



SAFETY ALERT 03/2015

Issued: 9 February 2015

SUBJECT:

Smoke incident on Video Display Units (VDU) with Liquid Crystal Displays (LCD)

REASON:

Smoke emitted by VDU of In-Flight Entertainment (IFE) System

CATEGORY:

Attention and Recommendation

APPLICABILITY:

UAE Operators

Description:

On 9 April 2014, during flight, a Video Display Unit (VDU) of the In-Flight Entertainment (IFE) System emitted smoke, without jeopardizing the safety of the flight. The [Annex 13 investigation](#) concluded that the causes of the smoke emitted from the VDU were:

1. The gases emitted from the printed circuit board (PCB) on the VDU backlight inverter board.
2. The heat caused by increased current demand after the break in secondary coil of the transformer followed by the failure of the primary side transistor component.
3. The failure of the fuse to open quickly and isolate the circuit due to its inappropriate rating related to the VDC application.

Recommendation:

This Safety Alert recommends UAE Operators operating aircraft equipped with Lumexis VDU P/N 100-2002-00X to take the following actions:

1. retrofit VDUs equipped with fiber glass substrate material fuse whenever removed from the aircraft by replacement of the fuse with a ceramic body, suspended-in-air filament fuse.
2. Ensure that any aircraft newly registered in the UAE is fitted with VDU modified LED backlight or modified open-to-air fuse standard.

UAE operators, for the enhancement of safety, may elect to:

- comply with the above recommendations; and
- determine if similar design of other VDUs installed on their fleet may be affected by same causes, and share with the GCAA any additional relevant information arising from their analysis.