



## **Deviations request #77 for an ETSO approval for CS-ETSO applicable to an Aircraft Seat (ETSO-C39c)**

### **Introductory note**

The hereby presented Deviations request shall be subject to public consultation, in accordance with EASA Management Board Decision n°7-2004<sup>1</sup> products certification procedure dated 30 March 2004, Article 3 (2.) of which states:

“2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency.”

### **Identification of issue**

*EXPLISEAT* submitted to EASA a deviation request against CS-ETSO-39c for their Passenger Seat PHOTON.

ETSO-C39c is addressing aircraft seat and berths.

### **Requirement**

ETSO-C39c paragraph 3.1.1.2:

The proposed type A aircraft seats shall be substantiated to the minimum performance standards set forth in sections 3.1.4, 3.1.8, 3.1.11, 3.1.14, 3.1.15, 3.1.17, 3.1.18, 3.1.19, 3.1.20, 3.2, 3.3, 3.4 (except 3.4.2), 3.5, 4 (except 4.2), 5 (except 5.3 and 5.4) of SAE Aerospace Standard (AS) document AS 8049 Rev. A.

### **Industry**

#### Deviation request, dated February 24th, 2012 – Aircraft Seats

Deviating from ETSO-C39c paragraph 3.1.1.2 by meeting, instead of the relevant requirements set forth in SAE AS8049 Revision A, the requirements contained in relevant sections of SAE AS8049 Revision B with the addition of sections 3.1.4, 3.1.8, 3.1.11, 3.1.14, 3.1.15, 3.1.17, 3.1.18, 3.1.19, 3.1.20 of Appendix B of SAE ARP 5526 Rev A.

#### Background:

SAE standard AS8049 Rev. A was revised by SAE in January 2005 to Rev. B. This revised version of AS8049 was not available at the time the FAA issued TSO-C39c (dated February 2004). For the purpose of harmonization of TSO- and ETSO standards between FAA and EASA the ETSO-C39c (dated December 2010) does also refer to Rev. A of AS8049.

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<sup>1</sup> Cf. EASA Web: [http://www.easa.europa.eu/doc/About\\_EASA/Manag\\_Board/2004/mb\\_decision\\_0704.pdf](http://www.easa.europa.eu/doc/About_EASA/Manag_Board/2004/mb_decision_0704.pdf)



### **Equivalent Level of Safety:**

- With creation of AS8049 Revision B the sections 3.1.4, 3.1.8, 3.1.11, 3.1.14, 3.1.15, 3.1.17, 3.1.18, 3.1.19, 3.1.20 of AS8049 Revision A have been moved to Appendix B of SAE ARP 5526 Rev A. The applicant shows compliance with relevant sections of AS8049 Rev. B as well as the above listed sections of ARP 5526 Rev. A.
- The modifications of certain sections of AS8049 Rev. A as listed in Appendix 1 of ETSO-C39c are complied with due to the similarity with the corresponding sections contained in AS8089 Rev. B.
- Sections 3.2, 3.3, 3.4 (except 3.4.2), 3.5, 4 (except 4.2) and 5 (except 5.3 and 5.4) of AS8049 Rev. A are similar to corresponding sections of AS8089 Rev. B.
- Revision B of SAE AS8049 represents an up-dated version of this industry standard and is commonly regarded to be an improvement in certification of aircraft seats. Hence it provides at least the same level of safety than the previous Revision A.

### **EASA:**

We accept the deviation as an alternate means to meet the requirement because:

- The amended paragraphs of AS8049 Revision A listed in Appendix 1 of TSO-C39c are included in AS8049 Revision B.
- The sections 3.1.4, 3.1.8, 3.1.11, 3.1.14, 3.1.15, 3.1.17, 3.1.18, 3.1.19, 3.1.20 of Appendix B of SAE ARP 5526 Rev A are exactly the same of the corresponding paragraphs of AS8049 Revision A.
- Current SAE standard AS8049 Rev. B is used as the basic technical standard for certification of seats and their installation on CS part 25 aircraft.