

EASA Safety Information Bulletin

SIB No.: 2014-33

Issued: 19 December 2014

Subject: Airborne Collision Avoidance System II (ACAS II) –

Spurious Resolution Advisories (RAs)

Ref. Publication: None.

Applicability: All owners and operators of aeroplanes having ACAS II

version 7.1 with Hybrid Surveillance (see Note below) enabled, known to installed on, but not limited to, Airbus

A318, A319, A320 and A321 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 have been 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).

from behind.

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

In all reported cases, there has been no reduction of horizontal separation or possible risk of collision between the two aeroplanes, at the time of the spurious RA. 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 ATC (Air Traffic Controller) workload.

This is information only. Recommendations are not mandatory.

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A total of 19 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.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Airworthiness Directive (AD) action under EU 748/2012, Part 21.A.3B.

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) No 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.

The ACAS II equipment suppliers, Airbus and EASA are closely monitoring this issue with a view to taking further action to correct the problem.

Contact(s):

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