

Submission: 265

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Submission to the ADS-B Mandate Consultation

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Executive Summary

This submission presents my personal views on the proposed expansion of the Automatic Dependent Surveillance Broadcast (ADS-B) from the perspective of recreational aviation - particularly hang gliding and paragliding.

I have little interest in the implementation of ADS-B OUT and IN, since it cannot be practically used in hang-gliders and paragliders, however, I support the voluntary risk-based use of Electronic Conspicuity (EC) devices in lower airspace classes, and I call for the protection of recreational flying sites through thoughtful airspace design.

1. Recognition of Recreational Aviation

Recreational aviation is a vital part of Australia's airspace ecosystem. Activities such as hang-gliding, paragliding, gliding, and ultralight flying typically occur in Class G and E airspace, where ATC surveillance is limited. The consultation paper acknowledges this sector and its unique operational needs.

2. Support for Electronic Conspicuity (EC) Devices

I support the proposal to allow EC devices as a compliant alternative to certified ADS-B OUT equipment in Class D, E, and G airspace. These devices:

- Are portable and cost-effective (~\$1,000)
- Enhance pilot situational awareness
- Do not require LAME installation
- Are suitable for aircraft not seeking ATC services

This flexibility is essential to maintain equitable access for recreational users and avoiding exclusion due to cost or certification barriers.

Further, EC devices should in many instances replace the use of VHF radio. VHF radios are heavy and difficult to use in flight when pilots are also required to use UHF radios in accordance with local site rules.

3. Airspace Design and Site Protection

Established (and yet to be established) recreational flying sites are critical to the safety and viability of hang-gliding and paragliding operations. I recommend:

- A minimum **1,000 m buffer** around launch sites to preserve safe operations
- Recognition of **recreational activity sites and zones** on official aeronautical charts, in surveillance and in airspace planning
- Meaningful and ongoing consultation with recreational flying clubs and organisations

These measures will ensure that surveillance expansion does not compromise the safety or accessibility of recreational sites.

Further, if CASA consulted more with recreational flying clubs, it would help them to better understand when paragliding and hang-gliding flights are likely and this information could then be included on aviation charts (e.g. Tambo in the afternoons and Stanwell Park when the wind is south easterly, etc.). This would enable other aircraft to avoid those locations at those times.

4. ADS-B IN and EC for Enhanced Safety

The proposed requirement for ADS-B IN capability from 2028 is a welcome step toward improving “alerted see and avoid” safety.

EC devices with ADS-B IN can provide real-time traffic alerts which would be especially valuable when thermalling or ridge-soaring and where visual separation is challenging. The use of EC devices by hang-glider and paragliders make them more visible to other aircraft and hence easier to avoid.

What is not be well understood however is that when flying a paraglider or hang glider, pilots face unique challenges when it comes to operating VHF aviation radios and other equipment that involves the use of the pilot’s hand. Unlike in powered aircraft or sailplanes, the pilot’s hands are almost constantly occupied with controlling the wing. In both sports, subtle and continuous inputs on the brake toggles or control bar are essential for maintaining pitch, roll, and yaw stability, as well as for responding to changing air conditions. Taking even one hand off the controls for more than a moment can compromise safety, especially when flying in active thermic air, near terrain or other gliders.

This physical constraint makes the use of traditional aviation radios - typically designed for cockpits with instrument panels - awkward and often impractical. Many pilots rely on push-to-talk (PTT) systems integrated into their helmets or harnesses, allowing them to transmit without releasing the controls. Even so, adjusting frequencies, changing volume, or managing multiple radio channels remains difficult in flight. The same challenge applies to GPS devices,

flight instruments, and variometers that require manual input. Pilots usually mount these instruments on their harnesses or flight decks for visibility, but they must plan interactions carefully, often waiting for stable flying conditions or using quick, practiced movements.

Because of these limitations, any new equipment needed for paragliding and hang gliding such as Electronic Conspicuity (EC) devices, must be designed or adapted for hands-free use.

5. Cost and Implementation Concerns

While the staged approach to ADS-B OUT (2028 for Class D/E/G, 2033 for Class B/C) is appreciated, I urge the Department to:

- Ensure **ongoing affordability and availability** of EC devices
- Provide **clear guidance and technical support** for recreational users
- Avoid mandatory upgrades that disproportionately affect low-impact, low-altitude recreational operations
- Fully consider and accommodate the limitations mentioned in Section 4 above.

Conclusion

I support the Department's efforts to enhance aviation safety through expanded ADS-B use. However, it is essential that recreational aviation remains a valued and protected part of Australia's airspace. By embracing EC devices on a voluntary opt-in basis in line with the risks at each flying site, and safeguarding flying sites through better consultation and planning, the mandate is likely to achieve its safety goals but without compromising access or affordability for recreational pilots.



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