



Australian Government

Department of Infrastructure, Transport, Regional Development and Communications

# Report on the Review of the Air Navigation (Aircraft Noise) Regulations 2018 – Remotely Piloted Aircraft & Specialised Aircraft



**Final Report Findings**

**October 2020**

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# Chapter 1: Executive Summary

This Review of the Air Navigation (Aircraft Noise) Regulations 2018 – Remotely Piloted Aircraft & Specialised Aircraft (the Review) considered the development of noise regulations for remotely piloted aircraft (RPA) and urban air mobility (UAM) operations, supersonic aircraft types and changes to existing processes for historic aircraft noise regulations. In considering the submissions received, the Department of Infrastructure, Transport, Regional Development and Communications (the Department) proposes a number of recommendations.

Submissions to the Review were generally positive regarding the potential benefits of new and increasing services provided by RPA, commonly known as drones, and electric vertical take-off and landing vehicle (eVTOL) aircraft. Despite this, many submissions noted concerns about the potential for noise from these aircraft negatively impacting the community, and recognised the need for policies and regulations to manage these impacts.

The Review found there was limited support for management of drone noise under local environment regulations. Many submissions noted that local variations in noise tolerance would need to be considered, but that it was also important to have a nationally consistent approach to managing these types of aircraft noise.

Drone and eVTOL technology is rapidly changing, and the market for the services offered by these aircraft types is new and evolving quickly. In this context, many submissions noted that it is difficult to develop long-term regulatory approaches at this stage, and a flexible and adaptive approach to managing noise impacts from new aircraft types should be considered.

This report recommends the development of flexible, risk-based interim regulations for drone and eVTOL noise to manage noise impacts in the short-medium term. As the drone and eVTOL industry matures, a longer-term drone and eVTOL noise framework will be developed in consultation with industry, states and territories and the community as part of the National Emerging Aviation Technologies policy framework.

Submissions to the Review noted that regulations for supersonic aircraft are not urgently required, and a more detailed regulatory position can be developed as the technology and international standards evolve.

The Review also recommends streamlining administrative processes in relation to the issuing of exemptions for historic aircraft.

## Chapter 2: Background

### 2.1 The Review of the Air Navigation (Aircraft Noise) Regulations 2018 – Remotely Piloted Aircraft & Specialised Aircraft

In June 2019, the Deputy Prime Minister Michael McCormack, Minister for Infrastructure, Transport and Regional Development, announced that the Department would undertake a review of the Air Navigation (Aircraft Noise) Regulations 2018 to determine the appropriate scope and breadth of future noise regulation primarily for drone and specialised aircraft operations.

This Review considered the development of noise regulations for drone operations and UAM. It also considered the development of noise regulations for supersonic aircraft types and changes to existing noise regulations for historic aircraft operations.

The Review did not consider safety, privacy issues (e.g. use of cameras), military drones, security considerations or environmental effects on flora and fauna in relation to aircraft operations which are addressed through other legislative and regulatory regimes.

Out of scope comments related to drones and eVTOL aircraft have been recorded for consideration in the National Emerging Aviation Technologies policy framework being separately developed by the Department. The National Emerging Aviation Technologies policy framework aims to enable the realisation of economic and social benefits of drones and other emerging aviation technologies while managing their potential impacts on safety, security, privacy, noise and the environment.

### 2.2 Submissions received

The Department accepted submissions for the Review between noon Friday 27 September 2019 and close of business Friday 22 November 2019. The Department also accepted a number of submissions from various state and territory agencies and other interested stakeholders, some of whom sought an extension to submit their submission. The last submission was received on Friday 6 December 2019.

In total, the Department received 92 individual submissions. Some submissions covered multiple subjects of interest:

- 79 submissions related to drone issues;
- 12 submissions related to UAM issues;
- 3 submissions related to supersonic aircraft issues; and
- 15 submissions related to historic aircraft issues.

Submissions were sent electronically to [noiseregulation@infrastructure.gov.au](mailto:noiseregulation@infrastructure.gov.au). In some cases, submissions were also provided in hard copy format via our GPO Box 594, Canberra ACT 2600 mailing address.

Of the 92 submissions, 23 were identified as being confidential submissions. All personal information supplied has been collected, stored and disclosed in accordance with the *Privacy Act 1988*.

A list of submissions received can be found at [Appendix 1](#). Submissions, other than those marked as confidential, are available on the Department's website at [www.infrastructure.gov.au/aviation/environmental/aircraft-noise/noise\\_regulation\\_review\\_for\\_rpa\\_drones\\_and\\_specialised\\_aircraft.aspx](http://www.infrastructure.gov.au/aviation/environmental/aircraft-noise/noise_regulation_review_for_rpa_drones_and_specialised_aircraft.aspx).

## 2.3 Air Navigation Act 1920 and Noise Regulations

The Department administers the Air Navigation (Aircraft Noise) Regulations 2018 (the Noise Regulations) which are made under Section 26 of the *Air Navigation Act 1920* and impose various requirements on aircraft engaging in certain kinds of air navigation.

The Department issues:

- Approvals under Section 17 of the Noise Regulations for other aircraft to which no noise standards apply; and
- Noise certification exemptions under Section 14(3)(b) and 14(3)(d) of the Noise Regulations for historic/warbird/adventure flight aircraft as defined in the Civil Aviation Safety Regulations 1998 Part 132 and in the Noise Regulations, which do not meet current aircraft noise standards as set out in the International Civil Aviation Organization (ICAO) Annex 16 Volume I.

## 2.4 RPA/drone operations and UAM/eVTOL aircraft

Drones and UAM are emerging and innovative technologies being used or planned for use around the world. Drones in particular have diverse applications including in the agricultural sector, emergency services, infrastructure inspections and surveys, surf lifesaving, delivery of medical supplies, aerial photography and commercial and residential product delivery.

UAM are proposed passenger and cargo air transportation services, with or without a pilot, using new eVTOL aircraft. There are dozens of UAM aircraft prototypes in development globally, however these aircraft are not currently operating in Australia. It is expected that most UAM aircraft, when operating individually, will be significantly quieter than traditional aircraft such as a single helicopter.

Australia has been an early adopter of drone operations through Australian companies like Swoop Aero (delivering vaccines in Vanuatu) and the Little Ripper Lifesaver (tailored for search, rescue and lifesaving operations including shark spotting, crocodile spotting and deploying rescue devices). There has also been rapid growth in drone operations related to power line surveys, agricultural spraying and aerial mustering in regional and rural areas of Australia.

Wing Aviation has been undertaking drone delivery services in Australia since 2017. Initially starting trials in the Canberra region, they established a delivery facility in Mitchell, ACT in 2018 and Logan City, Queensland in 2019.

Australians are also flying recreational drones in record numbers. The Civil Aviation Safety Authority (CASA) is to introduce new rules on drone registration and accreditation to ensure and support safety considerations being observed in how these aircraft are operated. From 30 September 2020, commercial drone operators will be required to register their drone if it weighs over 250g.

Drone operators are also required to adhere to a number of standard operating conditions (SOCs), which include conditions on where, when and how the drone can be operated. A challenge with drones will be how to integrate where possible, educate and regulate new airspace users who, in contrast to traditional airline and aircraft operators, are not necessarily familiar with airspace safety.

Given the current and anticipated future use of drones and UAM within Australian airspace, there is a need for consideration on how to effectively minimise noise impacts on the community from the use of these aircraft now and into the future.

Noise regulation for conventional aircraft is largely established through ICAO standards and has been the basis for the current Australian regulatory approach. However, there are currently no ICAO aviation standards for drones and UAM.

Countries across the world are considering what regulations and standards would be appropriate in the future given the rapidly evolving technological development associated with these types of emerging and innovative aircraft.

## 2.5 Supersonic aircraft

A supersonic aircraft means an aircraft that is capable of sustained level flight at a speed equal to, or greater than the speed of sound. The speed of sound is defined as Mach 1.0.

Supersonic aircraft have not operated in Australia on a regular basis. However, a small number of demonstration flights were undertaken for the Concorde between the years of 1972 to 1999 and approval was given for research flights in 2016 and 2017.

## 2.6 Historic/Warbird aircraft

The term historic or warbird aircraft describes an aircraft which has historical significance or importance, such as an aircraft playing an important part in civil or military aviation history, including particular aircraft types or models.

The Noise Regulations currently allow the Department to issue aircraft that are historic in nature, and which do not meet current aircraft noise standards with a conditional exemption to operate without a noise certificate.

These noise exemptions are generally issued to allow these aircraft to participate at air shows and in special events such as fly-pasts.

The Department issues approximately 150 exemptions each year to operators of aircraft of historical importance.

Exemptions are usually subject to conditions such as:

- The operator must ensure that the aircraft avoids overflying residential areas as far as practicable. When the aircraft is not taking off or landing, the operator - for noise abatement and safety purposes - shall overfly an area at no lower than the minimum safe and practical height for that particular area; and
- The operator is to ensure the aircraft does not overfly declared heritage or environmentally sensitive areas, such as National Parks, at a height of less than 2,000 feet for propeller-driven aircraft and 3,000 feet for jet aircraft.

Currently, historic or warbird aircraft operators are granted noise exemptions that are in force for a year. Where the owner or operator wishes to conduct commercial adventure flights, they apply for an initial 1 year exemption which is then reviewed after the 12 months of operation.

Aircraft operators who wish to conduct adventure flights must first engage in public consultation. The owner or operator of these aircraft must consult with the owner of the airport from which the flights will operate as well as the local government authority for the locality in which the airport is located. If the public consulted parties are then agreeable and there have been no lodged complaints from the general public, a 3 year adventure flight approval may be issued to the operator.

## Chapter 3: Summary of Submissions

Submissions to the Review have indicated that the drone and UAM/eVTOL industries are rapidly evolving, requiring the regulatory regime covering drone and UAM operations to be kept under continuous review as the technology and its uses evolves.

Effective community consultation and engagement in the diverse range of applications of these technologies, especially in urban, populated areas, will be a vital part of garnering increased community acceptance of drone and UAM operations.

There was support in both drone and UAM submissions in acknowledging and applying international aircraft noise certification standards for drones and UAM once established to Australian airspace, if appropriate and acceptable.

### 3.1 Commonwealth/State approach to regulation of drone/UAM operations

The Review considered relevant Commonwealth legislation and regulations covering these different aircraft operations, and state, territory and local government regulations in relation to noise impact, with visibility to international developments in aircraft noise regulation.

State/territory environmental protection legislation already regulates noise intrusion into commercial, group centres (major shopping districts) and residential suburbs. While these regulations are not uniform across jurisdictions, the majority of noise regulations cover similar noise intrusions within an urban environment, including from motor vehicles, gardening equipment, construction tools, domestic animals, urban social gatherings and municipal services.

The Review proposed that states/territories or local government should be responsible for regulating the noise of drone and UAM operations as part of their suburban noise intrusion legislation.

Submissions in response to the Review outlined:

- There was a mixed reaction to the proposal that state and territory governments should regulate noise considerations for drone operations, with most submissions being opposed to state based regulation.
- Those that did not support this concept were concerned it could introduce confusing and inconsistent regulation that would be difficult for aircraft operators to follow and complex for authorities to enforce. The reasons include:
  - Maintaining Commonwealth oversight of airspace without hindering routing of operations through a patchwork of operational areas for flights with potentially unavailability of specific airspace.
  - State based regulations hindering businesses from scaling/expanding across the Australian market.
  - State based regulations having safety implications.
  - State based regulations hampering manufacturers from building to an acceptable Australian standard.
  - State or local authorities not having the capability or resources to monitor and enforce regulations for aircraft.
- Those that did support this concept proposed that the Commonwealth in consultation with state/territory authorities develop a consistent framework (not inconsistent with Commonwealth legislation) that included consideration of state/territory Environmental Protection legislation requirements.

- Whilst there was limited support for state-based regulation, there was support for including local considerations in the management of drone and UAM noise, within a nationally consistent framework. Submissions noted the considerable complexity and inconsistency in local and state/territory land use regulations, and that a simplified and nationally consistent approach to categorisation of land use would be required.

## 3.2 RPA/drone submissions

Several main themes have emerged from the responses to the Review regarding noise regulation for drones. More broadly these include:

- Support for the Commonwealth to regulate noise from larger commercial drones operating in residential and urban areas, with recognition that state and territory governments and the community need to be significantly consulted and engaged in “local” noise considerations until there is more evidence available on the noise, environmental and community amenity impacts of drones;
- Support for the Regulations not applying to recreational drones and drones below 250g or for drones involved in particular types of operations, including emergency services; and
- Support for a national drone and eVTOL noise policy framework to be developed by the Commonwealth, in consultation with stakeholders. The framework may also assist state/territory governments with consideration of planning regulation for drone take-off/landing sites and environmental planning approvals.
- Support for developing a RPA/UAM-noise-classification benchmarking tool which classifies drone types according to their noise profile and assigns a minimum distance profile to protect communities. Noting that current land use area noise benchmarking tool added complexity which made it difficult to navigate.

There was support for interim noise regulations that do not apply to:

- Recreational drones and all drones below 250g,
- Commercial drones operating under SOCs; and
- Particular types of operations (emergency services and other service operations as deemed appropriate) where the public benefit outweighed the noise disruption.

## 3.3 Drone delivery services

Of the 79 submissions related to drones, 35 directly referenced the Wing drone delivery service. A number of these submissions were provided by residents currently involved in the Wing Aviation drone delivery program in operation in select Canberra and Logan City suburbs.

As the first commercial drone delivery service in Australia, Wing’s example provides valuable information on initial community sentiment regarding significant drone operations in residential areas. However, it should be noted that other drone operators could use different aircraft and operating models, and future regulation should not be limited by feedback related to any particular operator.

27 of the submissions that related to Wing outlined positive support for drone delivery services in relation to noise. 8 submissions raised concerns about drone delivery services and suggested that further restrictions on delivery services should be considered.

It is important to note that these submissions were given at a point in time in a previous period of Wing’s operations. Since the submissions to this report were received, Wing has continued to develop their aircraft and operational model to reduce the noise impact on the community.

These submissions outlined a number of considerations, these included:

- Drone delivery service is fast and efficient and could be useful for deliveries to elderly people and young families. Drone deliveries would benefit the environment by taking cars off the road.
- It was reported that these drones make a small amount of noise for a limited time at intermittent periods.
- The drones are reportedly most noticeable when operating directly nearby, however the noise generated, whilst distinctive, is considered by some residents to be fairly unobtrusive. Noise produced by the delivery drone appears to be no more disturbing than regular street traffic (buses, cars trucks and motor bikes), barking dogs, lawn mowers, power tools and stereos.
- Increased drone deliveries per day would require reduced noise outputs to cater to existing comfort levels of residents, especially in a quiet neighbourhood.
- Submissions noted that drones were pioneering a delivery method which in 5 - 10 years would become the new normal.

### 3.4 UAM/eVTOL submissions

In the 12 UAM submissions the majority of submissions supported a future UAM regulatory framework considering operational factors and frequency, setting benchmark national noise acoustic measurements, flight paths; including setting heights and areas to be overflown, and undertaking of environmental assessments.

Submissions raised similar considerations to those related to drones but also specifically noted that UAM take-off and landing sites should have separate requirements and responsibilities to airports.

Submissions supported a risk-based regulation for UAM and other similar emerging technologies, outlining that the Commonwealth should give consideration to:

- An approach based on conclusive research, market conditions and data, and to not rush to adopt regulations ahead of the development of the applicable technology;
- Future air traffic management systems such as UTM which may provide operational support for managing aircraft noise in urban areas; and
- Development of interim noise regulations which would provide a temporary solution applicable during early UAM operations.

The regulatory regime covering UAM operations would need to be kept under continuous review to evolve with the technology and it's potential applications.

### 3.5 Community acceptance of RPA/drone and UAM/eVTOL operations

Acceptance of drone and UAM operations in a community is dependent on the willingness to embrace the benefits of new transport modes while cognisant their operational impact. It is important to mitigate the potential adverse impacts of the service to communities with regard to safety, security, privacy and community noise.

In line with this, there was support for interim noise regulations that include:

- Effective community consultation and engagement requirements in the increased applications of these technologies, especially in urban, populated areas. It was seen as a vital part of garnering increased community acceptance of drone and UAM operations coupled with appropriate safety and environmental regulation in place and other concerns such as security and privacy addressed.
- Flexibility for commercial drone operations and UAM networks to thrive, whilst ensuring that aircraft operations are conducted in a way that is acceptable to communities. This would require managing the perceptions of aircraft noise and increasing community understanding of the value of services being provided.
- Mechanisms that collect feedback and complaints, monitor and review noise levels and benchmark comparable noise standards.

Some community members have expressed concern over unwanted noise from drones disturbing their right to quiet enjoyment in their urban surrounds.

Some members of the community also indicated that they moved into areas which were located away from conventional aircraft and did not expect to receive noise disturbance from drones.

Manufacturers of both drone aircraft and UAM have stated their objective is to achieve aircraft noise levels similar to background noise in urban areas. Unfortunately, as the majority of airframes are currently in development, there is very little published data on noise levels generated by each aircraft type.

### 3.6 Supersonic aircraft submissions

For supersonic aircraft the noise issues raised in the submissions included:

- A full regulatory position on noise impact of supersonic aircraft would be valuable, however it is not seen as being an urgent necessity at this time, even if such aircraft were to be a potential reality in the near future.
- Development of a future regulatory position on supersonic aircraft should be informed by the continuing evolution of supersonic aircraft types and current international standards work being progressed through ICAO.
- Consideration should be given to the number of flights and flight routes associated with supersonic aircraft types to ensure that impacts on surrounding land uses are minimised (similar to those that apply to military aircraft with supersonic capacity). For example, whenever an aircraft transitions into supersonic speed it should not be operating over occupied areas of land (unless specific approvals are obtained).
- Further work would also be required to identify potential environmental impacts, both social and biological (flora and fauna). Operations would also need to be mitigated with conventional aircraft management including separation standards and wake turbulence.

## 3.7 Historic/Warbird aircraft submissions

For historic or warbird aircraft, there was divided support on the overall regulatory noise approach for warbird operations. The submissions included:

- Support for a light-handed regulatory approach for private historic aircraft flights, which are random, periodic, single-noise events. Including consideration to different limits or conditions for operators who attract negative feedback by not conducting operations in a neighbourly and respectful manner.
- Support for a more robust regulatory approach for historic aircraft involved in air shows and adventure flights, which are concentrated multi-aircraft noise events in a single, specific location, limited in duration but probably more intense in terms of noise.
- Notably, some submissions did not support any of the proposed regulatory/administrative changes. However, there may have been some misunderstanding of the intent of the proposed changes the Department was suggesting.

Submissions included support for:

- Extending the noise certificate exemption period to 3 years, particularly where there had been no changes to engine, propeller or other specifications and as long as the aircraft remained under the same ownership.
  - It was further suggested that consideration to a permanent exemption for historic/ex-military aircraft in relation to noise permit exemptions, rather than an annual or 3 year period exemption would be supported.
  - Changes in these administrative arrangements would reduce the administrative burden on owners, operators, councils, airports and the Department.
- Aligning noise certificate exemptions with the Certificate of Airworthiness (CofA) issued by the Australian Warbirds Association Limited (AWAL) as a delegate of CASA and the Certificate of Registration issued by CASA, provided that a standing noise certificate exemption remained in force for the duration of the CofA or registration for the aircraft.
- The continuation of grandfathering arrangements for historical/ex-military aircraft that do not have a noise certificate issued was supported.
  - Regulations which cancel grandfathered certification (pre Air Navigation (Aircraft Noise) Regulations 1984 arrangements) where there had been no change to the aircraft was not supported. This was particularly important for historic aircraft that are classed as 'limited category' historic aircraft.

However, regulations which provide for movement limits based on aircraft operational use, such as a display aircraft versus a private flight, were not supported.

- Consideration would be required for the proposed number of movements of private-use historic aircraft from an aerodrome, including the cumulative impact of multiple aircraft movements, and the hours of those movements. If the proposed number of flights was deemed significant, then conditions and/or limits would need to be developed to protect the amenity of surrounding land uses.

The issues raised in the submissions highlighted that in the long term, minimal historic aircraft noise administration would be of benefit for the vast majority of aircraft owners/operators who operate these aircraft in accordance with the terms of the noise certificate exemptions they were issued under, i.e. for adventure flights, air show or special event purposes.

## Chapter 4: Recommendations

The following recommendations are provided by the Department following extensive consultation with industry and community on noise regulation for drone operations, UAM aircraft, supersonic aircraft types and historic aircraft operations.

### 4.1 Drone and UAM aircraft recommendations

Drones and UAM aircraft are an emerging and rapidly changing technology. New applications and concepts of operations are continuously being developed. As such, further research and consultation will be required to determine a long-term approach to noise management. In the meantime, there is a need for interim regulations to effectively manage the noise impact of initial drone and UAM operations, while the long-term framework is in progress.

#### *Recommendation 1: Interim drone noise framework*

The Department will develop an interim regulatory framework for management of drone noise.

The framework will:

- Be risk-based and focus on operations that are likely to have a significant noise impact (due to location of operations, frequency and density of aircraft operations and noise output of aircraft);
- Be flexible and proportionate, to reflect the range of different concepts of operation that operators may seek to undertake;
- allow operators the opportunity to refine their concepts of operations to reduce noise impacts where they occur; and
- Encourage continuous improvement by operators to reduce noise impacts.

The framework will include consideration of:

- Noise impacts during operations, with a view to establishing comparable measurements.
- Community feedback mechanisms, to ensure that local community sentiment regarding drone operations can be effectively monitored.
- Operating limits (such as time of day, operating distance, volume of flights etc.) only where these are necessary to ensure noise impacts remain within levels acceptable to the local community.

The interim framework will not apply to:

- Recreational drone use, given this is covered by SOCs.
- Commercial operations that are within the SOCs.
- Drones used by emergency services and other categories as deemed appropriate.
- Drones weighing under 250g.

The Department will release a Regulation Impact Statement for consultation on the proposed interim framework in the second half of 2020, with the new framework to be implemented in 2021. It is expected that the framework will remain in place until an enduring noise framework can be developed as part of the National Emerging Aviation Technologies policy framework.

### *Recommendation 2: Interim eVTOL noise management framework*

The Department will develop an interim regulatory framework to manage the noise impacts of initial eVTOL operations.

This framework will include consideration of:

- Noise impacts during take/off landing and overflight, with a view to establishing comparable measurements.
- Use of appropriate noise forecasting tools to communicate expected noise impacts associated with operations to communities and planning authorities.
- Community feedback mechanisms, to ensure that local community sentiment regarding eVTOL operations can be effectively monitored.
- Operating limits (such as time of day, operating distance, volume of flights etc.) only where these are necessary to ensure noise impacts remain within levels acceptable to the local community.

The interim framework will be developed in consultation with early market entrants and affected local/state governments as part of the preparation for initial eVTOL operations. It is expected that the framework will remain in place until an enduring noise framework can be developed as part of the whole-of-government policy framework for emerging aviation technologies.

### *Recommendation 3: Enduring noise framework*

The Commonwealth, in consultation with state/territory authorities, industry and the community, will develop a drone and eVTOL noise policy framework for integrated airspace that encompasses all existing and future commercial drone operations. The framework will be:

- Outcomes-focused – To the greatest extent possible, regulation will focus on managing the actual impact of operations on the community instead of placing restrictions on specific elements of operations. This will give operators maximum flexibility in how they mitigate and manage noise impacts.
- Nationally consistent – The framework will include nationally consistent rules, whilst still allowing state/territory governments the ability to set locally appropriate noise impact limits within an agreed framework.
- Technology based – The framework will seek to use technology to improve and streamline the management of noise impacts. In particular, the design of Australia's UTM system will include consideration of how UTM can assist in mitigating and regulating noise impacts from drone and eVTOL operations.

The national framework will also be used to provide information that may assist state/territory planning approval processes related to drone and eVTOL sites.

The enduring drone and eVTOL Operations noise policy framework will be developed as part of the National Emerging Aviation Technologies policy framework.

## 4.2 Supersonic aircraft recommendations

### *Recommendation 4: Future regulatory position*

The Department will develop a future regulatory position on supersonic aircraft as supersonic aircraft types evolve and international standards are progressed through ICAO.

## 4.3 Historic/Warbird aircraft recommendations

### *Recommendation 5: Streamlined administrative process*

The Department will streamline the administrative process for historic and warbird aircraft.

This will include:

- Extending the period of noise certificate exemptions to 3 years, where there is no evidence that an operator contravened the conditions of the exemption during the period of their initial noise certificate exemption;
  - Owners or operators of historic or warbird aircraft involved in air shows must apply for a noise certificate exemption for each air show they wish to participate in.
- Aligning the granting of noise certificate exemptions with certification requirements, in particular the Permit Index issued by the AWAL as a delegate of CASA; and
- Continuing grandfathering arrangements for historic or warbird aircraft not issued with a noise certificate prior to December 1990.

Consideration will also be given to the continuing movement limit policy for historic or warbird aircraft based on their operational use in consultation with relevant stakeholders including state, territory and local government agencies.

However, the Department will not change the current approach to issuing noise certificate exemptions for air shows.

The Department along with AWAL will monitor the ownership and use of historic and warbird aircraft. This is to ensure these aircraft when primarily operated for specialised use (e.g. air shows, fly-pasts), such flights that have the potential to create noise issues are monitored. No additional regulatory measures restricting private use will be considered at this time.

## Appendix 1: Summary of Submissions Received

Number	Date	Author	Submission Type
1	8/10/2019	Andrea Sheather	RPA
2	9/10/2019	Reg Butler	RPA
3	17/10/2019	Paul Tulloch	RPA
4	1/11/2019	Callum Wood	RPA
5	8/11/2019	Christine Brown, Dept. of State Development, Manufacturing, Infrastructure and Planning	RPA
6	8/11/2019	Peter Clements	Historic aircraft
7	10/11/2019	Shane Tobin	Historic aircraft
8	14/11/2019	CONFIDENTIAL	RPA
9	14/11/2019	CONFIDENTIAL	RPA
10	14/11/2019	Jonah Ruuskanen	RPA
11	14/11/2019	Mitch Gleeson	RPA
12	14/11/2019	CONFIDENTIAL	RPA
13	14/11/2019	Rebecca Evans	RPA
14	14/11/2019	Lee Riley	RPA
15	14/11/2019	Paul Rattigan	RPA
16	14/11/2019	Steve Lewis	RPA
17	14/11/2019	CONFIDENTIAL	RPA
18	14/11/2019	CONFIDENTIAL	RPA
19	14/11/2019	Shellie Flatt	RPA
20	14/11/2019	Ashley Rowe	RPA
21	15/11/2019	CONFIDENTIAL	RPA
22	15/11/2019	R J De La Hunty, OAM, President & Chief Pilot Peter Snelling, Historical Aircraft Restoration Society Inc.	Historic aircraft
23	15/11/2019	Julian Kusa, Mitchell Traders Association	RPA
24	16/11/2019	CONFIDENTIAL	RPA
25	16/11/2019	CONFIDENTIAL	RPA
26	16/11/2019	CONFIDENTIAL	RPA
27	17/11/2019	Edward G Field	Historic aircraft
28	17/11/2019	Jethro Nelson	Historic aircraft

Number	Date	Author	Submission Type
29	17/11/2019	David Kerr	Historic aircraft
30	17/11/2019	Patrick Tolhoek	Historic aircraft
31	17/11/2019	CONFIDENTIAL	RPA
32	18/11/2019	Jason Abela	RPA
33	18/11/2019	Craig Farrell	RPA
34	18/11/2019	Neil Gross, Wilkinson Murray Pty Limited	RPA
35	19/11/2019	Jesse Suskin, Wing Aviation Pty Ltd	RPA
36	20/11/2019	Christine Lawrence, ACT Equestrian Association Incorporated	RPA
37	20/11/2019	Ross Nolan	UAM
38	20/11/2019	CONFIDENTIAL	RPA
39	20/11/2019	Geoff Danes, Sport Aircraft Association of Australia	Historic aircraft
40	21/11/2019	CONFIDENTIAL	RPA
41	21/11/2019	Kim Peart, Space Pioneers Foundation	RPA UAM
42	21/11/2019	Robin and Eileen Blackmore	RPA
43	21/11/2019	CONFIDENTIAL	RPA
44	21/11/2019	Michael Vaughan	RPA
45	21/11/2019	Timothy Morrissey	RPA
46	21/11/2019	Andrew Beard	RPA
47	21/11/2019	Karen Caven	RPA
48	21/11/2019	CONFIDENTIAL	RPA
49	21/11/2019	CONFIDENTIAL	RPA
50	21/11/2019	Joseph Wheeler, International Aerospace Law & Policy Group	RPA
51	21/11/2019	Michael Qualmann	RPA
52	21/11/2019	Ruth Vasey	RPA
53	21/11/2019	Martin Lewicki	RPA
54	21/11/2019	Andrew Morris	Historic aircraft
55	21/11/2019	Daniel Sorbel	RPA
56	21/11/2019	CONFIDENTIAL	RPA
57	21/11/2019	Chris Brady	Historic aircraft
58	21/11/2019	DJI	RPA

Number	Date	Author	Submission Type
59	21/11/2019	CONFIDENTIAL	RPA
60	21/11/2019	Derek	RPA
61	22/11/2019	Brett Goyne	RPA
62	22/11/2019	CONFIDENTIAL	RPA
63	22/11/2019	Australian Association for Unmanned Systems (AAUS)	RPA
			UAM
64	22/11/2019	Tim Finn	RPA
65	22/11/2019	CONFIDENTIAL	RPA
66	22/11/2019	Penny Costello	RPA
67	22/11/2019	Jeff Parnell, Australian Acoustical Society Dr Rob Bullen, Rob Bullen Consulting	RPA
			UAM
			Supersonic Aircraft
			Historic aircraft
68	22/11/2019	Mark Awad, Australian Warbirds Association Limited	Historic aircraft
69	22/11/2019	Mark Coster	RPA
70	22/11/2019	Dennis Maddock	RPA
71	22/11/2019	Ian and Robyn McIntyre	RPA
72	22/11/2019	Gray Ardern	RPA
73	22/11/2019	S Jensen	RPA
74	22/11/2019	Louise Fitzgerald	RPA
75	22/11/2019	CONFIDENTIAL	UAM
76	22/11/2019	Peter Elford, Gungahlin Community Council Inc.	RPA
77	22/11/2019	CONFIDENTIAL	RPA
78	22/11/2019	CONFIDENTIAL	RPA
79	22/11/2019	David Radich, Logan City Council	RPA
80	22/11/2019	Luke Hannan, LGAQ	RPA
81	25/11/2019	David Pollard	RPA
82	25/11/2019	Brett Curtis, Gold Coast Airport	RPA
83	27/11/2019	Adrian Dwyer, Infrastructure Partnerships Australia	RPA

<b>Number</b>	<b>Date</b>	<b>Author</b>	<b>Submission Type</b>
84	27/11/2019	David McNamara, NSW Department of Planning and Environment	RPA
			UAM
			Supersonic Aircraft
			Historic aircraft
85	29/11/2019	Ian Yorke, EPA South Australia	RPA
			UAM
86	29/11/2019	Margy Osmond, Tourism and Transport Forum Australia	RPA
87	29/11/2019	John Kearney, City of Gold Coast	RPA
88	2/12/2019	Sam Engele, ACT Government	RPA
			UAM
89	2/12/2019	Anne-Marie Brits, Government of Western Australia	RPA
			UAM
90	3/12/2019	Mike Stapleton, Department of Transport and Main Roads	RPA
			UAM
			Supersonic Aircraft
			Historic aircraft
91	5/12/2019	Caroline Wilkie, Australian Airports Association	RPA
			UAM
92	6/12/2019	CONFIDENTIAL	RPA
			UAM
			Historic aircraft