

**Proposed Special Condition on Loads : Flammability and Resistance to Fire
(In-flight and Post Crash)**

Applicable to Hawker 4000

Introductory note:

The following Special Condition has been classified as an important Special Condition and as such shall be subject to public consultation, in accordance with EASA Management Board decision 02/04 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 as 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."

Statement of Issue

The FAA issued Hawker 4000 Type Certificate on the 21st November 2006. The EASA Certification Basis for the Hawker 4000 is set at 31st December 2001 making the application regulations JAR 25 Change 15.

Historically, JAR 25 fire requirements have been focused upon interior structures. Existing JAR 25 Change 15 does not specifically address composite airframe structures subject to fire (e.g. burn through, release of toxic materials, ... etc).

As the Hawker 4000 makes extensive use of Composite Materials in airframe structure, and based on the understanding of composite materials since the time of certification basis definition, the EASA proposes a Special Condition, as part of the Hawker 4000 Type Certification Basis, in order to address the above concerns.

Hawker 4000 - Special Condition C-24

- Loads : Flammability and Resistance to Fire (In-flight and Post Crash) -

It must be demonstrated that the composite fuselage does not represent a reduction in safety relative to conventional metallic structures when exposed to fire, either in-flight fire or in a post crash fire situation. Consideration should include material flammability, fire resistance, burn through, toxicity, and fibre release.

Note: that associated changes in engineering properties (i.e. strength, stiffness, and definition of the extent of damage, ... etc) should be addressed via JAR 25.571.