



International Aircraft System Fire Protection Working Group (IASFPWG) – Installed Li Batteries Task Group

Al Carlo | Boeing Payloads Pressurized Compartment Fire Marshal

November 2, 2017

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Agenda

- Background
- Situation
- Target
- Proposal
- Summary

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Background

- International Aircraft System Fire Protection Working Group (IASFPWG) does not have active Task Groups concurrent with the meetings. There are consortiums for Halon Replacement for cargo and propulsion. There was a successful task group for handheld Halon replacement for a specific task of creating an SAE standard to support an ETSO that met outside of the meetings.
- Materials Fire Test Working Group schedules time for Task Groups as a part of their meetings.
 - Task Groups have been a successful method of achieving industry collaboration and concurrence.
 - Examples:
 - Vertical Flame Propagation Test Development (VFP)
 - Standardization activity – Guidance and MOC
 - New Heat Release Test Development (HR2)

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Situation

- Installed Li Batteries on Transport Aircraft have multiple Special Conditions (67), CRIs.
- Regulations, guidance, MOCs and test methods have not been fully standardized, harmonized and organized to address the complete set of requirements needed for certification (Cell, Battery, Device and Installation)

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Target

Li Batteries Task Group would:

- Identify and allow industry experts to actively participate and share knowledge/best practices.
- Develop standardized regulations, guidance, MOCs and test methods.
- Seek to drive/facilitate up front collaboration to improve products with overall shorter flow.
- Result in effective, practical and achievable airplane safety improvements.
- Result in a streamlined and consistent certification process across all OEMs.

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Proposal

- Organize the Systems Working Group similar to Materials Working Group
 - Schedule task group breakout sessions during meetings
 - Have additional virtual Task Group meetings between face-to-face meetings.

- New Installed Li Batteries Task Group proposal:
 - Leverage the RTCA work done for Li batteries (cell, battery and device level) to create similar guidance at the installation level
 - Standardize Means of Compliance to Special Conditions/CRI
 - Support development/update of related TSO/ETSO
 - Support development/update of Advisory Circulars (Guidance and MOCs)
 - Support development and validation of research test plans/testing and test methods
 - Support development of future regulations

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Summary

- Materials Working Group Task Groups have had successful collaboration developing requirements, test methods and guidance.
- Li Batteries activity is complex and needs more focused collaboration related to the installation aspects.
- Task Group approach could be beneficial for other subjects currently being worked in the Systems Working Group
 - Smoke Detection
 - Halon Replacement
 - Smoke Penetration
 - Lithium Batteries
 - PED – Passenger
 - PED – Airline Operation
 - Carriage as Cargo

