Bogus Stall Warning

Stick shaker activated four seconds after liftoff.

BY MARK LACAGNINA

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

JETS

False Alarm Traced to Slat Sensor Signal

Boeing 717-200. No damage. No injuries.

The 717 was departing from Alice Springs, Northern Territory, Australia, for a scheduled flight with 63 passengers to Perth, Western Australia, the morning of Aug. 2, 2006, when the flight crew received warnings of an impending stall. The aircraft was about 31 ft above the runway, and the pilots were retracting the landing gear when the stick shaker activated and airspeed warnings appeared on the primary flight displays, said the report by the Australian Transport Safety Bureau (ATSB).

The report said that the crew had used appropriate takeoff settings and techniques. Pitch attitude was 4.5 degrees at liftoff and had increased to 16 degrees, resulting in an angle-of-attack of 11 degrees, when the stall warnings began. Airspeed was 160 kt — 39 kt higher than the stall speed corresponding to the aircraft's weight and flaps/slats setting. "The aircraft did not approach an aerodynamic stall condition at any time during the [four-second] stick shaker activation," the report said.

The crew responded appropriately to the stall warning, the report said. The copilot, the pilot flying, applied maximum thrust and maintained the existing pitch attitude. The pilot-in-command (PIC), concerned that the stick pusher might activate, applied forward pressure on the control column to reduce the pitch attitude. The 717 was about 168 ft above the runway when the stick shaker ceased. "The crew maintained the aircraft in the existing configuration — landing gear retracted, and the wing flaps and leading edge slats extended — until the aircraft climbed clear of the surrounding terrain," the report said.

The weather was clear, and the PIC told investigators that visual contact with the ground was maintained throughout the incident. After consulting with company engineers, the crew decided to continue the flight to Perth.

The report said that the false stall warnings likely were triggered by an incorrect signal generated by one of the two left wing slat proximity sensors; the other sensor generated a correct signal. "Consequently, the different slat-position signals from the two sensors in the left wing resulted in the PSEU [proximity-sensing electronics unit] defaulting to the slats-not-extended indication for the left wing," the report said. "As a result of the different slat-position signals sent by the PSEU for the left wing (slats not extended) and right wing (slats extended), the aircraft's flight control computers used the flaps-extended/slats-retracted stick shaker angle-of-attack schedule, leading to stick shaker activation and other stall indications."

According to Boeing, the 717 stick shaker activates at an angle-of-attack of 16.3 degrees

with flaps and slats extended, and at 9.5 degrees with flaps extended and slats retracted.

False stall warnings previously had been reported by two other 717 flight crews. Both incidents occurred during approaches; one was traced to a faulty right slat proximity sensor, the other to a PSEU failure.

Boeing, which participated in the investigation, told ATSB that "there were no conclusive findings to establish a root cause of the three reported 717 events" and that "there does not seem to be a systemic problem for this issue in the 717 fleet," which comprises 156 aircraft.

Abnormal Deceleration Misdiagnosed

BAe 146-200. Substantial damage. No injuries.

The aircraft was inbound with 55 passengers to London City Airport from Paris Orly Airport the morning of Feb. 20, 2007. The U.K. Air Accidents Investigation Branch (AAIB) report said that weather conditions were "benign," with surface winds from 170 degrees at 5 kt. Runway 10, the landing runway, was damp.

"Toward the end of the skid, all four main landing gear tires burst."

The report said that airspeeds appropriate for the 146's landing weight, 32 tonnes (70,548 lb), included a reference landing speed (VREF) of 110 kt and a touchdown speed of 103 kt (VREF minus 7 kt). The landing data card prepared by the flight crew showed a VREF of 119 kt. Recorded flight data indicated that the aircraft touched down at 119 kt with a level pitch attitude at the end of the runway touchdown zone, about 330 m (1,083 ft) from the approach threshold.

"The data also shows that the lift spoilers did not deploy and suggests that the aircraft was probably close to 'wheelbarrowing' during the early part of the landing roll, mainly as a consequence of the lack of spoilers," the report said. "It is likely that the main landing gear was compressed only just enough to 'make' the weight-on-wheels switches, with the aircraft mainly supported by aerodynamic lift from the wings."

The commander said that he perceived "not a hint of deceleration" and, believing that the Green hydraulic system wheel brakes had failed, selected the Yellow hydraulic brake system. The aircraft continued "coasting down the runway," and the commander selected the Emergency Yellow brake system, which does not include anti-skid.

Skid marks from the four tires on the main landing gear extended 473 m (1,552 ft) to where the 146 stopped on the paved undershoot area for Runway 28. "Toward the end of the skid, all four main landing gear tires burst," the report said.

No system malfunctions were found, and the 146 was returned to service after the wheels and tires were replaced. The report did not specifically state why the lift spoilers did not deploy but noted that a friction test revealed that a force of 14 lb (6 kg) was required to move the lever through the airbrake position detent into the lift spoiler position and that the aircraft had not been modified in accordance with a nonmandatory service bulletin requiring a maximum force of 12 lb (5 kg).

"Previous AAIB investigations have found that pilots commonly misdiagnose spoiler failure on landing as brake failure," the report said. "The safety factors incorporated into landing performance calculations mean that in the event of a spoiler failure, an aircraft which touches down within the correct margins of speed, at the touchdown position, will stop before the end of the LDA [landing distance available], provided that appropriate braking effort is made by the flight crew."

Communication Faulted in Turbulence Event

Boeing 757-200. No damage. One serious injury, five minor injuries.

The airplane was near top of descent at Flight Level (FL) 400 (about 40,000 ft) during a flight with 104 passengers from New York to Los Angeles on April 12, 2007, when the flight crew received information about turbulence below 12,000 ft. "The captain advised the flight attendants to have the cabin secured and be in their seats within 15 minutes," said the report by the U.S. National Transportation Safety Board (NTSB).

The first officer gave the prepare-for-landing announcement as the 757 descended through FL 250. "In a written statement, the first officer said that turbulence departing New York had been very bad; therefore, in order to mitigate any passenger anxiety when he made the

prepare-for-landing announcement, he added that the turbulence would not be as bad as it was on departure," the report said. "The flight attendants may have interpreted this added information concerning turbulence as a relaxation of the captain's earlier instructions."

None of the flight attendants was seated when the airplane encountered turbulence while descending through 15,500 ft, more than 15 minutes after the captain's advisory. The 757, on autopilot, was rolling out of a 12-degree banked turn. The turbulence lasted about 10 seconds; longitudinal and vertical acceleration spiked at about 2.0 g — that is, two times standard gravitational acceleration — and lateral acceleration varied between 0.10 g left and 0.05 g right.

All six flight attendants, but none of the passengers, were injured. After the airplane was landed, one flight attendant received medical treatment for a fractured fibula; the other flight attendants were treated for minor injuries.

NTSB said that contributing factors in the accident were "the apparent conflicting information provided by the flight deck to the flight attendants and the flight attendants' interpretation of that information."

Neglected Checklist Leads to Overrun

Bombardier CRJ100ER. No damage. No injuries.

While extending the landing gear during approach to Southampton (England) Airport the night of Jan. 17, 2007, the flight crew received indications of a failure of the no. 3 hydraulic system. "The commander took what he believed to be the necessary actions prior to landing but without apparent reference to the QRH [quick reference handbook]," the AAIB report said. "As a result, the aircraft landed with one of the no. 3 hydraulic system pumps still running and the nosewheel steering 'ON,' contrary to instructions in the QRH."

The copilot, the pilot flying, said that the CRJ touched down normally in the runway touchdown zone and aligned with the centerline. The ground spoilers deployed, and the copilot applied maximum reverse thrust and began to apply the wheel brakes. "The copilot steadily applied more pressure on the brake pedals but felt that the brakes were less effective than normal," the report said. "He stated that as the aircraft decelerated below about 70 kt … it began to veer to the right."

The copilot released pressure on the right brake pedal and applied full left brake and full left rudder. The commander also applied full left brake and rudder, and attempted to steer the aircraft with the tiller. "Despite this, the aircraft continued to veer to the right … and departed the runway onto the grass," the report said. Airspeed was about 50 kt when the CRJ ran off the right edge of the runway; it came to a stop about 16 m (52 ft) from the runway edge. None of the 36 occupants was injured.

"The aircraft landed with the nosewheel steering 'ON,' contrary to instructions in the QRH."

Examination of the aircraft revealed a leak at the elbow joint of the outlet of one of the two pumps in the no. 3 hydraulic system. "An O-ring had ruptured, and the failure appeared consistent with a rapid loss of fluid," the report said. "A locking wire was missing between the pump and the elbow fitting, and either this or the incorrect installation of the O-ring appeared to be the cause of the failure."

Tests of the CRJ's nosewheel steering system showed that when hydraulic pressure decreased below the normal value, 1,650 psi, but not below 650 psi, the system steered slowly right at a rate of about 1 degree per second without any command input. "The pressure could be in this range after a hydraulic leak and with one, or both, of the no. 3 system pumps being 'ON,'" the report said. Below 650 psi, the nosewheel swiveled freely, as designed.

The report said that the hydraulic failure occurred more than two minutes before the CRJ touched down and that the incident would not have occurred if the crew had conducted the QRH procedures. However, if a hydraulic failure occurred just before touchdown, "it would be unreasonable to expect a crew to take the appropriate actions quickly enough to prevent a similar lack of controllability on the ground," the report said.

Based on this finding, AAIB recommended that Bombardier "review the design of the

nosewheel steering system in the CRJ100 and other company products, to prevent uncommanded nosewheel steering following a hydraulic failure."

Mechanic Pulled Into Engine During Test

Boeing 737-500. Substantial damage. One fatality.

The flight crew saw a puddle of fluid under the right engine while preparing for a flight from El Paso, Texas, U.S., to Houston the morning of Jan. 16, 2006. A contract maintenance facility at the airport was asked to investigate the apparent oil leak, the NTSB report said.

The captain increased power after verifying with the mechanic that the area around the airplane was clear.

There were 114 passengers and five crewmembers aboard the 737 when three mechanics opened the engine fan cowl panels and began the inspection. "The mechanics made a request to the captain, via a ground-to-cockpit intercom system, for an engine run to check for the leak source," the report said. "One mechanic positioned himself on the inboard side of the right engine, and the other mechanic on the outboard side of the engine. The third mechanic was positioned clear of the engine because he was assigned to observe the procedure as part of his on-the-job training."

The flight crew started the engine and ran it at idle for about three minutes. One of the mechanics told the captain that a small oil leak was detected, and he asked the captain to run the engine at 70 percent power for two minutes so that further checks could be made. The captain increased power after verifying with the mechanic that the area around the airplane was clear.

"Witnesses on the ground and in the airplane saw the mechanic on the outboard side of the engine stand up, step into the inlet hazard zone and become ingested into the intake of the engine," the report said. "The mechanic was not wearing any type of safety equipment or lanyard to prevent the ingestion."

The mechanic, 64, had been a certified maintenance technician for 40 years. He had received training by the airline on on-call maintenance procedures but had not received specific training on ground engine runs and the associated hazards.

The report said that during interviews with the airline's maintenance technicians, "nearly all of the mechanics indicated that they never use lanyards and expressed concerns with quick release and escape during an emergency."

Ailerons 'Freeze' on Transatlantic Flight

Dassault Falcon 20. No damage. No injuries.

The Falcon was en route with five passengers from Little Rock, Arkansas, U.S., to London on May 9, 2007. During approach for a fuel stop in Gander, Canada, the pilot flying noticed that the ailerons were unusually stiff, said the AAIB report. After aileron trim was centered, roll control improved, and the commander believed that the cause of the stiffness was mistrimming of the ailerons.

About two hours after departing from Gander, the commander noticed a flickering "TRIM" indication on the primary flight display. "The commander applied corrective trim, in the required direction, but the caption reappeared from time to time," the report said. The commander used aileron trim several times when the aircraft, which was being flown on autopilot, began to drift off track.

The roll control problem worsened as the commander attempted to comply with air traffic control (ATC) radar vectors during the descent to London Stansted Airport. During a left turn, bank angle continued to increase; the commander disengaged the autopilot when bank reached 45 degrees. "He found that the roll control was very stiff when rolling to the right, and he used the rudder to bring the aircraft to a wings-level attitude," the report said. "Both pilots now applied force to the control wheel but were unable to move it."

The crew declared an emergency, advising ATC that they were able to make only shallow left turns. ATC then provided vectors that resulted in a series of left, 270-degree turns to position the Falcon for the instrument landing system (ILS) approach to Runway 23. "The commander was able to intercept and maintain the ILS course by using the rudder," the report said.

Surface winds were from 240 degrees at 16 kt, gusting to 25 kt, when the aircraft was landed safely. "Some 20 minutes after the aircraft had been shut down, the control wheel was still

jammed," the report said. "The [copilot] carried out an external inspection of the aircraft and found that he could not move the ailerons either."

When the aircraft was inspected 36 hours later, the ailerons moved freely, and no system malfunctions were found. However, a large quantity of water was found below the cabin floor, in the area of the roll trim actuator assembly. "As a hand was dipped into the water in the area of the manual drain, the drain opened and water started to pour out onto the ground at a considerable rate," the report said. "It is estimated that at least 20 liters [21 qt] of water was drained from the aircraft."

The Falcon had rarely been operated on extended flights. The report said that the water likely had accumulated over a long period through a leaking cabin door seal and/or overflow from an icebox reservoir. "There appears little doubt that the [water] was responsible for the initial 'heavy' feel and subsequent freezing of the [aileron] controls," the report said.

After the incident, Dassault issued an urgent bulletin to Falcon operators, reminding them that fuselage drains must be checked before the first flight of the day.

TURBOPROPS

Fatigue Cited in Landing Undershoot

Fairchild Metro III. Substantial damage. One minor injury.

Daytime visual meteorological conditions (VMC) prevailed when the Metro struck a fence and terrain during approach to the airport in Grain Valley, Missouri, U.S., at 1551 local time on Aug. 17, 2006. The first officer received minor injuries.

The NTSB report said that fatigue was a contributing factor in the accident. The flight crew had been on duty nearly 19 hours and had conducted flights under the general operating and flight rules of U.S. Federal Aviation Regulations Part 91 and the commuter and on-demand operating rules of Part 135.

The captain told investigators that he was tired and that neither he nor the first officer had slept since reporting for duty at the company's base in El Paso, Texas, at 2030 the previous night.

The crew had conducted a Part 91 positioning flight to Ciudad Juárez, Mexico, where cargo was loaded for the return flight to El Paso. While taxiing for departure, however, the Metro's wing tip struck the wing tip of another airplane. "The [Metro's] wing tip was repaired using duct tape, and the flight then continued to ELP [El Paso]," the report said. The crew left the damaged airplane in El Paso and flew another Metro on a Part 135 cargo flight to Frankfort, Kentucky; a positioning flight to Knoxville, Tennessee; and a cargo flight to Tuscaloosa, Alabama. The flight from Tuscaloosa to Grain Valley was conducted under Part 91; the crew was to pick up parts needed to repair the Metro that had been damaged earlier in Ciudad Juárez and return to El Paso.

Jammed Power Levers Lead to Overrun

Dornier 328-100. Minor damage. No injuries.

Completing a flight from Stavanger, Norway, with 16 passengers on June 22, 2006, the copilot landed the aircraft at 105 kt and about 530 m (1,739 ft) from the approach end of Runway 34 at Aberdeen (Scotland) Airport. "The commander stated later that the touchdown was a little further along the runway than he would have preferred, but he considered it to be entirely safe," the AAIB report said.

With about 1,300 m (4,265 ft) of runway remaining, the copilot was unable to lift the latches on the power levers that allow the levers to be moved aft from the flight idle setting to select ground idle and reverse thrust.

The company operations manual specified that the power levers must be moved to the flight idle position before attempting to lift the latches. "There have been instances of premature lifting of these latches causing the power levers to become jammed," the manual said. The procedure for clearing a jam is to release the latches and move the power levers forward and then back to flight idle before attempting to lift the latches again.

The copilot conducted this procedure but again was unable to lift the latches. The commander then took control, applied heavy wheel braking and made four more attempts to clear

the jam. The repeated power applications prevented the ground spoilers from deploying.

"As the aircraft approached the end of the runway, the commander steered the aircraft to the left to avoid colliding with the approach lights and localizer antenna on the extended runway centerline," the report said. The Dornier came to a stop about 350 m (1,148 ft) from the end of the runway.

The report discussed several previous incidents and a fatal accident — in Genoa, Italy, in February 1999 — involving the inability of flight crews to move the power levers aft from the flight idle position. After the Aberdeen accident, AAIB recommended that the European Aviation Safety Agency require the Dornier 328 type certificate holder to redesign the power lever latch system.

Servo Tab Separation Causes Control Loss

Viking Air DHC-3T. Substantial damage. No injuries.

The aircraft, a turboprop conversion of the de Havilland Canada Otter, was descending during a charter flight with five passengers from Broome, Western Australia, to Cone the morning of Feb. 15, 2006, when the pilot felt an unusual movement in the control system. The Turbo Otter then pitched down and entered a rapid and uncontrolled descent, said the ATSB report.

"With the assistance of the front-seat passenger, the pilot was able to arrest the descent and regain control of the aircraft before making a precautionary landing at Lombadina Station," the report said.

Investigators found that the outboard end of the right elevator servo tab had separated and entered a gross oscillatory movement, or flutter. "Aerodynamic flutter within the elevator trim and servo tabs of the DHC-3 aircraft type had been known since the 1960s; however, the development of turboprop engine conversions for the aircraft had resulted in an increased potential for tab failure," the report said.

An airworthiness directive (AD) issued by the U.S. Federal Aviation Administration in 2004 required modification of the DHC-3 tab assembly. Similar ADs became effective in Canada in March 2006 and in Australia in May 2006.

PISTON AIRPLANES

Gear Was Up When Propellers Struck Runway

Cessna 421B. Substantial damage. Two serious injuries.

The NTSB report said that the corporate pilot did not extend the landing gear during approach to Marathon, Florida, U.S., the morning of May 8, 2006. The pilot radioed that he was conducting an "emergency go-around." The report did not specify whether the landing was rejected before or after the propellers struck the runway.

The 421 climbed about 100 ft, then descended, struck utility poles and crashed in a saltwater canal. The pilot and passenger-pilot were seriously injured.

Examination of the airplane revealed "extensive torsional twisting and bending" of all six propeller blades, several of which had fractured or missing tips, the report said. The circuit breaker for the landing gear warning horn was found in the "pulled/tripped" position.

Elevated Cockpit Affects Sight Picture

Carvair ATL-98. Substantial damage. No injuries.

The flight crew was delivering a cargo of fuel bladders to a remote mining site near McGrath, Alaska, U.S., on May 30, 2007. During the landing flare, the right main landing gear separated when it struck the edge of the 4,200-ft (1,280-m) gravel runway. The right wing then struck the runway and separated from the fuselage, the NTSB report said.

The ATL-98 is a modified Douglas DC-4. The modification includes replacement of the forward fuselage with a large nose section comprising an elevated flight deck and a nose cargo door. The pilot told investigators that, because the sight picture during landing is higher in the Carvair than in the standard DC-4, "I think I was lower than I perceived."

Aerobatic Maneuver Overloads Airframe

Beech 58 Baron. Destroyed. Five fatalities.

The NTSB report said that after attending a recent air show, during which a Beech 18 was rolled by a performer, the pilot told acquaintances that he believed he could roll

his Baron, which is not certified for aerobatic maneuvers. "He had previously attempted to roll the airplane, but a pilot-rated passenger stopped the accident pilot from completing the aerobatic roll," the report said.

On April 22, 2007, the pilot departed from Gulf Shores, Alabama, U.S., for a personal flight with four passengers. About an hour later, a witness heard sounds similar to an airplane in aerobatic flight and then saw the Baron descending in a 45- to 60-degree nose-down attitude at high speed. "The witness stated he observed a wing or part of the tail separate from the airplane," the report said.

The Baron struck terrain near Hamilton, Georgia. "Postaccident inspection of the airplane by the NTSB investigator-in-charge and the NTSB Materials Laboratory disclosed evidence of pilot-induced overload failures of the tail and wings," the report said.

HELICOPTERS

Normal Oil Temperature Was Deceptive

Bell 206L-3. Substantial damage. No injuries.

The helicopter was en route from La Tuque, Quebec, Canada, to Val-d'Or for a scheduled maintenance inspection the morning of June 7, 2006. About 20 minutes after takeoff, the pilot observed a fluctuating oil pressure indication and conducted a precautionary landing in a marsh, said the report by the Transportation Safety Board of Canada.

"After shutting down the engine, an unusual amount of bluish smoke was observed coming out of the exhaust pipe," the report said. The pilot telephoned a maintenance technician, who recommended that he check for oil leaks and sufficient oil quantity, and perform an engine run-up before contacting him again. While conducting the run-up, the pilot noticed that oil pressure was low but stable and that oil temperature was normal. Believing that the oil pressure indicator was defective, the pilot decided to fly the LongRanger to a road 1 km away. "It appears that the marsh's inaccessibility and the infestation of mosquitoes influenced the pilot's decision to move the helicopter to the road," the report said.

The LongRanger was about 50 ft above the road when the oil pressure and torque indications began to fluctuate. "Right after that, there was an explosion, and the engine failed," the report said. The rear portion of the skids contacted the ground during the autorotational landing, the helicopter pitched forward, and the main rotor severed the tail boom.

Examination of the engine revealed that the temperature of two of the nine bearings had exceeded 900 degrees C (1,652 degrees F) before the bearings were destroyed. "At this temperature, it is normal for oil to dissipate rapidly, by evaporation and burning," the report said. "The oil level became very low, causing the engine oil pump to cavitate and the engine oil pressure to fluctuate. Furthermore, since the oil did not return to the tank, the oil temperature did not change, or at least not significantly, and the pilot falsely deduced that the engine oil pressure gauge was displaying an incorrect indication." Because of the extent of damage to the two bearings, the cause of their overheating and failure was not determined.

Exhaust Duct Separates, Strikes Tail Rotor

Agusta A109A. Substantial damage. No injuries.

The helicopter was on a positioning flight from Redhill Aerodrome to pick up two passengers at Biggin Hill Airport in Kent, England, on Oct. 9, 2006, when the outboard exhaust duct on the left engine separated and struck the tail rotor, causing the tail rotor gearbox to separate.

"After an initial yaw to the right, the pilot regained limited control," said the AAIB report. "However, a further sudden yaw, possibly associated with a partial structural failure of the upper vertical stabilizer, prompted an immediate autorotative descent, which culminated in a successful forced landing."

The clamp that had attached the exhaust duct to the engine was found loose in the engine bay. The report said that the clamp failure was caused by a stress corrosion crack that could not have been detected visually or by nondestructive testing unless the clamp was removed. ●

Preliminary Reports

Date	Location	Aircraft Type	Aircraft Damage	Injuries
Feb. 1, 2008	Trinidad, Bolivia	Boeing 727-200	destroyed	159 none
En route from La Paz, the flight crew conducted a missed approach at Cobija because of adverse weather and diverted to Trinidad. An emergency landing, possibly due to fuel exhaustion, was conducted in a jungle clearing near the airport.				
Feb. 1, 2008	West Gardiner, Maine, U.S.	Cessna 525 CJ1	destroyed	2 fatal
Soon after departing from Augusta State Airport in freezing rain, the pilot declared an emergency and reported an attitude indicator failure. The CJ then crashed in a wooded area.				
Feb. 1, 2008	Mount Airy, North Carolina, U.S.	Raytheon King Air C90A	destroyed	6 fatal
Visibility was 2 1/2 mi (4,000 m), and ceilings were broken at 300 ft and overcast at 600 ft when the King Air crashed in a residential area during a missed global positioning system (GPS) approach.				
Feb. 5, 2008	South Padre Island, Texas, U.S.	Eurocopter AS 350B2	substantial	3 fatal
A local airport was reporting 8 mi (13 km) visibility and a 1,400-ft overcast when the emergency medical services helicopter crashed into the bay while maneuvering to pick up a patient.				
Feb. 7, 2008	Darwin, New South Wales, Australia	Boeing 717	substantial	84 none
The 717 entered a high sink rate on final approach and landed hard.				
Feb. 7, 2008	El Seibo, Dominican Republic	Britten-Norman Islander	substantial	9 NA
The crew conducted an emergency landing after an engine failed during a scheduled flight from Santiago de los Caballeros to La Romana. No fatalities were reported.				
Feb. 11, 2008	Atlantic Ocean	Cessna 310N	destroyed	1 fatal
The pilot ditched the 310 about 50 nm (93 km) from Keflavik, Iceland, during a ferry flight from Narsarsuaq, Greenland, to Reykjavik, Iceland.				
Feb. 12, 2008	Caracas, Venezuela	McDonnell Douglas DC-9	substantial	none
The unoccupied DC-9 apparently broke free while being towed from a hangar and crossed a runway before coming to a stop.				
Feb. 13, 2008	Sterling, Kansas, U.S.	Piper Aztec	destroyed	1 fatal
Daytime VMC prevailed when the Aztec crashed in an open field during a cargo flight from Wichita to Hays.				
Feb. 13, 2008	Los Roques, Venezuela	BAe Jetstream 31	substantial	16 NA
The airplane overran the runway on landing and came to a stop on the edge of a lagoon.				
Feb. 14, 2008	Yerevan, Armenia	Bombardier CRJ100ER	destroyed	21 minor
Calm winds were reported when the airplane flipped over and burned while departing for a scheduled flight to Minsk, Belarus.				
Feb. 16, 2008	Benton, Kansas, U.S.	Cessna 414A	destroyed	2 fatal
A 300-ft overcast and 6 mi (10 km) visibility were reported when the 414 struck trees and crashed soon after departing under visual flight rules for a positioning flight to Wichita.				
Feb. 18, 2008	Caico Seco, Venezuela	Cessna Citation III	destroyed	3 fatal
The Citation crashed in a field during a flight from Valencia to Puerto Ordaz.				
Feb. 21, 2008	Mérida, Venezuela	ATR 42-300	destroyed	46 fatal
The airplane struck a mountain soon after departing for a scheduled flight to Caracas.				
Feb. 22, 2008	Kayenta, Arizona, U.S.	Raytheon 1900D	substantial	2 serious, 3 minor, 15 none
The airport had 1 1/2 mi (2,400 m) visibility, a 400-ft overcast and 3 in (8 cm) of snow on the runway when the crew missed the first GPS approach. During the second approach, the 1900 touched down at midfield and overran the runway.				

NA = not available

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