Subject: Risks from using high power lights close to aircraft structures

Ref. Publications:

Applicability: Aircraft Owners, Aircraft Operators and Maintenance Organisations.

Description:
The AAIB published a Special Bulletin to raise awareness of a recent occurrence in which several cabin windows on an Airbus A321 aeroplane were damaged by high power lights used during a filming event. The damage was discovered during next flight, after take-off. Whereas in this case the damage became apparent at around FL100 and the flight was concluded uneventfully, a different level of damage by the same means might have resulted in more serious consequences, especially if window integrity was lost at higher differential pressure. The root cause of this occurrence is the high power lights that have been located too close to the aeroplane.

There are at least two other known occurrences related to damage to passenger aircraft by external heat (lights), in similar situation as described above. In these occurrences, however, damage has been noticed by ground personnel well before releasing the aircraft for operations, therefore no investigation reports are publicly available.

This SIB is published to raise awareness about the risk emerging from using high power lights close to aircraft structures.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Airworthiness Directive (AD) action under Regulation (EU) 748/2012, Part 21.A.3B. or Safety Directive in accordance with Regulation (EU) No 2018/1139, Art. 76 (6).

Recommendation(s):
Aircraft owners, operators and maintenance organisations should consider the hazard posed by using high power lights (external heat sources) close to aircraft structures, to minimise the risk of aircraft damage. In such activities, aircraft limitations should be strictly followed and, if necessary, aircraft Type Certificate Holder should be contacted for detailed instructions.

Contact(s):
For further information contact the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu