



SUBMISSION ON THE EMERGING AVIATION TECHNOLOGIES: NATIONAL AVIATION POLICY ISSUES PAPER

EXECUTIVE SUMMARY

This submission is made by the East Melbourne Group, an incorporated association, representing a community of about 5,000 people.

We are pleased to provide a response to the Department of Infrastructure, Transport, Regional Development and Communication's (DITRDC) paper titled: **Emerging Aviation Technologies: National Aviation Policy Issues Paper**. Our response focuses on the key elements of the draft paper and provides comments in relation to those, in particular the relevant Principles and the questions posed under, Have Your Say.

We consider the principles outlined in the paper to be reasonable, but consider that extra weight should be given to:

1. The necessity for safe and secure operations.
3. Considerate of the community and the environment.
6. A nationally consistent approach.

With respect to safety, we focus on the technology and the user and urge consideration of mechanisms such as exclusion zones over at-risk areas, such as densely populated communities.

With respect to impacts on the community and the environment, we consider noise to be the primary issue. We have identified deficiencies in the current legislative framework and we also strongly advocate meaningful community engagement in the development of noise standards.

The need to address privacy issues is also identified as a major issue impacting on the community.

With respect to a nationally consistent approach, we consider that there is no need to alter the responsibility for management of aircraft and airspace which rests with the Commonwealth and we support the further work proposed to be undertaken by DITRDC.

DISCUSSION

Principles

The six principles outlined in the paper are:

1. The necessity for safe and secure operations.
2. Encourage best practice operations.
3. Considerate of the community and the environment.
4. Support industry growth and investment.
5. A fair competitive and efficient approach to airspace access.
6. A nationally consistent approach.

We consider these principles to be reasonable in themselves. However, it does raise the question, will each of these principles be of equal weight in the development of the strategy or will some be pursued with greater emphasis or weight?

We are strongly of the view that Principles 1, 3 and 6 have a higher weight in importance. We outline our reasons for this in the following content of our submission.

In Have Your Say a range of issues are identified:

The key issues of concern to us are:

- Do you agree with the proposed core principles for the National Emerging Aviation Technologies policy?
- To what extent should Australia's approach be harmonised with approaches taken in other countries?
- What level of service and regulation do you expect from the Government?
- What are your expectations of the Government's role and responsibilities in the management of drones and eVTOL vehicles?

Our views in relation to the Principles and Have Your Say points above, are set out in the discussion topic heads **A – C** below.

A. The necessity for safe and secure operations;

Safety

The current regulatory framework for aircraft administered by the Civil Aviation Authority (CASA) and Airservices' (AS) has served Australia well. We support the proposed policy approach of the *“Civil Aviation Safety Authority maintaining its commitment to the primacy of safety, while taking a responsive, modern and evidence-based approach to safety regulation and the certification of new aviation technology that provides scope for innovation and flexibility, having regard to the inherent risks of the operating environment, other airspace users and the travelling public.”*

We agree with proposition in the Policy Issues Paper that drone and eVOTL operations have the same categories of safety risks as any other aircraft.

This emerging technology will impact on society's conception of safety and security, individual and commercial liability and privacy, and adds another dimension to drafting effective governmental regulation.

In the policy paper there is limited discussion on the technology in use and how this will be regulated, what is acceptable what is not. We are not privy to this information and we need this information to make informed judgements as to what the tolerance for risk should be. Government must do more work on this and convey to the community.

From a community perspective, safety, the freedom from harm and security, are likely to be embraced as universal principles. Our concerns focus on the technology and the user. With regard to the technology, the key aspects are engine reliability/operation, battery life, lift capacity, airworthiness, and reliability including fail safe mechanisms.

As with fixed wing/rotor aircraft flying over public space, just one small mistake could result in crashes that threaten the health, safety and well-being of people in public and private property. Proliferation of these new technologies and their relatively inexpensive access, heighten the level of risk. Also, crashes into public infrastructure such as electricity pylons and poles, straying into flight paths of other aircraft and protected (controlled) airspaces in particular, all urban areas in uncontrolled air space, could result in extreme danger putting many lives at risk. These factors and levels of risk must be taken into account. We draw attention to the example of France with respect to appropriate regulation of safety. In this jurisdiction, drones must not fly above 150 metres above ground level and *"Drones may not be flown over public areas of urban zones without governmental approval, and may be flown over private property only with the owner's authorization."*

B. Considerate of the community and the environment;

1. Community engagement in setting standards

This is crucial. This aspect of the operation of DITRC, CASA, AS requires significant strengthening as it is not currently at levels of best practice. The absence of meaningful and transparent communication with affected communities is of major concern and the development of policy and operational arrangements for this emerging segment of the aviation sector provides an essential opportunity for the regulators to get it right.

There are two stated key policy proposed approaches in the paper which from our perspective form the basis upon which the overall policy framework should evolve:

2. Environment

The paper states "The Australian Government will lead the development of a consistent, balanced and proportionate approach to manage the impacts on wildlife and the environment, including the enjoyment of nature areas and cultural sites."

The environment definition as it currently stands is incomplete. It must include the natural and human environment, considering only the natural environment as standalone ignores the inseparable correlation between the natural and human environment.

The principle should read.... *the Australian Government will lead the development of a consistent, balanced and proportionate approach to manage the impacts of new and existing aviation technologies on the:*

- i) natural wildlife and the environment, including the enjoyment of nature areas and cultural sites; and*
- ii) human environment including health impacts and community amenity;*
- iii) and the interrelated impacts arising from i) and ii).*

The existing suite of legislation lacks appropriate definitions as to what is to apply, as discussed further below.

3. Noise management

“The Department of Infrastructure, Transport, Regional Development and Communications will develop and manage a national regulatory approach to noise management that encourages quieter operations consistent with local community considerations”.

In respect to noise the key words are ... consistent with local community considerations. Key aspects from a community perspective relate to how the Commonwealth will engage with the community in determining these threshold levels. It has to be a meaningful and broad range consultation. The community has experienced, in the past, too many instances of superficial consultation or none at all, which is totally unacceptable.

Aviation noise is a source of constant annoyance to communities who live directly under airport flight paths and those that incur constant flyover by aircraft in their approach to airports which can be up to 20Km from the runway and for those subject to lower levels of disturbance caused by low flying smaller aircraft and helicopters. Noise pollution is explicitly excluded from general noise nuisance legislation.

In July 2016 the European Commission published a report looking at how living with aircraft noise affects wellbeing. It found that:

“Living within a daytime aircraft noise path (with noise at or above 55 decibels) ... was negatively associated with all measures of subjective wellbeing: lower life satisfaction, lower sense of worthwhile, lower happiness, lower positive affect balance, and increased anxiety. The authors found consistently negative and significant results across all five variables. The researchers could also predict the effect on subjective wellbeing associated with each decibel increase in noise, which they say has potential for modelling the possible wellbeing impacts due to changes in aircraft noise.

Although there were consistent negative impacts from daytime noise across all measures of wellbeing, the magnitude of these associations was small compared to other common drivers of wellbeing, such as unemployment, poor health and smoking (the negative effects of which These issues will only increase and be compounded by an addition of drones and eVOTL aircraft into the mix. There is an imperative and opportunity to rebalance the existing system and to get it more fit for purpose as result of this review.”

We agree with their assessment.

With respect to drones and eVOTL we agree:

Small drones are generally not loud however they do emit an uncommon noise which can and does attract attention. With increasing use and concentration of drones and the proposed use of eVTOL aircraft into and above urban settings, this will bring into focus how noise management is undertaken to address community concerns.

The current approach to aircraft noise regulation and its related legislative mechanisms are not reflective of what many communities expect and therefore not fit for purpose to be extended to regulate noise emitted from drones and eVOTL.

4. Noise and its impact on individuals and communities.

As discussed above, noise is a highly subjective element of environmental issues. The complexities of people and their reactions to sound vary considerably, from one end of the spectrum being extremely sensitive to the other end being largely unaware. This makes assessing the impact of noise and determining appropriate solutions, including the setting of standards, difficult but it has to be done.

a) Where are the current gaps in legislation that impact on environment and noise?

Section 528 of the EPBC Act defines Environment to include: *(a) ecosystems and their constituent parts, including people and communities; and also includes the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b), or (c).*

This definition is ambiguous with respect to the human environment and limits its consideration to be only part of a broader ecosystem. We suggest that this is a major flaw in policy and legislative drafting and must as be rectified to ensure that the current flaws applying to the current mix of aircraft is not compounded by the addition of drones and eVOTL aircraft to the mix. Going forward the basis for any consideration must include impacts on the human environment (or communities) in their own right.

The lack of *definition of social, economic and cultural* in existing legislation is also very problematic. For example, with respect to Commonwealth decisions on flightpaths, social impacts can include impacts on health and people's enjoyment of parks and gardens, their backyards and local community, but this consideration could be excluded by a narrow interpretation of the term *social impact*. We therefore urge work be undertaken to provide improved and more relevant definitions.

It is imperative the EPBC Act include clear definitions of significant social impact, particularly in relation to noise with the proposed increase in the suite of aircraft. No such definitions currently exist and leaves regulators as well as communities affected without any agreed basis to balance community concerns regarding aircraft noise with the operational and safety imperatives for aviation.

Noise has a significant impact on people and communities as defined under Section 528 of the EPBC Act. However, the Act provides no standard or comparison points against which assessments of such impacts can be measured. Unfortunately, this is currently problematic in relation to Environmental Assessments prepared by Commonwealth agencies with respect to aircraft noise. We therefore urge that appropriate standards be referenced in either the EPBC Act or failing that Airservices' Act to provide some clarity.

The other major consideration is Section 160 of EPBC Act. There is no definition of 'significant impact' and this is a continual point of ambiguity and consternation between the aviation industry, its regulators and the communities impacted. In particular with regard to how flight paths are set and changes are evaluated. This cannot be allowed to continue with an addition of drones and eVTOL into the mix. Amendments to the Act must provide clarity about 'environmental (and social) significance' for community noise impacts. This can then be translated to appropriate settings i.e. road, aviation (fixed wing, RPT, helicopter, drone eVOTL etc.) Refer to Airservices' submission to EPBC Review, page 2." Specifically, Section 160 with respect to defined 'significant impact' is a continual point of ambiguity within the aviation industry particularly with regard to how flight path changes are evaluated. Amendments to the Act should more clearly inform 'environmental (and social) significance' for community noise impacts, which we can then translate to the aviation context."

Improved guidance and standards should be provided to ensure greater clarity about aircraft noise impacts. The health and societal impacts of noise (including aircraft noise) are becoming and will be become an increasing focus area, particularly with the rapid growth in urban density and the increasing suite of aircraft in aviation and road transport sectors as they intersect those communities. Refer to Airservices' submission to EPBC Review, page 3" *The health and societal impacts of noise (including aircraft noise) are becoming a key focus area, particularly with the rapid growth in urban density, and the aviation and road transport sectors. Clearly linking the potential health impacts of aircraft noise in Australia to national guidelines and regulatory criteria would provide transparency to both the community and aviation industry on aircraft noise impacts in the residential setting.*"

A clear linkage must be established linking the potential health impacts of all forms of aircraft noise in Australia to national guidelines and regulatory criteria. This would provide much needed transparency to communities, the aviation industry, its regulators on acceptable aircraft (all modes) of noise impacts for residential settings.

We support the Policy Issues Paper's position of the need for community consultation in the discussion of emerging standards, however this aspect must be better defined. How this engagement is undertaken and the level of engagement Government has with affected communities, will determine whether communities impacted by drones and eVTOL will consider their concerns have been understood and appropriately taken on board.

As a general point it should be recognised that for communities to have meaningful input into decision-making, communities must be provided with sufficient information to understand the technologies of these aircraft, how the policy will balance the application of these technologies and the impacts and risks that communities may incur. This is imperative.

It is vital that transparency of processes, decisions etc of what is proposed in any amendment of Acts be a fundamental feature of the government's approach.

5. Privacy

It would appear to us that many of the basics of the current notions of privacy are under considerable threat from the use of drones and eVOTL. How will communities be protected or what rights will government ask communities to give up? For instance, currently we are reasonably able to defend ourselves from obvious and detectable privacy threats such as people nearby or objects on the ground. However, with drones and eVOTL this raises the issue of airspace over private property and establishing standards and expectations for its protection. Paramount, in the first instance, will

be to restrict intrusion into a person's private space, which might occur by watching, listening to or recording a person's private activities or private affairs. The second flows from the misuse of private information that might result from drone and similar activity, such as collecting or disclosing private information about an individuals' movements and activities within their private domain.

In a public space such as a park or on a street, the reasonable expectation of privacy has to some degree limited application. However, how will this apply to private property that is visible from above? Do our current laws address this adequately? Currently it seems to us to assume that sight from a privacy perspective is confined to the eye-level. However, eVOTL, drones and helicopters change the expectation of reasonable privacy when they are able to capture images and sound in public space which is not currently available. It is not clear how this aspect is going to be addressed. Perhaps consideration of an exclusion zone for particular places, for example drone/eVTOL free zones within 100m of all hospitals. Plus, heavily populated tourist/entertainment/worship precincts, for example in Melbourne:

- Historic Royal Botanic Gardens, Victoria's major tourist attraction
- Historic Fitzroy Gardens
- Historic Treasury Gardens
- Olympic Boulevard sports and entertainment precinct
- Historic Lutheran, Trinity and St, Peters churches
- Historic St. Patrick and St Paul Cathedrals
- World Heritage Royal Exhibition Building and Carlton Gardens
- Melbourne Museum
- Birrarung Marr riverside park and Federation Square event precinct

We are concerned about the possibility of unwarranted surveillance, apparently with little repercussion. Current privacy laws state that it is illegal to record the interior of a home or a privately owned building, even if the camera is placed outside or a conversation. We strongly submit that this restriction should also explicitly apply to drones with respect to private buildings as well as their gardens and surrounds. Appropriate regulation of this is paramount to avoid overwhelming community concern.

In dealing with the privacy issues, meaningful consultation and engagement with a broad cross section of the community will be essential.

C. A nationally consistent approach

We consider that there is no need to alter the responsibility for management of aircraft and airspace from the Commonwealth to State and Territories.

We support the proposals of DITRDC:

- Undertaking a national regulatory approach to noise management, one that that not only encourages quiet operations but paramount this must ensure it is consistent with local community considerations.
- Progressing the development of a more sophisticated approach to drone noise management over time as changes in technology and take up occur. We agree there must be quantifiable restrictions to ensure that early operations remain within stipulated community standards. Early stages of regulation must minimise the impact of drone noise in line with evidence of the impacts and concerns affecting different areas and communities.

- Developing an approach that transitions into noise regulation that is sustainable for operators, facilitates industry to innovate and develop, but at all times balancing the needs of the community in respect of noise impacts

The policy and legal framework will also be required to indicate a range of measures to mitigate potential risks and impacts on the community. It is vital that these technologies operate in a manner that is safe, secure and considerate of the community and the environment. This will also require specific and differing arrangement to apply for controlled and uncontrolled airspace and users of that airspace. For example, Uber-air taxis are likely to be mostly airport-city at 1500ft so they will be in controlled airspace to SFC (an airport's CTR) and therefore under AS/ATC jurisdiction. However most commercial drone/eVTOL flights (Parcel delivery etc) and private drone will be in Uncontrolled Airspace.

We support the Commonwealth consulting with the states and territories, industry and the community to develop a consistent Drone and eVTOL Operations Noise Policy Framework. An integrated airspace that encompasses all existing and future commercial drone operations. This lead should assist States/Territories in their related planning approval processes related to drone and eVTOL sites.

The establishment of community expectations for noise incurrence must be established through a wide community consultation the results of which require those to be transparent and widely published. Undoubtedly, the levels will vary between communities and the level and frequency of noise experienced by those communities. The community has experienced in the past too many instances of superficial consultation or none at all. Such occurrences are totally unacceptable. Closely considering arrangements adopted in other jurisdictions that endeavours to protect and ensure RPT separation and safety, for example:

USA -

- Recreational drones limited to uncontrolled airspace and maximum 400 feet
- France
- Paris (inside Peripherique) is totally covered in red areas indicating allowable altitude.
- Forbidden over public areas of urban zones, power plants, historical monuments,
- hospitals, prisons.
- Maximum 150 metres above ground

Finally, we are somewhat perturbed by the disclaimer in your paper which reads:

“The Commonwealth makes no representations or warranties as to the contents or accuracy of the information contained in this publication. To the extent permitted by law, the Commonwealth disclaims liability to any person or organisation in respect of anything done, or omitted to be done, in reliance upon information contained in this publication”

You are asking the public to make comment, while qualifying the accuracy of the information you provide. Surely, as the preeminent authority, you stand by your research, analysis and statements? We understand that this is probably ‘lawyer speak’ but it is troubling.