

## **Smoke warning event on an Airbus A330 – AAIB investigation**

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On 16 April 2012 an Airbus A330-343 aircraft, G-VSXY, was operating from London Gatwick Airport to Orlando, USA, with three flight crew, 10 cabin crew and 304 passengers on board. Early in the flight the crew received a series of smoke warnings from the aft cargo hold and the commander elected to return to London Gatwick. The crew carried out emergency drills, including the discharge of the fire extinguishers, but the smoke warnings continued. The aircraft landed safely and, on the runway, the crew endeavoured to establish the extent of any fire. This produced conflicting evidence and, with smoke warnings continuing, the commander ordered an emergency evacuation. The passengers all left the aircraft within 90 seconds but two injuries, classed as ‘Serious’, were incurred. Subsequent examination of the aircraft and its systems showed that the smoke warnings had been spurious.

The AAIB investigated this occurrence in depth. This paper describes the different aspects of that investigation, including the part played by latent failures and design factors in presenting intermittent and compelling cargo smoke warnings.