

Continuing Airworthiness Notice – 34-007



ADS-B In Equipment Installations

26 February 2020

Issued by the Civil Aviation Authority of New Zealand in the interests of aviation safety. A Continuing Airworthiness Notice (CAN) is intended to alert, educate, and make recommendations to the aviation community. A CAN contains non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD). The inspections and practices described in this CAN must still be carried out in accordance with the applicable NZCAR Parts 21, 43 and 91 - CAN numbering is by ATA Chapter followed by a sequential number for the next CAN in that ATA Chapter.

Applicability:

Operators and installers of ADS-B In equipment.

Note: This Continuing Airworthiness Notice (CAN) is applicable to certain Appareo Stratus 3i ADS-B In equipment installations, but is not limited to the installation of this particular OEM ADS-B In equipment type.

Purpose:

The CAN is issued to advise operators, installers and maintenance providers that certain ADS-B In equipment installations may have been installed under AC43-14, revision 5, Appendix 9, which is not considered to be Acceptable Technical Data (ATD) for ADS-B In receiver installations.

AC43-14, Appendix 9 is only applicable for the installation of 'Non-Aeronautical' Electronic installations.

Background:

This CAN is prompted by several reports received by the CAA of finding ADS-B In equipment installed in accordance with AC43-14, where the CAA considers these installations to be out of scope of AC43-14. The reports are related to Appareo Stratus 3i installations, but there may be other ADS-B In installations affected by this CAN.

AC43-14 provides ATD for various minor alterations on aircraft meeting the applicable criteria of the Advisory Circular (AC). The CAA is aware of several installations where AC43-14, Appendix 9 – Installation of 'Non-Aeronautical' Electronics' was used for ADS-B In receiver installations. ADS-B is a surveillance system and is not considered to be a 'non-aeronautical electronics', whether this is an ADS-B Out, or an ADS-B In installation.

Unless the ADS-B In function is part of a "Stand-alone ADS-B system" as per AC43-14, Appendix 13, then the AC is not considered to be ATD for the installation. For an ADS-B In receiver to be considered part of a stand-alone ADS-B system, the ADS-B In receiver must be included in the ADS-B Out Line Replacement Unit (LRU), or be specifically covered under the Approved Model List (AML) in the STC under the provisions of AC43-14, Appendix 13.

ADS-B installations that prompted the issue of this CAN are related to Appareo Status (x)i models of ADS-B In receivers. These i-model receivers are stripped versions of the non i-series models and this equipment relies on an interface with the Appareo ESG series transponder to operate. This integration is not covered under the Appareo ESG transponder STC. For the installation of these ADS-B In receivers ATD is required, as AC43-14 is not considered ATD for these installations.

ADS-B In receivers that do not require integration with any part of the aircraft, or components for operation, are considered Portable Electronic Devices (PEDs) and do not require ATD. The use of PEDs is subject to Rule 91.7. These devices are either battery powered, or can be powered from an existing power source in the aircraft (e.g. a cigar lighter socket, or an USB power port).

The Appareo Stratus series that do not have an "i" designation meet this requirement. There are ADS-B In receivers which have an integration option. This integration would then require ATD.

Recommendation:

The CAA strongly recommends the following:

- Operators and installers of ADS-B In equipment must ensure that ATD is used for these installations. The CAA does not consider AC43-14 as ATD for these installations.
- Operators and installers should consider an ADS-B In solution that is integrated with the ADS-B Out system, or an ADS-B In solution that is provided with ATD (e.g. a STC, or an ADS-B In solution that meets the requirements of a portable electronic device, or obtain ATD for the installation from a Part 146 design organisation.