



**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

DISCUSSION OF ICCAIA/IFALPA WORKING PAPER

(Presented by C. Glasow)

SUMMARY

This information paper supports the working paper (DGP-WG/15-WP/4) submitted by the International Coordination Council for Aerospace Industry Association (ICCAIA) and the International Federation of Air Line Pilots' Associations (IFALPA) to develop mitigations to address the risk of transporting lithium ion batteries as cargo.

Action by the DGP is in paragraph 2.

1. INTRODUCTION

1.1 The expertise provided by the ICCAIA and IFALPA is valuable for evaluating potential safety solutions in regard to the safe transportation of lithium batteries and is greatly appreciated. We agree the current Technical Instructions permitting unrestricted quantities of shipments of lithium ion batteries not packed with or contained in equipment on passenger carrying aircraft require review for additional mitigation measures. We fully support the research and implementation of potential solutions that apply a sequence of layered protection from the battery to packaging to cargo unit load device to cargo compartment to aircraft level. We recognize the current inability of one segment of the aviation safety system to provide complete mitigation. Both passenger and cargo aircraft transportation of lithium batteries will benefit from further work using this layered approach. We continue to study the effectiveness of fire suppression systems on lithium batteries and provide additional testing and safety information on our website: <http://www.fire.tc.faa.gov/systems/Lithium-Batteries>.

1.2 Aviation safety is built on redundant safety systems contributing in order to prevent any catastrophic events, and is the long-standing approach that has resulted in the safety record we have today.

1.3 We look forward to working with all involved in developing mitigation strategies to provide a reduction in the risk as identified by ICCAIA, IFALPA and aviation research.

2. DISCUSSION

2.1 We support and encourage the Dangerous Goods Panel (DGP) to develop a plan which examines mitigation strategies to include consideration of performance-based packaging and appropriate shipping conditions as recommended by the Second International ICAO Lithium Battery Multidisciplinary Meeting and this ICCAIA/IFALPA working paper. This approach accounts for the differences in the properties of lithium batteries relative to their chemistry, size and quantity being transported. This provides a known level of safety on which any additional levels of mitigation being considered for aircraft operations or airworthiness can base their approach. In addition, operators would have a known level of safety to perform a risk analysis when considering transportation limitations. While additional mitigation measures may be developed in the future, this recommendation has been consistent throughout the International Multidisciplinary Lithium Battery Transport Coordination Meetings. Further DGP consideration of risk mitigation methods could be accomplished in an inter-session correspondence work group, which we would support and encourage other delegations to support along with any appropriate packaging or standards experts needed.

2.2 While many of our discussions in the DGP have centred on non-compliance which some may identify as the cause of some incidents, we would like to stress that the FAA Tech Center testing was conducted on lithium batteries transported within the regulations today. However, noting the safety concern of non-compliant shipments, we also would support and encourage ICAO's continuing initiatives with States to promote awareness of the safety concern for non-compliant shipments and counterfeit lithium batteries, which should involve all appropriate authorities. There are multiple oversight authorities through this entire complex supply chain that have responsibility for safety. We also encourage the battery industry to conduct and support initiatives by engaging with appropriate authorities outside of aviation and transportation to address this extensive and complex concern.

2.3 We request feedback from the Annex 6 and Annex 8 panels after those experts review the information provided in the ICCAIA/IFALPA working paper. We also ask ICAO how they propose to coordinate the "layered approach" throughout the appropriate panels.

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