



Federal Aviation
Administration

Fire Suppression in Class E Cargo Compartments

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Working Group, Atlantic City, NJ

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Objective

- **Test and Evaluate a Variety of Fire Suppression Options.**
- **Identify Potential Cost Effective Methods of Controlling Fires.**



Options of Suppression Agents

Container Based Agents

- **Water**
- **Novec 1230**
- **Nitrogen Enriched Air**
- **Oxygen Starvation**
- **Aerosol-type Agent**
- **Fire-Fighting Foam**

Zone Based Systems

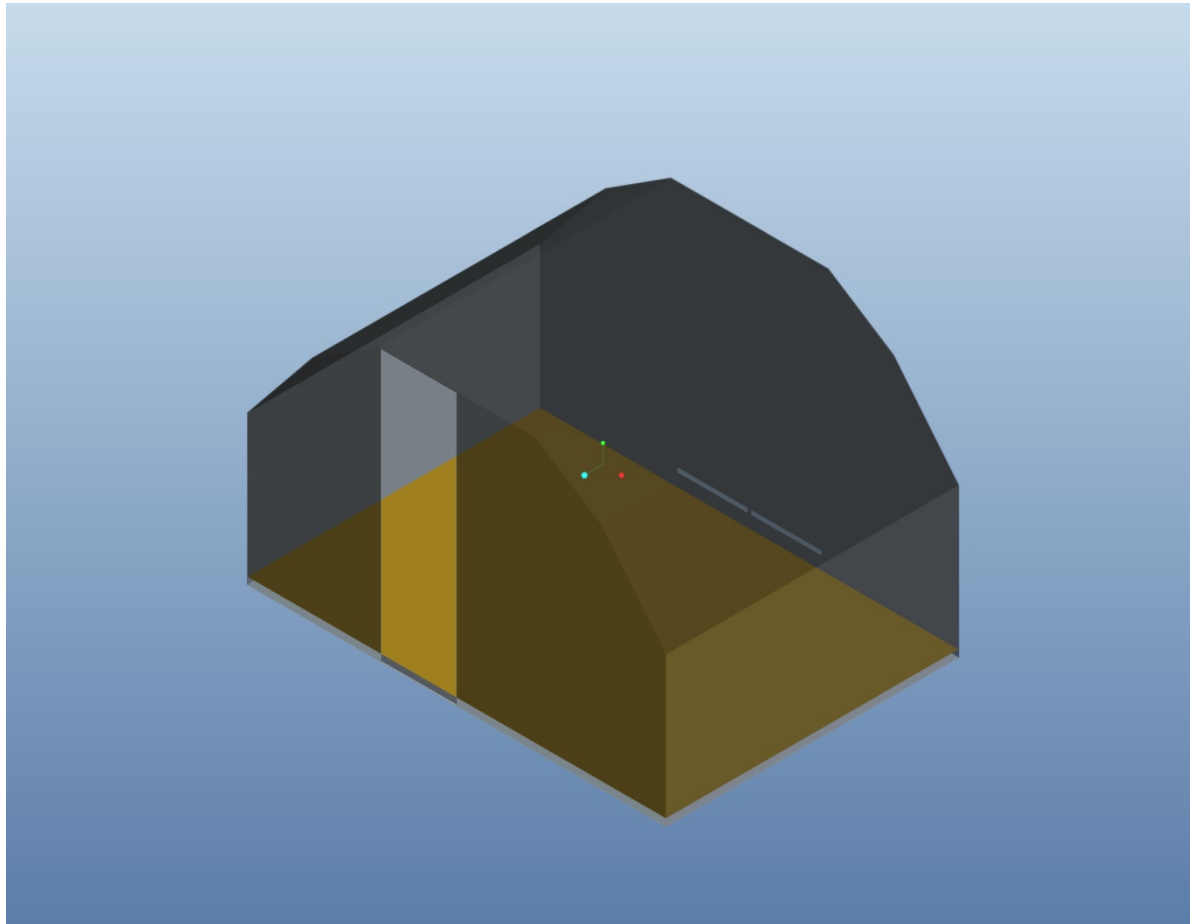
- **Water Mist**

Container Based Solutions

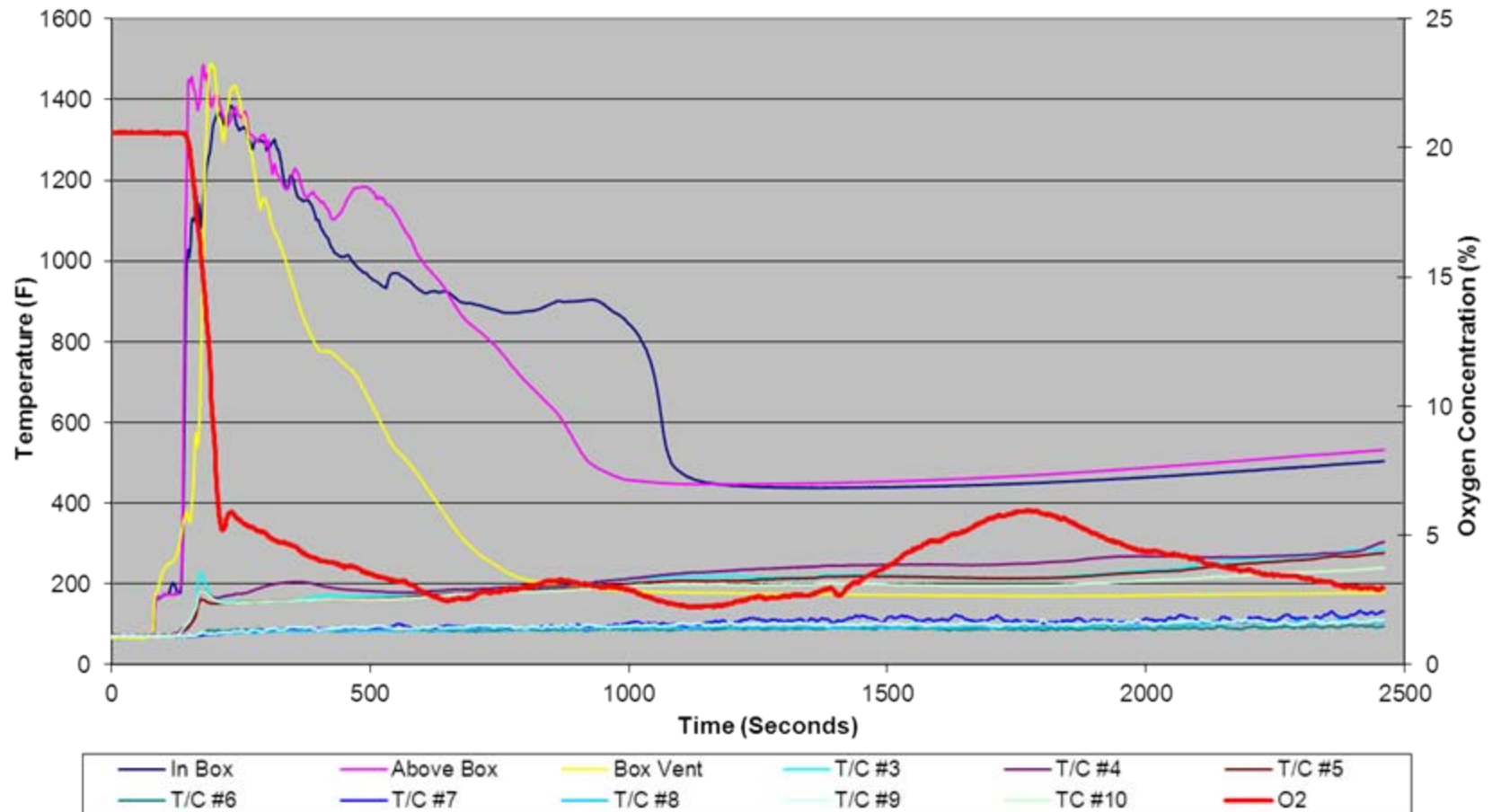
- **NEA alone was not effective in suppressing the test fires regardless of flow rate and oxygen concentration.**
- **NEA and water used in combination effectively suppressed the test fires.**
- **Novec 1230 was able to suppress the fire for a limited period of time.**



Oxygen Starvation



Oxygen Starvation



Container Based Solution



Test article is being constructed to study zone water mist systems.

Future Work

- **Conduct tests with fire fighting foam.**
- **Conduct tests with aerosol agent.**
- **Test fire suppression agents on battery fires.**
- **Conduct tests with a zone water mist system.**

