



Australian Government

Department of Infrastructure, Transport,
Regional Development, Communications and the Arts

OFFICIAL

Remote Identification Discussion Paper: Public Consultation Summary

We asked

On the 14th of June 2023, the Department of Infrastructure, Transport, Regional Development, Communications, and the Arts (the department) published a [discussion paper](#) seeking public opinion on the potential future of Remote Identification (RID or Remote ID) technologies in Australia.

As Remotely Piloted Aircraft Systems (RPAS) continue to evolve and become a more prominent feature of Australia's aviation ecosystem, safety and security systems are becoming central to managing and protecting airspace for all users as well as the broader community. The department reached out to the wider public and businesses to generate an open conversation around Remote ID, identify the merits and limitations of the technologies, and understand the community's and industry's views on its place in Australia's aviation ecosystem into the future.

Key Takeaways

- Given the range of RPAS users, a 'one size fits all' approach to Remote ID is unlikely to be the most effective option should the technology be mandated.
- Management of data and privacy must be a key consideration in any implementation of Remote ID.
- Balancing privacy and innovation are crucial to further understanding Remote ID's role in the broader emerging aviation technology ecosystem.
- The pros and cons of Australia's unique geography will influence the suitability of Remote ID technologies types that could be adopted in Australia.
- Remote ID must prioritise the safety and security of Australian communities while fostering the growth of drone technologies.

Responses

Submissions to the Remote ID Discussion Paper closed on 28 July 2023. The department received [155 submissions](#) which included feedback from commercial services, recreational and hobbyist operators, emergency services, and other interested parties. The department values the significant number of responses and appreciates the collective knowledge and experience provided.

The department identified several core themes upon review of the submissions, including:

- Necessity
- Potential Exemptions
- Privacy Concerns
- Equipment Costs
- Technology Type
- Safety Concerns

Of the published submissions, the department received 29 submissions from businesses and commercial operators. This included manufacturing organisations, photography companies, delivery services and groups representative of a wider audience. These groups primarily focused on equipment cost, safety, privacy and information handling.

The remaining publishable submissions (106) focused on factors like potential costs, necessity, potential exemptions, privacy implications, and technology type. These themes came particularly from those identified as representing the general hobbyist community and those from Radio Controlled model aircraft communities. The racing and First-Person View (FPV) community were more focused on weight restrictions and potential exemptions around FPV operations considering they are within visual line-of-sight (VLOS) and generally operate within controlled environments.

You said

Necessity

A common theme amongst hobbyist and recreational RPAS operators was around whether a reason existed, in the Australian context, for the introduction of a Remote ID mandate. Operators expressed their belief that the hobbyist community is made up of trustworthy individuals and has a strong history of self-policing, and therefore saw no need for a Remote ID mandate. Additionally, a concern was held by a number of contributors that Australia was considering the introduction of a mandate based solely on the United States' Federal Aviation Agency's (FAA's) implementation, without consideration for the technology's relevance to the Australian landscape.

There was also a perception that the low number of RPAS safety and security incidents occurring in Australia did not justify the need for a Remote ID mandate for the whole RPAS community. However, it was suggested that a Remote ID mandate would be beneficial for commercial drones (or uncrewed aerial systems/vehicles (UAS/V)) over or near populated areas in the first instance.

Other comments suggested there was no direct link between Remote ID and improved safety outcomes, with the belief that it may not prevent accidents or airspace violations. There was also a perception that a Remote ID mandate would only 'punish' law-abiding hobbyists with over-regulation and additional costs, while bad actors would disregard any Remote ID requirements.

Responses from businesses, including manufacturers, were more receptive to the possibility of a Remote ID mandate. However, some within industry wanted greater clarity on how Remote ID could integrate with the broader emerging aviation eco-system. Larger businesses and industry participants commented that they had a greater agility to comply with a Remote ID mandate, should one occur. Smaller enterprises were largely unsure of whether a mandate should include them given the reduced number of operation time or lower risk profiles.

Potential Exemptions

The topic of Remote ID exemptions, should a mandate be implemented, generated a great deal of interesting and considered feedback.

Many submissions highlighted that if a Remote ID mandate was implemented, then it should apply to those undertaking the highest risk operations (e.g., Beyond Visual Line of Sight (BVLOS)). Some hobbyists felt that a Remote ID mandate could unfairly disadvantage specific parts of the sector, suggesting exemptions should be granted according to the weight of the UAS in use or operating location.

The racing drone community also questioned the practicality of mandating Remote ID in their particular use case. The racing community usually operate within controlled and regulated environments. Additionally, especially if broadcast Remote ID (BRID) was mandated, an external

module would weigh down the UAS and impact its ability to fly efficiently. It was suggested this group should be exempt as well as other UAS below 250g.

Business agreed with an exemption system based on weight, some noting UAS over 7kg should require Remote ID due to the potential for more damage in the event of an accident. Operational use cases were also noted to be a potential framework for exemptions.

Privacy Concerns

Data storage, public privacy, and operator privacy were three primary concerns of the recreational community. Some believed the information gathered by Remote ID should be provided to agencies who have specific requirements of enforcement or regulation. Other submissions were more cautious about data use and suggested Remote ID information should be completely open to the public to best aid deconfliction and general social security. Public privacy and operator privacy seemed to stem from data storage concerns, particularly around who can access what information and whether a malicious or negligent actor could use public information against an operator.

Businesses showed particular interest in protecting personally identifiable information (PII), especially that of recreational users. Industry agreed with the general idea of limited exposure to information from Remote ID systems, promoting a 'need to know' system that would allow law enforcement or regulatory bodies to access required information.

Equipment Costs

The submissions identified a range of cost implications Remote ID could impose on hobbyists and recreational users. There was a belief that a Remote ID mandate would impact general interest in the hobby because of a financial barrier to entry. It could also make it harder to participate in the hobby if operators need to retrofit current drones to meet requirements. Increased financial requirements could limit a younger audience in the future or a broader adoption of UAS in the educational space. Networked Remote ID (NRID) implementation would likely be more cost effective for recreational operators, as all that may be needed would be a cell chip and a reception service.

Business submissions largely agreed with the idea of Remote ID being a financial barrier to entry, as well as becoming an issue where an operator owns multiple UAVs. Some commercial operators use their own Remote ID systems, primarily through some form of NRID. Other forms of Remote ID may impact commercial users as it may require time and additional costs to retrofit current UAVs to meet the mandate.

Technology Types

Network Remote ID (NRID)

Some submissions questioned the functionality of NRID in Australia's regional locations as it relies on a network connection. Australia national mobile network is still growing with coverage the highest in population centres. It is rarely accessible in mountainous or rural locations, where larger and more complex UAV operations may occur. This has been identified in some responses as a limitation for operators should NRID become more widely adopted, or mandated.

Business also identified Australia's connection availability as an issue with NRID implementation.

Other issues raised with NRID were:

- NRID may be less secure for data storage, being transferred through different systems to reach the housing location.
- It may limit what UAS can be flown as some may not be able to use a particular software.

- Extra physical and technical infrastructure will likely be needed to boost availability and range of NRID capabilities (although this would also assume less cost for users as there would be no need for an operation to purchase a physical module).

Broadcast Remote ID (BRID)

In urban or common locations where recreational UAS are flown, it was generally suggested BRID would be less complex to implement. However, there was clear issue with weight implications and the cost of BRID modules. The racing community stated they would be heavily impacted as including a protrusion from the UAS itself will impact their speed and performance.

Businesses generally agreed BRID would be more beneficial for data storage and security. However, it did have some downsides:

- It could enable the public to freely view more information (NRID would transmit less information, but, as mentioned, may be less secure)
- It can also limit further connection or links to other services, which could hamper a potentially helpful deconfliction capability in future.

Business suggested that VLOS operations should be limited to BRID implementation due to the shorter-range of broadcasting.

Safety

There was some concern that Remote ID could affect operators in a way that could put personal safety and/or equipment at risk. Issues like vandalism or harassment from aggrieved third parties through stalking or other anti-social behaviour was commonly mentioned. Due to the FAA's mandate of Remote ID and the information required to be broadcast in the US, there was significant concern of Australia matching these requirements. Submissions expressed clear issue with this and has largely advocated against this type of information from being broadcast.

Operator safety was also a common topic for business submissions, though drone safety was also often mentioned. Some submissions believe Remote ID needs to be applicable to every aerial vehicle for it to effectively contribute to safety outcomes. Crewed aviation vehicles would not hold Remote ID capability, nor will ADS-B be able to recognise Remote ID transmitters, therefore there is little automatic deconfliction ability from Remote ID directly. Additionally, through NRID specifically, spoofing location and disrupting services may become a possibility, which could become an issue moving forward.

In support of a successful Remote ID mandate, some commercial operators noted its unique ability to improve safety in urban locations, either through Remote ID's traceability or through finding safer environments due to identifying other operators' locations.

Next Steps

Publishing

The department has published [submissions](#) to the Remote ID Discussion Paper (with exception of submissions identified as private or containing offensive content) for public viewing on [Drones.gov.au](https://www.drones.gov.au). In addition to the submissions, the full paper is available [here](#).

The department will use the feedback provided as part of this consultation when considering the future of Remote ID's technologies in the ongoing design of Australian aviation eco-system.