

Commercial Aviation Safety Team (CAST) Cargo Fire Protection



FAA William J Hughes Technical Center
Fire Safety Branch

Presented to: International Aircraft Systems Fire Protection
Working Group. Dresden, Germany

By: David Blake, FAA Fire Safety

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Federal Aviation
Administration

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Mission, Vision, and Goals

The Commercial Aviation Safety Team was founded in 1998 with a goal to reduce the commercial aviation fatality rate in the United States by 80 percent by 2008. By 2008 CAST was able to report that by implementing the most promising safety enhancements, the fatality rate of commercial air travel in the United States was reduced by 83 percent.

Today CAST continues to apply its integrated, data-driven strategy to reduce commercial aviation fatality risk in the United States and promote new government and industry safety initiatives throughout the world.

Vision

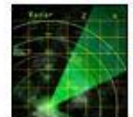
Key aviation stakeholders acting cooperatively to lead the world-wide aviation community to the highest levels of global commercial aviation safety by focusing on the right things.

Mission

Enable a continuous improvement framework built on the proactive identification of current and future risks, developing mitigations as needed and monitoring the effectiveness of implemented actions.

Goals

Reduce the U.S. commercial aviation fatality risk by at least 50 percent from 2010 to 2025 and continue to work with our international partners to reduce fatality risk in world-wide commercial aviation.



Organization and Procedures

Senior-level safety officials from CAST organizations meet regularly. This group, under the direction of a government and industry co-chair, sets overall policy and oversees the activities of the following working groups:

Joint Safety Analysis Teams (JSATs) perform data analyses.

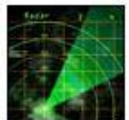
JSATs perform in-depth analysis of a particular accident category. A JSAT examines the sequence of events leading up to each accident studied and then identifies ways to eliminate potential precursors and contributing factors. The intervention strategies are then evaluated for their potential effectiveness.

Joint Safety Implementation Teams (JSITs) develop safety enhancements.

JSITs determine the feasibility of the intervention strategies identified by the JSATs. Each JSIT then develops and recommends a detailed plan of action for industry and government to implement the recommended safety enhancements.

Joint Implementation Measurement Data Analysis Team (JIMDAT) develops a master safety plan, measures effectiveness and identifies future areas of study.

The JIMDAT examines the proposed enhancements and assembles these into an integrated CAST Safety Plan for approval by CAST.



Safety Enhancement 126

Cargo – Mitigations for Hazardous Material Fires

Safety Enhancement Action

To reduce the occurrence of accidents and incidents from fires involving high-consequence hazardous materials, develop systems to contain or suppress such fires as a final line of defense for personnel, equipment and cargo. The system should be usable for both ground (e.g., cargo loading/unloading, and ramp movement) and flight operations.

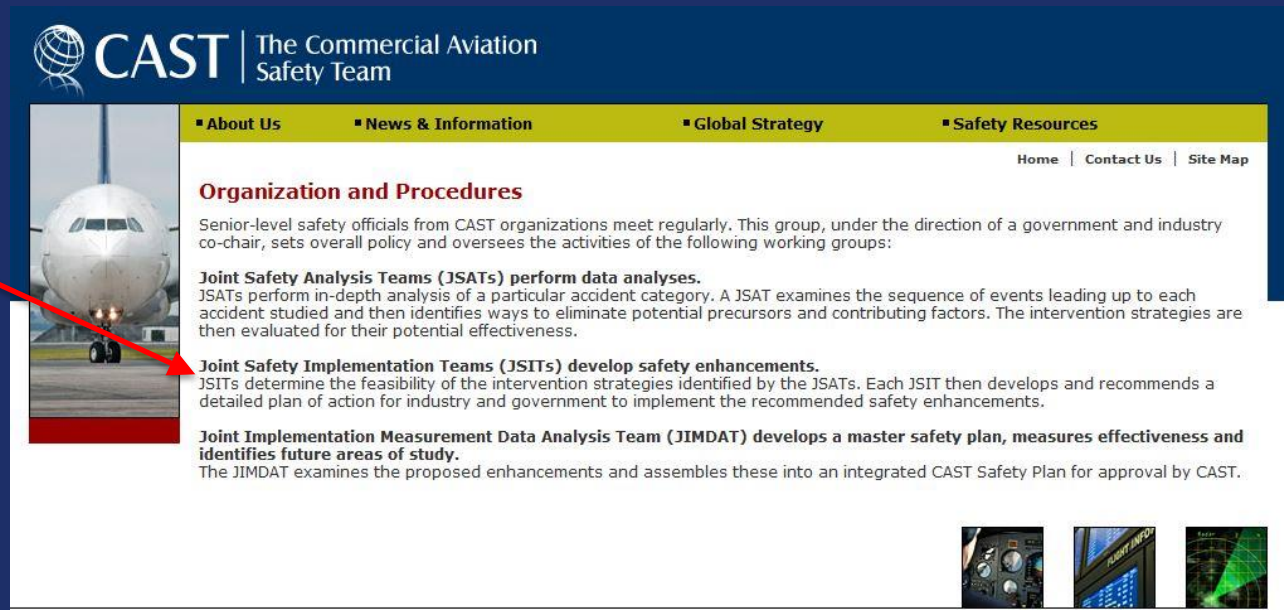


SE 126 JSAT/JSIT Active Participants:

- **Co-Chairs: FAA Office of Hazardous Materials/FedEx**
- **FAA (Transport Airplane Directorate, Office of Hazardous Materials, Aircraft Certification Service, Flight Standards Service, Tech Center Fire Safety)**
- **Boeing**
- **Airbus**
- **UPS**
- **FedEx**
- **ALPA**
- **IPA**



SE 126 Current Status



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- JSIT plans to finish by end of summer 2015 and give report to JIMDAT.
- JIMDAT plan then goes to CAST for final approval.

Safety Enhancement 127

Cargo- Fire Containment

This SE reduces cargo fires through new or revised standards for the construction of standardized and improved cargo containers that include fire-suppression or fire-containment systems.

Output 3

- Manufacturers will develop standardized fire suppression and/or containment systems in accordance with the standards developed in a new Technical Standard Order (TSO) for cargo containers/ULDs and/or fire containment bags/blankets.

SAE Standard AS 6453 Fire Containment Covers is referenced by new TSO-C203.

SAE Standard AS 6278 Fire Resistant Containers is currently under development and will be referenced in a revised TSO.