

# EASA

## TERMS OF REFERENCE

**Task Nr:** 25.037(a)  
**Issue:** 1  
**Date:** 9 August 2007  
**Regulatory reference:** CS-25: CS 25.1322, AMC 25.1322, AMC 25-11  
**Reference documents:**

- Avionics Systems Harmonization Working Group (ASHWG) – Technical Report (Submitted to the Transport Airplane and Engine Issues Group (TAEIG) on 23 June 2006)
- Pre-RIA 25.037
- JAA: ACJ 25.1322
- FAA : FAR 25.1322, AC 25.1322

**1. Subject:** Avionics

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

This task combines two issues that are interrelated.

Alerting Systems

CS 25.1322 describes standards for the colour of warning, caution, advisory, and other message lights that are installed as annunciation displays in the flight deck. It addresses visual alerting cues only in the form of coloured lights installed in the flight deck. No consideration is given on the use of aural tones/voice and prioritisation of multiple alerts that may occur at the same time. Nor, does it consider new technologies, other than coloured lights, that may be more effective in aiding the flight crew in decision making. Further, CS 25.1322 is outdated, does not address safety concerns associated with today's display systems, and has resulted in additional work for applicants when showing compliance, and for the EASA when addressing new flight deck designs and the latest display technologies via special conditions and CRIs.

Electronic Displays

AMC 25-11, Electronic Display Systems, contains an acceptable means of compliance for the airworthiness approval of electronic display systems. The scope of the AMC is limited and pertains strictly to cathode ray tube (CRT) based electronic display systems used for guidance, control, or decision making by the flight crew. The guidance is clearly outdated in view of the integrated computer-based display systems used in modern aeroplanes today and does not address new technologies such as liquid crystal displays. An update to AMC 25-1 to match current practice will remove the need for dedicated "standard" certification review items to overcome shortcomings in the current AMC 25-11.

**3. Objective:**

Update CS 25.1322, AMC 25.1322 and AMC 25-11 to reflect advances in technology and include other forms of pilot alerting systems. Harmonise with equivalent FAA standards.

**4. Specific tasks and interface issues (Deliverables):**

This activity was being progressed prior to the creation of EASA, under the auspices of the ARAC Avionic Systems Harmonisation Working Group (ASHWG), with JAA specialist involvement.

Specific tasks to be undertaken in order to complete this activity, include:

1. Review proposed revisions to JAR 25.1322 and AC/ACJ 25.1322 drafted by the ASHWG. Determine their appropriateness in addressing current and future flight deck design and technologies associated with visual and aural annunciation. Amend the proposals for compatibility with CS-25 and harmonisation with FAR 25.
2. Review proposed revisions to AC 25-11 drafted by the ASHWG and the acceptability for adoption within CS-25 of any changes introduced following FAA public consultation (see AC 25-11A, 21 June 2007). Harmonisation should be retained wherever possible.
3. A Regulatory Impact Assessment should be produced to justify the proposals and which highlight the impact of adopting these proposals. Any differences with the ASHWG recommendations should be highlighted and explained.

**5. Working Methods** (in addition to the applicable EASA procedures):

EASA intends to take full advantage of progress made in the ARAC ASHWG and will consider subsequent developments by the FAA, when drafting the NPA.

Production of the EASA NPA is an Agency task based on the drafts produced by the above group.

**6. Time scale, milestones:**

NPA to be published in 2008

CRD to be finished 2008

ED Decision to be published 2009