

# **THE airEXODUS EVACUATION AND ITS APPLICATION TO AIRCRAFT SAFETY**

**E.R.Galea, S.Blake and P.J.Lawrence.  
Fire Safety Engineering Group  
University of Greenwich  
London SE10 9SL, UK  
<http://fseg.gre.ac.uk>**

## **ABSTRACT**

Computer based mathematical models describing the aircraft evacuation process have a vital role to play in the design and development of safer aircraft, the implementation of safer and more rigorous certification criteria, in cabin crew training and post-mortem accident investigation. As the risk of personal injury and the costs involved in performing full-scale certification trials are high, the development and use of these evacuation modelling tools are essential. The airEXODUS evacuation model has been under development since 1989 with support from the UK CAA and the aviation industry. In addition to describing the capabilities of the airEXODUS evacuation model, this paper describes the findings of a recent CAA project aimed at investigating model accuracy in predicting past certification trials. Furthermore, airEXODUS is used to examine issues related to the “60 foot” rule concerning maximum exit separation. Finally, issues relating to the use of evacuation models for certification are discussed.