used.

Forecast airline schedules indicate a return to sufficient aircraft movement levels to enable on-ground short-term noise monitoring from December 2020 to June 2021 and additional desktop analysis of operations between February and June 2021.

5.2 Detailed Activities

Airservices will undertake the following activities during the PIR:

Desktop noise modelling (November 2019 to February 2020 and December 2020 to June 2021 data) -

- Noise modelling analysis against the EIA assumptions (including final design, high level routes and VOR)
- Review of scheduled Instrument Flight Rules (IFR) operations compliance with published approach and departure procedure designs
- Review the effectiveness of the Hobart Airport NAP and identify any potential improvements.

Short-term noise monitoring (December 2020 to June 2021) -

- Feasibility assessment of potential short-term noise monitoring, including methodology, metrics, timing and locations
- Identification of potential short-term noise monitoring locations (including expressions of interest from the community for short-term noise monitor installation)
- On-site short-term noise monitoring and associated analysis activities (comparing modelled vs actual aircraft operations and noise).

Review of community information (January 2021 to June 2021) -

- Review of community information provided regarding expected aircraft operations and noise compared to actual operations (including final design, high level routes and VOR)
- Provide updated community information, if required.

Review of stakeholder feedback and suggestions (March 2021 to June 2021) -

- Review of feedback from airlines, industry representative bodies, Hobart Airport and general aviation operators on the operational efficiency, performance and flyability of flight paths, procedures and routes, air traffic management practices inside controlled airspace, NAPs, and the effects of the change on overall network efficiency
- Investigation of identified community suggested alternatives to flight paths and/or procedures, including NAPs submitted during the PIR
- Consideration of opportunities identified by air traffic control (ATC) and/or industry to enhance the operational efficiency and performance of flight paths, air traffic management procedures and overall network efficiency.

Airservices will release a draft PIR Report for public comment on the findings from the above activities. Feedback will be reviewed and considered, and the final PIR Report will be released on the Airservices website and *Engage Airservices*.

6 CONSIDERATION OF COMMUNITY SUGGESTED ALTERNATIVES

Airservices regularly investigates community suggested alternatives to flight paths and/or procedures it has implemented. The existing process for these investigations will be applied to the consideration of alternatives submitted during the PIR. This includes:

Safety and operational compliance assessment – does the change comply with international and national safety and design standards?

Operational efficiency and feasibility assessment – is the change flyable and efficient? Does the change:

- add complexity to operations (the work of ATC in managing the airspace or pilot workload in flying the flight path)
- increase track miles for industry (creating additional emissions and operational cost)?

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 Airservices Flight Path Design Principles (proposals that seek to move aircraft noise from one community to another are not considered as responsible)
- result in greater track miles for industry (creating additional emissions)
- impact areas of national environmental significance and noise sensitive sites
- impact areas of future residential development or areas of high tourism value?

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 PIR will include a formal community suggested alternatives engagement period.

This will involve:

Initial call for submissions – via direct correspondence with community groups, individuals registered with Airservices, and providing information on *Engage Airservices*. The submission period will be for two to three months in early 2021

Investigation period – three months (subject to the number of submissions received)

Feedback, clarification and further investigation (if required) – via direct correspondence with submitters

Final summary report – providing the findings of investigation of all alternatives submitted, including next steps for alternatives found to be feasible.

7 AIRSERVICES PIR TEAM

The PIR team will consist of the following (or their delegate):

- Environment and Community Manager (PIR Chair)
- Director Operations – Airspace Services Melbourne
- Director Operations – Aerodrome Services
- Operations Manager – Procedures
- Unit Tower Supervisor – Hobart Tower
- Community Engagement Manager
- Community Engagement Specialist/s
- Noise Complaints Information Service Manager
- Flight Path Design Manager (Chief Designer)
- Senior Noise and Environmental Specialist/s
- Industry Engagement Manager.

8 STAKEHOLDERS

Airservices will consult with the following stakeholders throughout the PIR:

- Hobart Tower and Bass air traffic controllers
- Broader Hobart region community, including community members registered with Airservices through NCIS and *Engage Airservices*
- Hobart International Airport Pty Ltd, Chief Executive Officer (or delegate)
- Hobart Airport Community Aviation Consultation Group (CACG)
- Airlines, aviation operators, and aviation industry associations.

Airservices will keep the following stakeholders informed throughout the PIR:

- Aircraft Noise Ombudsman (ANO)

- Elected representatives – Federal, State and Local Government.

9 RESOURCES

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

- Airservices Noise and Flight Path Monitoring System (NFPMS) aircraft flight path data
- Airservices Aircraft Noise Monitoring and Management System (ANOMS) flight track data
- Airservices Operational Data Analysis Suite (ODAS) for flight and route information (if required)
- Airservices noise complaints data, investigations, summary and analysis related to Hobart Airport operations
- Hobart Airport NAPs
- Airservices EIAs Hobart Airspace Design Review:
  - *EIA of proposed changes to Standard Instrument Departures and Standard Arrival Routes at Hobart Airport, Version 1.3, 8 November 2018*
  - *EIA Addendum, Version 2.3, 28 March 2019*
  - *EIA of Proposed New Route Structure for Hobart Airport, Version 1.0, 10 April 2019*
  - *EIA of Hobart Airport – VOR Relocation, Version 1.0, 31 January 2018*
- Airservices community information on aircraft operations and noise
- Industry, community and ATC submissions received during the PIR
- Other stakeholder submissions received during the PIR.

10 DEFINITIONS

Within this document, the following definitions apply:

Term	Definition
ANO	Aircraft Noise Ombudsman
ANOMS	Aircraft Noise Monitoring and Management System
ATC	Air Traffic Control
CACG	Community Aviation Consultation Group
CASA	Civil Aviation Safety Authority
EIA	Environmental Impact Assessment
GA	General Aviation
IFR	Instrument Flight Rules
NAPs	Noise Abatement Procedures
NFPMS	Noise and Flight Path Monitoring System
NOS	National Operating Standard
ODAS	Operational Data Analysis Suite

Term	Definition
PIR	Post Implementation Review
SIDs	Standard Instrument Departures
STARs	Standard Instrument Arrivals
ToR	Terms of Reference
VFR	Visual Flight Rules
VOR	Very High Frequency Omni-directional Range