October 27, 2009

A Fire Risk That Clears Security

By CHRISTINE NEGRONI

Battery fires in personal electronic devices can be scary. But if a battery ignites on a plane, the risks are much greater.

With more people traveling with an assortment of portable electronics — sometimes a plane has more devices than passengers — fires are occurring on airliners with increasing frequency. More than half of the 22 battery fires in the cabin of passenger planes since 1999 have been in the last three years. One air safety expert suggested that these devices might be “the last unrestricted fire hazard” people can bring on airplanes.

This month, the Federal Aviation Administration along with the Pipeline and Hazardous Materials Safety Administration issued special advisories to airlines about yet another gadget: the credit card readers that many have begun to issue to flight attendants to ring up sales of food, drinks and other amenities.

While airlines have used portable credit card readers for several years, the F.A.A. said earlier this month that they needed approval from the agency’s hazardous materials division. Like the majority of hand-held consumer electronic devices, the readers are powered by rechargeable lithium batteries, which the government considers hazardous.

“The carriers came and asked if we would allow them to have the credit card readers on aircraft and they wanted spare lithium batteries to allow them to switch out the batteries,” said Christopher Bonanti, director of the F.A.A. office of hazardous materials. “I was concerned about having spare lithium batteries, and I asked them not to do that.”

Some airlines have agreed to special training for handling batteries and were allowed to carry spares, Mr. Bonanti said. But other airlines, like Delta and JetBlue, figured it was safer to avoid carrying extra batteries altogether.

“They’re not charged onboard the aircraft and batteries aren’t removed from these devices while onboard,” Bryan Baldwin, a JetBlue spokesman, wrote in an e-mail message.

While no fires from credit card readers have been reported, the list of spontaneous combustion events with other devices reads like a thriller. Last month, a portable DVD player was dropped on an American Airlines flight, causing a fire. In March 2008, a United Airlines employee placed a flashlight in the storage compartment of a Boeing 757 at the Denver airport. A report said the flashlight exploded “like gunshots,” turning the on-off switch into a projectile. On a flight to

Miami that same month, eight people were injured when a small battery fell against a metal seat frame. In the ensuing explosion, debris singed a passenger's ear and hair and the smoke sickened seven crew members.

In 2004, an ABC News camera exploded on a plane being used by the presidential candidate John Edwards. A seat caught fire, causing an emergency return to the airport. Even more events go unreported, the authorities said.

"If you have an issue in the air there's not a whole lot you can do to recover from it," said Gerald McNerney, a vice president at Motorola, which provides hand-held devices to airlines. "You put your brand at risk if one of your devices has an issue with the battery. What we've done is look at creating backups, duplicity in development so that you're not going to have an explosion."

Figures from the Consumer Product Safety Commission Web site show that at least 400,000 portable device batteries have been recalled so far this year, an indication that manufacturing problems are sometimes to blame. Batteries are also becoming more powerful, so that even the smallest have the potential to unleash a lot of heat.

"The battery industry is trying to squeeze more juice into these batteries for longer life," said Joe Delcambre, a spokesman for the hazardous materials agency. "Smaller battery, more life, with a terminal that can overheat the product — it's a risk."

Considering that problems with batteries are occurring on passenger planes at a rate of one every four months, Merritt Birky, formerly a fire and explosions expert with the National Transportation Safety Board who is now a private consultant, suggests they should be kept where passengers can keep an eye on them and out of overhead storage bins.

"Any time you have a fire on board it's alarming, especially in the overhead bin," Mr. Birky said. "That area is chock full of luggage and coats so you have lots of fuel for a fire and it's going to go undetected for quite some time."

The Transportation Department has created a Web site that includes the rules on traveling with lithium batteries, and it works with the manufacturers of portable electronic devices to spread the word about the hazards. But the transportation safety board estimated that only one person in every 170 to 190 travelers had actually visited the Web site.

"Most air passengers and flight crews are likely unaware of the fire risks posed by rechargeable lithium batteries," the board wrote in 2008 in recommending a more aggressive approach to educating the public. The F.A.A. plans to follow that suggestion when it begins broadcasting public service announcements in airports next year, Mr. Bonanti said.

"There's a whole slew of things that can go wrong with a lithium battery," he said, adding that no matter how comfortable people are with their devices, caution is the best course of action.