Hard Landing Destroys Freighter

'Exaggerated control inputs' were made in response to bounces.

BY MARK LACAGNINA

The following information provides an awareness of problems that might be avoided in the future. The information is based on final reports by official investigative authorities on aircraft accidents and incidents.

JETS

High Sink Rate Not Detected

McDonnell Douglas MD-11F. Destroyed. One serious injury, one minor injury.

The MD-11 freighter bounced twice on landing, and on the third touchdown, the aft fuselage ruptured and the nose landing gear collapsed. The aircraft came to a stop off the left side of the runway and was destroyed by fire. The first officer was seriously injured, and the captain sustained minor injuries.

The accident occurred during a cargo flight from Frankfurt, Germany, to Riyadh, Saudi Arabia, the morning of July 27, 2010. In its final report on the accident, the Aviation Safety Division (ASD) of Saudi Arabia's General Authority of Civil Aviation issued the following "cause-related" findings:

- "The flight crew did not recognize the increasing sink rate on short final;
- "The first officer delayed the flare prior to the initial touchdown, thus resulting in a bounce;
- "The flight crew did not recognize the bounce;
- "The captain attempted to take control of the aircraft without alerting the first officer, resulting in both flight [crewmembers] acting simultaneously on the control column;
- "During the first bounce, the captain made an inappropriate, large nose-down column input that resulted in the second bounce and a hard landing in a flat pitch attitude;
- "The flight crew responded to the bounces by using exaggerated control inputs; [and,]
- "The company bounced-landing procedure was not applied by the flight crew."

Among other findings was that "the aircraft had no [aural] or visual indicator, such as a HUD [head-up display], to inform the flight crew of a bounced landing."

The accident flight was the first time the pilots had flown together. The captain had 8,270 flight hours, including 4,466 hours in type. The first officer had 3,444 flight hours, including 219 hours in type. "The captain decided that the first officer would be the PF [pilot flying], as the first officer had not flown into Riyadh before and it would be an appropriate leg for him to fly," the report said.

The first officer was transitioning to the MD-11 after serving for nearly 3,000 hours as an Airbus A319 first officer. He had conducted 17 landings in an MD-11 flight simulator and three landings in the aircraft within the previous 30 days.

"En route to Riyadh at cruising altitude, both flight crewmembers took advantage of the company napping policy, where each had about 30 minutes of sleep while remaining in their respective seats," the report said.

'Prior to the third, and final, touchdown, both pilots pulled back on the control column.'

The weather was clear at Riyadh's King Khalid International Airport, with surface winds from 340 degrees at 14 kt. The temperature was 39 degrees C (102 degrees F), and density altitude was about 5,300 ft.

The crew received radar vectors from air traffic control (ATC) for the instrument landing system (ILS) approach to Runway 33L. The first officer hand flew the approach. "The aircraft was centered on the glideslope and localizer … until 25 seconds before touchdown, when it dipped by half a dot below the glideslope," the report said, noting that groundspeed gradually increased from 164 kt to 176 kt. The reference landing speed (V_{REF}) was 158 kt.

The MD-11 was between 23 and 31 ft above the runway when the first officer began the flare, and it touched down 945 ft (288 m) from the threshold of the 13,797-ft (4,205-m) runway with a descent rate of 780 fpm. The aircraft bounced 4 ft above the runway, and the captain pushed the control column forward. "The aircraft touched down a second time in a flat pitch attitude, with both the main gear and nose gear contacting the runway, at a descent rate of … 660 fpm, achieving a [vertical acceleration] of 3.0 g," the report said.

Rebound from the nose landing gear contact and aft control column input by both pilots caused the airplane to bounce again — this time, 12 ft above the runway and with a pitch attitude of 14 degrees nose-up. "Early in this second bounce, the captain pushed the control column to its forward limit," the report said. "Prior to the third, and final, touchdown, both pilots pulled back on the control column" but only partially arrested the nose-down pitch rate.

The descent rate was 1,020 fpm and vertical acceleration was 4.4 g when the aircraft touched down the third time. "The aft fuselage ruptured behind the wing trailing edge," the report said. "Two fuel lines … were severed, and fuel spilled within the left-hand wheel well. A fire ignited and traveled to the upper cargo area."

The MD-11 veered off the left side of the runway and came to a stop on a gravel surface 8,800 ft (2,682 m) from the approach threshold and 300 ft (91 m) left of the centerline. The pilots used the left-front door escape slide to evacuate the aircraft. "The captain sustained minor cuts to the head," the report said. "The first officer sustained spinal injuries that required major surgery and hospitalization."

Bounced landing recovery procedures are included in the MD-11 flight crew operating manual (FCOM), which states, "If the aircraft should bounce, hold or re-establish a normal landing attitude and add thrust as necessary to control the rate of descent. Avoid rapid pitch rates in establishing a normal landing attitude."

Investigators found, however, that it is difficult for MD-11 pilots to recognize a bounced landing. "The difficulty is that flight crews do not know that the aircraft is airborne after the landing," the report said. "This difficulty comes mainly from the fact that the flight crews do not feel/sense a bounce, and there is no visual or [aural] indication of a bounce."

Based on the findings of the investigation, the ASD issued several recommendations, including a revision of the MD-11 FCOM to "re-emphasize high sink rate awareness during landing, the importance of momentarily maintaining landing pitch attitude after touchdown and using proper pitch attitude and power to cushion excess sink rate in the flare, and to go around in the event of a bounced landing." The report noted that Boeing, which acquired McDonnell Douglas in 1997, subsequently amended the FCOM accordingly.

Computers Stop Communicating

Airbus A319-131. No damage. No injuries.

An intermittent "loss of communication" between the A319's probe heat computers and the centralized fault display system, combined with icing of the standby pitot probe, resulted in the deletion of airspeed information on the commander's and the standby flight displays during final approach to London Heathrow Airport the afternoon of Dec. 17, 2010, said a report on the incident issued in April by the U.K. Air Accidents Investigation Branch (AAIB).

The flight crew conducted a go-around, diverted to London Luton Airport and landed the aircraft without further incident.

The incident occurred during a scheduled flight from Geneva with 122 passengers and six crewmembers. Nearing London, the aircraft encountered icing conditions when it descended into instrument meteorological conditions, and the electronic centralized aircraft monitor (ECAM) displayed cautionary messages and remedial actions for faults in the heating systems for the captain's right static probe and total air temperature probe. The crew responded accordingly but then received ECAM messages about a fault in the right standby static probe anti-icing system.

"Because of the number of messages received relating to anti-icing, the crew decided, as a precaution, to review the QRH [quick reference handbook] procedure for unreliable speed [indications]," the report said.

The A319 was about 800 ft above airport elevation when the airspeed indication on the commander's primary flight display decreased to about 60 kt and the indication on the standby display decreased to zero. The commander called "unreliable airspeed," initiated a go-around and declared an emergency.

While troubleshooting the problem, the crew found that reliable airspeed information was available by selecting the no. 2 air data reference system. The pilots decided to divert to Luton because the weather was better there and icing conditions would not be encountered during the approach and landing.

Caught in a Sink Hole

Boeing 737-800. Substantial damage. No injuries.

The 737 was being taxied from a paint facility to the runway at Mid Delta Regional Airport in Greenville, Mississippi, U.S., the night of May 6, 2011, when the left main landing gear dropped through the ramp surface. "The left main landing gear strut failed, and the airplane settled onto the left engine and rear fuselage, damaging the engine cowl and fuselage sheet metal," the U.S National Transportation Safety Board (NTSB) report said. The two pilots were not hurt.

Examination of the ramp by U.S. Federal Aviation Administration personnel showed that the surface comprised about 6 in (15 cm) of concrete reinforced by 3/4-in (2-cm) steel rods. "A large void was found directly beneath an area of sunken ramp pavement," the report said. "The void was about 6 ft [2 m] deep and 20 ft [6 m] across. Further examination of the void revealed the presence of a failed utility water pipe, which was found to have failed at a pipe joint."

'Hot Corrosion' Causes Engine Failure

Boeing 747-400F. Substantial damage. No injuries.

The 747 freighter was about 140 ft above the runway during takeoff from Narita (Japan) International Airport the night of June 11, 2010, when the flight crew heard an abnormal noise and observed instrument indications that the no. 1 (left outboard) engine had failed. The crew secured the engine, climbed to 7,000 ft, jettisoned about 150,000 lb (68,040 kg) of fuel and returned to Narita, where they landed the freighter without further incident, said the report by the Japan Transport Safety Board.

An initial borescope examination of the no. 1 engine showed that four of the 80 blades on the stage 1 high-pressure turbine were fractured and all the others were damaged; all 74 blades on the stage 2 high-pressure turbine were damaged; and the low-pressure rotor had seized.

A subsequent teardown inspection of the engine revealed signs of "hot corrosion" on the stage 1 high-pressure turbine blades. The report said that hot corrosion occurs during combustion when the sulfur in jet fuel reacts with sodium chloride carried in by the airflow and creates sodium sulfate and other products that accumulate on turbine blades and cause pitting and fatigue cracking. Inspection of the other three engines on the 747 revealed pitting on the blade shank areas.

The report said that it is "highly probable" that hot corrosion in the failed engine had caused the stage 1 high-pressure turbine blades to fracture, producing fragments that had caused further damage to the engine, which had accumulated more than 17,000 hours and 3,126 cycles since its manufacture in 2005.

The flight crew heard an abnormal noise and observed instrument indications that the no. 1 (left outboard) engine had failed.

General Electric, the manufacturer of the CF6-80C engines, had issued recommendations in 2007 and 2008 to install blades with a modified shape and vapor chromide coating that protect against hot corrosion, the report said, noting that the operator of the incident aircraft had planned to install the new blades during the next scheduled overhauls of the engines.

Wet-Runway Overrun

Cessna 525A. Substantial damage. No injuries.

The right-front-seat passenger, who held a student pilot license and was a co-owner of the Citation CJ2, was at the controls for the majority of the business flight from Artesia, New Mexico, U.S., to Nashville, Tennessee, the afternoon of June 15, 2011, said the NTSB report. The airplane is certified for single-pilot operation, but the pilot-in-command (PIC), who had logged 670 of his 13,500 flight hours in type, did not hold a flight instructor certificate.

On final approach to Nashville's John C. Tune Airport, the PIC told the student pilot that the airplane was "real high and hot" and that he needed to "get down and slow down." The student pilot replied that the "landing is yours."

The PIC told investigators that he assumed control and "started a steep approach." The enhanced ground-proximity warning system generated eight "SINK RATE" and "PULL UP" warnings. The PIC considered a go-around but decided to continue the approach. The airplane touched down about 1,500 ft (457 m) down the wet, 5,500-ft (1,676-m) runway. The PIC said that although he applied full wheel braking, the airplane overran the runway and struck ILS antennas.

"The PIC applied full left rudder to avoid going down an embankment," the report said. "The airplane came to rest after turning about 180 degrees." The left main landing gear collapsed and the wings were structurally damaged during the accident, but the five people aboard the airplane escaped injury.

The report said that after the accident, the company that managed the Citation "modified its operational procedures to restrict unqualified personnel from the cockpit during flight [and initiated] a formal risk-assessment program."

Struck by a Truck

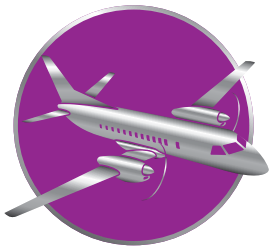
Bombardier CRJ200. Substantial damage. No injuries.

The driver parked the service truck nose-first against the terminal building at Chicago O'Hare International Airport the morning of Nov. 2, 2010. He set the transmission in the "PARK" position but did not shut off the engine or set the parking brake before walking away from the truck, the NTSB report said.

Surveillance video showed the truck moving backward and passing in front of the CRJ, which was being taxied from the gate. The truck then made a 180-degree turn, struck the front left fuselage and lodged beneath the nose of the airplane. None of the 37 people aboard the CRJ was injured.

"A postaccident inspection of the truck revealed that the transmission shift cable was out of adjustment, which allowed the transmission to slip into reverse," the report said, noting that a maintenance inspection of the truck was 84 hours overdue.

TURBOPROPS



Short Spurs False Smoke Warning

Bombardier Q400. No damage. No injuries.

The Q400 was cruising at 24,000 ft during a scheduled flight with four crewmembers and 47 passengers from New Quay, Wales, to Edinburgh, Scotland, the morning of July 21, 2011, when the pilots received warning indications of smoke in the forward baggage compartment. They donned oxygen masks and smoke goggles, and conducted the "Fuselage Fire or Smoke" checklist, which resulted in the removal of electrical power to several flight displays, the autopilot, the transponder and the data recorders, the AAIB report said. In addition, the cabin began to depressurize, and fire suppressant material was discharged into the forward baggage compartment.

The crew declared an urgency and were told by ATC that the aircraft was 90 nm (167 km) from Edinburgh. The commander told the senior cabin crewmember to secure the cabin in preparation for an emergency descent into Edinburgh.

"The pilots then took off their oxygen masks and smoke goggles because there were no signs of fire or smoke in the flight deck," the report said. "The senior cabin crewmember reported on the interphone that she could not smell any smoke."

The crew conducted a surveillance radar approach to Edinburgh Airport and landed the aircraft without further incident. "The aircraft was taxied from the runway onto [a taxiway], brought to a halt near the fire vehicles and shut down, following which the commander ordered the passengers to evacuate," the report said. "The fire service found no signs of fire or smoke."

Examination of the aircraft revealed that moisture had accumulated in a connector on the forward smoke detector, causing an intermittent short circuit and the false smoke warning.

Electrical Failure Traced to Switches

Beech King Air 200. Substantial damage. No injuries.

Shortly after taking off from Montpellier, France, on a business flight with two passengers the morning of Jan. 7, 2011, the copilot, who was flying the King Air from the left seat, found that his attitude director indicator was not functioning and transferred control to the captain.

The copilot then noticed that the generator caution lights were illuminated and tried unsuccessfully to reset the generators, said the report by the French Bureau d'Enquêtes et d'Analyses (BEA). The captain decided to return to Montpellier, which had good visibility and broken ceilings at 900 ft and 2,000 ft.

When the copilot attempted to extend the landing gear, a total electrical failure occurred, and he began to manually extend the landing gear. "The lighting conditions in the cockpit were then very dark, and the crew had difficulty in reading the instrument displays," the report said. After establishing visual contact with the runway, the captain circled the airport while the copilot continued the manual gear extension.

The copilot said that he did not feel sufficient resistance to movement of the gear-extension lever to indicate that the landing gear was fully extended. "Given the weather and the difficulty of reading the instruments, the captain decided to land," the report said. "During the landing roll, the main landing gear collapsed slowly, the fuselage came into contact with the ground, and the aircraft stopped on the runway."

Investigators concluded that before beginning the takeoff, the copilot inadvertently had selected the ignition and engine-start switches to the "ON" position when he attempted to select the engine auto-ignition switches to the "ARM" position. This action automatically disengaged the generators. "The crew did not immediately notice the warning lights coming on that resulted from this and continued the takeoff," the report said.

'The crew did not immediately notice the warning lights.'

The BEA said a factor that contributed to this accident — and two similar accidents — was the similarity of the switches and their proximity on the lower left subpanel. "Since this accident occurred, the operator has completed the installation of foolproof engine auto-ignition switches," the report said.

ATC Faulted in Near Midair Collision

Beech 1900C, Piper Navajo. No damage. No injuries.

The Beech 1900 was about 3.5 nm (6.5 km) west of Fairbanks (Alaska, U.S.) International Airport and was entering a right downwind leg to land on Runway 20L when the flight crew told the approach controller, "We just had a Navajo fly over the top of us." The crew later reported that they had descended to avoid the Navajo and estimated that it had passed 100-150 ft over their airplane.

The NTSB report on the near midair collision, which occurred in visual meteorological conditions the afternoon of June 14, 2011, said that it was caused by "ATC actions that failed to establish and maintain required separation."

Shortly before the incident, a shift change had occurred at the approach control position, and the incoming controller believed that the 1900 crew was in radio communication with the airport traffic (local) controller.

Meanwhile, the local controller had cleared the pilot of the Navajo, which had four charter passengers aboard, for takeoff from the parallel runway, 20R, and had approved her request to

climb on an on-course heading of 278 degrees. The local controller also had told the Navajo pilot to maintain 2,000 ft and had advised her of the inbound 1900. The controller issued two more traffic advisories, but the pilot stated that she did not have the traffic in sight.

"Neither the local controller nor the controller-in-charge, who was responsible for monitoring the operation and assisting the local controller, initiated any coordination with the approach controller to resolve the conflict," the report said.

Loon Penetrates Wing

Bombardier Q400. Substantial damage. No injuries.

The airplane was nearing Los Angeles International Airport at 7,500 ft and 234 kt the afternoon of Nov. 8, 2010, when it struck a bird. The flight crew declared an emergency and landed the Q400 without further incident.

Examination of the airplane revealed a hole 12 in (30 cm) in diameter in the leading edge of the right wing, between the engine nacelle and wing tip. The remains of the bird were analyzed and identified by the Smithsonian's Feather Identification Laboratory as those of a common loon, which has an average weight of about 11 lb (5 kg).

PISTON AIRPLANES

Fuel Starvation Follows Electrical Failure

Beech Baron 55. Destroyed. One minor injury.

After dropping off two charter passengers at Thicket Portage, Manitoba, Canada, the morning of May 13, 2010, the pilot noticed that the engines turned over more slowly than normal during the restart. Investigators later determined that both generators were off line due to a short circuit in one voltage regulator and improper adjustment of the other regulator to a voltage that was insufficient to allow its associated generator to power the electrical bus, said the report by the Transportation Safety Board of Canada (TSB).

Retraction of the landing gear on takeoff depleted battery power. The pilot used his cell phone to call the Winnipeg Flight Information Center and report an "electrical problem" and that he would be landing in Thompson, which is about 29 nm (54 km) north of Thicket Portage, without radios or a transponder.

The weather in the area was clear, but the pilot became disoriented while trying to use the electrically powered horizontal situation indicator to navigate, and the Baron strayed well to the east of course. The pilot eventually saw railroad tracks that led to the Pikwitonei Airport, which is about 27 nm (50 km) southeast of Thompson, and decided to follow them.

The pilot was turning the aircraft onto an extended base leg to land at Pikwitonei when both engines lost power due to fuel starvation. He repositioned the fuel selectors from the main tanks to the auxiliary tanks, and "neither engine was feathered in the hope that the windmilling engines would restart," the report said.

The Baron was in a steep left bank when it struck trees, rolled inverted and crashed about 3 nm (6 km) east of the airport. "The force of the impact was severe, and the pilot lost consciousness briefly but sustained only minor injuries," the report said, attributing this to the pilot's use of his seat belt and shoulder harness.

Distraction Leads to Gear-Up Landing

Douglas DC-6B. Substantial damage. No injuries.

The DC-6 was on an on-demand cargo flight from Togiak Village, Alaska, U.S., to Cold Bay the afternoon of June 12, 2011. The captain told investigators that he inadvertently distracted the crew during approach by pointing out a boat dock. As a result, none of the four crewmembers realized that the landing gear had not been extended. The captain said that he did not hear the landing gear warning horn.

"He said that after touchdown, he realized that the landing gear was not extended, and the airplane slid on its belly, sustaining substantial damage to the underside of the fuselage," the NTSB report said.

Below Minimums, Into Trees

Cessna 310R. Destroyed. Two fatalities.

The pilot was conducting a charter flight the afternoon of March 30, 2011, from Dayton, Ohio, U.S., to Pike County (Kentucky)

Airport, an uncontrolled field located on a 1,473-foot ridge. The automated weather observation system reported that visibility ranged from 1.0 to 1.5 mi (1,600 to 2,400 m) and the ceiling was between 200 and 300 ft.

However, when the pilot established radio communication on the common traffic advisory frequency, an airport employee told him that "the weather conditions were worse than what was reported," the NTSB report said.

The pilot requested and received clearance to conduct the global positioning system (GPS) approach to Runway 09. The minimum descent altitude (MDA) for the approach is 1,960 ft, or 506 ft above runway touchdown zone elevation. The report noted that the pilot chose the nonprecision approach although an ILS approach to Runway 27 also was available, with a decision height 200 ft above touchdown zone elevation.

Recorded ATC radar data showed that the 310 descended below the MDA. Witnesses saw the airplane emerge from the clouds and strike trees. "They stated that the fog was heavy and that the clouds were on top of the trees," the report said. "The first identifiable tree strikes were 1,100 ft [335 m] right of the runway centerline and about 100 ft below the airport elevation."

Toxicological tests revealed above-therapeutic levels of doxylamine in the pilot's blood. "This was a common over-the-counter antihistamine marketed as NyQuil and used in the treatment of the common cold and hay fever," the report said. "It was also marketed as Unisom, a sleep aid."

HELICOPTERS

Collision With Glassy Water

Bell 212. Substantial damage. One fatality.

The helicopter was engaged in forest fire suppression near Slave Lake, Alberta, Canada, on May 20, 2011, and the pilot was making his 12th approach to Lesser Slave Lake to pick up water in a bucket attached to a 100-ft (30-m) external line. "The pilot likely overestimated the helicopter's altitude while on final approach due to glassy water conditions and a lack of visual references, which led to the water bucket inadvertently entering the water before the helicopter was established in a hover," the TSB report said, noting that glassy water "has a mirror-like appearance which significantly reduces a pilot's depth perception."

When the bucket contacted the water, the 212 descended abruptly in a near-level attitude almost to the lake surface. The pilot apparently had not armed the electric belly hook release mechanism, which prevented him from quickly jettisoning the bucket. However, investigators believe that he did activate the floor-mounted manual release lever, which would have required him to take one foot off an anti-torque pedal. Although the bucket was jettisoned, the pilot was not able to regain control of the helicopter, which climbed about 100 ft, rapidly rolled right and descended vertically into the water.

The pilot had not secured his shoulder harness, and he succumbed to severe head injuries suffered during the impact. His helmet was found in his flight bag. "Despite the recognized benefits of head protection, there is no requirement for helicopter pilots to wear helmets," the report said.

Breakup Occurs During Check Flight

Bell 222. Destroyed. Two fatalities.

A witness heard a "loud crack" before seeing the main rotor hub, main rotor blades, tail boom and other components separate from the emergency medical services helicopter shortly after it departed from Grand Prairie, Texas, U.S., for a postmaintenance check flight on June, 2, 2010. The pilot and a mechanic were killed.

"A postaccident examination revealed that the helicopter's [main rotor] swashplate A-side drive pin had failed in flight, which resulted in the helicopter's in-flight breakup and uncontrolled descent," the NTSB report said. "The fracture surface of the … drive pin displayed brittle cleavage-like fractures with intergranular separations and small regions of ductile dimples, consistent with hydrogen embrittlement." The source of the hydrogen was not determined, and the B-side drive pin was found intact.

Preliminary Reports, April 2012

Date	Location	Aircraft Type	Loss Type	Injuries
April 1	Calhoun, Kentucky, U.S.	Beech 58 Baron	destroyed	1 fatal
The pilot lost control of the Baron shortly after taking off from a private airstrip.				
April 2	Tyumen, Russia	ATR 72-201	destroyed	33 fatal, 10 serious
The ATR 72 stalled and crashed about 2.5 km (1.4 nm) from the runway on takeoff. The aircraft had been parked outside in snow showers and was not deiced before departure.				
April 2	Sturgeon Bay, Wisconsin, U.S.	Cessna 414A	minor	1 fatal, 1 minor
Another pilot and an air traffic controller provided assistance by radio to an 80-year-old passenger who assumed control of the 414 after the pilot lost consciousness. One engine later lost power, but she was able to land the airplane with only minor damage to the nose gear. The 414 pilot later was pronounced dead.				
April 3	Caribbean Sea	Hawker Beechcraft King Air C90GTx	substantial	2 none
The airplane was ditched 17 nm (31 km) north of Aruba after both engines lost power during a delivery flight from Florida, U.S., to Curaçao. The pilots boarded a life raft before the King Air sank and later were rescued by a U.S. Coast Guard helicopter.				
April 6	Huy, Belgium	Robinson R22 Beta II	destroyed	2 fatal
The helicopter was on an aerial photography flight when it struck a cable car cable and crashed in a park.				
April 6	Rostov, Russia	Boeing 737-400	minor	157 none
The 737 overran a wet runway on landing and struck approach lights.				
April 8	Mulia, Papua, Indonesia	de Havilland Canada Twin Otter	substantial	1 fatal, 4 serious, 3 minor/none
One passenger was killed, and two passengers and both pilots were seriously injured when the airplane was struck by attackers' gunfire on landing.				
April 9	Kigoma, Tanzania	de Havilland Canada Dash 8-300	destroyed	39 minor/none
The right wing separated and the engine penetrated the fuselage when the Dash 8 overran the runway during a rejected takeoff.				
April 14	Chambéry, France	Boeing 737-300	substantial	136 none
After landing in London, the 737 was found to have been damaged during a tail strike on takeoff from Chambéry.				
April 17	Gulf of Mexico	Sikorsky S-76B	substantial	7 none
The helicopter was ditched after losing power on approach to an offshore drilling platform.				
April 17	Amman, Jordan	Airbus A300B4-605R	none	1 fatal
The captain fell to the apron while trying to close the front door in preparation for a positioning flight.				
April 19	Gulf of Mexico	Cessna 421C	destroyed	1 fatal
Radio contact with the pilot was lost after the 421 deviated from course and its assigned altitude. The twin-piston airplane, which might have had a cabin pressurization problem while en route from Louisiana to Florida, U.S., circled for about three hours and climbed to 33,000 ft before descending into the gulf.				
April 20	Juniaí, Brazil	Beech C90 King Air	destroyed	1 fatal
The pilot declared an emergency due to a power loss shortly after taking off for a post-maintenance functional check flight. The King Air stalled and struck terrain while returning to the airport.				
April 20	Islamabad, Pakistan	Boeing 737-200	destroyed	127 fatal
Thunderstorms and rain showers were in the area when the 737 struck terrain on approach about 10 km (5 nm) from the runway.				
April 21	Santa Cruz, Bolivia	Curtiss C-46F Commando	destroyed	3 fatal, 1 serious
Instrument meteorological conditions prevailed when the C-46 stalled and crashed during a go-around. The flight crew had decided to return to the airport shortly after departing for a training flight.				
April 26	Ostrov, Romania	Kamov 32 Helix	destroyed	5 fatal
The helicopter crashed during a positioning flight from Moldova to Turkey, where it was to assist in fighting forest fires.				
April 28	Galkayo, Somalia	Antonov 24RV	destroyed	36 minor/none
The landing gear collapsed and the wings partially separated from the fuselage when the aircraft touched down hard and bounced several times.				

This information, gathered from various government and media sources, is subject to change as the investigations of the accidents and incidents are completed.