JAA/FAA/TCCA International MRB Policy Board Issue Paper

Date 19 July 2004 *IMRBPB #079*

Title: Harmonization of different definitions of Principal Structural Elements

(PSE) consisting of the FAR and ATA-MSG-3 2003.1

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Issue: There are contradictory meaning between the definitions of PSE in the

FAR 25.571 and ATA-MSG-3 2003. 1, Section 2-4-1.

Problem: There misunderstandings have occurred while having in the FAR the

> PSE as being "(a)... part of the structure that could contribute to a catastrophic failure (such as wing, empennage, control surfaces and their systems, the fuselage, engine mounting, landing gear, and their related primary attachments). ...(1)(ii) The identification of principal structural elements and details design point; ..." and in the ATA-MSG-3 2003. 1, Section 2-4-1, the following paragraph "An SSI may or may not contain a Principal Structural Element (PSE). A PSE is any element which contributes significantly to carrying flight, ground, pressure, or control loads and whose consequence of failure is

catastrophic. All PSEs are considered as significant structure."

Recommendation: Since CTA understands that a PSE, as defined in the FAR (i.e., wing,

empennage, control surfaces and fuselage) contains several Structural Significant Items (SSI's) and not the opposite, as stated in the ATA-MSG-3 2003. 1, its recommendation is to correct and/or clarify the

ATA document, using the FAR as reference.

IMRBPB Position:

Sept 2004

CTA would like the definition of a PSE to be changed in the MSG-3 2003.1 document (section 2-4-2), to reflect the definition stated in FAR 25.571. Currently the definitions are opposite. Discussion resulted in the following: MSG-3 2003.1 section 2-4-1 will be changed to read, "SSIs must not be confused with PSEs (FAR 25.571), however, all

PSEs must be addressed by the SSIs".

Issue Paper closed

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