



## **Australian Association for Unmanned Systems (AAUS)**

Response to

### **Senate Rural and Regional Affairs and Transport Legislation Committee Inquiry on Australia's General Aviation Industry**

September 14, 2020

#### **Background**

The Australian Association for Unmanned Systems (AAUS) is pleased to provide a submission to The Senate Rural and Regional Affairs and Transport Legislation Committee Inquiry into the current state of Australia's General Aviation Industry, with particular reference to aviation in Rural, Regional and Remote Australia.

AAUS is Australia's oldest and largest industry advocacy group for drones and the emerging Advanced Air Mobility (AAM) sector. AAUS represents drones across all three domains: air, land and maritime. AAUS' objective is to promote a professional, safe and commercially viable unmanned systems and AAM industry. AAUS achieves this through its industry advocacy and promotion, education and outreach, and networking activities.

AAUS provides a single representative voice for the full breadth of the drone and AAM industry. AAUS' 2,600 members span small-to-large enterprise, manufacturers, licensed and unlicensed operators, training providers, academic institutions, government, and other supporting technical and professional services to the Australian drone industry. Input from our members has been used to prepare this submission.

Drones, also referred to as Remotely Piloted Aircraft (RPA) and Unmanned Aircraft Systems (UAS), are a rapidly growing sector of Australian General Aviation (GA). Today there are more than 15,000 licensed remote pilots and around 2000 companies with RPA Operating Certificates (ReOC) in Australia. Drones are being used to deliver a wide array of beneficial services in farming and agriculture, insurance, infrastructure management, freight/package delivery, mining, oil and gas, community services (e.g., surf rescue), survey, Defence, and emergency services. It is a growing sector of the aviation industry delivering increasing triple-bottom-line benefit to the Australian Commonwealth. As a growth sector of GA and with many



applications in rural and regional areas, the drone/RPAS industry is a relevant stakeholder in the Senate Rural and Regional Affairs and Transport Legislation Committee Inquiry.

In aiming to provide input focused on regional and rural issues, in many cases, current issues facing the broader drone industry have common effect, independent of geographic or drone sector focus. The widespread and increasing reliance on drones in rural and regional areas often exacerbates deficiencies or inefficiencies in regulation, control and pricing regimes.

The policy/regulatory environment for drone operations in Australia, which must balance safety, economic development and the desires of drone operators, has a direct impact on the innovation and viability of the drone industry. This submission will focus specifically on CASA's role for drone regulatory development and implementation.

In this submission the Department of Infrastructure, Transport, Regional Development and Communication is referred to as 'the Department', while the Minister for this Department will be referred to as 'the Minister'. The use of the term 'drone' encompasses Remotely Piloted Aircraft (RPA) and Unmanned Aircraft Systems (UAS).



## Submission Issues

AAUS commends CASA for a range of important improvement initiatives underway that aim to expand the operation of drones and enhance the viability of the drone industry. These initiatives include:

- the continued roll-out of a virtual platform that provides access to 'approval to fly applications' for drones and, in time, will provide the platform for on-line flight authorisation approvals, licensing and registration activity;
- development of a drone registration and accreditation system that will ultimately increase safety for drone operations, noting that the mature registration cost arrangements have yet to be disclosed by CASA;
- with the Department, Airservices Australia (AsA) and Industry, work towards the design of an Unmanned Traffic Management (UTM) system that will effectively integrate unmanned and manned traffic in the future; and
- in collaboration with Airservices Australia, the continuing roll-out of drone detection technology around major airports, and the integration of drone information into air traffic management systems.

AAUS understands that some of these CASA initiatives have had to be prioritised lower due to a recent reduction in CASA resources. With the size of the drone industry and significant work needed to establish a regulatory framework for it, AAUS believes that reductions in CASA resourcing is impacting CASA's ability to effectively provide safety oversight to the sector, further, the resulting delays in application processing and regulatory development effort will constrain economic development for the drone sector at a time when there is considerable growth potential.

AAUS also recognizes and commends CASA for undertaking a number of initiatives to alleviate COVID-19 impacts on the drone sector. These include the extension to existing ReOC renewals, relief against the implementation of new standards, and financial relief against some fees.

While CASA has a number of drone-specific regulatory initiatives underway, AAUS believes there are a range of areas where both regulations and their implementation, and engagement with the drone industry, can be improved.

**Need for Regulatory Roadmap.** The initiatives which CASA introduces for the drone industry and the timing for their implementation are fundamental to the business undertakings and decisions made by commercial drone operators and emerging AAM applications. Uncertainty on the timing or outcome of various reviews and initiatives can inhibit drone industry investment and impact broader sector economic development. One criticism AAUS has received from its members is that the various regulatory changes introduced by CASA are not



always advised with adequate notice, prior consultation on the changes is not always sought, and feedback to the industry on regulatory changes is often lacking. AAUS recommends that CASA, in collaboration with industry, introduce a Regulatory Roadmap to improve regulatory development, safety and outcomes for industry. In addition, due to the rapidly evolving state of technology development, AAUS recommends that an appropriate mechanism be established to enable industry to provide more frequent input to CASA's regulation development process.

**Lack of visibility of an Australian UTM.** AAUS has concerns in relation to the lack of progress and industry involvement in the development of solutions which integrate UAS into Australian Airspace, particularly for the development of a UTM. AAUS understands that the Department, together with CASA and AsA, has been working on policy and a framework for the necessary integration effort, with a policy document released on 3 September 2020. The RPAS industry and broader airspace user community have had very limited visibility to this policy development or an opportunity to provide input. AAUS considers this UAS integration effort as being critical to ensuring safe, secure, and efficient operations in low level airspace for all airspace users across Australia into the future. As the principal end users of the system and the likely providers of technical solutions, AAUS members are firmly of the view that industry should have an active role in shaping Australia's UAS integration efforts. This view is consistent with international efforts, where industry are central to policy, regulatory, and technical discussion for 'U-Space' in Europe and UTM in the USA. To that end, AAUS recommends that the Department consider the creation of an industry advisory body for UAS airspace integration efforts with the aim of ensuring a safe and effective implementation of UTM that meets the needs of all airspace users, existing and emerging. The advisory body should provide the means for various industry elements to be actively engaged in policy and regulatory discussions, as well as those aspects concerning technical design and implementation.

**CASA Resourcing.** With the size of the drone industry and increased demand for CASA's drone services, AAUS believes that reductions in CASA resourcing is constraining growth and economic development for the drone sector at a time when growth is so critical.

The rapidly growing drone/RPAS sector in Australia places a significant demand on CASA services. The situation is compounded by CASA's inability to completely recover cost for the provision of regulatory services to the sector, with the existing funding model heavily dependent on fuel excise. Consequently, resources (personnel numbers and relevant drone experience) within CASA to meet its drone regulatory functions and introduce new initiatives appear inadequate. This shortfall is translating directly to longer application times for various approvals with the potential to drive up regulatory non-compliance which could impact safety outcomes. This inefficiency is directly affecting economic development across the sector and, more importantly, resulting in lost opportunity for innovation.

AAUS believes that CASA needs to find additional direct resources to manage the increased throughput of an expanding drone industry. In addition, CASA should explore expanded delegation pathways for certain services in the same way it has done so for CAR29A/42M42R



and CASR 21/42CAR29A. While AAUS supports expanded delegations, they should not come at the expense of appropriate governance and we would certainly expect CASA to retain full authority for complex approvals.

An increased level of regulatory delegation to approved organisations may also improve cost-effectiveness for both CASA and industry. It has the potential of reducing burden on CASA for low risk approvals while keeping Delegate Authority charges at an affordable level.

**CASA Key Performance Indicators.** Until the start of 2020, CASA published Key Performance Indicators (KPI) which informed drone users of the expected time to process various types of applications. These timing benchmarks provided applicants with an expectation of delays for approvals, allowing them to plan work tasks. These KPI were removed early in 2020, leaving applicants for CASA services without estimates for the time for approvals, thereby creating uncertainty in planning tasks with clients and investment. AAUS recommends CASA reinstate its KPI to provide certainty for drone applicants for CASA's services. The performance against these benchmarks would assist in highlighting the impact that increasing industry demand and constrained CASA resources has on the provision of safety oversight services.

**Drone Registration.** AAUS appreciates that CASA formulated registration guidance after broad consultation across the drone industry. This approach is commended by AAUS. In 2018, AAUS provided its views to CASA on drone registration through its response to the Senate Inquiry Report on the Safe Use of RPAS. AAUS continues to strongly support drone registration and accreditation. However, while a zero cost initial fee is applauded, AAUS awaits clarity on the mature fee model, which we believe will be a critical element to determining its effectiveness.

The goal of the RPAS registration policy should be to improve safety and accountability for RPAS operators and the general community. Therefore, CASA's model needs to incentivize maximum registration uptake from RPAS users including relevant recreational users. It therefore follows that costs need to be held as low as possible so that the administrative costs of registration and registration compliance activities are covered by the fees, but no more.

AAUS believes that a cost recovery model which imposes significant costs on small operators, or a model which introduces flat costs for each drone operated by a company, could prove unaffordable. Unaffordable registration costs may reduce economic development and innovation across the drone industry, while also potentially driving non-compliance. AAUS believes that CASA will need to: justify the proposed cost recovery model, consider cost recovery for their registration program over a long period; and explore alternative pricing schemes rather than a flat rate per drone.

In addition, CASA may want to give consideration to fee exemptions for certain industry or Government segments where the flow-through of costs might be counter-productive (ie, through decreased levels of compliance, education or training).



**Better communication required from CASA during application approval process.** AAUS Member feedback highlights that the application process for ReOC holders does not provide feedback on the progress of applications: applicants must seek feedback themselves. AAUS recommends that CASA proactively provide feedback on progress to applicants, and consider the implementation of an on-line application tracking system to permit applicants to self-monitor their applications.

**Standardisation of Approvals Process.** CASA's consideration of operational applications from commercial drone operators should be based on approved regulations and manuals, and a risk assessment for the proposed operation. AAUS member feedback highlights that there can be marked variations in risk assessments made by individual CASA decision-makers/inspectors, resulting in fundamental differences in approval requirements and outcomes. In turn, this is causing uncertainty for operators in planning and applying for various operations. To ensure consistency and confidence in the approvals process, AAUS recommends that CASA continue in its efforts to create documented, standardised process and assessment tools for the application process, appropriate training for its inspectors, and measures to ensure quality assurance (e.g., occasional peer review). CASA should prioritise the development of Specific Operational Risk Assessment (SORA) "Standard Scenarios", which will also help address issues associated with the high demand for CASA services.

**Training and Licensing.** AAUS membership remains concerned by slow development of training and licensing options for RPAS professionals. Beyond the basic Remote Pilot License (RePL), there are no training and licensing pathways for professionals to advance their skills and career. An example of this is a lack of specific training courses available for professionals wanting to pursue more complex RPAS operations. AAUS has observed a disconnect between CASA and education departments with respect to RPAS qualifications. For example, CASA has been unwilling to recognise training packages developed by the Australian Industry Skills Council for the RPAS industry. AAUS believes this situation is a missed opportunity, resulting in a system that is not agile enough to meet demands of industry or improve safety. Under the current economic conditions, there is a lot of discussion focused on creating career mobility for aviation professionals – ensuring transferrable qualifications and enabling recognition towards other license categories are considered essential to achieving this.

**Co-ordination Rural/Regional Flight Test locations.** Rural and Regional applicants who are not located close to existing inspector locations can wait long periods for flight tests due to the numerous and remote locations that are involved, and limitations on CASA resources. The individualized nature for scheduling such tests can prove very expensive for remote/rural operators and, accordingly, AAUS believes CASA needs to find new ways to better service such applicants. AAUS recommends CASA consider the following options to address this requirement: 1) options for remote/virtual compliance/inspections; 2) delegation of authority to locally-based inspectors; 3) schedule test locations/times in remote centres so that multiple remote/regional operators can take advantage of a single testing event and accrue savings; and 4) shift the focus away from practical compliance demonstrations.



**Increased Regulatory Compliance Surveillance.** AAUS believes that greater regulatory compliance surveillance, enforcement and public engagement is needed to help raise the standard of safety across all drone operators (hobby, excluded and commercially certified). AAUS acknowledge that CASA drone/operator surveillance programs provides a good starting point, as does the nascent registration system. However, AAUS believes more needs to be done to expand the capability of these systems, and ensure infringements are being issued, potentially through the use of automated systems, and supported by a media campaign to promote compliance. Training providers should be the priority focus for increased attention because of the ab initio culture, skills and procedures these organisations foster.

## **Conclusion**

AAUS welcomes the opportunity to represent the drone sector in this response to The Senate Rural and Regional Affairs and Transport Legislation Committee Inquiry into the current state of Australia's General Aviation Industry. AAUS works cooperatively with the Department, AirServices Australia and CASA on many issues relating to the drone sector. We appreciate the many initiatives collectively underway to enhance safety oversight, and improve the economic viability of the drone sector, including those which promote innovation. Many of these initiatives are vital to regional and rural users and will enable applications for drones that can deliver significant downstream benefit.

However, there is much work to be achieved in the overall regulatory framework and implementation of initiatives, particularly within CASA, to assist the fledgling drone sector. CASA resourcing, consultation and communication with drone sector members, the standardization of CASA processes and procedures, the timeliness for processing applications and the fee structure for drone registration and other services and an increased focus on training and licensing all present areas where improvement is necessary.

## **Contact**

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