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IFALPA

POSITION PAPER

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Lithium Battery Fire/Smoke Risk on the Flight Deck

NOTE

This paper supersedes 16POS10, Lithium Battery Fire/Smoke in the Cockpit

BACKGROUND

Lithium battery fire and smoke events in aviation pose various safety risks. Studies by EASA, FAA, and ICAO highlight the risk of lithium battery and Personal Electronic Device (PED) fire and smoke in the flight deck.

A fire of any magnitude in the flight deck is a serious event and a risk to flight safety, but lithium battery fires may be impossible to contain. It is the unique characteristics of a lithium battery thermal runaway event that creates an increased risk dimension to this hazard mitigation issue.

As an example, the studies by the FAA and EASA demonstrated that most fire kits tested failed to contain the effects of lithium battery thermal runaway (fire and smoke) for batteries with Watt-hour (Wh) rating close to and over 100 Wh. This suggests that operator risk assessments, if performed, may be deficient.

For specific concerns on the use of fire containment kits see IFALPA's Position on PED smoke & fire response kits[1].

POSITION

Operators should consider the risk of lithium battery hazard events in the flight deck in their risk assessment and develop training, procedures, equipment, and limitations accordingly.

[1] *23POS23 – PED Smoke or Fire Response Kits, https://www.ifalpa.org/media/4029/23pos23-ped-smoke-or-fire-response-kits.pdf*

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