

Submission: 143

Garmin Intl. Comments on Potential expansion of the Automatic Dependent Surveillance Broadcast (ADS-B) mandate in Australia

Thank you for the opportunity for Garmin to comment on the Potential expansion of the Automatic Dependent Surveillance Broadcast (ADS-B) mandate in Australia.

Attached are Garmin's comments.

Potential Future Expansion of Automatic Dependent Surveillance Broadcast (ADS-B) Mandate in Australia

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Organization Name: Garmin Intl.

| Page and Section | Comment | Suggested Resolution |
|------------------|---|--|
| All | Garmin supports the use of ADS-B In/Out for increased situational awareness (and resultant safety enhancement) in airspace where there is greater risk of mid-air collision. We acknowledge the potential contribution of ADS-B Out/In to airspace efficiency although commensurate advancements in air traffic management are also needed to realize that contribution. We also appreciate and support the “capable aircraft” language in the proposal that considers gliders, balloons, and other aircraft without electrical systems. | |
| Figure 1 | The use of “ADS-B IN Receiver” is vague in its intent. While that may be intentional, Garmin recommends that specific functional expectations of ADS-B IN be scoped more clearly to substantiate both the potential safety benefit and provide a better estimated cost to equip. | The easiest and most clear way to express this is in terms of the ADS-B IN applications of the existing TSO-C195(). We feel that providing Airborne Situational Awareness (AIRB), ADS-B Traffic Advisory (ATAS), and Surface Situational Awareness (SURF) are minimum expectations to provide meaningful safety benefits. Given an increase in runway incursion incidents, a capability for Indications and Alerts (SURF-IA) for aircraft on-ground should be considered for higher-risk aerodromes. |
| Figures 1 and 2 | Garmin supports the use of ADS-B In/Out for increased situational awareness (and resultant safety enhancement) in airspace where there is greater risk of mid-air collision. Garmin also sees opportunity for ADS-B and EC devices to facilitate the safe integration of drones into shared airspace. Nonetheless, Garmin has concerns about the potential model regarding drones and VFR aircraft, specifically in regards to the requirement for both types of aircraft to equip with ADS-B Out in uncontrolled (Class G) airspace. Section 3 of the Discussion Paper includes feedback from the sport and recreational sector to the 2009 Aviation White Paper- “both industry organisations and individuals alike, opposed any requirement for ADS-B carriage in Class G and Class E airspaces”. Section 5 cites five key objectives of an expanded ADS-B Mandate- the first two being “reduced risk mid-air collisions, between crewed aircraft, | Given the points of burden on the VFR community to support drone integration and the use of the 1090 MHz frequency in the long term, we support further engagement with user stakeholders to explore alternatives to the airspace and equipment aspects of the proposed model which can safely, sensibly, and achievably support the integration of drones into uncontrolled airspace. |

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| | <p>and between crewed and uncrewed aircraft” and “facilitation of the safe and productive integration of emerging aviation technologies”. It is unlikely that the Australian VFR community’s opinion has changed significantly, and it may be difficult to substantiate a significant safety benefit of mandating both ADS-B in uncontrolled airspace. Indeed, the VFR community may feel unfairly burdened simply to enable the integration of drones into this airspace (i.e. the second objective of Section 5).</p> <p>Regarding the requirement for some drones and all AAM to equip with Approved EC or Approved ADS-B Out, Garmin notes the Consultation Paper does not mention any consideration of the effect on 1090 MHz frequency utilization (or potential saturation) given the significant increase in the number of aircraft that will transmit ADS-B Out on a common frequency in the long term.</p> | |
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