Update to “Options to the Use of Halons for Aircraft (Engine/APU) Fire Suppression Systems

Update progress status on Engine/APU section of Chapter 4: “Applicability of Technologies to Aircraft Application”

**LEADS**: Stephane Pugliese, Airbus (Presenter)
Katie Masiello, Boeing
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Updated Report contains (1/2)

- An updated description of airworthiness requirements related to the fire extinguishing system
- A figure describing typical Nitrogen pressurization mode and a gas generator pressurization mode to illustrate the chapter (based on demand expressed in May 2010 at the London meeting)
- An updated description of the typical environment encountered in a powerplant area
- An updated description of typical root causes leading to a fire
- An updated description of the typical process used to evaluate the compliance of the fire extinguishing system,
- A status of the current MPSe standard. A reference to the FAA website is made in order to not duplicate the complete history of the MPSe process.
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Updated Report contains (2/2)

– A recap of the agents that went through the MPS rev 03 test protocol
  • Provide a table or summary of the MPS rev 03 equivalent concentration results for each agent that underwent testing when available publicly through different communications.

– Include a section on considerations for an aircraft installation, establishing that this process is not sufficient referring to discussions between FAA Transport Airplane Directorate and Airframers for last Boeing and Airbus civil transport aircrafts being under design.

– An update of the historical review of proposed agents, introducing new ones, providing their main characteristics
  • A dedicated paragraph is related to HCFCs, HFCs, PFCs, and Blends
  • A dedicated paragraph on Trifluoromethyl Iodide (FIC-13I1) and FIC-13I1 Blends
  • A dedicated paragraph on Novec 1230 (FK-5-1-12)
  • A dedicated paragraph on Phostrex
  • An updated dedicated paragraph is related to Inert solid propellant gas generators used as direct fire extinguishing system or as a container pressurization mean
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• Thanks to peoples participating/commenting to the chapter update

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  – Thomas Gehring (Eurocopter)
  – Tony Parker (Eclipse Aerospace)
  – Jennifer McCormick (Aerojet)
  – Len Seebaluck (Kidde Aerospace & Defense)