

## Part III

### Chapter 7

#### A comprehensive approach to RPAS safety

7.1 The preceding chapters of this report provided an overview of the issues and concerns raised in evidence about the current regulatory environment, and some possible improvements. This chapter considers the evidence presented in support of a comprehensive, integrated approach for RPAS safety regulation and considers some of the key elements and structures required to achieve such an approach.

7.2 The committee heard that a number of additional regulatory measures are required to ensure RPAS, and RPAS operators, are appropriately integrated into the Australian aviation system. As well as the implementation of a mandatory registration regime, submitters suggested that RPAS operators be required to demonstrate basic competence by completing an online education and training package, and that stronger enforcement measures be implemented.<sup>1</sup>

7.3 In addition to these measures, and in light of the range of issues arising in relation to RPAS including privacy, import controls, local, state and federal regulations and enforcement mechanisms, the committee heard that a holistic policy approach to RPAS is now required.

7.4 Mr Joseph Wheeler of IALPG explained:

This is needed, given the cut-through of issues that drones raise. Air safety is but one of them. There are import controls, security, including national security, privacy, insurance and liability, and international obligations of Australia as a party to the Chicago Convention. There are state, federal and local level enforcement options and questions that need to be addressed and should be addressed in any new fresh rethink or policy framework when we go back to a clean slate.<sup>2</sup>

7.5 As a first step, the committee considered the need for a whole of government approach to RPAS.

#### Whole of government approach

7.6 The Australian Government, through the Minister for Infrastructure and Transport, sets the direction for overall aviation policy. As part of Australia's Aviation State Safety Programme, the Aviation Policy Group meets quarterly and is chaired by the Secretary of DIRDC. It comprises the key agencies involved in aviation policy,

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1 See Chapters 4 to 6 for further detail.

2 Mr Joseph Wheeler, International Aerospace Law & Policy Group, *Committee Hansard*, 28 June 2017, pp. 26–27.

regulation and service provision – DIRDC, CASA, Airservices Australia and the Department of Defence represented by the Royal Australian Air Force.<sup>3</sup>

7.7 Many submitters were not aware of the work of the Aviation Policy Group. Others suggested that it was time to bring other relevant government departments and agencies together to discuss aviation and RPAS matters.<sup>4</sup> Noting that RPAS intersect with many areas beyond traditional aviation to encompass issues such as privacy, importation, education and technology, evidence to the inquiry supported an approach which incorporated all aspects of RPAS safety.

7.8 The need for engagement across a wider range of federal agencies was contemplated as a way to achieve this, and as a means of ensuring greater coordination and communication between such agencies.

7.9 When asked to envision how a whole of government response to RPAS might be achieved, DIRDC noted the range of policy matters and agencies that would need to be incorporated. These include:

- DIRDC which has policy responsibility for aviation, including trade and travel activities regulated through the Office of Transport Security;
- the Attorney-General's Department which has policy responsibility for administration of the *Privacy Act 1988* and issues of criminality and national security;
- the Department of Home Affairs which enforces border controls including the import and export of goods such as RPAS technology;
- CASA which undertakes enforcement and investigation activities in relation to breaches of aviation safety legislation;
- the Department of Industry, Innovation and Science which supports science and commercialisation of new ideas and technology; and
- the Department of Prime Minister and Cabinet, the Department of Finance and the Treasury which provide advice on funding and consumer protection.<sup>5</sup>

7.10 In addition, the Department of Defence notified the committee of its role in regulating military aircraft and of a requirement to consult with CASA regarding the operation of Defence drones in civilian airspace.<sup>6</sup>

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3 Department of Infrastructure, Regional Development and Cities, *Australia's State Aviation Safety Programme*, [https://infrastructure.gov.au/aviation/safety/ssp/chapter\\_1.2.aspx](https://infrastructure.gov.au/aviation/safety/ssp/chapter_1.2.aspx) (accessed 5 February 2018). The ATSB does not have membership to the group, as it has independent status as a safety investigator. However, the ATSB Chief Commissioner may at times participate in briefings.

4 See, for example: Asia-Pacific RPAS Consortium, *Submission 68*, p. 18; Australian Strategic Air Traffic Management Group, *Submission 57*, [p. 1]; Mr Joseph Wheeler, International Aerospace Law & Policy Group, *Committee Hansard*, 28 June 2017, pp. 26–27.

5 Department of Infrastructure, Regional Development and Cities, answers to questions on notice, 17 October 2017, pp. 3–4 (received 7 November 2017).

7.11 To draw federal government agencies and departments together, DIRDC advised:

Our Department would...provide an overarching, facilitation role to ensure a coordinated, whole-of-Government response on RP AS policy issues and work with representatives from each relevant Department and agency to consider the safety, security, privacy and any other issues raised to progress the Government's agreed policy approach to any future RPAS controls.<sup>7</sup>

7.12 While the means by which whole of government coordination should occur was a matter of debate amongst submitters, it was clear that there was common agreement on the need for wider and more cohesive engagement.

### **Consultation beyond the aviation sector**

7.13 Along with a whole of government approach, evidence to the committee highlighted the need for a forum which provides for broad consultation and engagement beyond the traditional aviation sector, to directly inform RPAS policy and management.

7.14 The Asia-Pacific RPAS Consortium described the need for 'collective and harmonised dialogue' to ensure RPAS can be effectively and seamlessly integrated into the aviation system.<sup>8</sup>

7.15 The Australian Strategic Air Traffic Management Group (ASTRA) made the point that, as interest in RPAS grows, the sector will increasingly comprise of 'non-aviation stakeholders who do not see themselves as part of the 'traditional' aviation industry'.<sup>9</sup> Engagement with these important stakeholders may therefore extend beyond CASA's aviation regulation role, and outside of the ATSB's investigative remit. ASTRA explained:

The Civil Aviation Safety Authority's (CASA) involvement in the regulation of the RPAS sector is vital, however CASA is not a law enforcement agency in the traditional sense. Similarly, the Australian Transport Safety Bureau's (ATSB) remit does not extend to monitoring and investigating all unsafe or unlawful RPAS scenarios. Both organisational structures remain premised upon traditional airspace users, now factoring extensive growth in RPAS.<sup>10</sup>

7.16 As noted in Chapter 2, CASA's primary consultation forum is the UASSC, now part of the Aviation Safety Advisory Panel (ASAP).<sup>11</sup> Its rotating membership

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6 Department of Defence, *Submission 44*, pp. 3–4.

7 Department of Infrastructure, Regional Development and Cities, answers to questions on notice, 17 October 2017, p. 1.

8 Asia-Pacific RPAS Consortium, *Submission 68*, p. 18.

9 Australian Strategic Air Traffic Management Group, *Submission 57*, [p. 1].

10 Australian Strategic Air Traffic Management Group, *Submission 57*, [p. 1].

11 Membership of the UASSC was changed on 1 July 2017. The UASSC, along with a number of other sub-committees was subsumed into the ASAP in September 2017.

includes representatives from the aviation community who advise on current, emerging and potential issues that impact on aviation safety.<sup>12</sup> However, inquiry participants presented mixed views on whether the UASSC had been effective in facilitating appropriate and timely changes to RPAS regulations.

7.17 Whilst acknowledging the existence of CASA's UASSC, Telstra suggested that a new forum such as a working group, with a clearly defined terms of reference and timetable, 'is likely to be a more effective approach' for delivering future regulatory reforms. Telstra described a number of areas the working group could explore:

The Terms of Reference (ToR) could request a report on the regulations, technology and [UAS traffic management system] standards, and educational resources that will be required to enable the widespread and safe use of drones in the future through the use of smart drone technologies, mobile networks and drone traffic management systems. The new framework should include specific consideration of operations involving BVLOS, multiple drones per operator, and night flying.<sup>13</sup>

7.18 Qantas, a current member of the ASAP, noted that '[w]hile the existing consultation measures have been effective, it may now be beneficial to broaden the focus to take account of evolving trends in device usage'. Qantas suggested that input be sought from RPAS operators, airlines, the general aviation sector, aircraft and engine manufacturers, Airservices Australia, ATSB, state, territory and local governments and other relevant agencies.<sup>14</sup>

### **Cost-effective solutions**

7.19 As the regulator, CASA would need to play a central role in the development of any registration, education and compliance requirements for RPAS users. However, submitters were of the view that an already resource-stretched CASA does not have the means to drive the comprehensive regulatory approach required for the growing number of RPAS in Australian airspace.<sup>15</sup>

7.20 Piper Alderman stated that there is industry-wide concern that CASA's enforcement capabilities are limited 'due to lack of resources and the practicalities of monitoring RPA use'.<sup>16</sup> Another submitter claimed that it is 'crazy' for CASA to have regulatory authority over RPAS operations, due to being 'woefully understaffed'.<sup>17</sup>

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12 Civil Aviation Safety Authority, *Aviation Safety Advisory Panel*, <https://www.casa.gov.au/rules-and-regulations/standard-page/aviation-safety-advisory-panel> (accessed 11 January 2017).

13 Telstra, *Submission 36*, p. 5.

14 Qantas Group, *Submission 34*, p. 5.

15 See, for example: Piper Alderman, *Submission 65*, pp. 3–4; Helistar Aviation, *Submission 23*, [pp. 5–6]; Model Aeronautical Association of Australia, *Submission 50*, p. 5; Mr Joseph Urli, Australian Certified UAV Operators, *Committee Hansard*, 28 June 2017, p. 15; Australian Association for Unmanned Systems, *Submission 46*, p. 5.

16 Piper Alderman, *Submission 65*, pp. 3–4.

17 Mr Chris Bird, *Submission 52*, [p. 4].

7.21 Many went as far as to suggest that resourcing restrictions have hampered CASA's ability to maintain adequate oversight of an industry as dynamic and fast-moving as that of RPAS.<sup>18</sup> The Unmanned Research Aircraft Facility at the University of Adelaide provided an example:

For instance, the current *Regulations* anticipate the issue of a *Manual of Standards* to provide clarification and certainty on a range of operational dos and don'ts. The Manual has yet to be issued. It can only be assumed that the resources to complete the task are not available.<sup>19</sup>

7.22 Although many witnesses expressed concern that CASA is not adequately resourced to effectively manage the increasing number of RPAS in Australian skies, others questioned whether it was the role of CASA to do so.

7.23 Mr Joseph Urli of the Australian Certified UAV Operators noted that CASA's resources are primarily occupied with 'processing applications rather than being out in the field and policing the industry as such'.<sup>20</sup>

7.24 Captain John Lyons of VIPA put forward the view that it was becoming increasingly difficult for CASA to enforce the regulations given the ever-growing number of amateur and commercial operators across the country:

CASA is woefully understaffed and under-resourced when it comes to any form of enforcement. Three or four years ago, when there were 30 or 40, maybe 50, licensed operators, it was containable and they carried out safety audits.<sup>21</sup>

7.25 Mr Bradley Mason of Australian Certified UAV Operators added:

CASA just does not have the resources, and I do not think that we are ever going to be able to resource CASA alone to be able to do that. They are the boots on the ground. They are the people out there daily who are encountering this sort of thing.<sup>22</sup>

7.26 The IALPG stated that critics of the regulator should take 'a closer look at resources and styles of enforcement by CASA', adding that safety concerns regarding RPAS use are 'no criticism of CASA, whose role and resources cannot allow officers to be everywhere'.<sup>23</sup> Instead, Mr Joseph Wheeler, Principal and Managing Partner of

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18 See, for example: Captain John Lyons, Virgin Independent Pilots Association, *Committee Hansard*, 28 June 2017, p. 5; Unmanned Research Aircraft Facility, University of Adelaide, *Submission 43*, p. 7; Mr Chris Bird, *Submission 52*, [p. 3].

19 Unmanned Research Aircraft Facility, University of Adelaide, *Submission 43*, p. 7. Italicised in original text.

20 Mr Joseph Urli, Australian Certified UAV Operators, *Committee Hansard*, 28 June 2017, p. 15.

21 Captain John Lyons, Virgin Independent Pilots Association, *Committee Hansard*, 28 June 2017, p. 5.

22 Mr Bradley Mason, Australian Certified UAV Operators, *Committee Hansard*, 28 June 2017, p. 15.

23 International Aerospace Law & Policy Group, *Submission 19*, pp. 17–18.

the IALPG suggested that enforcing RPAS safety needs to 'start at the top', with greater cooperation and 'information sharing' amongst relevant authorities.<sup>24</sup>

7.27 A number of submitters argued that resourcing decisions should be considered within the whole of government approach to RPAS safety, recognising that some aspects of RPAS safety are beyond CASA's legal remit.<sup>25</sup> Additionally, funding models such as the US registration fee for operators, and club-based education programs such as the 'wings' program, should be explored as cost-effective solutions to support RPAS regulation.

### **Regulatory consistency**

7.28 The committee was informed that the implementation of reforms already outlined in this chapter would contribute to a more consistent national policy framework for RPAS operations in Australia. However, the need to address regulatory inconsistencies across local and federal RPAS laws remains an ongoing concern.

7.29 Alongside federal RPAS regulations, the committee was made aware of the growing number of RPAS restrictions being put in place by local councils. In December 2017, the Casey Council in Victoria introduced a scheme which requires RPAS operators to obtain a permit before operating outside their own property, or risk a \$300 fine.<sup>26</sup> In Ballarat, a similar permit-scheme is in place, banning both commercial and recreational RPAS operators from flying over municipal land and roads without express permission.<sup>27</sup>

7.30 In addition to both local government and federal regulations regarding RPAS, there are a range of other issues which intersect with RPAS, such as privacy, for which both state and federal legislation applies. Recognising the expanding assembly of stakeholders involved in the regulation of RPAS, the AAUS argued that the federal government needs to ensure regulatory consistency across jurisdictions. It explained:

The confusing and disparate landscape of regulations has a significant impact on the commercial RPAS industry; imposing additional regulatory burden or preventing operations from taking place altogether. This situation

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24 Mr Joseph Wheeler, International Aerospace Law & Policy Group, *Committee Hansard*, 28 June 2017, p. 31.

25 See, for example: Civil Aviation Safety Authority, *Submission 17*, p. i.; Unmanned Research Aircraft Facility, University of Adelaide, *Submission 43*, p. 7; Dr Chris Thompson, *Submission 81*, [p. 6].

26 Megan Bailey, 'Drone users face Casey Council crackdown with new law aimed at nuisance operators', *Herald Sun*, 8 December 2017, <http://www.heraldsun.com.au/leader/south-east/drone-users-face-casey-council-crackdown-with-new-law-aimed-at-nuisance-operators/news-story/e0dee152db2a6094531feb8ac6d51fac> (accessed 8 December 2017).

27 Jeremy Venosta, 'Drone ban: Ballarat City Council changes laws', *The Courier*, 14 December 2017, <http://www.thecourier.com.au/story/5121648/flyers-determined-to-battle-new-council-drone-regulations/> (accessed 15 December 2017). Also see: Jeremy Venosta, 'Drone laws: councils urged to reconsider', *The Courier*, 17 December 2017, <http://www.thecourier.com.au/story/5124653/peak-body-for-drones-slams-laws-banning-hobby-businesses/> (accessed 19 December 2017).

is expected to worsen as more State and Local Governments begin to address the proliferation of drones in their jurisdictions.<sup>28</sup>

7.31 Whilst acknowledging the 'significant legal difficulties' in consolidating each piece of legislation and regulation relating to RPAS, Piper Alderman stated:

...we believe there should be at least some combined effort on the part of the Commonwealth, States and Territories to: (i) harmonise the various applicable regulations to the maximum extent possible and, at the very least, to the extent of any overlap; and (ii) prepare a comprehensive information package to be provided with every RPA sale...<sup>29</sup>

7.32 A number of submitters advocated for the involvement of the Australian Local Government Association as an appropriate first step to begin addressing the issue.<sup>30</sup>

7.33 The NSW Government suggested that the regulation of RPAS be referred to the Transport Infrastructure Council for 'proper consideration and potential regulatory reform'.<sup>31</sup> Chaired by the Commonwealth, the Transport and Infrastructure Council was established in December 2013 following an agreement by the Council of Australian Governments to focus on nationally significant reforms. It consists of members from each Australian state and territory, as well as a number of New Zealand representatives.<sup>32</sup> According to the NSW Government, the Council could help facilitate the adoption of a nationally consistent approach across all Australian jurisdictions.<sup>33</sup>

### ***Privacy and surveillance***

7.34 Privacy is one area governed by legislation at both a federal and state level. Privacy matters become even more complex when related to RPAS. It is a significant issue given the intrusive potential of RPAS equipped with cameras and surveillance capability, which are now readily available to the public.

7.35 Australia's privacy regime comprises a range of Commonwealth, state and territory statutes and common law principles. The *Privacy Act 1988* sets out 13 privacy principles which govern how organisations should collect, manage and disclose information. These principles extend to information collected by governments and large businesses. However, the privacy principles do not apply to individuals.<sup>34</sup>

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28 Australian Association for Unmanned Systems, *Submission 46*, p. 8.

29 Piper Alderman, *Submission 65*, p. 3.

30 Australian Association for Unmanned Systems, *Submission 46*, p. 8. Also see: Qantas Group, *Submission 34*, p. 2.

31 NSW Government, *Submission 69*, [p. 1].

32 Department of Infrastructure, Regional Development and Cities, *Transport and Infrastructure Council*, <http://transportinfrastructurecouncil.gov.au/> (accessed 8 November 2017).

33 NSW Government, *Submission 69*, [p. 1].

34 House of Representatives Standing Committee on Social Policy and Legal Affairs, *Eyes in the sky: Inquiry into drones and the regulation of air safety and privacy*, July 2014, pp. 34–35.

7.36 Professor Des Butler noted that there is not a uniform approach to privacy laws as they apply to individuals. It is therefore difficult for RPAS operators to establish whether they are operating within the law or not. Professor Butler continued:

In the absence of a specific common law or statutory cause of action protecting personal privacy, [there exists] a piecemeal collection of common law causes of action such as trespass, private nuisance and breach of confidence, all of which have limitations which mean that they do not provide complete protection against invasions of privacy.<sup>35</sup>

7.37 Due to legislative inconsistency across jurisdictions, RPAS operators, particularly recreational users, are less likely to be aware of the specific circumstances in which their use of an RPAS may breach someone's privacy. At the same time, those that have their privacy invaded by a flying RPAS may find it difficult to take action. The AAUS submitted that state-based privacy laws are therefore in need of reform.<sup>36</sup>

7.38 Along with privacy legislation, surveillance devices legislation, which governs the use of optical surveillance devices and data surveillance tracking devices, has been enacted in five jurisdictions – New South Wales, Victoria, Western Australia, South Australia and the Northern Territory. Yet, these laws create further confusion about the permissible use of RPAS.

7.39 The 2014 House of Representatives report titled *Eyes in the sky: Inquiry into drones and the regulation of air safety and privacy* made a recommendation with regard to the harmonisation of surveillance laws. It recommended that, at a 2014 meeting of the Council of Australian Governments' Law, Crime and Community Safety Council:

...the Australian Government initiate action to simplify Australia's privacy regime by introducing harmonised Australia-wide surveillance laws that cover the use of:

- listening devices
- optical surveillance devices
- data surveillance devices, and
- tracking devices'.<sup>37</sup>

7.40 In response, the Australian Government stated that it is 'appropriate that states and territories continue to modify their own surveillance device laws, if necessary'. It argued that the *Surveillance Devices Act 2004 (Cth)* strikes 'an appropriate balance between the protection of privacy and the ability to investigate serious offences'. The

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35 Professor Des Butler, *Submission 18*, p. 3.

36 Australian Association for Unmanned Systems, *Submission 46*, pp. 11–12; Liberty Victoria & Australian Association for Unmanned Systems, *The Use of Drones in Australia: An agenda for reform*, May 2015, p. 3.

37 House of Representatives Standing Committee on Social Policy and Legal Affairs, *Eyes in the sky: Inquiry into drones and the regulation of air safety and privacy*, July 2014, p. 48.

government committed to 'monitor developments in RPAS usage' to ensure protections were provided at the Commonwealth level.<sup>38</sup>

7.41 The lack of national consistency with regard to state and federal privacy and surveillance legislation, coupled with the growth of local council by-laws relating to RPAS operations, has made compliance for RPAS operators extremely challenging. The view was put to the committee that, as part of a comprehensive approach to RPAS regulation, consideration should be given to harmonising legislation relevant to RPAS across state and federal jurisdictions. A whole of government approach should also encompass the range of policy matters and agencies that intersect with RPAS operations.

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38 Australian Government, *Australian Government response to the Standing Committee on Social Policy and Legal Affairs Report – Eyes in the Sky: Inquiry into drones and the regulation of air safety and privacy*, December 2016, p. 9.

