



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/15)**

Montreal, 27 April to 1 May 2015

Agenda Item 5: Development of mitigating measures to address risks associated with the transport of lithium batteries including measures that address recommendations from the Second International Multidisciplinary Lithium Battery Transport Coordination Meeting

5.2: Performance-based provisions

**ADDITIONAL PROPOSALS ON THE TRANSPORT OF LITHIUM BATTERIES AS CARGO
VIA AIR AS PRESENTED IN WP/4**

(Presented by the International Federation of Airline Pilots Association
(IFALPA))

SUMMARY

This working paper presents the following recommendations from IFALPA:

- a) for the proposal in DGP-WG/15-WP/4 to restrict the shipment of high-density packages of lithium ion batteries and cells until such time as safer methods of transport are established and followed to be extended to both passenger and all-cargo operations; and
- b) that the current restrictions for lithium metal batteries consigned under UN 3090 on passenger aircraft be extended to all-cargo aircraft.

Action by the DGP-WG: The DGP-WG is invited to consider the IFALPA recommendations.

1. INTRODUCTION

1.1 This paper presents additional issues and proposals beyond those outlined in DGP-WG/15-WP/4 (“The Transport of Lithium Batteries as Cargo via Air”), as presented by the International Coordination Council for Aerospace Industry Association (ICCAIA) and International Federation of Air Line Pilots’ Associations (IFALPA).

1.2 The ICCAIA/IFALPA paper concludes that action is needed to address the risk posed by lithium ion batteries in transportation due to the inability of cargo compartment fire suppression systems to suppress or extinguish a fire involving significant quantities of these batteries. Recent data regarding the explosion risk due to gasses vented during a thermal runaway event point to a need to determine the maximum number of batteries that may be carried in a cargo compartment.

1.3 While lithium ion batteries are carried as cargo on both passenger and freighter aircraft, the majority of large shipments are transported via freighter aircraft. These aircraft are not required to be outfitted with cargo compartments having an active suppression system, which results in a situation where the risk is greater to freighter aircraft than to passenger aircraft.

1.4 Additionally, we note that the panel has previously addressed the risk of transport of lithium metal batteries on passenger aircraft, adopting a prohibition on shipments of UN 3090 — **Lithium metal batteries**. In part, this decision was based on the fact that a fire involving lithium metal batteries does not respond to Halon, the traditional fire-extinguishing agent used in aircraft cargo compartments. High-density shipments of lithium metal batteries on all-cargo aircraft represent as great a risk, if not greater, than the risk for passenger aircraft.

1.5 The tenets of the ICAO *Safety Management Manual (SMM)* (Doc 9859) provide that States develop practices to ensure the safe operation of civil aircraft. No distinction within ICAO is made that would allow for a lower safety standard for aircraft engaged in all-cargo operations than for passenger aircraft.

2. ACTION BY THE DGP-WG

2.1 IFALPA recommends that the proposal in DGP-WG/15-WP/4 to restrict the shipment of high-density packages of lithium ion batteries and cells until such time as safer methods of transport are established and followed be extended to both passenger and all-cargo operations. Furthermore, IFALPA recommends that the current restrictions for lithium metal batteries consigned under UN3090 on passenger aircraft be extended to all-cargo aircraft. The DGP-WG is invited to consider these recommendations.

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