



**U.S. Department  
of Transportation  
Federal Aviation  
Administration**

# InFO

Information for Operators

InFO 17021  
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Flight Standards Service  
Washington, DC

**[http://www.faa.gov/other\\_visit/aviation\\_industry/airline\\_operators/airline\\_safety/info](http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info)**

*An InFO contains valuable information for operators that should help them meet certain administrative, regulatory, or operational requirements with relatively low urgency or impact on safety.*

**Subject:** Risk Associated with the Use of Fire Containment Products by Title 14 of the Code of Federal Regulations (14 CFR) Part 91 subpart K (91K), 121, 125 and 135 Operators

**Purpose:** This InFO serves to clarify Federal Aviation Administration (FAA) policy on the use of fire containment products such as fire containment kits/bags and acceptable firefighting and containment procedures for inflight fires involving portable electronic devices (PED).

**Background:** A number of manufacturers are marketing fire containment products (kits/bags) that may consist of: a containment bag, sleeve or a containment box with or without additional tools such as fire gloves, a pry bar, and face protection/shield. Manufacturers have stated in their advertisement and marketing videos that their products are: "FAA certified," "successfully tested by the FAA" or "meets FAA standards." However, the Fire Safety Branch of the FAA William J. Hughes Technical Center and the Aircraft Certification Service emphasize that there are no FAA test standards for these containment products, nor is there a mechanism in place for the approval of these products.

**Discussion:** The FAA Flight Standards Service, in coordination with the Fire Safety Branch of the FAA William J. Hughes Technical Center and the Aircraft Certification Service, has examined FAA recommended procedures for inflight firefighting, as well as procedures associated with various containment kits/bags on the market. Regardless of how effective any of these containment kits/bags are once the battery is placed in them, the highest risk may lie in the transfer of a burning or overheated battery to the containment kit/bag.

The FAA does not object to the use of these containment products provided the procedures stated in the referenced SAFO and Advisory Circulars are used. The FAA does not support any manufacturer procedure that suggests moving a burning, smoking or hot device.

The FAA continues to recommend the firefighting procedures suggested in Safety Alerts for Operators (SAFO) 09013, dated 6/23/09, "*Fighting Fires Caused By Lithium Type Batteries in Portable Electronic Devices*"; Advisory Circular (AC) 20-42D, "*Hand Fire Extinguishers for use in Aircraft*"; and AC 120-80A, "*In-flight Fires*". While some manufacturers of certain containment bags may recommend that a crewmember move a burning, smoking or hot device associated with a lithium battery, the FAA continues to recommend that a crewmember should not move any device that is burning, smoking or exhibiting any evidence of overheating until that device has been thoroughly cooled. A device that is burning, smoking or hot is inherently unstable and therefore unpredictable. Any movement in that

condition could precipitate a further reaction with unknown results. Therefore, the FAA recommends continued application of water or other nonflammable aqueous substance for a period of at least 15 minutes after a fire has been extinguished or the smoke has dissipated. A cooled device may then be placed in a receptacle, to include a containment product that will hold water or other nonflammable liquid. The device should then be thoroughly covered by water or other nonflammable liquid to provide a means of continued cooling. The bag, bin, or other containment receptacle should then be placed away from passengers (e.g. in a locked lavatory) and monitored for the remainder of the flight. The containment device should remain accessible to a crewmember should further action be required.

**Recommended Action:** Directors of Operations and Safety, program managers, training managers and instructors should incorporate training drills that reinforce the importance of crewmember actions in the event of heat/smoke/fire involving lithium batteries that are consistent with training for firefighting as required by parts 91K, 121, 125 and 135 as well as emergency response procedures required by 49 CFR §172.704 (if required). Air carriers that incorporate the use of containment products after cooling down a device should review International Civil Aviation Organization recommendations on this subject. Any use of containment products or techniques should be utilized after cooling the device with water, nonflammable liquid or an aqueous extinguishing agent for at least 15 minutes. A listing of known lithium battery incidents occurring in air travel is maintained by the FAA and can be found at: [https://www.faa.gov/about/office\\_org/headquarters\\_offices/ash/ash\\_programs/hazmat/aircarrier\\_info/media/Battery\\_incident\\_chart.pdf](https://www.faa.gov/about/office_org/headquarters_offices/ash/ash_programs/hazmat/aircarrier_info/media/Battery_incident_chart.pdf).

**Contact:** Questions or comments regarding this InFO should be directed to the Air Transportation Division at (202) 267-8166. Questions regarding hazardous materials should be directed to the Office of Hazardous Materials Safety at (425) 766-4497.