![Public Safety Training & Response Group logo]

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PUBLIC SAFETY TRAINING & RESPONSE GROUP SUBMISSION TO THE AVIATION WHITE PAPER TERMS OF REFERENCE

Public Safety Training and Response Group welcomes the opportunity to provide comments and recommendations in response to the Aviation White Paper Terms of Reference.[1] In particular this response outlines:

- a summary of the growing use and adoption of unmanned aerial vehicles (UAVs) by emergency services and public safety response teams,
- a selection of current operating requirements surrounding the use of UAVs relating to the response sector, and
- recommendations regarding opportunities for the Australian aviation sector to deliver world leading operating legislation and frameworks for UAVs.

The growing application of UAVs

The Aviation Green Paper outlined the rapid growth in the field of Unmanned Aerial Vehicles in Australia—this is changing the aviation sector considerably.[2] Several UAV capability factors that indicate a continued fast paced growth in UAV adoption by the emergency response and public safety sectors include:

- **improved situational awareness**—UAVs provide an enhanced understanding of the emergency situation and mission critical data, enhancing strategic decision making and which often results in improved resource allocation,
- **payload versatility**—enhancing the ability to deliver supplies and aid where responders would normally be subject to heightened risk,
- **facilitating a safer operating environment**—providing responders with immediate wide field of view and data, such as heat mapping, giving real time feedback on the proximity of hazards and associated risks, and
- **rapid deployment**—technology such as tethering, enables UAVs to be deployed safely and immediately and provides enhanced stability in adverse conditions. [3]

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[1] Specifically, TOR: "changing aviation technologies and ways to position our policies, regulations and systems to encourage uptake and manufacturing of new, more efficient, transport technologies"; and "how to support and regenerate Australia's general aviation sector".
[2] See Aviation Green Paper Chapter 09 *Emerging aviation technologies.*
[3] Several emergency service providers using tethered drones include: New York City Fire Department (USA), York County Department of Fire & Life Safety (UK) and Paris Fire Brigade (France).

Current operating requirements for UAVs

The Civil Aviation Safety Regulations 1998 outlines the operating requirements for UAVs. [4] A selection of the legislation impacting emergency service and public safety teams' usage of UAVs includes:

- not operating the UAV within 30 metres of a person who is not directly associated with the operation of the UAV,
- not flying over or above people in a populous area,[5] and
- a 5.5 kilometre radius 'no-fly zone' around airfields.

It should be noted that there is an exemption application process.

The impact of current Australian Civil Aviation Safety Legislations

The current legislation surrounding the use of UAVs:

- **provides a level of public safety** for commercial and personal drone use to maintain responsible flying, and
- **assists in governing airspace**, including that surrounding critical aviation infrastructure.

However, in sectors such as emergency response and public safety, the legislation often:

- **limits rapid deployment**—the nature of the approvals required prior to deployment often means UAVs cannot be deployed in a timely fashion at the site of the emergency, and
- **reduces the area of deployment**—for example, emergency services cannot deploy UAVs in areas within the 5.5km radius of an airfield, limiting a modality for improving their situational awareness and personnel safety.

The rate of recent technological change in the sector highlights the need for a review of current legislation and policies to maintain safe use and deployment of UAVs and capitalise the technical advances that have significant potential to improve emergency response outcomes.

The White Paper presents a pathway to establish forward thinking legislation to enable Australia to become a world leader in UAV regulatory frameworks and the use of advanced UAV technology to augment emergency service delivery.

A component of this pathway is suggested in the Royal Australian Air Force submission where they write regarding airspace as a "national resource"; a definition that will assist in addressing the potential issues faced by "increasing traffic volumes and emerging technologies".[6] The "prioritisation and flexible use of airspace" is recommended at a policy and resource level.

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[4] In particular, refer to Section 101 for further details.
[5] Australian Civil Aviation Regulations 1998 Volume 3, p77
[6] Royal Australian Air Force White Paper Response Submission no. 87, paragraph 2b

Recommendations

1. A reconsideration of UAV exemptions for trained emergency service and public safety teams using rapidly deployable UAVs in emergency scenarios to augment response delivery.
2. Clarification surrounding the classification of different types of emerging UAV technologies, such as tethered drones, and their corresponding regulations.

The Public Safety Training and Response Group encourages the White Paper to recommend forward thinking policy and regulations such that emergency services and public safety teams can maximise the potential of emerging aviation technology to deliver safer operating environments for personnel and improved response capabilities.