



TERMS OF REFERENCE

Task Nr: ETSO.007b
Issue: 1
Date: 9 March 2009
Regulatory reference: CS-European Technical Standard Order (ETSO)¹
Reference documents: EUROCONTROL document – Decision criteria for regulatory measures on TCAS II version 7.1 Safety Issue Rectification Extension Plus Project (SIRE+ Project), ACAS/08-103 dated 25 July 2008

<p>1. Subject: Updating of ETSO-C119b – Traffic Alert and Collision Avoidance System (TCAS) Airborne Equipment, TCAS II</p>
<p>2. Problem/Statement of issue and justification; reason for regulatory evolution (regulatory tasks): Following a series of mid-air encounters in which safety margins have been lost, a series of safety studies Ref 1, were undertaken. These studies revealed two major reasons for the loss of separation:</p> <ul style="list-style-type: none">• failure of TCAS II to reverse some Resolution Advisories (RA) when a reversal is required to resolve the threat of collision; and• frequent instances of flight crews unintentional incorrect manoeuvres in the wrong direction to the “Adjust Vertical Speed” RA. <p>These studies also concluded that due to the combination of these two safety issues aircraft equipped with TCAS II version 7.0 faces a mid-air collision risk of 2.7×10^{-8} per flight hour.</p> <p>These studies have been evaluated by EUROCAE and RTCA, Inc. with the participation of stakeholders, and have resulted in the publication of revised Minimum Operational Performance Standards (MOPS) (ED-143 and DO-185B).</p>
<p>3. Objective: Incorporate the revised standard into the EASA ETSO</p>
<p>4. Specific tasks and interface issues (Deliverables): Update ETSO-C119b - Traffic Alert and Collision Avoidance System (TCAS) Airborne Equipment, TCAS II</p>
<p>5. Working Methods (in addition to the applicable Agency procedures): Agency</p>
<p>6. Time scale, milestones: NPA to be issued 1st quarter 2009 Decision to be issued 4th quarter 2009</p>

¹ Agency Decision 2003/10/RM of 24 October 2003 on certification specifications, including airworthiness codes and acceptable means of compliance, for European Technical Standard Orders («CS-ETSO»). Decision as last amended by Decision 2007/017/R.