Subject: ACAS II – Manoeuvres based on Visual Acquisition of Traffic

Ref. Publications: None

Applicability: All aircraft, having a collision avoidance system such as ACAS II (also referred to as TCAS II), installed.

Description: It has been observed that some Aircraft Flight Manuals (AFM) and Aircraft/Equipment Operating Manuals do not provide sufficient guidance regarding visual acquisition of, and safe separation from, nearby aircraft.

The flight crew could interpret the available guidance as authorisation to disregard an ACAS ‘Resolution Advisory’ (RA) based on the crew’s visual perception of the situation.

Avoidance manoeuvres based on visual acquisition of traffic may not always provide the appropriate means of avoiding conflicting traffic.

At this time, insufficient information is available to determine whether the airworthiness concern described in this SIB can be considered an unsafe condition that would warrant Airworthiness Directive (AD) action under EU 748/2012, Part 21.A.3B.

Recommendations: EASA recommends that the flight crew should be made aware of the following guidance:

1. When an RA occurs, the pilot flying (PF) shall respond immediately by direct attention to RA displays and manoeuvre as indicated, unless doing so would jeopardize the safe operation of the aircraft.

This is information only. Recommendations are not mandatory.
2. By not responding to an RA, the flight crew effectively take responsibility for achieving safe separation. In so choosing, they should consider the following cautions:

i. The traffic acquired by the TCAS may also be equipped with TCAS and it may manoeuvre in response to an RA coordinated with your own TCAS.

ii. The traffic acquired visually may not be the same traffic causing the RA.

iii. Visual perception of the encounter may be misleading. Unless it is unequivocally clear that the traffic acquired visually is the one generating the RA, and there are no complicating circumstances, the pilot’s instinctive reaction should always be to respond to RAs in the direction and to the degree displayed.

iv. ATC may not be providing separation service or be communicating with the traffic causing the RA.

v. Disregarding RA during a coordinated encounter with another TCAS-equipped aircraft can result in loss of safe separation.

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