# Review into processes associated with aircraft noise management

December 2017

# 1. Executive Summary

A review has been conducted into Airservices performance in meeting environmental accountabilities, as they relate to flight path changes. The objective of the review was to provide an assessment of performance against key policy and procedural documents and provide recommendations for improvement, where necessary. The Objectives and Scope of the review are detailed in Section 2.

In summary, Airservices performance in this regard requires improvement. A cultural shift is required to ensure environmental considerations are given the priority they require.

Accountabilities for managing aircraft noise and flight path change processes are clearly and adequately documented in the EMS. Specifically, the roles, responsibilities and accountabilities documented are aligned to the Airservices accountability and performance framework and the relevant Risk Management Standard. The NOS prescribes the requirements for environmental assessment and stakeholder engagement that must be met by Airservices, prior to the implementation of changes to aircraft operations. There are also adequate, documented assurance activities for aircraft noise management within Airservices.

However, key environmental risks are not always adequately understood by those responsible for acquitting these accountabilities which results in decisions being made, at times, without full consideration of the potential environmental impacts of change.

In some recent flight path changes, this lack of understanding lead to the NOS not being effectively applied to mitigate environmental risks. There was inadequate information available when decisions to proceed with changes were made – there was insufficient consideration of the risks and, subsequently, insufficient community consultation.

Decisions makers are, at times, under pressure due to the perceived urgency of the change from an operational effectiveness perspective which can drive complacency in terms of fully acquitting the breadth of environmental responsibilities associated with making changes of this nature.

These performance gaps could be improved by ensuring an adequate forward planning horizon and prioritisation process to allow for assessments and stakeholder/communication consultation to be undertaken effectively. The decision to make the change should only be exercised once accountable managers are fully informed.

Key Findings are detailed at **Section 3** of this report and Recommendations and Agreed Actions to improve Airservices performance are detailed at **Section 4**.

# 2. Background, Objectives and Scope

## Background

The Airservices Act 1995 places responsibilities on Airservices for managing the environmental effects of its operations.  Airservices approach to environmental management is also governed by a range of other legislation, regulations, Ministerial Directions and internal procedures and guidelines. The activities that Airservices undertakes in order to meet these requirements are described in its organisational Environment Management System (EMS).

Airservices objectives and requirements relating to broad environmental management are described in AA-NOS-ENV-0001 Environmental Management System Objectives and Requirements. The document reflects the legislation that Airservices must comply with in meeting its environmental obligations including:

- The Environmental Protection and Biodiversity Conservation Act 1999
  - The Environmental Protection and Biodiversity Conservation Regulations 2000
- The Airservices Act 1995
  - The Airservices Regulations 1995
- The Airports Act 1996
  - The Airports (Environmental Protection Regulation) 1997
- The Air Navigation (Aircraft Noise) Regulations 1984
- The Air Navigation (Aircraft Engine Emissions) Regulations 1995
- Sydney Airport Demand Management Act 1997
- Ministerial Directions
  - M37/99 - Direction pursuant to s16 (of the Airservices Act 1995) concerning the responsibilities of Airservices Australia in respect of the environmental effects of aircraft. In addition to a number of other obligations, this directs Airservices to undertake monitoring, testing and compliance in association with the Air Navigation (Aircraft Noise) Regulations 1984.
  - M94/97 – Direction pursuant to s16 (of the Airservices Act 1995) to implement the Sydney Long Term Operating Plan (LTOP)

Detailed environmental requirements for changes to flight paths are described in AA-NOS-ENV-2.100 – Environmental Management of Changes to Aircraft Operations.

The Executive Environmental Management Accountabilities National Operating Standard (AA-NOS-ENV-0003) states the accountabilities and responsibilities for members of the Airservices Executive in Airservices delivering outcomes in accordance with these obligations.  Some senior managers also have specific environmental accountabilities, as relevant to their role.

## Objectives

The key objectives of the review were to:
- Provide an assessment of performance in meeting accountabilities for aircraft noise management
- Provide an assessment of the adequacy of assurance activities for aircraft noise management
- Identity opportunities to improve the effectiveness of staff in acquitting aircraft noise management responsibilities
- Recommend changes to the functions and responsibilities as necessary.

## Scope

The review assessed the effectiveness of Airservices performance in the following areas:
- o Facilitating a culture within the organisation which embeds environmental compliance and sustainability within all operations and change proposals
- o Ensuring appropriate community and stakeholder engagement in support of the implementation of flight path changes
- o Ensuring compliance with the requirements of the Airservices NOS Environmental Management of Changes to Aircraft Operations (AA-NOS-ENV-2.100), Environment Policy and Environment Management System (EMS)
- o The adequacy of individuals in understanding and knowledge to acquit role specific responsibilities and accountabilities
- o Ensuring that staff are appropriately trained and competent to acquit their environmental obligations
- o Ensuring that flight path changes, and associated activities, are designed and controlled in a manner which minimises impact on the environment
- o The adequacy and effectiveness of electronic systems in supporting staff accountabilities for aircraft noise management.

This review was undertaken against the application of the AA-NOS-ENV-2.100 (V9 published 15 December 2016) – this was the current document when this review process commenced.  An updated NOS (V10) was published on 20 October 2017 and has effectively captured some actions noted in this review.

# 3. Key Findings

**Processes to Change Flight Paths**

1. Airservices has extensive, documented processes outlined in the NOS, with supporting procedures in place which are fit for purpose. These processes are periodically updated as required.

2. There is a demonstrated lack of consistent application of the process when flight path changes are proposed. For example:
   - The process may not be considered and applied in its entirety
   - Change decisions may be made without sufficient evidence/documentation to support the change
   - A (perceived or real) operational need could potentially unduly influence timely and complete application of the process

3. Staff are not adequately aware of and/or trained in the acquittal of their accountabilities, and nor are they appreciative of the role their contribution plays in the end to end process.

4. The responsibilities and accountabilities for flight path changes (and associated processes) were realigned over the past 18 months, however the transfer and associated information/learnings about these were not effectively handed over.

5. A lack of strategic prioritisation of flight path changes can drive misalignment in the timeframes for delivery of the necessary work (flight path design, environmental assessment and consideration of risks, community consultation) to inform robust decision making.

6. The Targeted Environmental Assessment (TEA) is effectively a compliance assessment against the EPBC Act, and not a holistic environmental risk assessment in accordance with AA-NOS-RISK-0001. The assessment should also capture a noticeable change to the community. The technical environmental assessment information is not always sufficiently robust (ie assessment of whether a flight path change will be 'noticeable' to a community as opposed to just the pure 'technical' noise level) and nor is it sufficiently challenged by those responsible for consideration of the overall risks which can lead to inadequate consideration of the impact to communities of flight path changes. For example:
   - A recent flight path changes was given an environmental risk rating of "D". This, however, did not include consideration of the impact of the change on the newly affected communities. If this had been adequately considered, the risk rating would have been higher and required sign off at a more senior level.
   - The practice of risk rating individual airports in the NOS at a collective level (ie allocating some airports as "potential B class risk airports"), rather than risk rating changes through the risk management framework can lead to complacency when assessing the potential impact of new flight paths on communities, resulting in less rigour around community consultation requirements.

7. Consultation required as a result of a proposed changed is planned and undertaken through the development and delivery of a "Stakeholder Engagement Strategy" (SES). In some cases, planned consultation has been inadequate both from a timeliness and breadth perspective due to a lack of appreciation for the broader community impact of the proposed change. In other cases, consultation was not completed as planned in the SES.

**Culture and Behaviours**

8. We have a strong "Safety by Design" culture when implementing changes to our operations. We do not give our environmental obligations the same degree of consideration ie "Environment by Design".

9. There is a lack of appreciation for, and application of, governance processes designed to adequately manage environmental risks. This stems from a deep culture of operational (safety) requirements coming first and any associated processes being perceived to 'slow things down'.

10. Airservices has strong technical expertise in areas associated with flight path change processes (environment, noise, community, procedures design), but this expertise is often not given due consideration when decisions are made.

11. Despite undertaking internal reviews into our processes in recent times, and receiving external feedback to inform our processes, Airservices has not sustainably improved the systemic cultural challenges associated with acquitting its environmental accountabilities appropriately.

**Airservices Risk Management Framework**

12. There is no evidence of regular reviews of identified risks associated with the impacts of aircraft noise in accordance with AA-NOS-RISK-0001. It is, therefore, not apparent that the consideration of the risks associated with the impacts of aircraft noise are adequately aligned to the Airservices Risk Management Framework. If they were the following considerations would be a matter of course:
    - Why are we making the change, what safety risk will be reduced/removed: "is there a C risk that will reduce to a D risk by making the change?"
    - What are the risks introduced in making the change, are new environment or reputation risks introduced, are they B, C or D, are they permanent or just transitional?

13. An assurance assessment of compliance with organisational environmental management requirements for flight path changes was undertaken in June 2017. This assessment noted whilst the environmental assessment and management process was generally followed, sampling indicated some deviations from documented requirements including:
    - Some changes lacked approval by the accountable proponent
    - Some changes did not have an attached environmental assessment report (or other 'appropriate evidence' of assessment) or corresponding NRFC record
    - Some actions had been cancelled with no supporting evidence to justify cancellation
    - There was limited evidence of first layer assurance activities conducted
    These findings are consistent with those within this report.

**Functional Alignment/Resourcing**

14. In some cases, expectations and accountabilities of staff are not clearly articulated in Role Statements and/or Work Performance Agreements.

15. Not all staff involved in the flight path change process fully understand and acquit their responsibilities and accountabilities in adequately delivering aircraft noise management requirements. There is also insufficient cross functional collaboration to inform oversight of the end-to-end processes.

16. The Noise Complaints and Information Service (NCIS) is adequately resourced to manage the flow and quality of information to communities (currently) affected by existing aircraft noise.

17. The role of local operational managers, and technical specialists as necessary, in engaging with the local Community Aviation Consultation Groups (CACG), is becoming increasingly important and will require significant focus going forwards. The focus and prioritisation on assessing risk adequately, and then using this to drive proactive consultation with communities impacted by proposed changes, requires improvement.

18. With a number of inputs to the current change process and the volume of changes annually, accountable managers could be better supported by diligent application of documented processes and a "single source of truth" to inform their decision.

# 4. Recommendations and Agreed Actions

Actions proposed in this review have been agreed by the accountable managers and the Executive General Manager Air Navigation Services.  Some actions (for example requirement to undertake risk assessments against the Airservices risk management framework) are ongoing.

| No. | Recommendations | Agreed Actions | Action Officer | Deadline |
|---|---|---|---|---|
| 1 | **Improve application of Airservices AA-NOS-ENV-2.100 and Risk Management Framework:**<br>• Risk 0000494 (Failure to meet obligations with respect to managing aviation noise and its effects on communities and environment) is to be reviewed in required timeframes and include documented analysis of the risk for major, regional and rural airports to adequately inform accountable managers of the risk.<br>• Reputational risk reviews to be incorporated into all airspace and flight path change assessments.<br>• Environmental risk reviews to be incorporated into all airspace and flight path change assessments.<br>• Undertake reviews of environmental and reputational risk assessments  recorded in the CIRRIS EA Module | (1.1) Training for staff in operations, noise/community; environment; and flight path design teams and risk assessment as per the Environment Management System | A –Standards & Systems Manager<br>R – Environmental Systems and Assurance Manager | February 2018 |
| | | (1.2) Training for staff in operations, noise/community; environment; and flight path design teams  requirements as per Airservices Risk Management Standard | A – Governance and Security Manager<br>R – Risk & Compliance Manager | February 2018 |
| | | (1.3) Enterprise risk reviews for aircraft noise at major and regional airports be reinstated and signed off accordingly by appropriate level manager in accordance with the Risk Management Standard | A – EGM ANS<br>R – Northern and Southern Operations Managers | January 2018 |
| | | (1.4.) Risk reviews of EAs are undertaken in accordance with the risk management standard | A – Northern & Southern Operations Manager<br>R – ANS Service Managers | January 2018 |
| | | (1.5) Update the NOS to remove references to "potential B Class risk" for aircraft noise.  These assessments will be undertaken individually for each change | A –Standards & Systems Manager<br>R – Environmental Systems and Assurance Manager | January 2018 |

| 2 | **Build an "Environment by design" culture:**<br>• Build stronger alignment between functions of flight procedure design, environment and stakeholder management.<br>• Implement an effective change management process for flight path changes to ensure the appropriate subject matter experts are part of the initial design scope (flight path design, environment, community impact should all be considered at the preliminary design stage). | (2.1) Establish a proposal to establish a cultural shift towards the iterative design of flight path changes considering environment, IFP and stakeholder functions | A - EGM ANS<br>R – Operations Standards and Assurance Manager | January 2018 |
| --- | --- | --- | --- | --- |
| | | (2.2) Establish the principles/TOR of a "change team" to implement at the beginning of the flight path design process | A – Operations Standards and Assurance Manager<br>R – Chief Air Traffic Controller / Sydney Operations Manager | January 2018 |
| | | (2.3) Finalise the revised NAAM and undertake training/awareness with relevant staff on the revisions | A - Operations Standards and Assurance Manager<br>R – Chief Air Traffic Controller | January 2018 |
| | | (2.4) Complete configuration changes in CIRRIS (reputational risk assessments; manager sign off buttons) to correctly reflect NOS 2.100 | A –Standards and Systems Manager<br>R – Environment Systems and Assurance Manager | March 2018 |
| 3 | **Fix the prioritisation pipeline:**<br>• Establish an effective process for prioritising flight path change activities.  (Prioritisation only from ANS Northern/Southern Operations Managers will provide a clear direction that informs the workload of flight path design, environment and noise assessments and community engagement teams).<br>Forward planning is required to meet the forward publishing dates | (3.1) Include Accountable ANS Managers prioritisation process in the NAAM | A – Operations Standards and Assurance Manager<br>R – Chief Air Traffic Controller | January 2018 |
| | | (3.2) Finalise the updated NAAM and publish | A – Operations Standards and Assurance Manager<br>R – Chief Air Traffic Controller | January 2018 |
| | | (3.3) Complete training and education for relevant staff in the updated NAAM | A – Operations Standards and Assurance Manager<br>R – Chief Air Traffic Controller | March 2018 |

| 4 | **Enhance the Technical Environment Assessments:** <br> • To clearly articulate assessment undertaken against the EPBC criteria (is the change "potentially significant"?); and other criteria used more broadly to inform the environmental risk assessment. | (4.1) Amend the EMS to reflect requirement for "long form" environmental assessment required for any proposed flight path changes that may newly overfly communities; will concentrate noise/aircraft movements; will overfly a regional or rural area (where ambient noise is quieter) | A –Standards and Systems Manager <br> R – Environment Systems and Assurance Manager | January 2018 |
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| | | (4.2) Environment representatives on "change team" from the beginning of the design process (through NAAM) | A – Operations Standards and Assurance Manager <br> R – Chief Air Traffic Controller | January 2018 |
| | | (4.3) Undertake environmental risk assessments as part of the assessment process (as per Airservices Risk Management Standard and EMS) | A – EGM ANS <br> R – Northern and Southern Operations Managers | January 2018 |
| | | (4.4) Additional criterion to be added to initial environmental screening process – proponent's self-assessment to capture potential impact on rural/regional areas through either a new flight path (ie not previously overflown) or through a procedure that will concentrate aircraft movements | A – Operations Standards and Assurance Manager <br> R – Chief Air Traffic Controller | January 2018 |
| | | (4.5) Targeted Environmental Impact Assessments clearly defines the analysis against the EPBC Act and criteria; and a second, clearly defined analysis relating to social impact (to support information relating to whether there will be a "noticeable change") to be included | A – Operations Standards and Assurance Manager <br> R – Chief Air Traffic Controller / Sydney Operations Manager | March 2018 |

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| | | (4.6) Consider options for recording information and transferring knowledge for airport community and noise issues (eg "Airport Noise Management Plans") to capture historical changes, activities and engagement | A – Northern Operations Manager<br>R – Sydney Operations Manager | January 2018 |
| 5 | **Improve community consultation activities:**<br>• Continue to develop effective and targeted community consultation plans for all flight path change proposals to ensure timely information is provided to potentially impacted communities.<br>• Outcome of community consultation is used to inform the go/no go decision – with an iterative process in place (re-work, further consultation if required before change is implemented).<br>• Ensure adequate information is documented in the stakeholder engagement plan (and execution) so the change and potential impact is clear | (5.1) Community consultation undertaken by a Stakeholder Engagement Plan (SEP), identifying potentially impacted communities through both the environmental assessment and social impact review | A – Northern Operations Manager<br>R – Sydney Operations Manager | January 2018 |
| | | (5.2) Case study review of "social impact: assessments and propose a template/TOR for this process | A – Northern Operations Manager<br>R – Sydney Operations Manager | February 2018 |
| | | (5.3) SEP should cover potentially impacted communities based on likelihood to "notice a difference" not based only on the EPBC trigger metrics | A – Northern Operations Manager<br>R – Sydney Operations Manager | January 2018 |
| | | (5.4) Undertake reputational risk analysis of all proposed flight path changes that may affect the community as per Airservices Risk Management Framework – before and after consultation to inform the go/no go decision by the accountable ANS Manager | A – Northern Operations Manager<br>R – Sydney Operations Manager | January 2018 |
| | | (5.5) Community/noise representatives on "change team" from the beginning of the design process | A – Standards and Assurance Manager<br>R – Chief Air Traffic Controller | January 2018 |

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| | | (5.6) Strategic Stakeholder group supports development of appropriate Stakeholder Engagement Plans (SEP) (*development not execution*) | A – ATM Customer Value Manager R – Strategic Stakeholder Manager (Execution of plan – accountability with Operations Managers) | January 2018 |
| | | (5.7) Recruit against the vacancies in the NCIS (Investigator?) and Community/Noise (Advisor) – based on requirements to adequately support and prioritise existing noise management and flight path change processes | A – Northern Operations Manager R – Sydney Operations Manager | January 18 (commence) |
| | | (5.8) Review and realign all relevant Role Descriptions to cover levels of authority and accountability | A – Northern Operations Manager (Community) / Standards and Assurance Manager (Environment and Flight Path Design) R – Sydney Operations Manager (Community) R – Chief Air Traffic Controller (Environment and Flight Path Design) | January 2018 |
| | | (5.9) Ensure data in Stakeholder Engagement Plan (and execution) adequately reflects potential impact including: - the high number of aircraft movements expected (not the average) for all areas to be overflown where the change is likely to be noticed; - appropriate visual information including "current" and "new" comparisons (not just a map with "new") | A – Northern Operations Manager R – Sydney Operations Manager | January 2018 |

| 6 | **Effectively prioritise the efforts of community consultation requirements to support the flight path change process (managing "existing" noise versus managing potential "new" noise):** <br>• Refocus resources – existing noise management versus "new" noise management <br>• Increase role of to support local operational managers in managing the local Community Aviation Consultation Group (CACG) process with information and reports in response to community concerns about existing aircraft noise issues. <br>• Staff in the existing "noise and community engagement team" focus on the flight path change process (providing technical input to the flight path design process and environmental assessment); <br>• Does not require a structural change, but a reprioritisation of workload and cross-functional collaboration. | (6.1) Community/noise staff workload prioritised around flight path change process and managing "new noise" | A – Northern Operations Manager <br>R – Sydney Operations Manager | January 2018 |
| | | (6.2) NCIS focuses on "existing noise" issues and provides additional support for local managers (for CACGs etc) | A – Northern Operations Manager <br>R – Sydney Operations Manager | January 2018 |

*Note – actions have been captured in CIRRIS so they can be monitored and tracked.  Deadlines noted represent the end of the month.*