



Safety Information Bulletin

Airworthiness

SIB No.: 2014-33R1

Issued: 06 June 2017

Subject: Airborne Collision Avoidance System II – Spurious Resolution Advisories

Reason for Revision:

This SIB revises and replaces EASA SIB 2014-33 dated 19 December 2014, to include reference to an available software update (including part number change) of the affected equipment that provides a solution to the spurious resolution advisories (RA).

Ref. Publications:

Honeywell International Inc. Service Bulletin (SB) 940-0351-34-0005 [Publication Number D201611000002] dated 20 January 2017.

Applicability:

All owners and operators of aeroplanes having Airborne Collision Avoidance System (ACAS) II version 7.1 with Hybrid Surveillance (see Note below) enabled, known to be installed on, but not limited to, Airbus A318, A319, A320, A321, A330 and A340 aeroplanes.

Note: Hybrid surveillance uses both passive surveillance, using Mode S Extended Squitter (ADS-B), and active interrogations. Passive surveillance is used by ACAS II to track those aeroplanes which **do not** pose a near term collision threat. This leads to a reduction of the rate at which ACAS equipment interrogates aeroplanes, which in turn reduces the use of the 1030/1090 MHz frequency.

Description:

A number of spurious RAs were reported by ANSPs (Air Navigation Service Providers) in European airspace. Based on the data currently available, these occurrences appear to affect only certain Airbus aeroplanes in a specific configuration (see Applicability). Typically, the RAs are triggered when two aeroplanes are crossing at the same level or are in vertical convergence. In both cases, the conditions for RA generation are not satisfied and ATC standard horizontal separation is assured. Usually, the unexpected RA is preceded by a very short TA (traffic advisory) and in some cases no aural TA is provided. The data obtained suggests that the RA is generated only when the other aeroplane is crossing between 5 to 7 nautical miles from behind.

From a pilot and controller perspective, the RAs would appear to be spurious and unexpected. In all cases, the flight crew receiving the RA have correctly followed the RA instructions. From an air traffic management viewpoint, this type of spurious manoeuvre disrupts the flow and increases flight crew and Air Traffic Controller (ATC) workload.

This is information only. Recommendations are not mandatory.



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A total of 171 cases of spurious RAs have been reported since December 2012 by two European ANSPs. It is likely that more spurious RAs have occurred, but were not recorded.

Based on the Honeywell SB, Airbus published several SBs to provide modification instructions for the aeroplanes that had the affected equipment installed by Airbus method. Compliance with those instructions is now required by EASA AD 2017-0091, currently at Revision 2.

However, other Airbus aeroplanes, modified by Supplemental Type Certificate (STC) or minor modification, are known to be affected as well. It is expected that EASA will take further AD action for those aeroplanes.

Recommendation(s):

Notwithstanding these spurious RA events, when any RA occurs, the flight crew are reminded to follow the existing approved procedures to ensure continued safe operation of the aircraft.

As soon as possible, as permitted by workload, the flight crew informs ATC of the event. After the flight, the flight crew also informs their airline's Operations Centre of the event, recording the time of the event, approximate location, aircraft registration and whether or not a spurious RA (no other aircraft in close proximity) was suspected.

Operators are reminded that European Commission Regulation (EU) [965/2012](#), CAT.GEN.MPA.105, paragraph (c), requires the commander of the flight to report these kinds of occurrences to the competent authority. The operator should also provide this information to the design approval holder of the aircraft. This information can then be used to monitor the number of spurious RAs generated.

Contact(s):

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