

Hazards Associated with Personal Electronic Devices Placed in Checked Luggage

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In March of 2016, security concerns led to a Department of Homeland Security (DHS) ban of laptops and other large Personal Electronic Devices (PEDs) from being carried into the cabin of aircraft originating from certain airports. An unintended consequence of this temporary ban was an exponential increase of lithium battery powered devices being placed in the cargo hold of passenger aircraft. This increase of lithium batteries led to safety concerns should one, or multiple devices, encounter a thermal runaway. An effort by some airlines to ease the burden on their passengers resulted in these devices being collocated in a high density fashion within the cargo compartment, thus enhancing the potential safety concern.

Tests conducted by the FAA's Fire Safety Branch were aimed at characterizing the potential safety threat, and examining possible mitigation methods. These tests were conducted in a variety of packaging scenarios, including packaging them with common hazardous material items that may be located within passenger luggage.