



TERMS OF REFERENCE

Task Nr:	25.029
Issue:	1
Date:	7 January 2011
Regulatory reference:	CS-25
Reference documents:	<ul style="list-style-type: none">— FAA Federal Register Volume 71, No 54, p. 14284, dated March 21, 2006. Notice of new task assignment for the Aviation Rulemaking Advisory Committee (ARAC).— ARAC Airplane-level Safety Analysis Working Group (ASAWG) Specific Risk tasking report, version 5.0, dated April 2010.— ARAC Report Flight Control Harmonisation Working Group (FCHWG), dated March 2001.

1. Subject: Specific risk and standardised criteria for conducting aeroplane-level safety assessments of critical systems

2. Problem/statement of the issue and justification; reason for regulatory evolution (regulatory tasks):

Different ARAC Harmonisation Working Groups (HWG) (Flight Controls, Power Plant Installations, and Systems Design and Analysis) have produced various recommendations regarding the safety of critical aeroplane systems. Although the subject of specific risk analysis was addressed in those working groups, the recommendations were not consistent.

EASA has already adopted part of those recommendations, but has not yet adopted the ones coming from Flight Controls Harmonisation Working Group (FCHWG) and the Phase 2 recommendations from the Systems Design and Analysis HWG.

This could result in non-standardised system safety assessments across various critical systems. This could also cause conflicting interpretations for conducting system safety assessments in future certification programmes specifically with the trend for highly integrated systems. After reviewing the existing regulations and the recommendations from the various harmonisation working groups, EASA together with the FAA, ANAC and TCCA identified the need to clarify and standardise safety assessment criteria. This activity has been performed under an ARAC tasking to integrate the safety assessment criteria from various system disciplines. The assigned Working Group, the Airplane-level Safety Analysis Working Group (ASAWG), has now completed its tasking and produced its final report.

For the purpose of this initiative, the definition for Specific Risk is: 'The risk on a given flight due to a particular condition'. The Specific Risks of Concern (SRC) are those when the aeroplane is one failure away from a catastrophe, or when the risk is greater than the average probability criteria provided in AMC 25.1309 for hazardous and catastrophic failure conditions, on a given flight due to a particular condition.

AMC 25.1309 needs also to be updated to account for evolution of Industry documents such as ED79A/ARP4754A and ED135/ARP4761A.

3. Objective:

- Based on the results of the ARAC ASAWG, the first objective is to define a standardised criterion for conducting aeroplane-level safety assessment of specific risks that encompasses all critical aeroplane systems.
- Based on the results of the ARAC FCHWG, the second objective is to update CS 25.671.
- For both those objectives, harmonisation with FAA, TCCA and ANAC should be ensured as much as possible.

This will be accomplished by the publication of a new decision to amend CS-25.

In addition, AMC 25-1309 shall be amended to account for the latest updates of Industry documents such as ED79A/ARP4754A and ED135/ARP4761A.

4. Specific tasks and interface issues (Deliverables):

In order to reach the objectives above:

- review the results of the ASAWG report together with the dissenting opinions expressed;
- consider what provisions are applicable to CS-25 and amend as appropriate the following CS-25 paragraphs:
 - CS 25.1309(b) and AMC 25.1309, which shall serve as a means to ensure a standardised consideration of specific risk across all systems,
 - possible revisions to CS 25.629, CS 25.671, CS 25.901, CS 25.933, CS 25.981, CS 25.1529/appendix H and/or AMCs associated to the above CS 25.1309 amendment;
- review the results of the FCHWG and propose revision to CS 25.671, AMC 25.671 and AMC 25.672 as appropriate;
- coordinate with FAA, TCCA and ANAC to ensure the highest level of harmonisation.

5. Working methods (in addition to the applicable Agency procedures):

Agency task.

6. Time scale, milestones:

- NPA for CS-25 amendment is planned to be delivered by the end of 2011.
- Decision for CS-25 amendment is planned to be issued in 2013/Q1.