

## **Evaluating the Effectiveness of FAA Certification Criteria to Prevent Flight Deck Smoke Build-up During an In-flight Fire**

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For years, the Fire Safety Branch at the Federal Aviation Administration William J. Hughes Technical Center has been researching the lithium-ion and lithium primary battery fires and the threats they pose to commercial aircraft. In response to this testing, Federal Aviation Administration Regulators are asking researchers to evaluate smoke penetration certification criteria against the significant temperature and pressure increases associated with these type battery fires. Theatrical smoke generators are being used to create certification conditions and after conditions are met, helium smoke generators are being used to simulate high temperature smoke buoyancy to penetrate the flight deck areas.