

# Cargo Compartment Halon MPS

## Boeing Sponsored Agent

Presented to: International Aircraft Systems Fire Protection Forum Meeting

By: Dhaval Dadia

Date: May 14, 2019



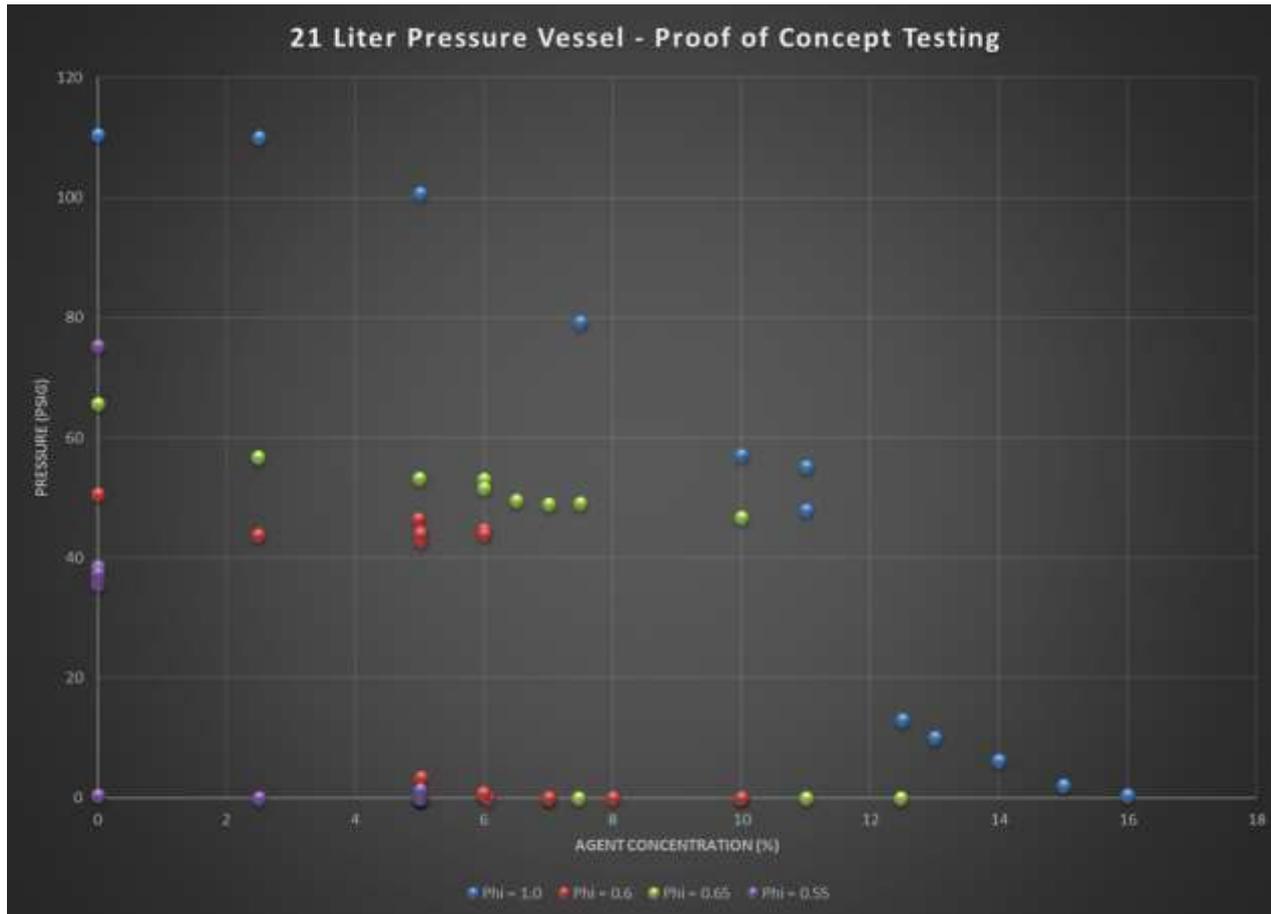
**Federal Aviation  
Administration**

# Background

- European Commission cutoff date for a cargo halon replacement agent in a new design aircraft is 2018.
- Boeing sponsored a potential cargo Halon replacement agent.
- Conducted “proof-of-concept” testing to look at behavior of agent at sub-inerting concentrations.
  - Presented results at Nov 2018 Systems meeting.

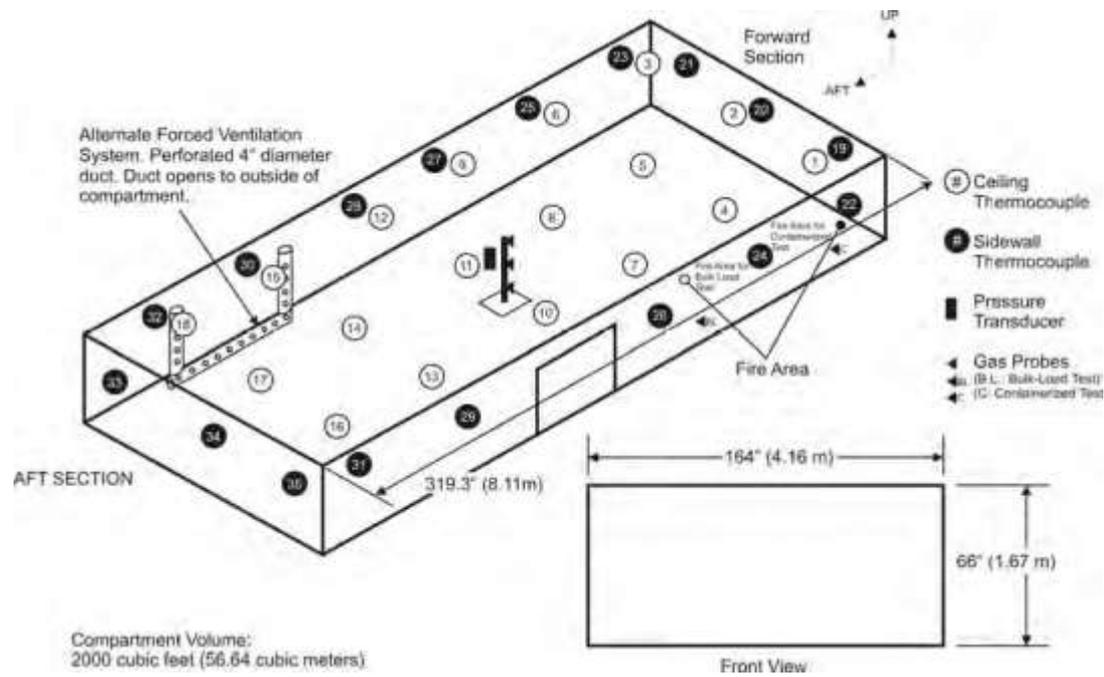


# Proof-of-Concept Testing



# Cargo MPS Testing

- DOT/FAA/TC-TN12/11 is the latest version of the Aircraft Cargo Compartment Halon Replacement Fire Suppression Systems
- <https://www.fire.tc.faa.gov/pdf/TC-TN12-11.pdf>



# Fire Test Scenarios

- **Surface Burning Fire Scenario**
- **Bulk Load Fire Scenario**
- **Containerized Fire Scenario**
- **Aerosol Can Explosion Simulation Scenario (Short Version)**



# Tests Conducted

Fire Scenario	1	2	3	4	5
Surface Burning	X	X	X	X	X
Containerized	X	X	X	X	
Bulk Load	X				
Aerosol Can Simulator	X*	X*	X*		

\* Testing was conducted but the results will be determined based on the discussion in the Cargo MPS task group.



# Tests Remaining

- 1 - Three Hour Containerized Fire Test Scenario.
- 4 – Bulk Load Fire Scenario tests including three hour test.
  - Will collect acid gases for two of the 30 minute tests.
- Aerosol Can Explosion Simulator Test
  - Testing will depend on the results of the Cargo MPS task group.
- 1 - Challenge Fire Test



# Questions

**Contact Info :**

**Dhaval Dadia**

**[dhaval.dadia@faa.gov](mailto:dhaval.dadia@faa.gov)**

**609-485-8828 (W)**

