

16 December 2022

By Email

Phil McClure
A/g Chair
National Airports Safeguarding Advisory Group
Department of Infrastructure, Transport, Regional Development, Communications and the Arts
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Dear Phil,

Review of Guideline C (Wildlife Strike) of the National Airports Safeguarding Framework

The Australian Airline Pilots' Association (AusALPA) represents more than 7,100 professional pilots within Australia on safety and technical matters. We are the Member Association for Australia and a key member of the International Federation of Airline Pilots' Associations (IFALPA) which represents over 100,000 pilots in 100 countries.

Our membership places a very strong expectation of transparent, rational, risk and evidence-based safety behaviour on our government agencies and processes, as well as for active engagement with us as key Australian aviation industry stakeholders. AusALPA welcomes the opportunity to participate in this Review, particularly as we remain completely independent of the political and commercial interests of other stakeholders.

Continued Commitment to NASF

As previously stated, AusALPA applauds the achievements of the National Airports Safeguarding Advisory Group (NASAG) in creating the National Airports Safeguarding Framework (NASF). We consider the NASF to be well in the forefront of the essential protection of aviation infrastructure worldwide and we are committed to contributing our operational knowledge to furthering the positive achievements of airport safeguarding in Australia. Critically, we maintain a focus on aviation safety and offer perspectives that we believe regulators, service providers and aircraft operators have consistently failed to provide in past consultations.

AusALPA recognises the inherent difficulties faced by NASAG participants, particularly those brought about by Constitutional issues and the politics of Federation. While we acknowledge the complexities, we nonetheless believe that the NASF is the best current vehicle to eventually achieve our goal of a standardised national approach to airport safeguarding that applies to all airports in all jurisdictions.

Legislative Implementation of the NASF

The primary issue remains the enactment of these guidelines into legislation. We maintain the belief that, in order to achieve our goal of a standardised national approach to airport safeguarding that applies to all airports in all jurisdictions, there needs to be a single authority that is ceded all necessary powers by each of the jurisdictions to enforce the intended safety outcomes. With the exception of *Guideline A: Measures for Managing Impacts of Aircraft Noise*, AusALPA considers the remaining Guidelines to be all safety-related and amenable to the application and enforcement by one agency. In this regard, we still consider that CASA is the best option available as the choice of a single agency that all jurisdictions accept as the standard setter for most safety outcomes at airports.

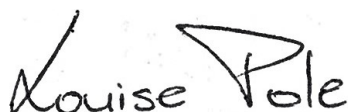
NASF Guideline C

AusALPA's answers to the specific questions are contained in Appendix A.

Until, however, these guidelines are enacted, the responses from this Review may improve the document but not the outcome. The NASF *Guideline C* is a good document, but without "teeth", its practical function is limited.

Should you require further information, or would like to discuss this further, please don't hesitate to contact us.

Yours sincerely,



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Appendix A

AusALPA's Answers to the Questions in the NASF Guideline C Review

Discussion questions

1. *How could guidelines be reordered or changed to be clearer or more usable?*

The ICAO advice on high-risk land uses could be placed as an attachment but NOT as a footnote, as it would lose its significance.

2. *What additional guidance would improve the clarity of the guideline (e.g. detail around landscaping and design)?*

Detailed design and landscaping requirements were implemented for Hong Kong International Airport. This included designing external building surfaces such that they could not be used as nesting sites. Fruit bearing trees were banned from being planted. Similar measures should be incorporated into the Guideline.

3. *How could the guidelines be updated to better align with current planning and engagement practices?*

As stated by Avisure in its 2019 submission, "The primary impediment to the full implementation of Guideline C, is that it is difficult to embed the elements of the Framework into a planning scheme. Planning schemes by their nature require certainty for acceptable versus unacceptable practice. Wildlife strike management is based on risk, so each airport and each land use require an understanding of the specific context of that location in relation to surrounding habitat features that cause wildlife to utilise the airspace that could be co-occupied in space and time, with aircraft. The risk presented by a land use may not only relate to the airspace above the land use, but also to the interaction of it as a habitat feature with other habitat features in the landscape, potentially causing wildlife to intersect aircraft flightpaths."

4. *What changes could clarify roles and responsibilities for planning authorities and airport operators?*

See diagram below for stakeholders' responsibilities.

- a. In most States and Territories, this is a "guidance" document only and, as such, it would appear that local governments have been reluctant to adopt it into local planning schemes as it is not bound by law. There are no penalties or implications for local, state and territory planning departments for not adopting the principles. Whilst, as stated in our cover letter, AusALPA would prefer a national consistent approach under a single agency, the adoption of this Guideline into State and Territory Legislation would make it a far more effective instrument.

- b. The land users should have the same or similar obligations to the aerodrome operators. Likewise, the responsibilities of the planning authorities and aerodrome operators should be aligned.

5. *How should the land use and activity types listed in Attachment 1 be improved?*

Consult with aviation wildlife experts and groups and incorporate their suggested changes. This should be based on data identifying activities which were not previously included but have been shown to be actual or potential attractants to wildlife.

6. *How should the actions in Attachment 1 (e.g. monitor, mitigate) be clarified?*

Based on discussions to date, the Risk Assessment Subgroup (see Additional Comments below) has concluded that the following should be done:

- a. Define where aircraft are moving (i.e. the critical airspace) up to 10nm from a subject airport and divide into key areas of concern.
- b. Understand aircraft types, occurrence levels, and trends in the critical airspace up to 10nm from a subject airport.
- c. Define prioritised list of Wildlife Species of Concern (WSC) based on species occurring within 10nm of the subject airport.
- d. Undertake wildlife and habitat data collection surveys to identify key locations of “resources” for the WSC and the catalysts for these “resources”.
- e. Undertake WSC regular movement paths, occurrence levels and trends on airfields and in critical airspace up to 10nm from a subject airport.
- f. Assess strike risk ratings for each prioritised WSC for each defined area of critical airspace
- g. Mitigate accordingly and appropriately.

7. *How should Attachment 1 address the balance between certainty and flexibility?*

The concept of critical airspace needs to be introduced based on the risk of wildlife being in the critical airspace at the same time as an aircraft (See Additional Comments). Whilst there are some broad mitigation actions which apply to all aerodromes, the Guideline needs to be responsive and flexible to site-specific measures.

8. *What additional information would make Attachment 1 clearer or more usable?*

Within 3km of an airport, more details are needed such as for vegetation clearing, ponding, drainage stormwater management, fish cleaning, etc.

9. *How should airport buffers be calculated and utilised?*

These distances should be measured from the edge of each operational runway as per the OLS radii and not from the airport reference point.

10. *What additional information would make the guideline clearer or more usable?*

The NASF should be reviewed in light of the updated MOS139 to ensure alignment.

11. *How could the guideline structure be improved?*

Nil comment.

12. *How could the guideline better align with current planning and engagement practices?*

- a. The Queensland State Planning Policy can demonstrate how the NASF can be more powerful and compel land use planners to better use it.
- b. Western Sydney Airport's *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 (SEPP)* and the *Western Sydney Aerotropolis DCP Phase 1* demonstrated a good example of setting out the rules for land use around an airport.
- c. The NASF should link to planning schemes and be embedded in policy and regulation (see also Answer 4).

13. *What changes are needed to ensure facts and references are correct and up-to-date?*

The NASF should be reviewed in light of the updated MOS139 to ensure alignment.

14. *What references or terms should be included or updated in the glossary?*

Consult with aviation wildlife experts and groups and incorporate their suggested changes.

Additional Comments:

AusALPA is represented on the Risk Assessment (RA) Subgroup, which consists of international aviation wildlife experts, and is developing a "White Paper" to illustrate a different approach to risk assessment concerning wildlife hazard management in the aviation context.

The present "risk assessment" approach is not working, because it does not address the fundamental issue which is to reduce or eliminate wildlife and aircraft being in the same critical airspace at the same time. In the last review of NASF Guideline C, Avisure proposed a model for this.

The RA Subgroup believes that this can be further refined into critical airspace which will differ for each type of operation. For scheduled air transport services, this will normally be the OLS out to 10nm (3000 feet) (see Figure 1).

For general aviation aircraft, it will be the circuit area; and for helicopters, it could be the 1.5km ring around the Final Approach and Take-Off (FATO) area. (The critical areas could be determined with the assistance of SMEs.)

Critical Airspace-Scheduled Air Transport

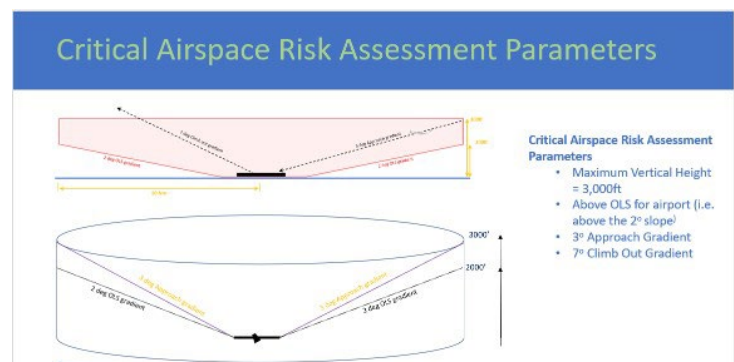


Figure 1: Critical Airspace – Scheduled Air Transport Services

Holistic Approach

- Traditional approaches to wildlife hazard risk management in aviation have focused on the airport, management of habitats, exclusion and deterring of wildlife from the airport grounds (ICAO 9137, ACRP Report 145).
- However, the likelihood of wildlife strikes in general and damaging strikes is increased up to an altitude of 3,000 ft, and as such, in arrival and departure corridors of conventional fixed-wing operations and flight corridors of rotorcraft, general aviation and, in the future, Urban Air Mobility (UAM) operations (Dolbeer annual report, Dolbeer altitude-strikes, Dolbeer altitude-damaging).
- Wildlife strikes are not limited to the airport and, as decades of data collection show, are foreseeable events.
- ***Therefore, a holistic approach to perform wildlife hazard management in the entire critical airspace involving all aviation stakeholders is required.***
- It follows that using 3, 8 and 13 kms distances are not sufficiently nuanced. As you will see from Figure 2 (RA Subgroup Model), there is an area which is regulated and one that is managed. The latter may also be considered as an area of influence in which the airport operator and the land users are required to understand the consequences of the latter's activities on wildlife entering the critical airspace and jointly work together to mitigate the likelihood especially if the consequences are severe. A small bird being struck by a large aircraft will kill the bird but probably cause little or no damage to the aircraft. This would not be the same outcome if it was a small GA aircraft involved or a flock of birds. [Note also that the boundaries are not rigid e.g. migratory birds do not "respect" a 13 km boundary line.]
- If a fixed radius is to be used, 10nm is a more realistic distance (as again explained and illustrated by Avisure in its 2019 submission).

RA Sub Group Model

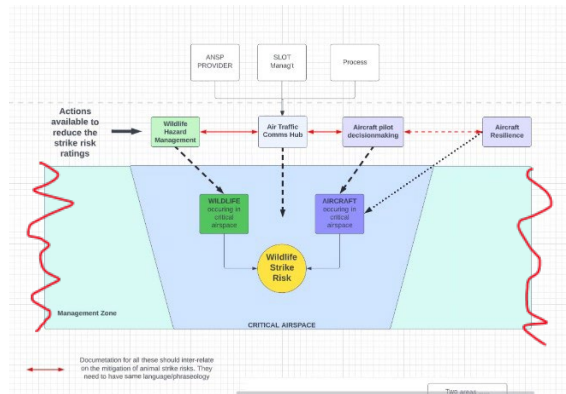


Figure 2: RA Subgroup Model (Note that the outer boundary should not be a rigid demarcation line)

Stakeholders Responsibilities

- Aircraft Manufacturers
- Governments (National, State and Local)
- Aerodromes/Heliports Designers
- Aerodrome/Heliport Operators
- Air Traffic Control
- Air Operators
- Pilots
- Engineers and Ground Staff

