Direction des Opérations
Service de l'Information Aéronautique
DSNA

SERVICE TECHNIQUE

☎ : 05 57 92 57 57
Fax : 05 57 92 57 77
✉ : sia-direction@aviation-civile.gouv.fr
Site SIA : http://www.sia.aviation-civile.gouv.fr

AIC CAR-SAM-NAM
A 01/12
Date de publication : 12 AVR

OBJET : INFORMATION RELATIVE À L'INTERPRÉTATION DE CERTAINS RA DE LA VERSION 7.0 DE L'ACAS II

L'objet de la présente circulaire est de rappeler aux équipages l'existence du bulletin d'information de sécurité émis par l'Agence Européenne pour la Sécurité Aérienne (AESA) le 09 juin 2009 sous le numéro 2009-16.

Ce bulletin relatif à la version 7.0 de l'ACAS II a pour but de contribuer à l'interprétation correcte par les équipages de certains avis de résolution de conflit (RA) et des annonces orales associées.

Le bulletin en anglais ci-annexé est également disponible sur le site de l'AESA.
http://ad.easa.europa.eu/ad/2009-16

FR
© SIA

PAGE INTENTIONNELLEMENT BLANCHE

INTENTIONALLY LEFT BLANK

FR
© SIA

EASA Safety Information Bulletin

SIB No.: **2009 - 16**
Issued: **09 June 2009**

Subject: **Misinterpretation of ACAS Resolution Advisory (RA) Aural Annunciation Messages**

Background: There have been a number of instances of incorrect pilot responses to ACAS Resolution Advisories. Data contained in EUROCONTROL CP115 (LOLO) Evaluation Report ACAS/07-085 shows that theses incorrect responses are due to a misinterpretation of the RA aural annunciations and RA displays. Some of these incorrect responses have led to serious incidents.
The following RA has occasionally been misinterpreted:

- "Adjust Vertical Speed, Adjust" (AVSA)

Description: The basic purpose of ACAS II is to provide traffic advisories (TAs) for situational awareness and if warranted, resolution advisories (RAs) in the vertical plane. RAs are indications given to the flight crew requiring manoeuvres to provide separation from all threats, or restrictions to manoeuvres to maintain separation by means of a dedicated RA display, either as a pitch cue on the PFD, or indications on a VSI, together with an associated aural annunciation. Correct interpretation of these advisories by flight crews is crucial for safety. This SIB aims to contribute to this latter aspect.

Recommendations:

1. Flight crew may create or worsen a loss of separation leading to a potentially hazardous situation, following an incorrect response to an ACAS II RA. Flight crews are therefore reminded that:

   - **"Adjust Vertical Speed, Adjust**" RA always requires a reduction in the vertical rate of the aircraft, i.e. to climb more slowly, or to descend more slowly, or to level off. The required vertical rate is indicated on the RA display.

   - **"Monitor Vertical Speed"** RA always requires that the vertical speeds prohibited on the RA display are adhered too. Typically, a "Monitor Vertical Speed" RA does not require a change in vertical speed.

© SIA

- **"Maintain Vertical Speed, Maintain"** RA always requires the climb or descent to be maintained in accordance with the indications on the RA display

Note: If a "Maintain Vertical Speed, Maintain" RA is generated when in the process of changing the vertical speed, it is possible that the current vertical speed will not satisfy the RA. Therefore, to ensure that the vertical speed required by the RA is achieved, it is essential to follow the indications on the RA display.

- **"Maintain Vertical Speed, Crossing, Maintain"** RA should be flown in the same way as "Maintain Vertical Speed, Maintain" RA. The inclusion of the word "crossing" in the aural annunciation only tells the flight crew that the aircraft passing through the altitude of the intruder aircraft is imminent. No changes of vertical speed are required.

Flight Crew should therefore always check the RA display and follow the RA visual indications.

2. Operators should consider upgrading to TCAS II version 7.1 when available.

Note: Software version 7.1 has been developed to reduce the likelihood of an incorrect response to an AVSA aural warning by the introduction of a "Level Off, Level Off" (LOLOL) aural warning.

Applicability:

- All turbine powered aeroplanes having a maximum certificated take-off mass in excess of 5 700 kg or a maximum approved passenger seating configuration of more than 19 when used in commercial operations.

- All turbine powered aeroplanes having a maximum certificated take-off mass in excess of 15 000 kg or a maximum approved passenger seating configuration of more than 30 when not used in commercial operations.

- All other aeroplanes equipped with ACAS II (TCAS II Version 7.0).

Contact: For further information contact the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.

FR/ENG
© SIA