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**Federal Aviation
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InFO

Information for Operators

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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: PHMSA Guidance on the Carriage of Batteries and Battery-Powered Devices

Purpose: This InFO consolidates new and previously published information and supersedes SAFO 07002, In-Flight Fires Caused by Lithium Ion and Lithium Battery Failures. In addition to reminding operators to be aware of the risks associated with using lithium and lithium-ion batteries, this InFO announces the availability of guidance for the safe transport of batteries and battery-powered devices in the cabin.

Background: SAFO 07002 identified incidents of cabin smoke and fire. Overcharging of common portable electronic devices carried by passengers caused overheating of the lithium or lithium-ion batteries in those devices. SAFO 07002 advised operators that battery fires can propagate fire and smoke in the cabin, and it directed operators to review Advisory Circular 120-80, In-flight Fires, for recommendations on crewmember actions and training for handling cabin fires.

Discussion: Recently, the Pipeline and Hazardous Materials Safety Administration (PHMSA), which regulates the carriage of batteries in the cabin, published guidance intended to minimize risks associated with transportation of batteries and battery-powered devices.

Title 49 of the Code of Federal Regulations section 173.21(c) prohibits the carriage of electrical devices which are likely to create sparks or generate a dangerous quantity of heat, unless packaged in a manner which precludes such an occurrence. The PHMSA guidance suggests practices to assist in compliance with the regulation, including:

- Keeping batteries installed in electronic devices
- Packing spare batteries in carry-on baggage
- Keeping spare batteries in their original retail packaging
- Separating batteries from other metallic objects
- Packing individual batteries in a sturdy plastic bag
- Securely packing battery-powered devices to prevent accidental activation
- Ensuring batteries are undamaged
- Ensuring batteries are purchased from reputable sources

Related information, including the PHMSA safety advisory published in the Federal Register, can be found at the following website: <http://safetravel.dot.gov>

The FAA continues to receive reports of cabin smoke or fire suspected to have originated from batteries or battery-powered devices carried in the cabin. In all of the reported incidents, crewmembers were able to successfully locate the source of the smoke or fire and combat it effectively with the equipment and techniques available to them.

Recommended Action: Directors of safety, directors of operations, training managers, and crewmembers in all operations should continue to be aware of the risks associated with batteries and battery-powered devices in the passenger cabin. Additionally, crewmembers should be aware of the content of the PHMSA guidance for the transport of batteries and battery-powered devices and should continue to be vigilant as batteries become more powerful and battery-powered devices more numerous.

Questions or comments on this InFO should be addressed to the Aircraft Maintenance Division, AFS-300, (202) 267-3546.