

Assessing the Appropriateness of the Aviation Industry Evacuation Certification Requirements Using Fire and Evacuation Simulation

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The aircraft evacuation certification protocol specified in FAR25.803 [1] is designed around the threat of a post crash fire and the resulting onset of non-survivable conditions which may develop within the passenger cabin i.e. flashover. The certification trial assumes 50% exit availability, with one exit from each pair being used. The trial imposes the performance requirement that the last person must safely evacuate from the aircraft within 90 seconds (ASET). On the basis of the performance of this certification trial the aircraft is deemed to be acceptable and hence safe. In this paper we discuss the suitability of this scenario as an indicator of acceptable evacuation performance.