

## **787 Dreamliner Battery Fire Investigation**

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The US National Transportation Safety Board (NTSB) is an independent federal agency responsible for investigating all civil aviation accidents in the United States, as well as aviation incidents of significant safety impact. A fire in an auxiliary power unit (APU) lithium-ion battery onboard a Japan Airlines Boeing 787 Dreamliner at the General Edward Lawrence Logan International Airport, Boston, Massachusetts, in January 2013 prompted an NTSB incident investigation and ultimately, the Federal Aviation Administration's grounding of the aircraft. In this presentation we offer insight into the NTSB's investigation of the battery fire. The details of the Materials Laboratory examinations, including the methods and equipment used, will be discussed, as well as their significance in determining the cause and origin. The specific challenges of investigating "new and novel" technology will also be emphasized, such as the formation of multidisciplinary and internationally diverse teams of experts and facilities, and the use of unconventional testing techniques.