Submission 108 – Sam Bruce

Subject: Response to Public Consultation on Remote Identification

To whom this may concern,

Thank you for providing the opportunity for public consultation on the issue of Remote ID. As an RC enthusiast with over 15 years of experience in flying RC planes and drones, I appreciate the consideration of the community's input on this matter. I would like to share my insights and concerns regarding the proposed regulations.

I wish to highlight that the majority of RC aircraft I operate fall under the "home-made" category. Like many fellow hobbyists, I began my RC journey flying foam planes in designated flying spaces as well as empty ovals and public reserves. I have seen other young pilots start their RC flying journey the same way and this legislation would provide excessive barriers to entry and excessively criminalise this behaviour. If bad behaviour is observed in these type of spaces it is typically policed by the community and thats how it should remain.

In observing the rollout of the FAA's "Remote ID" system from afar, I have noticed several issues that have arisen. Hence, I strongly urge CASA and other Australian regulatory bodies to learn from the mistakes made in the USA and avoid imposing overly strict rules on the RC hobby community especially considering how small this sector of the market is.

In respect to drones they can be considered in two categories, commercial off-the-shelf (COTS) and home made. COTS drones such as the DJI Mavic make up a bulk of the market share with a small sector of home built drones typically assembled from kits. These are usually the FPV racing style drones

It is important to acknowledge that most commercial off-the-shelf (COTS) drones, such as DJI products, already transmit location data and pilot information. Additionally, companies like DJI have developed detection products, such as the DJI Aeroscope. Many aftermarket detection systems also exist for other makes and models of commercial drones such as Parrot and Autel. These COTS drones make up a large segment of the market are popular due to their user-friendly nature. The prevalence of these detection systems could be increased which would allow the monitoring of a vast percentage of the drone market without the burden of remoteID.

Considering this, I propose that a requirement for a remote ID system be limited to drones intended for commercial purposes. For hobbyist drones and RC planes, I see little benefit in burdening this small sector with further regulations, especially when enforcement would be challenging due to limited resources from regulatory bodies.

To support this proposal, I request data from CASA or relevant bodies on the number of incidents involving hobby RC planes, excluding COTS drones, to assess the necessity for such regulations in this segment. Reports from the ATSB indicate there have been no injuries caused by RPA’s between their 2016-2019 reporting period.

https://www.atsb.gov.au/publications/2020/ar-2020-047
“Since 2016, remotely piloted aircraft (RPA) have surpassed helicopters to become the second most common aircraft type involved in an accident. However, over this period (2016–2019) there were no injuries involving an RPA.

Further, the number of manned aircraft experiencing near encounters with an RPA also increased significantly over the study period.”

Some issues of concern surrounding remote ID for Hobby RC aircraft;
ADS-B transponders are not mandatory on full-size aircraft, indicating that even in larger aviation, such strict measures are not universally applied. This is also true for craft such as Para-Motors and hang gliders.
Requiring additional equipment for remote ID poses a barrier to entry to the hobby, and we have witnessed a significant decline in the hobby in the US due to similar measures.
The potential for illegal activities still exists, as owners can easily remove the tracking or fail to fit it the equipment in the first place, just as alternative firmware can be flashed to DJI drones to bypass tracking.
The range of detection for smaller retrofitted RC planes is limited, which affects the effectiveness of the proposed system.

Vulnerabilities to spoofing have been observed in the existing US system, leading to concerns about its reliability and potential for mis-use.

Regarding data and access concerns, it is crucial to establish clear guidelines for who should have access to Remote ID data and what information they can obtain. If implemented correctly, limiting the system's scope to specific commercial operations and ensuring data is available only as needed, similar to the current ADS-B system, could be a viable approach..

In conclusion, I propose that only drones above a certain weight engaging in commercial operations on public land or above an altitude ceiling on private land be required to carry remote ID equipment if not already fitted. Hobbyist drones and RC planes should remain exempt unless they are used for commercial purposes.

Existing laws already address any criminal activity involving these aircraft, and applying further regulations to this small sector would be impractical and detrimental to the hobby. Incidents involving hobbyist drones and RC planes are extremely low, further supporting the exemption.

A large portion of the the hobby RC drone sector is built off of Open Source community contributed platforms such as Betaflight / iNAV. Introducing remote id would severely stifle development in this field

Once again, I appreciate the opportunity to contribute to this discussion and hope that my suggestions will be taken into account. I believe that finding a balanced and practical approach to Remote ID regulations will benefit both the hobbyist community and the aviation industry at large.
Thank you for considering my input.

Sincerely,

Sam