

## **Water Mist-Nitrogen Cargo System: New System Approach for Halon Replacement in Cargo Compartments**

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The paper includes recent results of a study on halon replacement systems in cargo compartments using the agents watermist and nitrogen. Thanks to a small number of nozzles, a low amount of water needed and a single-pipe two-phase flow the system is a promising candidate for halon replacement in cargo compartments. This system combines both: a lightweight and less complex system approach as well as a versatile extinguishing behaviour responding to critical fire scenarios including potential future requirements.

In the framework of an extended measurement campaign AOA performed almost 100 real fire tests in its in-house test centre. Starting with the execution of FAA MPS tests for halon replacement in cargo compartments AOA adjusted the system to multiple aircraft cargo compartment fire extinguishing needs. The presentation includes a short insight in the real fire test campaign and its actual results. Furthermore, the working principle and the extinguishing parameters for the system optimization will be discussed. The lecture concludes with a survey of previous and future actions on system integration.