

Galley Leak Douses 747's Electronics

Many systems failed and several were degraded during an approach to Bangkok.

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

Drain Line Blocked by Ice

Boeing 747-400. No damage. No injuries.

Inbound from London with 346 passengers and 19 crewmembers, the 747 was descending through 21,000 ft to land in Bangkok, Thailand, when the customer service manager told the flight crew that there was a substantial water leak in the forward galley. Cabin crewmembers had used five blankets to try to soak up the foul-smelling water from the galley floor.

Electrical system anomalies began as the aircraft was descending through 10,000 ft and turning onto an extended left downwind leg for Runway 01R. The autopilot and autothrottle disengaged, the first officer's instrument displays and the auxiliary engine indicating and crew alerting system (EICAS) display became blank, and the flight crew received indications of numerous electrical system anomalies.

"Many of the aircraft's communication, navigation, monitoring and flight guidance systems were affected," said the Australian Transport Safety Bureau (ATSB) in its final report, issued earlier this year, on the Jan. 7, 2008, incident.

Among the faults indicated by the primary EICAS, which remained operative, were the loss

of power to three of the four alternating current (AC) system buses, discharging of the batteries in the main electrical system and the auxiliary power unit, and failures of some fuel pumps, the weather radar system, and the automatic cabin air conditioning and pressurization system. The customer service manager told the pilots that the cabin lighting also had failed.

A check of the circuit breakers on the flight deck showed that none of them had tripped. "The flight crew reported that they actioned several non-normal checklists in response to a number of [the] messages and annunciations," the report said. "However, after a period of time, the flight crew decided to discontinue actioning the non-normal checklists due to the constant action required in response to the continuous scrolling of the EICAS messages."

The captain's instrument displays continued operating in a "degraded mode," the report said. Among the items that also remained in operation were the standby flight instruments, one radio communications system and the right flap position indicator. Because only one AC bus remained on line, engine pressure ratio information, which is used to set power, was available only for the no. 4 engine.

Company standard operating procedure required an emergency to be declared following a critical system failure, but the crew did not declare an emergency. At the time, the 747 was on the downwind leg, being vectored by air traffic control (ATC) and was second in line for landing in day visual meteorological conditions.



The radio transmissions between the crew and ATC were weakening, likely because of decreasing battery power. “The captain reported that he considered that there might be a communication issue with ATC and took into account that the approach was being conducted in daylight and clear of cloud,” the report said.

ATSB concluded that the crew should have declared an emergency because, if there had been a delay in landing, battery power might have been depleted, and the crew would have had only the standby flight instruments for reference and their mobile telephones for communication.

“It is understandable that the crew considered it desirable to land the aircraft as soon as possible; [however,] the crew could not have predicted whether further failures could have occurred,” the report said. “As such, there was a possibility that the situation could worsen, resulting in further operational difficulties.”

The electrical system anomalies had no major effect on the 747’s engines, hydraulic systems and pneumatic systems. The pilots were able to configure the aircraft properly and landed it with the autobrakes, spoilers and thrust reversers operating normally. However, after shutting down the engines, they had to manually open the outflow valve to depressurize the cabin before the cabin doors could be opened.

Investigators traced the galley leak to an inoperable drain line heater that had allowed waste water to freeze in the line leading to the drain mast. This line is at the low point in the drainage system for the upper-deck galley and lavatory, and the main-deck forward galley and lavatory. The ice that formed in the lower line blocked the drainage system and caused the waste water to back up and overflow through the main-deck forward galley.

“The water [then] flowed forward and through a decompression [‘blow out’] panel into the aircraft’s main equipment center before leaking onto three of the aircraft’s four generator control units, causing them to malfunction and shut down,” the report said.

Investigators found cracks around a number of fasteners in the plastic dripshield that was intended

to prevent water from leaking through the galley floor and into the main equipment center.

The report noted that the 747 had accumulated 76,610 airframe hours since it was built in 1991. The operator told investigators that the procedure for a visual inspection of the main equipment center during each maintenance C-check “did not specifically target any aspect of the dripshield.”

After the incident, Boeing and the aircraft operator implemented several measures to prevent a recurrence. “In addition, the U.S. Federal Aviation Administration issued a notice of proposed rulemaking to adopt a new airworthiness directive for certain 747-400 and 747-400D series aircraft to install improved water protection,” the report said. “The ATSB has issued two safety recommendations and one safety advisory notice as a result of the investigation.”

Stall During Air Show Practice

Boeing C-17A. Destroyed. Four fatalities.

The four-member crew of the Globemaster III, a four-engine troop and cargo transport, departed from Joint Base Elmendorf-Richardson, Alaska, U.S., the afternoon of July 28, 2010, to practice maneuvers for an upcoming air show. The first tasks on the flight plan were a maximum-performance takeoff at 133 kt to 1,500 ft above ground level (AGL) and a teardrop-like course reversal to position the aircraft for a high-speed pass 500 ft above the runway.

The pilot conducted the maximum-power takeoff at 107 kt and with a 40-degree nose-up attitude, leveled at about 850 ft AGL, rolled into an 80-degree left bank, leveled again for about seven seconds and then reversed into an “aggressive right turn” with an initial bank angle of 53 degrees, said the report by the U.S. Air Force Aircraft Accident Investigation Board.

Five seconds into the turn, the stall-warning system activated. “Instead of implementing stall-recovery procedures, the pilot continued the turn,” and the bank angle reached 62 degrees, the report said. “The [pilot] utilized full right rudder and pulled the control stick aft, which stalled the aircraft. The aircraft ultimately

The radio transmissions between the crew and ATC were weakening, likely because of decreasing battery power.

reached a bank angle of 82 degrees and a descent rate of 9,000 fpm.”

During this time, the copilot warned the pilot, “Not so tight, brother.”

The safety observer three times said, “Watch your bank.”

The report said that the pilot’s “rapid and aggressive maneuvers” overpowered the aircraft’s deep-stall-protection system, which is intended to prevent angle-of-attack from reaching a value at which the aircraft can enter a deep stall.

The pilot, copilot, safety observer and loadmaster were killed when the Globemaster struck wooded terrain and a railway. “The aircraft exploded [and] burned for approximately 36 hours,” the report said.

The investigation board found “clear and convincing evidence that the cause of the mishap was pilot error,” the report said. “The mishap pilot violated regulatory provisions and multiple flight manual procedures, placing the aircraft outside established flight parameters at an attitude and altitude where recovery was not possible.”

The board also found that the copilot and safety observer did not take appropriate action to prevent “the developing dangerous situation.” Among other contributing factors were “channeled attention, overconfidence, expectancy [and] misplaced motivation.”

Engine Ingests Window Debris

Gulfstream III. Substantial damage. No injuries.

The Gulfstream was climbing through 35,000 ft, en route on a charter flight with two passengers from Farmingdale, New York, U.S., to Florida the afternoon of March 10, 2010, when the flight crew heard a sound similar to a compressor stall, followed by a loss of power from the right engine.

The pilot-in-command “immediately declared an emergency with ATC and initiated the checklist items for engine shutdown in flight,” said the report by the U.S. National Transportation Safety Board (NTSB). “Shortly thereafter, the cabin service representative informed him that the no. 4 outer window pane on the right side of the airplane had separated.”

The flight crew turned back to Farmingdale’s Republic Airport and landed the airplane without further incident.

A borescope examination of the right engine showed that it had experienced a compressor stall and flameout after ingesting debris from the window pane.

Examination of remnants of the outer window pane revealed fractures emanating from an area that had experienced progressive cracking. “The initial cause of the cracking could not be determined,” the report said. “Review of the airplane logbooks revealed that all required inspections had been conducted on the window and [that] no anomalies were noted.”

The last inspection of the window had been performed about a year before the incident. At the time, the window had accumulated 15,065 hours and 8,526 pressurization cycles since new.

Close Call With a Ground Vehicle

Boeing 737-800. No damage. No injuries.

Traffic at Cork (Ireland) Airport was relatively light the morning of July 22, 2009, when the air movements controller gave the surface movements controller permission to take a relief break. Traffic increased during the next 15 minutes, as the air movements controller coordinated traffic using both the tower and ground radio frequencies.

“The workload was still manageable but contributed to a level of distraction to the air movements controller,” said the report by the Irish Air Accident Investigation Unit.

The 737 and another commercial aircraft were preparing for departure on Runway 17, a light aircraft was conducting touch-and-go landings on Runway 07, and another light aircraft was holding short of Runway 07. The operator of an airport vehicle designated as “Police 1” had received clearance to enter Runway 17, to perform a runway inspection, but had been told to hold short at the intersection with Runway 07-25.

The controller instructed the pilot of the airborne light aircraft to switch to Runway 25,

The flight crew heard a sound similar to a compressor stall, followed by a loss of power from the right engine.

to accommodate the departure of the 737 on Runway 17. He then scanned Runway 17 but did not see the airport vehicle on the runway. The controller later told investigators that the vehicle would have been difficult to see because of its size and light coloring, and because of rain drops on the tower windows.

The report also noted that earlier, a “RUNWAY OCCUPIED” strip had been placed in the controller’s flight progress board when another airport vehicle, “Electrician 1,” was on the runway. However, the strip had erroneously been removed when Electrician 1 exited the runway while Police 1 was still on the runway. The removal of the strip “may have reinforced [the controller’s] belief that the runway was clear” when he cleared the 737 for takeoff, the report said.

The operator of Police 1, who was communicating with the controller on the ground frequency — the only frequency available on the vehicle’s radio — did not hear the controller clear the 737 for takeoff on the tower frequency. Nevertheless, the vehicle operator exited Runway 17 when he heard the 737’s engines accelerate and realized that the aircraft was rolling for takeoff.

“During the takeoff roll, as the aircraft approached 90 kt, the commander noticed the vehicle vacating onto the intersecting runway,” the report said. “With the vehicle clear, the takeoff was continued. It was estimated that the aircraft and the vehicle were approximately 700 m [2,297 ft] apart prior to the resolution of the conflict.”

The 737 had 164 passengers and six crewmembers aboard.

Among the actions taken by Cork Airport after the incident were the installation in all airport vehicles of radios capable of tuning both the tower and ground frequencies, and a requirement for vehicle operators to use the tower frequency when entering or operating on runways.

Overrun on a Wet Runway

Cessna Citation CJ2. Substantial damage. No injuries.

Unbound on a business flight with five passengers the morning of June 21, 2010, the pilot canceled his instrument flight plan and conducted a visual approach to the 5,000-ft

(1,524-m) runway at Storm Lake (Iowa, U.S.) Municipal Airport. Thunderstorms in the area had contaminated the runway with standing water.

“The pilot thought that he needed less than 5,000 ft of runway to stop the airplane; [he] was not familiar with the required contaminated runway landing distance,” the NTSB report said, noting that the airplane flight manual specified a landing distance of 5,900 to 6,250 ft (1,798 to 1,905 m) on a runway contaminated with standing water.

The pilot told investigators that he applied full braking after the CJ2 touched down “just beyond the runway numbers,” the report said. “He reported that during the landing roll-out, the wind shifted from a quartering head wind to a tail wind, and that he was unable to stop the airplane on the runway due to the wet runway condition and the wind.”

The nose landing gear and the left main landing gear collapsed when the airplane overran the runway, but none of the occupants was injured.

TURBOPROPS

Aardvark on the Runway

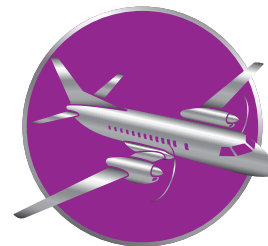
De Havilland Dash 8-300. Substantial damage. No injuries.

Shortly after the Dash 8 touched down on the runway at Kimberly (South Africa) Aerodrome the night of July 16, 2010, the pilot caught a brief glimpse of an aardvark illuminated by the landing light. The nose landing gear was still in the air when it struck and killed the animal.

“Immediately thereafter, the landing gear horn sounded, and the pilot attempted to hold the nosewheel off the runway for as long as possible,” said the report by the South African Civil Aviation Authority.

The nose landing gear collapsed when it contacted the runway. The aircraft began to veer right, but the pilot was able to bring it to a stop on the runway centerline. The 40 passengers and four crewmembers were not hurt, and they exited the Dash 8 through the main cabin door.

The report said that Kimberly Aerodrome, which is bordered on one side by a nature preserve, provides an “ideal habitat for certain birds



and wild animals.” Hundreds of termite mounds on the airport property are especially attractive to aardvarks, which burrow under the perimeter fence to seek their staple diet. A solar panel that had provided power to electrify the perimeter fence had been stolen a month before the accident.

The airport’s wildlife-control program consisted mainly of regular runway inspections and physically chasing away or firing shotguns at the aardvarks, according to the report.

Trim Cited in Control Loss

Beech King Air B200. Substantial damage. No injuries.

The pilot was making the first flight in the airplane the afternoon of Sept. 16, 2009, after routine maintenance was performed at Hayward (California, U.S.) Executive Airport. Shortly after lift-off, the King Air began to yaw and drift left, and the pilot applied right aileron and right rudder to correct the drift.

“The pilot reported that despite having both hands on the control yoke [and applying full right aileron], he could not maintain directional control,” the NTSB report said.

The left main landing gear tire struck the top of an industrial building, the bottom of the left engine struck the top of another building, and the right main landing gear struck a railway car. The airplane pivoted, struck railroad tracks and slid backward before coming to a stop against a fence.

The report said that the pilot had not adequately conducted the preflight checklists and had not configured the airplane properly for takeoff. The rudder trim knob was found in the full-left position, and the elevator trim wheel was in the 9-degree nose-up position, or about 6 degrees higher than normal for takeoff. Investigators also found the right propeller lever set only slightly forward of the “FEATHER” detent.

Weak Window Blows Out

Fairchild Metro II. Minor damage. No injuries.

The pilot was conducting a charter flight with 10 passengers from Perth to Fortnam Mine, both in Western Australia, the morning of Aug. 16, 2010. The Metro was about 120 km (65 nm) north-northeast of Perth and climbing

through 20,500 ft, when the right side window in the cockpit blew out and the cabin rapidly depressurized.

The pilot donned his oxygen mask, activated the passenger oxygen system, began an emergency descent and declared an emergency. “The pilot said that he used the aircraft’s public address system to instruct the passengers to put on their oxygen masks,” the ATSB report said. “In addition, because of the wind noise from the failed window, he also gestured to the front row of passengers by pointing to his own oxygen mask, which ensured that they understood the requirement to use oxygen.”

After descending to 9,000 ft, the pilot told the passengers that supplemental oxygen no longer was required. “He established that the aircraft was controllable and decided to return to Perth, requesting that the airport emergency services be placed on ‘local standby’ for their arrival,” the report said. The Metro apparently was landed without further incident.

The Metro received only minor damage related to the window failure. Investigators determined that debris from the failed window and items that exited the cockpit during the rapid depressurization — including the quick reference handbook, technical logs, navigation charts and a personal distress beacon — had not struck the airframe, right propeller or right engine.

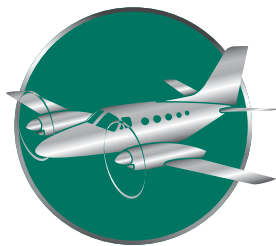
Examination of the failed window revealed that cracks had formed in the upper edge of the pane and had propagated between the retainer holes.

Although dual-pane windows were available as an option for the Metro II, single-pane side windows, consisting of only the outer pane of the dual-pane configuration, had been installed in the Metro when it was manufactured.

The aircraft’s logbooks showed, however, that when the right side window was replaced by the previous owner in 2006 because of crazing, an inner pane, rather than an outer pane, was installed.

The report said that the inner pane “was of reduced material thickness and was not designed to safely withstand cabin pressurization loads” by itself. After the window was installed, the Metro accumulated 1,700 pressurization cycles.

The right side window in the cockpit blew out and the cabin rapidly depressurized.



PISTON AIRPLANES

Pressed Ahead to a Ditching

Britten-Norman Islander. Destroyed. One fatality, four minor injuries.

The Islander was on a scheduled flight with nine passengers from Curaçao to Bonaire, both in the Netherlands Antilles, the morning of Oct. 22, 2009. The pilot was setting cruise power after leveling at 3,500 ft over the Caribbean Sea when the right engine lost power.

“The pilot feathered the right propeller and undertook a few restart attempts but without result,” said the Dutch Safety Board report.

The pilot decided to continue the flight toward Bonaire, rather than return to the departure airport, which was much closer. This was a “nonacceptable risk,” the report said.

The Islander could not maintain level flight with only one engine operating, partly because it had been overloaded by about 10 percent more than the maximum takeoff weight due to the operator’s use of a nonstandard average weight of 160 lb (73 kg) for each occupant and his or her hand baggage. Recorded ATC radar data indicated that the average descent rate was 140 fpm after the engine failed.

The pilot did not brief the passengers about his intentions or prepare them for a possible ditching. However, the passengers, on their own initiative, began donning their life vests and agreed on an evacuation plan in the event of a ditching. Some of the passengers were unable to locate their life vests.

The pilot established radio communication with the Flamingo (Bonaire) Airport traffic controller. He did not declare an emergency but reported that he was having difficulty maintaining altitude. His last radio transmission was made when the Islander was 6 nm (11 km) from the field and descending through 300 ft. He ditched the aircraft shortly thereafter.

The pilot “managed to land the aircraft at sea in such a way that all the passengers survived this accident without serious injury,” the report said, noting that four passengers sustained minor injuries.

According to passenger accounts, the pilot either had lost consciousness or was killed when his head struck the windshield frame and/or the

instrument panel on impact. Some passengers tried unsuccessfully to free the pilot from his seat as the cabin filled with water.

“All nine passengers were able to leave the aircraft without assistance, using the left front door and the emergency exits,” the report said. After the aircraft sank, they formed a circle in the water. “The passengers who were not wearing life jackets kept afloat by holding on to the other passengers.”

All nine passengers were rescued by the occupants of two recreational-diving boats that arrived five minutes after the ditching. They were met ashore by emergency services personnel who transported six passengers to a hospital, where they were examined and released.

The aircraft was retrieved two months after the ditching. Extensive corrosion had occurred due to the long exposure with the seawater. As a result, investigators were not able to determine the cause of the engine failure.

Bad Fuel Causes Power Loss

Aero Commander 500S. Substantial damage. No injuries.

The new owner of the aircraft had hired two experienced pilots to ferry it from Portland, Oregon, U.S., to Bern, Switzerland. After several positioning legs, the pilots landed to refuel at Rankin Inlet, Nunavut, Canada, the afternoon of July 18, 2010. The Shrike was refueled with a wobble pump from two 45-gal (170-L) drums of 100-octane aviation gasoline (avgas) that the pilots had ordered five days earlier.

No anomalies were noted during the pre-flight run-up, but the engines did not produce full power on takeoff. The pilots rejected the takeoff and taxied back to the ramp. “A second run-up was completed, and once again all indications seemed normal,” said the report by the Transportation Safety Board of Canada.

Shortly after rotation on the second takeoff attempt, cylinder head temperatures increased and both engines began to lose power. “The pilots attempted to return to the airport but were unable to maintain altitude,” the report said. “The landing gear was extended, and a forced landing was made on a flat section of land approximately 1,500 ft [457 m]” from the airport.

Damage to the Shrike included a collapsed right main landing gear. The pilots and their passenger were not hurt.

Investigators found that both drums used to refuel the airplane had labels indicating that they contained 100-octane avgas. The pilots had checked the fuel in one drum and determined that it contained avgas. “Vision, touch and smell were not used to determine the type of fuel in the second drum,” the report said. The pilots assumed that the second drum also contained avgas.

Laboratory analysis of remaining fluid in both drums revealed that one drum had contained only avgas but that the second drum contained both avgas and a heavier fuel, most likely diesel or jet fuel. Analysis of fluid retrieved from the Shrike’s center tank, which directly feeds the engines, revealed that it was a 60/40 mixture of avgas and a heavier fuel.

Investigators found that the second drum actually was a “slop drum” that had been placed near the avgas drums at the fuel depot and inadvertently mislabeled by the fuel supplier.

Paperwork on Approach

Piper Aerostar 601P. Substantial damage. One serious injury.

The pilot was repositioning the Aerostar on Aug. 18, 2010, following maintenance that had included replacement of the cylinder head temperature gauges. On approach to Baraboo, Wisconsin, U.S., he noticed different readings on the two gauges.

“He moved his seat back to be able to better view the gauges [and] was recording the gauge indications on paper [when] the airspeed decreased, the sink rate increased, and the airplane descended and impacted trees and a corn field” about 0.5 mi (0.8 km) from the runway, the NTSB report said.

HELICOPTERS

Passenger-Pilot Pulls Mixture

Bell 47G-4A. Substantial damage. No injuries.

Shortly after takeoff from Shaw Island, Washington, U.S., on June 8, 2010, the helicopter was clearing treetops near

the shoreline when the passenger, who held a rotorcraft certificate, told the pilot that the carburetor temperature indicator was in the yellow arc and asked if he wanted her to apply carburetor heat.

“The pilot said yes and watched as she reached for the lever,” the NTSB report said. “The pilot did not see her move the lever because her hand was blocking his view.”

The float-equipped helicopter was over a bay about a minute later, when the engine lost power. The pilot performed an autorotative landing on the water, and the helicopter flipped over, receiving substantial damage to the cabin and tail boom.

The passenger had retarded the mixture control, rather than the carburetor-heat control, the report said, noting that the controls are next to each other on the 47’s pedestal.

Tie-Down Strap Overlooked

Bell 222U. Substantial damage. No injuries.

After removing the main rotor tie-down strap while preparing for an emergency medical services flight the night of April 9, 2010, the pilot saw a flight nurse on the other side of the helicopter and assumed incorrectly that she had removed the tail rotor tie-down strap.

Unknown to the pilot, the strap broke when the engines were started at Santa Maria, California, U.S., and a tail rotor blade and all the pitch-change links were damaged. After landing at a local hospital and boarding the patient, the flight nurse noticed strap material wrapped around the tail rotor driveshaft. The pilot shut down the engines, removed the material and then completed the mission to a hospital in Madera, California.

There, the pilot performed a closer inspection and noticed the damage. The operator grounded the helicopter for repairs.

The report said that fatigue likely was a factor in the accident. The pilot had awakened at 0800 the day before and had slept only two hours just before receiving the duty call at 0110. ☛



Preliminary Reports, May–June 2011

Date	Location	Aircraft Type	Loss Type	Injuries
May 3	Mizoram, India	Cessna 208 Caravan	total	9 minor/none
The Caravan overran the runway and rolled down a steep embankment while landing during a scheduled passenger flight.				
May 5	Loreto Bay, Mexico	BAE Systems Hawker 125	major	3 minor/none
The flight crew reported a problem shortly after takeoff and then ditched the Hawker in the Gulf of California.				
May 7	Kaimana, Indonesia	CAIC MA-60	total	25 fatal
Visibility was reduced by heavy rain and fog when the twin-turboprop airplane struck the sea about 1,600 ft (488 m) short of the runway while landing.				
May 16	Atkasuk, Alaska, U.S.	Beech King Air 200	total	3 minor/none
The pilot reported encountering icing conditions shortly before the King Air crashed during a night approach for an emergency medical services flight.				
May 17	Denver, Colorado, U.S.	Beech 1900	major	11 minor/none
The airplane encountered wind shear on short final approach, touched down hard and veered off the runway.				
May 18	Los Menucos, Argentina	Saab 340	total	22 fatal
Shortly after reporting icing conditions at 19,000 ft and requesting descent, the crew declared an emergency. The Saab was in a steep dive when it struck the ground.				
May 18	Bournemouth, England	Beech King Air 90	total	2 minor/none
The crew reported a double engine failure shortly after taking off for a training flight and subsequently landed the King Air on a golf course.				
May 20	Istanbul, Turkey	Eurocopter Alouette	total	4 fatal, 1 minor/none
The four passengers were unable to exit the helicopter after it was ditched in the Bosphorus shortly after takeoff.				
May 24	Kaduna, Nigeria	Beech King Air 90	total	2 fatal
The King Air struck terrain short of the runway on an approach during a postmaintenance test flight.				
May 25	Sedona, Arizona, U.S.	Embraer Phenom 100	total	2 serious, 3 minor/none
The airplane overran the 5,132-ft (1,564-m) runway on landing and came to a stop on a steep, rocky slope.				
June 6	Libreville, Gabon	Antonov 26	total	4 minor/none
The crew ditched the cargo airplane about 3 km (2 nm) from the runway after reporting an unspecified problem during a visual approach.				
June 7	Valle de Losa, Spain	Bell 407	total	2 fatal
The helicopter struck high ground in dense fog during a power line patrol flight.				
June 9	Postville, Newfoundland, Canada	Cessna 208	major	1 minor/none
The float-equipped Caravan veered off the runway after its right brake failed while landing on a cargo flight.				
June 11	La Salina, Colombia	Bell UH-1	total	8 fatal, 4 serious
The police helicopter struck power lines and crashed shortly after takeoff.				
June 11	El Gran Roque, Venezuela	Rockwell Turbo Commander	minor	2 minor/none
The airplane overran a 3,280-ft (1,000-m) runway during a rejected takeoff after losing power.				
June 15	Canillo, Andorra	Eurocopter AS 350	total	5 fatal, 1 serious
Low visibility prevailed when the helicopter crashed in mountainous terrain after its external load became entangled in trees.				
June 15	Gray, Tennessee, U.S.	Beech King Air 100	major	2 minor/none
The ferry crew lost control of the airplane during an encounter with moderate turbulence and icing conditions at 20,000 ft. Control was regained at 8,000 ft.				
June 20	Petrozavodsk, Russia	Tupolev 134	total	45 fatal, 7 serious
Adverse weather conditions prevailed when the Tu-134 struck trees and crashed during a nondirectional beacon approach.				
June 23	Simikot, Nepal	Dornier 228	major	3 minor/none
The Dornier veered off the runway while landing during a cargo flight.				
June 25	Iraklion, Crete, Greece	Boeing 737NG	major	187 minor/none
The 737's lower rear fuselage was substantially damaged during a tail strike on landing.				
June 30	Kuala Lumpur, Malaysia	Agusta Westland 139	major	1 minor, 2 none
The tail boom separated from the fuselage when the helicopter was landed hard after the crew reported a control problem during a training flight.				

This information is subject to change as the investigations of the accidents and incidents are completed.

Source: Ascend