Submission: 278

Sports Aviation Federation of Australia

Submission: Potential future expansion of Automatic Dependent Surveillance Broadcast (ADS-B) mandate in Australia.

27/10/2025

SAFA appreciates the opportunity to comment on the proposal to mandate the carriage and use of ADS-B in Australian aircraft**.**

SAFA Does not support this proposal

The proposal will not work in practice for the majority of aircraft administered by SAFA due to specific mounting requirements of the single available Approved EC device. The single mounting option of currently available equipment is not practical for use in Paragliders or Hang Gliders, nor practical in the majority of Weight-Shift Microlights.

The Aviation White Paper 2024

The Aviation White Paper 2024 refers to Sport Aviation in three places: pp 37, 142 & 147. The references are to merely include Sport and Recreation aviation under the umbrella of General Aviation.

The AWP also speaks to the issue of mandating carriage of ADS-B devices to all GA aircraft.

Inconsistencies with the Aviation White Paper

The 2024 Aviation White Paper outlines a vision for a “safe, competitive, productive, sustainable and fair” aviation sector. However, the proposed ADS-B mandate contradicts this vision in several ways:

- Fairness: The mandate disproportionately affects sport and recreational aviation without offering equitable access to rebates or infrastructure.
- Safety: Mandating equipment that cannot be safely mounted undermines safety rather than enhancing it.
- Sustainability: The financial burden and technical impracticality of compliance will accelerate the decline of certain aircraft classes, notably weight-shift microlights.

- Consultation: The White Paper commits to genuine engagement with affected communities. SAFA has not seen this commitment reflected in the current process. As a national body and Approved Self-Administering Organisation (ASAO) under CASA, SAFA has not been afforded adequate time to consult with its members on a proposal of this magnitude. The timeline outlined in the consultation paper does not reflect the complexity of our administered aircraft or the diversity of operational contexts.

Impediments to the proposed mandate

The proposal speaks of aircraft being "ADS-B capable", yet there is no clear definition of what this means in terms of capacity for carriage, data presentation or power supply; all key issues with the aircraft administered by SAFA.

Similarly, the definition of ADS-B "IN" lacks clarity—does it require visual displays, audible alerts, or both? These ambiguities must be resolved before any mandate is considered.

At present only a small percentage of our aircraft might be described as "ADS-B capable". Our aircraft predominantly do not have an electrical generation system, or capacity to carry the approved ADS-B equipment or the cockpit real estate to mount a display.

For the few weight-shift micro-light aircraft in our fleet (156 aircraft as at 30/09/2025), mounting of an approved ADS-B IN/OUT device would be possible; some have an electricity generation system, space to carry the equipment and cockpit real estate to mount a display device. However, our WM fleet is experiencing what could accurately be described as a serious decline. Imposing a significant financial expenditure, with associated hard-to-obtain services of an approved installer will accelerate the decline of this class of aircraft.

EC devices will likely not present a significant problem for WM aircraft; they have a fuselage with a dashboard that could accommodate a suction-cup mounted EC unit and potentially dashboard space for a display unit.

Hang gliders and powered hang gliders have better options for mounting EC devices; these could be attached to down tubes or king posts using some sort of fastening. In the current form factor of the single available EC device, the provided mounting solution is not effective, and some user ingenuity will be required to fasten the device to the aircraft.

Paragliders and powered paragliders (PPGs) face real problems. The devices are specified to be mounted away from the pilot's body according to the manufacturer's recommendations. They therefore cannot be mounted to any part of an open paraglider or PPG harness. They could be mounted to the upper, outer surface of an integrated cockpit on a pod harness or the front of a separate cockpit mounted to an open harness. However, in both situations the EC device could still be within the minimum recommended separation from the body. The most likely area of the body for both males and females that would be affected contain digestive and reproductive organs. The effects on the body from transmission from these devices are unknown. SAFA does not propose that our members be the ones to find out.

Reduced capability for data presentation

Our pilots face a lack of capability in availability of devices that can present ADS-B information for situational awareness. The instruments we carry are small and limited in data presentation capability. Usually, pilots only carry a variometer, or their mobile phone running software that incorporates barometric altimetry data from an external device via Bluetooth connection and radios (UHF and/or VHF) depending on site. A more sophisticated device can connect to the wifi hotspot of a Skyecho2 and present the data in an app. The price for the single unit known to have this capability at present is significant enough (>$1,000) to present an impediment to widespread adoption, especially when combined with the purchase price of a Skyecho2 unit (>$1,000).

Instrument Interference Due to Limited Space

SAFA aircraft often operate with minimal cockpit space, and the close proximity of multiple electronic devices can result in interference between critical instruments, including altimeters, VHF airband radios, and ADS-B or EC units. This interference poses a increased safety risk and further complicates the feasibility of mandated equipment installation.

Equity in Mandate Requirements

If SAFA aircraft will be required to carry ADS-B OUT or EC devices, then all capable aircraft must be mandated to carry both ADS-B OUT and IN. Furthermore, ADS-B IN must include a visual representation of surrounding traffic and warnings, not just passive reception.

Site and discipline contexts

Further issues arise when considering site-specific or discipline-specific usage.

Coastal flying sites are frequented by hang gliders and paragliders. Many of these sites are low-level with flights between 100’-1,000’ AMSL being maintained. The aircraft used for these flights only utilize the minimum of required instruments to comply with regulations.

Where coastal sites are located under flight paths (with significant separation), ADS-B beacons will only add to the clutter in an already busy area, leading to increased load on Air Traffic Controllers.

Coverage Limitations at Low Altitudes

Air Services Australia acknowledges that ADS-B coverage at or below 3,000’ AMSL is minimal and limited to within 20 nautical miles of a ground station. Mandating ADS-B OUT or EC devices without a defined operational floor is impractical. SAFA recommends a floor of 1,500’ AGL, below which VFR “see and avoid” principles should apply, and no BVLOS RPA operations should be permitted outside of designated areas or corridors.

Drone Operator Responsibility for Avoidance

The proposed model places undue burden on crewed aircraft to be electronically visible to drones. SAFA asserts that drones must bear the primary responsibility for avoidance, especially in shared low-level airspace.

The current ADS-B purchase subsidy program

The subsidy program, with total funding of $8.4 million, is restricted to VH registered aircraft and those recreational aircraft listed in a registry. The Federal Government has previously voiced their disappointment in the uptake of this rebate, yet they continue to refuse to open the rebate to a broader audience.

SAFA has previously engaged directly with the Minister and her department requesting an expansion of the rebate scheme to no avail. We have been told repeatedly that a future review of the scheme may include an expansion in the scope of the target aircraft owners, but this has never occurred.

This exclusion not only undermines equitable access to safety-enhancing technology but also places an unfair financial burden on SAFA members who would be required to comply with a mandate without having been eligible for prior support.

Presumably the reasoning for the limit of the rebate to listed aircraft is now not an impediment to our unlisted aircraft being included in the proposed mandate. If that is the case, the Department should go for 'low-hanging fruit' and immediately broaden the scope of the rebate program which is due to expire in 2027. This move would likely see an increased purchase of EC devices by pilots who believe they have a feasible method of safely mounting these.

Conclusion and Recommendations

While SAFA broadly supports the concept of adoption of ADS-B carriage and use, as with airband radios, the capability of our pilots to safely carry these devices means a mandate is unacceptable.

SAFA recommends:

- that the Department personnel responsible for this proposal should make themselves familiar with the aircraft represented within GA, specifically Sport and Recreation aircraft types, and the capabilities and lack thereof of these disparate aircraft to mount and operate ADS-B and EC devices.
- that the proposed mandate to carry EC devices be redefined to account for the inability of the majority of our pilots to safely mount these devices.
- that the Carriage of ADS-B or EC devices be aligned with the exemption for Drone operators under Exclusions of 6.3.2 "SAFA administered aircraft when operated at SAFA-recognised sites"

- that the term “capable”, when used in “capable aircraft” be redefined to account for the lack of capability of the bulk of our members’ aircraft to safely mount EC devices, let alone more complex hardware.
- that a minimum altitude threshold (e.g. 1,500 ft AGL) for ADS-B OUT/EC requirements be incorporated for SAFA administered aircraft.
- that a mandate for ADS-B IN with visual display for all Capable Aircraft required to carry ADS-B OUT be included.
- that drone operators are required to detect and avoid crewed aircraft, not vice versa.
- that the existing rebate scheme be expanded to include pilots of unlisted aircraft who may choose to purchase an EC device if they believe they can mount and operate it safely in accordance with the manufacturer’s specifications.

Regards,

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