

BATTERIES & BATTERY-POWERED DEVICES

Aviation Cargo and Passenger Baggage Incidents Involving Smoke, Fire, Extreme Heat or Explosion

As of June 30, 2015, 158 air/airport incidents involving batteries carried as cargo or baggage that have been recorded since March 20, 1991

Note: These are recent cargo and baggage incidents that the FAA is aware of. This should not be considered as a complete listing of all such incidents. The incident summaries included here are intended to be brief and objective. They do not represent all information the FAA has collected, nor do they include all investigative or enforcement actions taken. This list does not include three major aircraft accidents where lithium battery cargo shipments were implicated but not proven to be the source of the fire: An Asiana Airlines 747 near South Korea on July 28, 2011, a UPS 747 in Dubai, UAE on September 3, 2010 and a UPS DC-8 in Philadelphia, PA on February 7, 2006

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
6/10/2015	Carrier	Lithium-ion	E-cig	Southwest Airlines	Passenger	A passengers checked bag containing an E-cig and two spare 3.7 volt lithium ion batteries was smoking as it was offloaded from a Southwest Airlines flight in Albuquerque, NM. One of the batteries was not protected from short circuit causing burning and smoke.
6/6/2015	Carrier	Li-ion	Spares for camera	Mesa	Passenger	After landing in Houston, TX (KIAH), Mesa flight 4001 was being unloaded when a ramp agent observed smoke coming from a checked bag in the forward cargo bin. The agent removed the bag from the loading belt and sprayed it with a fire extinguisher. The IAH fire department responded and took control of the bag. The bag contained professional camera equipment with lithium-ion batteries. According to preliminary information the camera bag

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						was initially brought aboard as a carry-on, but was allegedly checked at the gate because the flight attendant advised that there was no room in the passenger cabin. Preliminary reports also indicate that the passenger made the flight attendant aware of the contents of the bag.
5/6/2015	Carrier E-2015050080	Li-ion	N/A	Polar Air Cargo Worldwide , Inc.	Cargo	During offload of the aircraft at Leipzig, Germany, onto the belt loader one (1) of eighty (80) packages from a single shipment containing lithium batteries began to smoke. The Fire Brigade extinguished the package on the ramp. The remaining shipments were inspected and checked with a temperature entropy camera which revealed no signs of heating.
4/30/2015	Carrier	Li-ion	N/A	UPS	N/A	While loading packages into a ULD at Louisville, KY a package was emitting a burning odor. The package contained one (1) non-specification fiberboard box that contained: One (1) 7.2V/Li-ion 3400 mAh/24.5Wh "Phase One Digital Back" Battery, two (2) batteries similar in size and shape of the "Phase One Digital Back" Battery, marked with "Brian Garland Photography", but no other descriptive markings, three (3) "Phase One" 645 7.4V/2000 mAh Li-Ion. The batteries were not properly packaged and did not contain any marking, labelling or shipping papers to communicate the hazardous nature of the contents
4/25/2015	Carrier	Li-ion	E-cig	Air Wisconsin	Passenger	Upon landing at Richmond, VA (KRIC) the pilot of Air Wisconsin flight 4010 reported smoke and fire onboard the aircraft in the passenger cabin and declared an emergency. The aircraft stopped and performed an emergency evacuation of passengers and crew on the taxiway. No injuries were reported. The fire was extinguished by the flight attendant with an onboard fire extinguisher. Upon investigation by the fire department it was determined that the cause of the fire and smoke was a spare lithium battery inside of the passengers back pack which was not in appropriate packaging, and was unprotected and mixed with loose coins

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4/22/2015	Carrier	Ni-Cad	Cordless drill	Southwest Airlines	Passenger	Southwest Airlines flight 838 arrived at PHX airport from Los Angeles, CA. ramp agents offloaded the checked baggage and noticed a passenger's bag was smoking. The bag contained a DeWalt Ni-cad (Nickel cadmium) battery pack and charger for a cordless drill, various drill bits and other small tools. The battery and charger were melted. It appeared that extreme heat had been generated inside of the bag from the battery terminals contacting metal tools.
2/13/2015	Carrier	Li-ion	N/A	FedEx	Cargo	While loading a FedEx Express aircraft in Bend, Oregon, smoke was seen coming from a unit load device being loaded onto the aircraft. A package inside the container was smoking. This package contained undeclared hazardous materials (lithium ion batteries) having no dangerous goods markings, labels or other indicia communicating the hazardous nature of the cargo.
1/4/2015	TSA Spot Report	Li-ion	E-Cig	SkyWest	Passenger	SkyWest ramp agent observed a passenger bag to be on fire in the baggage make-up area. The fire was extinguished and the police were called. The police determined the likely cause of the fire was due to the E-cig vaporizer overheating and burning inside the bag. The passenger was notified of the incident upon arrival in Eugene.
12/15/2014	Carrier	Unknown	Cautery unit	Horizon Air	Passenger	Horizon Air ramp agent found bag flaming and sparking during offload. The agent extinguished the fire in the snow. Source of the flames was from a Cautery unit, a small medical device which uses electric current to heat the tip.
9/18/2014	Carrier	Li-ion	Cell Phone	Euro Wings	Passenger	Cell phone used by the crew as a POS (point of sale) device caught fire on a Eurowings Canadair CRJ-900 as it was descending towards Stuttgart, Germany. It was extinguished by the flight attendant. The crew declared an emergency reporting a cell phone had caught fire and advised they would evacuate the aircraft after landing. The airport stopped departures to accommodate the emergency. The aircraft landed safely and

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						passengers deplaned normally.
8/9/2014	Carrier	Li-ion	E-Cig	JetBlue	Passenger	JetBlue Airlines ramp agent discovered a bag emitting smoke. The bag was removed from the aircraft bin and put on the ground. A fire extinguisher was used to attempt to put the fire out without success. The contents were removed and the source of the fire was an electronic cigarette, which continued to burn after it was removed from the bag. JetBlue personnel extinguished the fire.
5/27/2014	Carrier	Li-ion	Quad-Copter	Hawaiian Airlines	Passenger	Hawaiian Airlines ramp agent noticed a foul odor coming from a bag while loading baggage onto the aircraft. The bag, which contained a Quad Copter powered by a lithium ion battery, was removed from the aircraft bin and put on the ground as it began to burn. The bag was doused with coffee, which extinguished the fire.
4/26/2014	Media Reports	Li-ion	Drone	Fiji Airways	Passenger	During the preflight inspection the captain of a Fiji Airways flight from Melbourne, Australia to Fiji noticed smoke coming from the cargo compartment. After further investigation it was determined that approximately 26 undeclared lithium ion batteries, used to power a drone, were in a passenger bag which was the cause of the smoke. 19 batteries were in-tact and 6-8 were destroyed by the fire.
3/4/2014	UAE GCA	Lithium-ion batteries	Battery Storage Unit	UA/ FlyDubai	Passenger	Report from United Arab Emirates (UAE) General Civil Aviation Authority concerning a group traveling on behalf of National Geographic with checked baggage, one bag was a plastic hard sided case containing lithium-ion batteries. The team was traveling from Washington, DC on a United Airlines flight to Dubai, UAE, where they were transferring to a Flydubai flight that was destined for Khartoum, Sudan. Ramp workers loading the Flydubai flight noted that one corner of a checked bag was hot and melting. The bag was immediately removed and the fire department was called. All other bags related to the passengers

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						were off loaded and rescreened. Additional batteries were found and appropriately packaged and shipped via cargo carrier to Khartoum.
2/25/2014	DOT 5800.1 Form No E2014020367	Lithium-ion batteries	E-cigarettes	DHL	Cargo	Report from DHL of an international shipment that originated in Hong Kong. It was discovered damaged by fire at the Erlanger, KY sort center. The shipment contained 25 E-cigarette devices which enclosed in bubble wrap packaging. The contents and packaging were discovered charred and melted. The shipping documents provided inaccurate information about the contents. The package and contents were so damaged it was not possible to establish if the devices were equipped with an effective means of preventing accidental activation. The remaining pieces of the package were removed and stored by DHL. (revised 2/10/2015)
2/18/2014	DOT 5800.1 Form No I2014030028	Sealed Lead Acid batteries (revised 2/10/2015)	N/A	UPS	Cargo	Report from United Parcel Services (UPS) of an undeclared shipment containing three PowerSonic 6V sealed rechargeable lead acid batteries inside a non-specification plastic and metal case. The shipment originated in Plainville, KS and was destined for Tulsa, OK. The container broke open during handling at the UPS sort center in Louisville, KY. Cargo handlers noted the contents had obvious signs of melting, but could not determine when it happened. During handling at the UPS facility, the batteries came into contact with wires that were also in the shipment and short circuited causing further damage and smoke. None of the batteries were protected to prevent a short circuit. (revised 2/10/2015)
1/21/2014	DOT 5800.1 Form No I2014010428	Lithium-ion batteries	N/A	FedEx	Cargo	Report from Federal Express of an undeclared shipment containing eleven 8 volt lithium-ion batteries that were shipped from Mumbai, India to Sydney, Australia. During processing at the sort center, the shipment was being reviewed by Indian officials when they noted it was extremely hot. When officials separated the package they noted smoke and upon opening the shipment one of the lithium-ion batteries became engulfed with flames. A

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						Security Guard on duty immediately extinguished the flame. The remaining pieces in the shipment are being kept at an isolated location within the Federal Express facility.
10/27/2013	DOT 5800.1 Form No I20113110194	Lithium-ion batteries	N/A	FedEx	Cargo	Report from Federal Express of a shipment containing 174 individually packaged lithium-ion batteries destined for Anchorage, AK. During handling at the Memphis, TN sort facility a single battery was damaged by a dolly. This caused the battery to short circuit and smolder. An employee noticed smoke emitting from the package and reacted immediately with a fire extinguisher. No other damage occurred. The shipper was notified and the remaining contents were shipped without incident.
10/2/2013	DOT 5800.1 Form No 12013100468	Lithium-ion batteries	Lap Top	FedEx	Cargo	Report from Federal Express of a lap top that was damaged by a dolly during handling and caught on fire. The incident occurred at the Memphis, TN sort facility. The battery was removed, and the lap top returned to the shipper.
9/26/2013	FAA Regional Operations Center	Lithium-ion batteries	Digital Camera Battery	AA	Passenger	Report from American Airlines of flight #1159 departing Chicago O'Hare (ORD) for Lambert-St. Louis International (STL) made an emergency landing when smoke was detected onboard the aircraft. A lithium-ion battery short circuited in a digital camera and caused a small fire in the overhead compartment. A Flight Attendant extinguished the fire and the plane landed without incident. All 120 passengers and six crew members switched planes and continued to STL.
6/28/2013	DOT 5800.1 Form No I2013070459	Lithium-ion batteries	N/A	FedEx	Cargo	Report from Federal Express of a metal case containing two lithium-ion batteries and 12 aerosol cans that were found to be emitting a strong burning smell. The terminals from one or both of the batteries came in contact with the aerosol cans or each other, which likely resulted in a short-circuit creating enough heat to singe a portion of the package. The shipment was discovered at the Indianapolis, IN facility.

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6/27/2013	DOT 5800.1 Form No I2013070217	Lithium-ion batteries	Battery Chargers	UPS	Cargo	Report from UPS of a shipment, which was emitting smoke during the sort process at the Ontario, CA facility. The shipment contained battery chargers with lithium-ion batteries. Several batteries had overheated and appeared charred. The items were placed in a 55-gallon drum and taken to a disposal area.
6/3/2013	DOT 5800.1 Form No E2013060491	Lithium-ion battery	N/A	WN	Passenger	Report from Southwest Airlines of smoke coming from a passenger's bag on the baggage carousel at the San Diego International Airport. Police officers noted that a lithium-ion battery in the suitcase had come into contact with a screw driver and the items melted. The damaged objects were removed and there was no evidence indicating other damage occurred as a result of the incident.
5/18/2013	DOT 5800.1 Form No I2013050356	Lithium-ion batteries	N/A	DHL	Cargo	Report from DHL Express indicated that two of four boxes in a smoking shipment at their Erlanger, KY facility contained equipment installed with lithium ion batteries that showed evidence of fire.
3/28/2013	DOT 5800.1 Form No I2013040388	Non-spillable, electric storage	N/A	FedEx	Cargo	Report from Federal Express indicated that one of eight packages in a shipment containing undeclared batteries was on fire and another two showed evidence of burning at its Memphis, TN sort facility.
10/27/2012	DOT 5800.1 Form No I2012120190	Lithium-ion batteries	N/A	FedEx	Cargo	Report from Federal Express indicated that a shipment loaded for an outbound flight at its Memphis, TN facility was smoking. The shipment was found to contain 52 undeclared AA ion batteries housed in a box that was burned.
9/27/2012	DOT 5800.1 Form No I2012100187	Lithium-ion batteries	N/A	WN	Passenger	Report from Southwest Airlines indicated that a cell phone and spare battery in passenger carryon baggage overheated during flight and potentially caught fire. One flight attendant and two passengers who handled the battery sustained burns.

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6/7/2012	DOT 5800.1 Form No I2012060342	Lithium-ion batteries	N/A	UPS	Cargo	Report from United Parcel Service indicated that at its Louisville, KY facility, a package containing 18 approximately 1 ounce lithium ion batteries from 6 various manufacturers melted through their plastic wrap causing the outer package to start burning.
5/22/2012	DOT 5800.1 Form No I2012060098	Nickel-Metal Hydride batteries	N/A	FedEx	Cargo	Report from Federal Express indicated that at its Guangzhou, China facility, batteries were not packaged properly and they arced resulting in a fire (NFI).
5/5/2012	DOT 5800.1 Form No E2012050211	Lithium-ion battery	N/A	UAL	Passenger	Report from United Airlines indicated that while loading bags a ramp agent at Newark, NJ noticed two apparent batteries on the ramp that appeared to have come from a whole that burned through a piece of checked baggage that had just been loaded into an aircraft bin.
4/22/2012	DOT 5800.1 Form No I201240360	Lithium-ion battery	N/A		Cargo	Air Express International indicated that a packaged opened during the sort at its Erlanger, KY facility. The package contained 17 lithium ion batteries. As one of the batteries was being returned to the package, it shorted out and caught fire. One employee was injured and treated at the facility.
4/17/2012	DOT 5800.1 Form No E2012050009	Lithium-ion battery	Personnel air purifier	9E	Passenger	Report from Pinnacle Airlines indicated that a flight attendant described a shooting fire from a passenger's device at about the same time that the captain felt a small thud. Within seconds the flight crew noticed a strong burning electrical odor and the flight attendant observed a burning battery on the floor of the aisle. As trained, the flight attendant used water from the service cart to extinguish the fire almost immediately.
3/24/2012	DOT 5800.1 Form No E2012040410	Lithium-ion batteries	Battery powered device	5Y	Cargo	Report from Atlas Air indicated that a package caught fire at its Incheon, Korea facility. The package appeared to contain a lap top computer.

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3/2/2012	DOT 5800.1 Form No I2012030493	Lithium battery	N/A	FedEx	Cargo	Report from Federal Express indicated a fire in a package at its Toluca, Mexico facility. When asked, the consignee reported that he had ordered a lithium battery for a bicycle.
2/25/2012	Air Carrier report	Lithium-ion batteries	Lithium-ion battery powered surf board	FedEx	Cargo	Initial report from Federal Express indicated that a smoking unit load device was discovered at the Memphis, TN airport facility. Inspection revealed the contents of the ULD included a smoking and burning self-propelled surf board.
10/29/2011	Transportation Safety Board of Canada	Lithium-ion battery packs	Battery packs for electronic device	OS	Passenger	A cargo pallet carrying lithium-ion battery packs caught fire on the ramp awaiting loading on Austrian Airlines flight AUA72 at Toronto/Lester B. Pearson Intl. Airport, Ontario, Canada.
10/10/2011	DOT5800.1 Form No I2011110306	Lithium-ion batteries	Electronic reading device	UAL	Passenger	Report from United Airlines indicated that the device left in a seat by a passenger began to smoke resulting in a small fire when the seat was moved back to the upright position (NFI).
9/30/2011	DOT5800.1 Form	Lithium-polymer cells in equipment	Battery pack for remote control device	DL	Passenger	Report from Delta Airlines indicates passenger checked in with Air Canada in YKA for flight to YVR and subsequent DL flight to SLC. During transfer at YVR, checked bag began to smolder. As DL agent lifted the bag, it burst into flames. Subsequent inspection of bag revealed it contained two large battery packs.
8/17/2011	DOT5800.1 Form No E2011090166	Lithium-ion batteries	Camera	DL	Passenger	Report from Delta Airlines indicates that a passenger, prior to a flight from Amsterdam to Detroit, was changed batteries for a camera and placed the "used" batteries in a camera bag. The batteries became hot and caused smoke. All batteries involved were left at the boarding gate before takeoff.
3/29/2011	DOT5800.1 Form	Lithium ion batteries	Battery packs for electric bicycles	FedEx	Cargo	Initial report from Federal Express indicated that the batteries offered for shipment from Kwun Tong, China to Southampton, England caught fire for an unknown reason at the facility in Tsun Wan, Hong Kong.
3/21/2011		Lithium-ion	Unknown	FedEx	Cargo	Initial report from Federal Express indicated that the package

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		batteries contained in equipment including lithium polymer batteries				offered for shipment from Mumbai, India to Shenzhen, China was observed to be smoking by a customs official at the facility in Guangzhou, China. Subsequent indicated the package contained the batteries.
1/11/2011	2011Dot 5800.1 Form No E2011020150	Lithium-ion batteries	MP3 player	DL	Passenger	Report from Delta Airlines indicated that during DL# 1036 from SLC-ATL a passenger's device became very hot and the plastic started to melt. There was no flame present. A flight attendant cooled the device with water.
10/6/2010	DOT5800.1 Form and FAA report	Lithium ion battery	N/A	UPS	Cargo	Initial report from United Parcel Service indicated that an electric storage acid battery offered for air shipment from Shanghai, China was observed smoking at the facility in Cerritos, CA. Subsequent investigation by FAA indicated that the battery appeared to be an 18.5 Volt, 30Ah (555Wh) Lithium Ion Battery (Lithium Cobalt Oxide (LiCoO2)).
8/28/2010	DOT5800.1 Form	CR 123A primary lithium battery in a device	Flashlight	FedEx	Cargo	Initial report from Fed Ex indicated that the flashlight in a backpack belonging to a jump seating crewing member caught on fire while at the gate in Memphis, TN. The report indicated that one of the flashlight batteries exhibited signs of thermal runaway causing the fire.
8/18/2010	DOT5800.1 Form	Non-spillable, electric storage	N/A	UPS	Cargo	Initial report from United Parcel Service indicated a worker at the Ontario, CA facility noticed a smoking package offered for air shipment to Newbury Park, CA. Subsequent inspection indicated that package contained two batteries in contact and short circuiting.
6/24/2010	DOT5800.1 Form	Non-spillable, rechargeable, lead-acid batteries	Power supply for device	UPS	Cargo	Initial report from United Parcel Service indicated a worker at the Salt Lake City, UT facility noticed a leaking package offered for air shipment to Edmonton, Canada. Subsequent inspection indicated the package was radiating heat. It contained a battery that was arching because unprotected terminals were in contact.

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5/6/2010	DOT5800.1 Form and airport responders	Report indicates 2 loose CR123 lithium batteries	N/A	DL	Passenger	Initial report from Delta Airlines and incident response personnel indicated that while placing a checked bag a on a cart at the Seattle-Tacoma International airport, a baggage handler heard a “pop” and saw a flame and then smoke coming from the bag. Airport police and others responded to the incident. The terminal was evacuated. At the conclusion of the response, reports and eyewitness accounts obtained indicated the baggage remnants included the CR 123 lithium batteries.
4/20/2010	DOT5800.1 Form	Lithium-ion batteries	Curling Iron	AA	Passenger	Initial report from American Airlines indicated that a lithium-ion battery powered curling in checked baggage may have switched to the on position in the bag room at Narita Airport, Japan after a flight. The incident caused the associated spare lithium-ion batteries in proximity to the curling iron to go into a thermal runaway condition. As a result, the bag and some contents were scorched.
2/9/2010	Report from Air Carrier	Lithium metal w/liquid cathode battery	N/A	UPS	Cargo	Initial report from United Parcel Service Airline indicated that, subsequent to air transport from Hong Kong, during the local ground portion of the delivery, the truck driver heard a loud pop. First responders were called to the scene. One of the batteries in one of the packages in the shipment ruptured, discharged soot and dislodged other batteries in the package.
9/9/2009	Report from Air Carrier	Lithium-ion battery	Personal Electronic Device	AA	Passenger	Initial report from American Airlines indicated that one of its company-owned batteries available for on-board use by passengers was dropped in-flight and caught fire.
8/25/2009	Report from Air Carrier	Initial report indicates Lithium-ion battery	GPS tracking device	FedEx	Cargo	Initial report from Federal Express indicated that a burning and smoking package was discovered at the Medford, MA facility. The package was in route to Seattle, WA. An unsuccessful attempt was made to extinguish the fire by cutting open the package and applying a fire extinguisher. The Fire Department had to be called. Subsequent inspection revealed that two of the devices heated and caused the surrounding packaging to ignite.
8/15/2009	Report from Air	Lithium-ion	N/A	UPS	Cargo	Initial report from United Parcel Service Airline indicated that a

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	Carrier	battery				smoldering package was noticed at its Taiwan Hub. The package was transported from Macau, China. Inspection of other packages in the same consignment indicated that similar batteries were offered without terminal protection.
8/14/2009	Report from Air Carrier	Lithium metal batteries	e-cigarettes	FedEx	Cargo	Initial report from Federal Express indicated that upon landing at Minneapolis-St. Paul Airport the crew was alerted to a fire by a warning light associated with a forward compartment. Upon subsequent inspection of the relevant Unit Load Device, numerous packages were discovered with smoke and fire damage.
8/8/2009	Report from Air Carrier	Non-spillable lead-acid batteries	N/A	UPS	Cargo	Initial report from United Parcel Service Airline indicated that a package that had earlier been offered for air transport was noticed as "hot to the touch" at its Louisville, KY Hub. Upon inspection it contained two batteries, one of which appeared to be short-circuited.
7/15/2009	Report from Air Carrier – DOT 5800.1 Form	Lithium-ion cell phone batteries	Transported "loose" in packages without out cell phones	UPS	Cargo	Initial report from United Parcel Service Airline indicated that one of several related packages transported from Romulus, MI was discovered to be emitting smoke and smoldering in Santo Domingo, Dominican Republic. Upon inspection, package contained numerous loose lithium-ion batteries with "...no protection of the contact points..." Package documentation indicated, "used batteries – non haz".
6/23/2009	Report from Air Carrier – DOT 5800.1 Form	Battery Wet Filled with Acid – Sealed Rechargeable Battery	N/A	UPS	Cargo	Initial report from United Parcel Service Airline indicated that a smoking package was discovered on the ramp prior to loading at Windsor Locks, CT airport. Upon inspection, the battery was observed to have burned through the shipping box.
6/18/2009	Report from Air Carrier	Lithium-ion	Bicycle Power Device	UPS	Cargo	Initial report from United Parcel Service Airline indicated that a burned package was discovered in Honolulu inside a Unit Load Device as it was being unloaded. The package was originally loaded in Philadelphia and was subsequently transported on UPS flight # 2967 from Ontario, California. DOT Form 5800.1 report to

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						follow.
6/11/2009	Report from Air Carrier	18V Nickel Cadmium	Hand held Cordless Power Drill Battery	WN	Passenger	Initial report from Southwest Airlines indicated that a checked bag was observed to be “smoking” on the airport ramp at the Manchester-Boston Regional Airport prior to loading. The bag contained a spare drill battery. A screw inside the bag had connected with the exposed battery terminals apparently causing the incident.
1/15/2009	DOT 5800.1 report from Air Carrier	Batteries, Wet, Non-Spillable, Electric Storage	N/A	FedEx	Cargo	Initial report from Fed Ex indicated that, while at the Pittsburgh airport, a package made of “rice paper” fell exposing three batteries. The battery terminals came in contact with each other and began to arc. As a result sparks were observed shooting from the package. The package was marked as non-spillable batteries as required by 49 CFR 173.159(d) (2) and ICAO TI USG-V08.
12/13/2008	DOT 5800.1 report from Air Carrier	Batteries, Wet, Non-Spillable, Electric Storage	20, 12 volt batteries connected in one package resting on “shelves”	FedEx	Cargo	Initial report from Fed Ex indicated that, while at the Memphis hub, the package fell and the unprotected terminals came in contact with metal “shelves” inside the package. This caused the batteries to arc. As a result, the battery assembly caught fire several times. The package was marked as being in compliance with ICAO TI USG-V11.
9/7/2008	Report from UK CAA	Gel type lead acid	Wheelchair		Passenger	Initial report indicated that a battery-powered wheelchair burst into flames as it was being unloaded from a passenger aircraft in Manchester, England.
8/8/2008		Lithium ion/Type CF623/11.1-volt	Dell laptop computer	AA	Passenger	While in flight, a passenger on American Airlines flight 1539 from Washington National to Dallas Ft Worth, noticed his Dell laptop was smoking. The passenger removed the battery pack and gave it to a flight attendant. The flight attendant placed the battery in a coffee pot in the aft gallery and poured water and Sprite on it. Dell has been advised of the incident.
8/6/2008	Air carrier report	Lithium ion	Electrical	UPS	Cargo	UPS Airline reports that a package containing LED lamps

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			equipment			powered by excepted lithium ion batteries was transported on UPS#0213 on 04-AUG from Louisville, KY to Cologne, Germany. It was subsequently observed smoking in a UPS ground sort facility in Copenhagen, Denmark.
4/4/2008		Battery Wet, Non-Spillable, UN2800		UPS	Cargo	A package was offered to UPS by Enersys Inc. in Warrensburg, MO, destined for Espoo, Finland. During the handling process in Copenhagen, Denmark, the package of Non-spillable sealed lead acid batteries erupted into flame while being loaded on a truck. The local fire brigade and bomb squad responded and have possession of the package. It was determined that the terminals consisted of bolts screwed into energized sockets.
3/18/2008	United Airlines (UALA) Pilots' internet forum	"CR123A" Lithium metal	Flashlight	UA	Passenger	In Denver, a UALA employee had two flashlights that contained CR123A Lithium batteries. Flashlight used for inspection of aircraft started to dim. Flashlight was turned off and placed in storage compartment in cockpit of 757. A banging noise described like gunshots originated from the flashlight. Cap on the on/off switch blown off and became projectile. Employees hand and fingers burned when he touched the flashlight to move it to the rear of the cockpit. Mechanic responded and safely removed the flashlight.
3/4/2008		Lithium ion/polymer/3.7V 1000mAH	Personal binocular video control unit	UA	Passenger	An i-Theater Video Display Unit used for viewing entertainment systems was charged at home prior to United flight from Chicago to Tokyo. Control unit was in use for 2.5 hrs. during the flight. Control unit began to generate heat, caused the plastic case to swell and emitted 10" plume of sparks and debris. United Captain doused unit with water. Small area of carpet damage to aircraft and no injuries to passengers or crew.
2/29/2008	TSA report	"C" Cells	Make-shift power unit		Passenger	The make-shift power unit for a passenger's laptop computer began to smoke during pre-board security screening at Terminal 7 of the Los Angeles International Airport.
2/14/2008		Under investigation	Flashlight	NW	Passenger	Approximately two-thirds of the 389 passengers had boarded a Northwest Airlines Tokyo-Hong Kong flight, when a passenger's

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						carry-on bag caught fire in an overhead bin. Flight attendants put out the fire with two fire extinguishers. One passenger suffered a minor burn when he tried to put out the fire by hand. Early indications are that a battery in a small flashlight inside the bag caught fire.
12/27/2007	Air carrier incident report	Lithium metal (lithium manganese dioxide) <i>House of Batteries</i> prototype, 15-volt, (Five <i>Ultralife</i> 3-volt D cells connected in series). The battery contained 16.65 grams of lithium (3.3 grams per cell).	SSCOR medical suction pump	UPS	Cargo	Shipment was submitted to UPS for "2 nd day Air" service. After pick-up and ground transportation, the package "spontaneously combusted" on the conveyor at a UPS package sort facility in Cerritos, Calif. An employee put out the fire with a facility fire extinguisher.
12/15/2007	Air carrier incident report	Lithium ion/polymer for radio controlled model helicopter	Packed with radio controlled helicopter kit	FedEx	Cargo	A package containing an R/C helicopter kit with lithium polymer batteries was being sent from Hong Kong to the Netherlands. It was discovered emitting smoke at the FedEx sort center in Frankfurt, Germany. The package was brought outside the building and the fire was extinguished.
12/11/2007	Air carrier report	Lithium ion/polymer for radio controlled model planes:		UPS	Cargo	A package of lithium polymer batteries for remote control aircraft was being transported by UPS from Argentina to San Marino via Cologne, Germany. At the UPS hub in Cologne, a customs inspector cut into the box with a knife, accidentally cutting into a battery which then caught fire. The battery had a soft plastic

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		FlightPower F3A, 5350 mAh, 18.5 V				exterior without a hard metal shell. A fire alarm was triggered and 400-500 people were evacuated from the facility for 35 minutes. The transport section of the accompanying MSDS stated the batteries were “non-regulated”.
9/30/2007	Air carrier report	Lithium-ion Xiamen Powerlong 3.7v, 4000 mAh and 5200 mAh		FedEx	Cargo	After flying from Hong Kong, a Korea-bound box was emitting smoke upon offload at the FedEx Hub at Subic Bay, Philippines. No flames were seen. The box was removed from the sort. The outer-most box was an overpack containing three inner fiberboard boxes. It's believed each of the inner boxes contained 120 lithium-ion batteries. The fire was contained to one inner box.
8/8/2007	Report from German transport officials	Lithium polymer (ion) Arkai 11.1 Volt		FedEx	Cargo	The batteries traveled from Hong Kong to Frankfurt on a FedEx flight. During customs inspection, one of the 440 batteries in the package started to burn.
6/14/2007	Police report. FAA agent statement.	Lithium CR123A (probable lithium metal)	Ecoquest “Fresh Air Buddy” personal air purifier		Passenger	While walking in the Long Beach, CA, airport terminal prior to flight, a passenger’s personal air filter worn around her neck exploded in a streak of fire. The battery was ejected at high speed across the terminal and melted the carpet where it came to rest. Passenger was uninjured but suffered scorches/burns on her clothing. A non-rechargeable lithium metal battery may have been put into a recharger before inserting it into the air purifier.
6/5/2007	Airline report. Video from witness also posted to the internet. DOT incident report # 2007070001	Lithium ion	Dell laptop computer		Passenger	While waiting in the airport gate area, a passenger plugged his laptop computer into an electrical outlet on a column in the seating area. At some point the computer began smoking. Airline agent suggested the passenger unplug or shutoff the computer but passenger did not. The computer eventually burst into flames. Fire extinguishers were used to suppress—but not quickly extinguish—the fire.
5/15/2007	NASA ASRS Report # AB	Lithium-ion battery pack	No indication		Passenger	Ramp worker removed checked bag that was on fire when loading passenger aircraft. Fire department determined that the

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
	2007: 26/9-1 5/15/07 730630	for Sony PSP	that battery was in or attached to Sony PSP device			fire was caused by a battery-pack for a Sony PSP handheld video game. <i>Note: This information comes from an anonymous report via the NASA ASRS. Airline, location, persons involved and exact date are unknown.</i>
3/22/2007	FAA report	Two Nexergy Promark 15-volt, 78 AH, alkaline battery packs (30 cells each)		FedEx	Cargo	A battery pack caught fire at the FedEx facility in Forest Park, GA. Apparently, a soldering error during manufacture contributed to a short circuit of the battery. The manufacturer has redesigned the battery and external packaging.
3/19/2007	Air carrier report	“CR123” lithium metal <i>Reportedly; battery fragments were disposed of by crew</i>	Possibly a camera <i>No passenger took responsibility for the battery</i>		Passenger	1 ½ hours into a passenger flight from Buenos Aires to Miami a small explosion occurred in the Business Class section of the aircraft. There were sparks then a flash and smoke. Flight attendants, then the Captain, responded. Battery fragments were the only evidence found. It is suspected that the battery dropped into a seat and arced against a metal seat frame causing it to explode. The ruptured battery splattered debris on overhead bins. A fragment hit a passenger in the head burning her hair near her earlobe. Seven flight attendants were affected by smoke/fume inhalation. All refused medical treatment in Miami. One aircraft seat bottom and four seat covers were damaged and replaced.
3/9/2007	Air carrier reports	Lithium ion	Laptop computer and power converter.		Passenger	Passenger flight from Toronto to Dallas/Ft.Worth diverted to St. Louis after strong electrical burning smell in the cabin. Source was laptop being used by a passenger while plugged in to aircraft power port via power converter. Power converter reportedly heated up. Aircraft power port and laptop reportedly in normal working condition afterwards.
3/1/2007	Australia CASA report	Lithium metal (non-rechargeable)			Passenger	US mail package from EBay internet vendor containing the batteries was transported on a passenger flight from LAX to Sydney and caught fire at the Sydney Mail Gateway Facility.

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
		Twenty-four <i>Surefire</i> SF123A batteries				
2/26/2007	FAA case # 2007NE700130	Two 12-volt batteries			Passenger	During checked baggage screening, TSA personnel discovered two 12-volt batteries in a passenger's tool box, reportedly for a business demo. The battery terminals were exposed. Upon examination, one of the terminals touched the ETD table and sparked causing the screener to drop the battery. The battery landed with both terminals down and started smoking. TSA determined the batteries were not "hazmat" and the airline agreed to transport the batteries as long as the terminals were protected.
2/10/2007	Air carrier reports	<p><i>Energizer</i> lithium metal 9-volt, <i>Energizer</i> lithium metal AA, and <i>IDX NP-L50S</i> lithium ion batteries were all present.</p> <p>One <i>Energizer</i> lithium metal 9-volt was destroyed in the fire and seems most likely to be source of the fire.</p>	Packed with professional audio/video equipment		Passenger	<p>While still climbing after takeoff from JFK, smoke began pouring from an overhead bin in the passenger cabin. Passengers alerted the flight attendants who responded. A flight attendant opened the bin and saw thick black smoke and flames in the rear of the bin. As the plane returned to the airport for an emergency landing flight attendants were able to put out the fire, discharging two Halon fire extinguishers. Water was applied to some cloth embers that continued to burn after the Halon was used.</p> <p>Cockpit crew smelled some light smoke in the cockpit and donned O2 masks for approx. 20 seconds until the smoke dissipated. Source of fire, bag with audio-video equip was secured in a lavatory. Aircraft landed and taxied to the gate. One passenger complained of chest pains and needed assistance in exiting the aircraft.</p> <p>The fire apparently was caused by loose batteries that were packed in a bag with other audio-video equipment.</p>

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
12/15/2006	Media reports and airport operations incident report.	One Lithium metal CR123A (probable) <i>Passenger also purchased Lithium-ion rechargeable CR123A battery and charger for the device</i>	"Fresh Air Buddy" personal air filter		Passenger	<p>On a Houston-Portland passenger flight, a personal air filter, being worn on a strap around a passenger's neck, started a fire in the cabin. The device started making hissing sounds and then emitted bright sparks/flash and a clap/bang sound. The passenger removed the device and it fell between two seat cushions where it continued to burn and smoke. Passengers dumped water on the device and then flight attendants put out the fire with a Halon fire extinguisher. The aircraft diverted to Colorado Springs. The passenger wearing the device suffered a superficial burn to his chest. Dozens of passengers were examined by EMT personnel, mainly for complaints related to inhalation of smoke and/or Halon fumes. Five or six passengers were taken to the hospital. The two fire-resistant aircraft seat cushions were replaced due to having holes burned in them.</p> <p>The airline flight attendant accidentally disposed of the battery, so a determination of what type of lithium battery (primary vs. secondary) could not be made. NTSB took possession of the device and sent to their lab for analysis. Lab analysis of the damaged device was inconclusive in determining what caused the malfunction.</p>
12/14/2006	Report from air carrier	Counterfeit CR123A, lithium metal	Flashlight "Superfire WF-501B"	UPS	Cargo	<p>During a UPS cargo flight from Sydney, Australia to Guangzhou, China, at 38,000 ft., the crew heard a loud bang. A crewmember found that his flashlight in a bag next to his seat was warm and had a strong odor coming from it. The flashlight was opened and there was soot/residue from burning. One of the two batteries (now determined to be counterfeit) was damaged. Earlier the crewmember had dropped the flashlight about 6 inches into his bag and heard a thump.</p>
11/25/2006	FAA agent summary	Nonspillable lead acid, 12-volt, VRLA industrial		FedEx	Cargo	<p>A pallet of eight batteries was being shipped from Canada to Brazil. At the FedEx Memphis sort center, one of the batteries fell from the wooden skid and cracked open its housing, causing some burning/scorching.</p>

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
		(Marathon M12V155FTX)				
11/11/2006	Notification by US Customs and CPSC FAA case # 2007WP700045	Lithium ion cell phone batteries			Cargo	After being shipped by air from China to the US, some batteries were selected for inspection by US Customs. While on the desk of an import specialist, the battery started emitting sparking flames and smoke.
9/15/2006	FAA Case # 2006GL700427	Silver oxide button cells, various sizes		DHL	Cargo	During off-loading at their Plymouth, MN facility, DHL/Airborne personnel discovered two boxes that were warm to the touch. The boxes were opened and found to contain hundreds and hundreds of button cell batteries loosely packed together in a plastic bag liner. Batteries were being shipped by a small business battery recycler that stated they thought all batteries were discharged. Tests showed many still had positive voltage.
9/15/2006	United Airlines report	Lithium-ion laptop battery	IBM Laptop computer		Passenger	Approximately 15 minutes prior to departure of a LAX-LHR transatlantic flight, the laptop computer of a passenger began to smoke. The relief pilot and purser assisted the passenger in removing the laptop from the airplane. The laptop was placed on the floor of the gate area where it continued to smoke from the battery pack area and a small flame appeared. A customer service representative discharged a fire extinguisher on the fire. The battery pack continued to smoke for an additional couple minutes with white smoke and a strong odor. The Fire Department responded and discarded the burnt battery pack. The passenger stated the laptop was an IBM that belonged to his company and had been in his possession the entire time, having original parts and never having been serviced. The passenger was reportedly not using aircraft power to operate the computer. The airplane remained in service and departed on time without the incident passenger.
7/17/2006	FedEx	EaglePicher-			Cargo	The unlabeled/marked package was discovered to have caught

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
	Notification to FAA	<i>Kokam</i> Lithium ion/polymer (used for remote control models), 122 batteries of various sizes				fire while being held in bond for customs clearance in Korea. Package had traveled to Korea in FedEx system from Vienna via Paris and Subic Bay.
7/15/2006	UPS report to FAA FAA case # 2006SO700328	Two <i>North Star</i> 12-volt nonspillable, 70 Ah, model NSB70			Cargo	A package caught fire while being unloaded from a ULD at the UPS sort facility in Louisville. Airport fire personnel responded and inside the box they found two 12-volt nonspillable batteries. The terminals were not protected and the batteries were not secured to prevent movement inside the box. The inner packaging consisted of Styrofoam peanuts and paper. The statement from the fire personnel indicated the terminals on one battery came in contact with the other, arced, and then caused a fire.
7/1/2006	UK CAA report to FAA	Unknown	Photographic flash gun		Passenger	Upon arriving at home after a flight, a British Airways passenger found that his battery-powered photographic flash unit in his baggage had burnt holes in some of his clothing. Plastic housing on flash unit had also melted.
6/2/2006	China CAA report	Lithium ion / polymer, 7.4-volt; 10000 mAh		Air China	Passenger	An Air China passenger flight from Guangzhou to Chengdu diverted takeoff due to a lithium battery fire in the cargo hold. While taxiing for departure the fire alarm for the lower deck cargo compartment activated. The Captain immediately released the fire extinguisher and the aircraft stopped taxiing. Passengers were evacuated. A burnt package containing lithium polymer batteries was discovered in the cargo hold up against the ceiling of the compartment on top of the other packages. Burn marks were visible on the ceiling. Shipment was declared as electric parts; there was no indication of lithium batteries or Dangerous Goods. No UN test report was available for the batteries. Eleven other

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
						boxes were in the shipment.
5/15/2006	Lufthansa DG Occurrence Report # 0001/06 DOT incident report # 2006060033	Lithium-ion (VGP-BPL2/VGP-BPS2 or equivalent)	Laptop with spare battery	Lufthansa	Passenger	Shortly before flight departure, a burning smell was detected in the first-class cabin of a Lufthansa ORD-MUC flight. Maintenance personnel were called to check and found it was coming from hand luggage inside an overhead luggage bin above seat 2A. The flight attendants evacuated the passengers in first class and first 2 rows of coach class. Crew used extinguishers to prevent setting off what was seen as the beginning of a slow fire. Maintenance immediately brought the bag outside the aircraft onto the ramp where it started to catch fire. Fire dept was called to assist. Fire was eventually put out after reigniting once. Fire apparently started from the extra battery pack for a laptop which was purchased on eBay. Flight departed 1 hour 18 minutes late.
3/29/2006	DOT Incident report # 2006040159	Lead Calcium			Cargo	Air package shipped from Puerto Rico to Georgia containing a battery was discovered smoking while out for Fedex delivery to final destination. The package was removed and extinguished. Consignee accepted the package.
3/3/2006	FedEx incident report	Lithium ion button cells, mfr. by <i>Lixing</i>			Cargo	US-bound package was noticed to be smoking at outbound FedEx station in Shenzhen, China. Upon inspection, the package of lithium ion batteries was discovered to be on fire.
2/28/2006	FAA case # 2006NM700106	Two NiCad cordless drill batteries			Passenger	Employee had power tools in baggage. TSA observed smoke emitting from suitcase on baggage belt and pulled it off the belt. Fire dept. was notified and extinguished the fire. Bag contained two NiCad cordless drill batteries. One battery had melted. Company of traveling employee paid \$15,000 civil penalty.
2/23/2006	FAA Special Agent statement and UK CAA message	Nickel Metal Hydride (NiMH)			Cargo	During cargo sort operations in Memphis, FedEx personnel discovered a smoking fiberboard box. Four boxes contained 250 Nickel metal hydride batteries. Four of the batteries had short circuited. The non-spec fiberboard boxes apparently lost their structural integrity due to the weight of the batteries which were packaged loosely without proper short circuit protection. The batteries were being shipped from London to St. Louis. The UK

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
						fined the shipper a total of £2800.
10/4/2005	UK CAA report	Dry cell / rechargeable	Portable drill		unknown	After being unloaded from a domestic flight in England, a package caught fire due to the activation of a portable drill inside. DHL driver suffered smoke inhalation and was treated at a hospital.
9/14/2005	FAA Agent report	Eight large heavy-duty industrial 12-volt batteries (Specs: 1350 CCA, 245 Amp Hrs @ 20 Hrs)	Batteries in metal racks for solar panels	FedEx	Cargo	During loading of outbound FedEx flight in Portland, ME, a package fell off the forklift and landed upside down. Sparks and a small fire were seen immediately. The cardboard outer packaging was removed exposing eight large batteries connected to each other inside a metal frame on a wooden pallet. Terminals were all exposed. Visible burn marks were on two of the batteries as well as on the crossbar of the metal frame. No package marking or labels indicated batteries. Documentation indicated the shipment contained solar panels and school supplies.
7/18/2005	FAA case # 2005NM700175	Two Ryobi 14.4-volt NiCad rechargeable batteries			Passenger	TSA officer observed smoke coming from baggage. United and TSA personnel discovered 2 Ryobi 14.4-volt NiCad power tool batteries. One battery has short circuited. Company of the employee carrying batteries paid \$10,000 civil penalty.
6/29/2005	FAA case # 2005WP700218 DOT Incident report # 2005080470	Lithium Ion	Battery-pack	UPS	Cargo	At UPS in Ontario, Calif., during unloading of a ULD from Shanghai, it was discovered that a fire had taken place inside the ULD. A package containing a lithium-ion battery pack was identified as the source of the fire. Upon discovery, the burnt package and its contents were cool to the touch and there was no smoldering evident.
5/18/2005		18 D-cell batteries	Marine buoy	FedEx	Cargo	A FedEx employee in Fredericksburg, VA, was injured when a package that he was loading into a ULD exploded. The package contained a marine buoy powered by a battery-pack containing 18 D-cell batteries. Apparently some of the batteries had deteriorated causing gas to build up in a sealed container. Static electricity generated by sliding the box may have been the ignition source.

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
3/25/2005	TSA report to FAA ANE FAA case # 2005NE700152	Twenty-four 9-volt <i>Energizer Industrial</i> batteries	None		Passenger	TSA screeners discovered smoldering batteries in a passenger's checked baggage. They discovered 24 9-volt batteries, most of them packed loosely inside a cardboard box in the baggage. Only nine of the batteries had their terminals protected (with plastic caps or electrical tape). There were other loose metal objects in the box that apparently came in contact with the terminals; one metal object was visibly charred. At least one of the batteries was still hot to the touch. Passenger paid \$1500 fine.
2/11/2005	FAA incident summary DOT incident report # 2005030047	Lithium battery, solid cathode, manufactured by <i>Eagle Picher</i> of Surrey, BC, Canada.	None	FedEx	Cargo	An undeclared package containing 18 lithium batteries caught fire while being unloaded from a conveyor belt at the FedEx facility in White Bear Lake, MN. FedEx cargo handlers report hearing a "pop" sound and then seeing the box "lifted" off the conveyor belt by the force. The shipment had flown from Los Angeles to Minneapolis and was to be trucked to Clear Lake, WI. Only one battery caught fire.
10/29/2004	Greensboro FSDO briefing paper and media accounts	<i>Ultralife</i> 9-volt lithium (traditional 9-volt form: rectangular with two terminals on top)	Camera equipment		Passenger	Shortly after departure, the battery exploded in the hand of a cameraman traveling on the VP campaign plane of Sen. Edwards (the cameraman reportedly was in the process of changing batteries). It spewed shrapnel and ignited a fire in the seat which was extinguished by flight attendants and others. The flight crew declared an emergency and returned to Raleigh-Durham airport without further incident.
9/14/2004	FAA field agent initial report	Two 12-volt, nonspillable, sealed rechargeable lead-acid batteries			Cargo	One of the batteries was packaged so that its terminals were able to come into contact with metallic sensor tape that was packed with it. This resulted in a short circuit and fire discovered at the Greenville-Spartanburg FedEx facility after the flight.
9/4/2004	FAA incident summary statement	Dry, Alkaline, C-cell, (four)	Diving flashlight		Passenger	Diving flashlight exploded at LAX as it was removed from checked baggage by TSA personnel during the CTX screening process. Minor injuries to nine people. The incident occurred prior to the

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
						baggage being loaded on the passenger aircraft. A 1996 NIOSH report indicates that exploding flashlights are not uncommon—particularly among airtight flashlights with old, damaged, or improperly installed batteries. One of these batteries (Exp. Date: MAR 2005) may have been improperly installed according to the FAA summary.
8/7/2004	FAA incident summary statement, DOT Incident Report #2004081622	Lithium-ion	Lithium-ion batteries assembled together in a plastic case		Cargo	Prototype lithium batteries shipped under a competent authority approval from California to Europe apparently started a fire in a ULD during the loading process at the FedEx Memphis hub. The ULD had just been loaded for a transatlantic flight (Memphis-Paris). The ULD and many other packages in it were damaged/destroyed by fire. Shipment apparently was in violation of the DOT approval allowing the prototype battery to be shipped.
4/28/2004	DOT Incident report #2004050033	Dry batteries			Cargo	While unloading a container in Dothan, AL, a FedEx ground handler smelled burning plastic. The package was located and opened. Several dry batteries inside had wires attached. Plastic bag inner packaging was melted and inside of box showed burn marks.
4/18/2004	FAA incident summary	Ni-Cad, 18-volt, rechargeable	DeWalt cordless power drill		Passenger	A power drill with battery attached was activated in checked baggage. Drill generated heat, setting fire to the bag and other bags on the luggage cart while waiting to be loaded on to the passenger aircraft.
4/1/2004	Transport Canada	CR123 lithium batteries	Flashlight		Passenger	A flight attendant lent a passenger a flashlight which was recently purchased in Beijing. The passenger dropped the flashlight while it was on. Later the passenger put the flashlight in a seatback pocket. A few minutes later, the flashlight began to emit smoke and noxious fumes. The flashlight became so hot it could only be handled with oven mitts.
11/2/2003		Ni-Cad, Ni-Metal Hydride,	Notebook computer – Toshiba		Passenger	At security screening, a passenger's bag contained a computer bearing a warning label on the bottom near the battery compartment: "Warning: Hot base may cause burn. Avoid

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
		and/or Lithium (according to label on computer)	Satellite model # 815-S129			prolonged contact with bare skin.” Battery compartment was hot. Screener had passenger turn off computer.
10/25/2003	FAA incident summary	<i>PowerSonic</i> Nonspillable, Lead Acid gel-cell, 12-volt, 35 AMP hours	Powered hand truck		Passenger	Powered hand truck shipped as cargo accidentally switched on. Motor and battery generated heat and smoke in cargo compartment of the pax aircraft forcing it to return to gate.
8/1/2003	FAA # 2003NE700110	<i>Sanyo</i> six nickel metal hydride battery pack			Cargo	Battery pack self-ignited and burned while in transit at the UPS facility in Brewer, Maine. Medical instrument vendor had sent a replacement battery pack to the shipper with written instructions to return the battery pack they were using which had been recalled because of potential problems with it overheating after charging.
6/9/2003		Ni-Cad, 18-volt, rechargeable	Battery for DeWalt cordless drill – unattached		Passenger	As part of routine baggage screening it was noticed that the battery, packed loosely in a toolbox, was hot. The unattached drill battery with unprotected terminals had come in contact with metal objects in the toolbox.
6/4/2003	DOT Incident report # 2003060805	Non-spillable batteries	None		Cargo	Package burst into flames at FedEx sort facility. Terminals not protected from short circuit, arced and started fire.
2/16/2003	Civil Aviation Safety Authority of Australia	Non-spillable, sealed, lead-acid	Wheelchair		Passenger	Upon unloading Virgin Blue flight # DJ621 from Launceston to Melbourne, Australia staff noticed the arching wheelchair battery. A pre-existing fault in an attached electrical cord appeared to be a contributing factor, but it was not possible to prove exactly what caused the short circuit.
8/12/2002	DOT Incident report #2002090134	Lithium battery (excepted)	Samsung mini		Cargo	Burning odor detected by handlers at the Los Angeles FedEx inbound package sort center. Battery apparently short-circuited

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
			computer (palm pilot)			causing the bubble wrap in the package to burn and melt onto the unit.
4/12/2002	DOT Incident report #2002050519	Lithium batteries	None		Cargo	Lithium batteries shipped under exception by Abbott Labs did not have terminals protected from short circuit. Started fire inside package at FedEx Indy sort facility.
3/25/2002		<i>Hawker Cyclon</i> , sealed lead, rechargeable, nonspillable batteries	<i>Cyclon</i> batteries contained in larger battery: <i>Lucent/Hawker</i> , sealed lead, rechargeable, 45-volt, 2.5-Amp Hour		Cargo	After the initial flight, the package containing the battery/batteries caught fire at the FedEx sort facility in Memphis.
5/9/2001	DOT Incident report #2001061356	Wet acid batteries, nonspillable, two 6-pound batteries			Cargo	Shipment was being unloaded from of inbound aircraft when handlers noticed fumes and smoke. Package was located and had a burn hole on its side. Batteries apparently short-circuited.
2/26/2001		Wet nonspillable battery	Portable welder		Cargo	After air transport and in route to final destination, UPS truck driver observed smoke coming from the trailer. Package had been undeclared.
11/3/2000	FAA EIR # 2001NM710044	<i>Hawker</i> lithium sulphur dioxide batteries	None		Cargo	While in route by road to the FedEx Cargo facility in Portland, OR, a lithium battery shorted and ruptured, burning its packaging. The shorted battery had long flexible protruding positive and negative terminals. Two FedEx drivers were treated at a hospital after inhaling fumes from the incident.

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
10/25/2000	DOT Incident report #20010043	Hawker Cyclon, 2-volt, nonspillable	None		Cargo	Eleven batteries (approx. D-size), with positive and negative terminals on the same end were packed loosely in a box. They shorted and caught their packaging on fire. Discovered at FedEx cargo sort center in Ft. Worth after first flight.
9/7/2000	DOT Incident report #2000091202	Rechargeable sealed lead acid battery	None		Cargo	Handlers at Fedex outbound center in Raleigh, NC, noticed the package had an odor. Package was opened. Discovered slight smoke and two battery wires that had melted.
7/23/2000	DOT Incident report	Nonspillable wet batteries	None		Cargo	One package discovered leaking; another displayed evidence of electrical shorting. Outer packaging marked "Batteries, wet, nonspillable"
7/21/2000		Four AA or AAA batteries	None		Passenger	During unloading of checked baggage off flight from Miami to Ecuador, handlers discovered a bag containing several battery-powered gifts destroyed by fire started by pack of small batteries. Bag also contained broken bottle of cologne.
7/6/2000	DOT Incident report	20 nonspillable lead acid batteries	Cables attached to terminals; related power supply equipment		Cargo	Ramp personnel handling the shipment noticed that several of the batteries were sparking or arcing while being moved and that the terminals on the batteries were not sealed properly. Subsequently discovered that some of the cables normally interconnecting batteries still attached to terminals. Also, related equipment, switching panel and controller placed directly on top of batteries. Outer package marked "12-volt BAT-0048 Sealed, no maintenance rechargeable battery for UPS applications."
2/11/2000	ANM EIR# 2000NM-710146 DOT Incident report # 200002135	Two PowerSonic, sealed rechargeable, lead acid batteries, 12-volt, 7 Amp Hr.			Cargo	Ramp workers noticed a burning smell emanating from a box after aircraft unloaded. Employees opened box and discovered two sealed lead acid batteries packed together without protection from short circuiting. Terminals of both batteries were partially melted and scorch marked. Battery cases were significantly warped and cases bubbled.
1/26/2000	DOT Incident Report	Eight nonspillable	None		Cargo	Package broke open in cargo facility. Two batteries shorting when discovered. Little post on battery described as practically

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
	#2000021369	wet batteries				burned off. Paper packing material had black scorched spots. Terminals not protected against short circuits.
12/17/1999	DOT Incident Report # 2000010495	Four auto-sized batteries	Uninterruptible power source (UPS)		Passenger	Four automotive-size batteries inside the metal cabinet, wired in sequence by battery cables. Appears batteries not adequately secured within cabinet, shifted during handling and appear to have shorted out against the metal cabinet, causing burning. Outer container, a fiberboard box on a skid, showed signs of burning.
9/12/1999	DOT Incident report	Nonspillable battery (non-regulated or undeclared)	None		Cargo	Box found smoking during sort process. Battery had its posts bent inside the box. Posts allegedly came into contact with the metal slide in the sort, allowing the arc to occur and resulting in fire.
9/12/1999	DOT Incident report # 19990913126	Nonspillable batteries (undeclared)	None		Cargo	During unloading of FedEx ULD in Denver, box discovered allegedly emitting smoke. Report indicates box containing 2 rechargeable, lead-acid batteries caught on fire.
8/31/1999	DOT Incident Report # 1999091333 and FAA 1999EA-610653	Nonspillable battery (undeclared)	None		Cargo	During outbound package sort, battery apparently initiated and caught fire. There were holes burned completely through the fiberboard box closures.
8/24/1999	Taiwan Aviation safety Council report # ASC-AAR-00-11-001 Accident Investigation Report	12v motorcycle battery			Passenger	UNI Air passenger flight from Taipei to Hualien. Upon landing there was explosion then smoke and fire in the forward part of the passenger cabin. Investigators found that a motorcycle battery and container of gasoline had been brought into the passenger cabin. It is believed the gasoline leaked from its unmarked plastic bottle onto the battery causing a short circuit and fire. The aircraft was destroyed by fire. 14 passengers suffered critical injuries, 14 passengers suffered minor injuries.
7/24/1999	DOT Incident Report # #1999081536	12-volt battery	Connected to a phone jack		Passenger	America West ramp agents noticed smoke coming from a piece of luggage that was on the belt loader (transferring from inbound flight to outbound flight). Bag was removed and firefighters

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
						called. There was visible melting and charring of a wire connected to the negative terminal of the battery.
6/7/1999	DOT Incident Report	"Non-regulated" batteries. Actual type unknown.	None		Cargo	Package noticed during FedEx operation in Greensboro, NC to have burning smell. Inner batteries apparently arced causing batteries to burn inside the package. Incident report stated batteries had not been packaged correctly.
6/1/1999	NASA ASRS Report	Camcorder battery	Possibly Camcorder		Passenger	During ground maintenance delay, flight attendant noticed burning smell. Passengers deplaned. Overhead bin opened to reveal smoke from a passenger bag. Upon opening, cloth items discovered to be smoldering, and a camcorder battery in the bag was extremely hot.
6/4/1999	FAA AEU and FAA AEA msgs	Dry cell batteries	None		Cargo	U.S. cargo air carrier transported shipment containing batteries and gas cartridges to foreign destination. Fire broke out as cargo being offloaded and smoking pallet discovered. Examination of the pallet revealed steel rods placed on top of the dry batteries loosely piled on the pallet.
4/28/1999	AWP report/ NTSB Rec. A-99-85	Primary Lithium batteries, Sanyo CR2 (excepted)	None		Passenger	120,000 lithium batteries were being shipped on two pallets. After being unloaded from a passenger flight from Japan, a cargo employee at LAX mishandled one of the two pallets causing lithium batteries to dislodge from their packaging. The pallet later caught on fire along with the second pallet which it was placed next to. Initial attempts to extinguish the blaze using water/chemical fire extinguishers failed.
10/10/1998	FAA AAL Special Agent statement	Unknown	336 laptop computers		Cargo	Fire warning diverted cargo aircraft. Captain/flight engineer inspected cargo area. Both noted heat rising between pallets on jet flat, as well as strange odor and lung irritation. Fire fighters sprayed pallet with retardant. No further evidence of heat exposure or fire.
10/3/1998	DOT Incident Report # 1998100548	Nickel cadmium batteries	None		Cargo	Two batteries somehow arced and short-circuited. This malfunction started a fire inside the box. The fire self-

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
						extinguished.
7/7/1998	Rapid City SD Incident Report 98-002106	9-volt battery	Baby Monitor Remote		Passenger	Fire damaged bag discovered during unloading. Carrier employee noted fire odor and checked bag felt warm. Fire appeared to have been caused by a short in the monitor remote, possibly because of close proximity to luggage frame.
5/19/1998	DOT Incident Report # 1998071744	Wet acid battery			Cargo	Sort center employee smelled unusual odor coming from container during unloading. A 70-lb package singled out and opened by emergency responder. Fanny pack burned and corroded, hot and smelled of fumes.
5/19/1998	FAA #EA19980082	Unspecified batteries	Uninterruptible power supply (UPS) units (2)		Cargo	One of the UPS units exploded during offloading of a truck.
3/12/1998		Wet batteries	Engines			Ramp agent at Miami Int'l airport noticed flames and smoke coming from one of the pallets during unloading after a flight from the Netherlands. One of the engine batteries was not protected and had come into contact with a steel cable causing the cable to spark and burn.
11/25/1997	FAA ASW investigation FAA press release 9/9/98	Nonspillable wet electric storage batteries	None		Passenger	Courier company dispatched driver to pick up package consignment consisting of global positioning system-based survey equipment. Package self-ignited, smoked and burst into flames. An entire CO2 chemical extinguisher could not extinguish the fire, so firefighters applied dry chemical extinguisher. The FAA, NASA and the city arson bureau analyzed the fire and determined that it was caused by cables placed directly on top of battery.
11/13/1997	FAA ASO Investigation # 98S0730067	Nonspillable wet batteries	UPS		Cargo	During cargo sort operation, this shipment was discovered burning. The device consisted of a battery with associated circuitry. A subsequent failure analysis report revealed that the burning initiated in a printed circuit board, with the battery acting as the source of energy.

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
5/15/1997	FAA AEA security summary	Dry cell batteries	None		Cargo	As cargo being offloaded from aircraft, ramp employee noticed open, empty box in cargo bin. Then the employee noted four batteries on floor, which sparked as she attempted to pick them up.
1/28/1997	FAA AEA # 97EA710078	Nonspillable batteries (16)	Battery backup cabinet (UPS?)		Passenger	16 nonspillable batteries were part of an extended battery cabinet used as backup power for computers. The air cargo package ignited while being delivered after transport aboard a passenger aircraft.
9/26/1996	DOT Incident report #1996110343	Lithium batteries	None		Cargo	Eight lithium batteries were connected in a series and packed with bubble wrap inside a plastic express envelope. There were exposed connections on one end and loose wires on the other end. The batteries were not secured from movement within the package and a short-circuit resulted causing the packaging to burn. Burnt package discovered at Airborne sort center after first flight and prior to trans-Pacific cargo flight.
6/9/1996	DOT Incident Report # 960700024	Nickel cadmium battery	Power pack belt, lamp		Passenger	One of three passenger checked bags discovered smoldering and burning in air carrier baggage make-up area. During bag handling, power pack belt had button pushed into "on" position, causing high intensity lamp in bag to power up. Heat from lamp set bag on fire.
3/19/1996	DOT Incident Report # 960401424	<i>Hawker Cyclon</i> , sealed-lead rechargeable batteries. (1000)	None		Cargo	Fiberboard box top came unsealed. Box contained rechargeable batteries. Terminals on loose batteries connected, causing them to arc, catching the box on fire and igniting surrounding freight. This box was one of ten pieces in the shipment. Other boxes were located and loose batteries repacked prior to movement to hazmat area. Each box contained two layers of 50 batteries each. Inner packaging consisted of batteries separated by cardboard dividers with layer of styrofoam sheeting across the top. Packaging tape on outer box failed.
2/20/1996	FAA ASO investigation	Lawn-mower batteries	Lawnmower		Cargo	Shipment consisting of 106 boxes (each containing a battery-powered lawn mower) was offered for transport to various

Date	Source	Type of Battery	Device (if applicable)	Carrier	Aircraft Type (Passenger or Cargo)	Incident Summary
	FAA press release 3/3/98	(declared)				destinations. Air carrier employees discovered smoke coming from one box. Lawn mower battery had become dislodged and shorted out, causing the mower's wires, plastic housing and battery to burn/melt. Subsequent recall of all boxes revealed that more than 50 of the batteries had short-circuited and several had burned enough to char the boxes in which they were being shipped.
2/7/1996	DOT Incident Report # 19960300554	Wet acid batteries (undeclared)	None		Cargo	Package failure caused battery terminals to come into contact with metal slide, resulting in short circuit and sparks/fire. Heat generated melted the batteries.
11/18/1995	DOT Incident Report #1995120471	Wet cell battery	Removed from electric wheelchair		Passenger	Wet cell batteries were removed from passenger's wheelchair and packaged separately by airline staff. Battery cables were left attached to battery causing a short-circuit during air transportation. This melted the plastic bag inner packaging. Overheated battery then boiled over, releasing acid which was mostly absorbed by the absorbent packaging material but reached the outer fiberboard box packaging.
5/8/1994	UK CAA DG Occurrence Report Database (G. Leach)	<i>Duracell</i> lithium batteries (excepted from ICAO regulation by SP A45)	None		Passenger	Consignment of lithium batteries found emitting smoke in ULD during truck transport to LHR. Fire damage. Batteries were smaller in diameter than a dime and about 5 mm high. They had been tossed loosely into a box. Positive and negative terminals had "tails" which were prone to short circuiting. The shipper was prosecuted by the UK CAA for failure to comply with Special Provision A45 of the ICAO Technical Instructions and fined £1200 with £300 costs.
3/20/1991	DOT Incident Report # 910404294	Nonspillable battery	None		Cargo	During air transportation, a package containing a nonspillable battery was discovered smoking in the upper deck cargo area. Aircraft rerouted for emergency landing.