

Slippery Surprise

The flight crew learned on final approach that the runway was covered with snow.

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

Skidding Helped Prevent an Excursion

Airbus A321. Minor damage. No injuries.

The A321 was en route on a charter flight from Tenerife, Spain, to Sandefjord, Norway, with 216 passengers and seven crewmembers the afternoon of March 26, 2006. Weather conditions at the destination were forecast to include 4,000 m (2 1/2 mi) visibility in snow, with temporary conditions of 1,200 m (3/4 mi) visibility and 800 ft vertical visibility.

“Based on the received information, the flight crew did not expect any problems related to the weather or runway conditions,” said a report on the serious incident issued by the Accident Investigation Board of Norway (AIBN) in March 2010. “They expected the runway to be prepared to the usual acceptable standard during winter operations.”

The aircraft was about 40 minutes from the airport when snow began to accumulate on Runway 18, which was being used for landings and takeoffs. The runway had an available landing distance of 2,569 m (8,429 ft) and was 45 m (148 ft) wide.

“The airport supervisor had planned to sweep the runway,” the report said. “This was

postponed due to a technical problem with a sweeper and frequent departures and landings. ... It was decided to carry out a friction measurement instead.”

Friction measurements were made in one direction and on one side of the runway but could not be completed in the opposite direction on the other side of the runway because of traffic. Airport personnel decided to begin clearing the snow off the runway after the A321 landed.

During descent, the flight crew received data from the automatic terminal information service indicating that Runway 18 was dry and that braking action was “good.” Reported visibility was 2,500 m (about 1 1/2 mi) in light snow, and the ceiling was at 500 ft. Winds were from 030 degrees at 6 kt.

The crew briefed for the instrument landing system (ILS) approach with the autopilot and autothrottles engaged. The on-board flight management system computed an approach speed of 142 kt, or 5 kt higher than the reference landing speed (V_{REF}). The crew added 5 kt to that value for expected icing conditions. The A321 entered the clouds shortly after descending through 10,000 ft.

When the crew established radio communication with the airport control tower three minutes before touchdown, they were told that Runway 18 was contaminated by 8 mm (about 3/8 in) of wet snow and that measured friction coefficients were 32 in the touchdown area of the runway, 33 in the middle and 31 at the end, indicating “medium” braking action.

The report said that the reported depth of snow was accurate for dry snow but, according to Norwegian runway condition reporting requirements, should have been increased by 4 mm (about 3/16 in), to 12 mm (about 1/2 in) because the snow was wet.

“This was the first time the crew became aware that the runway was contaminated by snow,” the report said. “This, however, did not alarm them. With ‘medium’ braking action, there should be no problem coming to a halt on the runway available.”

A post-incident analysis of weather and runway conditions, however, indicated that braking action actually was “poor,” the report said.

While reconsidering the A321’s landing performance, the commander asked for a wind check and was told by the tower controller that the surface wind was from 050 degrees at 5 kt. “This would give approximately a 4-kt cross-wind and 3-kt tail wind, which was well within the company’s limitations,” the report said.

The first officer was the pilot flying. Recorded flight data showed that the approach was stabilized until the aircraft reached a radio altitude of 250 ft and began to deviate above the glideslope.

The commander called out the deviation, but the first officer was unable to correct it before the A321 crossed the runway threshold. The aircraft was one dot high on the glideslope at 50 ft and touched down about 780 m (2,559 ft) from the runway threshold at 140 kt. This was about 350 m (1,148 ft) beyond the intended touchdown point, the report said.

The first officer applied maximum reverse thrust after the main landing gear touched down. However, the crew perceived no braking action and suspected that the autobrake system had failed. “The commander therefore pressed the switch to rearm the autobrake ‘medium’ system without any effect,” the report said.

About eight seconds after touchdown, the first officer applied maximum manual wheel braking. “The crew did not feel any braking action from the first officer’s manual braking,

and the commander took control of the aircraft halfway down the runway,” the report said.

With about 800 m (2,625 ft) of runway remaining, the commander engaged the parking brake. “By then, the crew had realized that they would not be able to stop the aircraft on the runway,” the report said.

The commander declared an emergency and told the tower controller that the aircraft was “going off the runway.”

The first officer suggested that the commander steer left because the terrain off the left side of the runway appeared to be more level than the terrain off the right side of the runway.

When the commander steered left, the aircraft began to skid on its locked wheels toward the end of the runway. “This resulted in increased deceleration, and the aircraft stopped at the very end of the hard-surfaced runway, with the nosewheel against a concrete [localizer monitor] antenna base,” the report said.

There were no injuries, and the A321 received minor damage to lower fuselage skin and to the nosewheel rim and tire. The crew shut down the engines, and the commander ordered a nonemergency evacuation through the left forward cabin door. Airport buses transported the passengers to the terminal.

“This incident is similar to several other [recent] runway excursions on slippery runways in Norway,” the report said. It noted that the AIBN is preparing a special report on winter operations and runway friction measurements. “That report will highlight the common cause factors related to this type of incident. The report will specifically highlight safety areas of general nature which are outside the airline operators’ direct area of responsibility.”

An expected publication date for the special report was not provided.

Controller Error Leads to Close Call

Boeing 767, McDonnell Douglas MD-82. No damage. No injuries.

omission of a required clearance led to a near midair collision at Chicago O’Hare International Airport the afternoon of June 1, 2009. Visual meteorological conditions

‘The crew realized that they would not be able to stop the aircraft on the runway.’

(VMC) prevailed, with 10 mi (16 km) visibility and a 5,500-ft ceiling, said the report by the U.S. National Transportation Safety Board (NTSB).

The 767, inbound from Dublin, Ireland, with 202 passengers and five crewmembers, was on an extended, straight-in ILS approach to Runway 27L. The MD-82, inbound from St. Louis with 105 passengers and five crewmembers, was being vectored from a left downwind to the final approach course for Runway 28, which is south of Runway 27L.

The 767 flight crew was in radio communication with a Chicago Terminal Radar Approach Control (TRACON) Center Arrival controller. The MD-82 crew was in communication with a Chicago TRACON West Arrival controller and maintaining an assigned heading of 330 degrees.

Nearing the extended centerline of Runway 28, the MD-82 crew asked the West controller if they were cleared for a visual approach to Runway 28. The controller told the crew to turn left to a heading of 250 degrees and to descend to 2,500 ft. After the MD-82 crew acknowledged the instructions, the controller cleared the crew for a visual approach to Runway 28 and told them to establish radio communication with the airport traffic control tower.

Shortly thereafter, the 767 crew told the Center controller, “We’re going to be reacting to a Super 80,” the name of the initial version of the MD-80 series.

The Center controller did not understand the transmission and asked, “Who was that again?”

The 767 crew identified their flight and said, “We got a Super 80 crossing our flight path right now on 27L.”

“Roger,” the Center controller said. “He’s doing a visual to 28. Maintain visual separation with him but if you need to turn right, you can.”

“We’re going to have to,” the 767 crew replied. “He’s on our centerline.” Shortly thereafter, the crew reported that the MD-82 was “clear.”

The 767 captain told investigators that the first officer, the pilot flying, had called the

“Super 80” as traffic. “With wings level on a northerly heading, I felt the S-80 might be lining up on our runway instead,” the captain said. “With the S-80’s nose still bore-sighted at us, at approximately 3,500 ft, I instructed the first officer to turn away to the right to give us some breathing room.

“About this time, we received an RA [resolution advisory] from the traffic [alert and] collision avoidance system to climb. The first officer stated he felt very uncomfortable to go belly-up to the S-80 but stopped his descent while jinking [turning] to the right. Roughly [at the same] altitude and a half mile away, the S-80 commenced a hard descending turn back to the south complex.”

The MD-82 captain told investigators that the airplane was still on the assigned heading of 330 degrees as it neared the localizer course for Runway 28. “I directed the first officer to ask for an intercept turn and/or approach clearance. He was unable to do so immediately as there was a good deal of congestion on the frequency.

“He was able to query Approach as we were passing through the localizer on the previously assigned 330-degree heading. Approach responded with an immediate turn to 250 degrees and descent to 2,500 ft. As I began the turn and descent, we received an RA requiring an increased descent rate. I increased both the descent rate and bank angle, and the RA ceased.”

The West controller said that he had told the MD-82 crew that another airplane was preceding them to Runway 28. The MD-82 crew said that they had the other airplane in sight. “Normal practice would have been to clear [the MD-82 crew] for the visual approach at that time, but the West Arrival controller did not do so,” the report said. “He could not recall any specific distractions that may have caused him to omit the required clearance. He first realized that something may have gone wrong when [the MD-82 crew] asked if they were cleared for the visual approach.”

The report said, “According to preliminary Federal Aviation Administration [FAA] data,

‘There was a good deal of congestion on the frequency.’

lateral separation decreased to 0.35 nm [0.65 km] and vertical separation was 0 ft before the conflict was resolved. ... There was no investigation of the event until the FAA received a complaint from the pilot of [the 767] two days after it occurred. The FAA's investigation revealed that the incident was [caused by] an operational error by air traffic control.”

Pitot System Blocked by Ice

Raytheon 390 Premier. No damage. No injuries.

The flight crew was returning to Farnborough, England, after a charter flight to Copenhagen, Denmark, the afternoon of Aug. 7, 2008. The aircraft was cruising at Flight Level (FL) 400 (approximately 40,000 ft) with an outside air temperature of minus 62° C (minus 80° F) when it encountered severe turbulence.

“Although [the commander] did not consider the Premier to have a specific turbulence penetration speed, he reduced thrust in an attempt to decelerate and achieve a more comfortable ride,” said the report by the U.K. Air Accidents Investigation Branch (AAIB). “He was surprised at the high rate at which the indicated airspeed [IAS] decreased.”

The IAS on the no. 1, or commander's, primary flight display (PFD) decreased from 220 kt to 180 kt.

The crew requested and received clearance to climb to FL 410, where the air was slightly warmer and the aircraft was clear of clouds and turbulence. When normal cruise thrust was selected, the IAS on the no. 1 PFD slowly increased to 220 kt.

Shortly before reaching their planned beginning-of-descent point, the crew noticed a message on both PFDs indicating a discrepancy in airspeed indications. The no. 2 PFD and the standby airspeed indicator (ASI) indicated 220 kt; the no. 1 PFD indicated a lower and decreasing airspeed.

Believing that the no. 1 air data computer (ADC) had failed, the commander selected the no. 2 ADC to provide information to both PFDs. The IAS on the no. 1 PFD increased rapidly to the value indicated by the no. 2 PFD and the standby ASI.

However, the commander told investigators that during descent, the displayed airspeeds gradually decreased, as if the ASIs were acting like altimeters. When he repositioned the ADC switch to the normal setting, the no. 1 PFD indicated an overspeed, but the overspeed warning horn did not activate.

The commander reselected the no. 2 ADC for both PFDs, and the IAS on the no. 1 PFD again began to decrease. “IAS continued to reduce without activation of the stick shaker or aerodynamic buffet,” the report said. “The commander recalled that at approximately 60 kt IAS, he heard a ‘click’ from the vicinity of the instrument panel, reminiscent of a relay operating.”

Most of the information displayed on the PFDs disappeared, and the multifunction display (MFD) went blank. “The standby ASI indicated zero, but the standby altimeter, attitude and heading indicators appeared to function normally,” the report said. “The commander used his experience of the aircraft to set thrust lever position and aircraft attitude appropriate to the phase of flight.”

The copilot declared an emergency, and the crew diverted the flight toward Ostend, Belgium. After descending below the freezing level, 15,000 ft, however, a combined PFD and MFD display appeared on the MFD. The commander selected the normal ADC setting, and both PFDs returned to normal operation. The crew canceled the emergency and continued the flight to Farnborough without further incident.

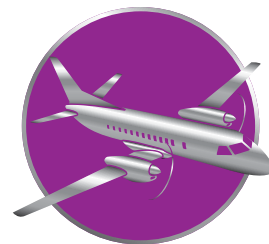
The investigation determined that the IAS anomalies had been caused by moisture that entered and froze within the right pitot system. The loss of information from the PFDs and the MFD could not be replicated, “and the loss could not be explained,” the report said.

TURBOPROPS

Direct Course to a Mountain

Pilatus Turbo Porter. Destroyed. Eleven fatalities.

The newly hired charter pilot likely had not received required route familiarization training and did not know that the 18-minute flight from Ilaga to Mulia, in Papua,



The pilot likely had used a GPS receiver to fly a direct route.

Indonesia, would require either a deviation from a direct route or a circling climb to clear a 13,700-ft mountain, said the report by the Indonesian National Transportation Safety Committee.

Although the valleys were mostly clear, the mountains were shrouded by clouds when the single-engine airplane departed from Ilaga on a visual flight rules (VFR) flight the morning of April 17, 2009.

A search was launched when the Turbo Porter failed to arrive on time in Mulia. The next day, the wreckage was found on the mountain at about 12,000 ft. “The location was on the direct track between Ilaga and Mulia,” the report said, noting that the pilot likely had used a global positioning system (GPS) receiver to fly a direct route.

The airplane had crashed in an inverted attitude. “The impact signature was consistent with uncontrolled flight at the time of impact,” the report said. “This probably resulted from the pilot becoming spatially disoriented after entering cloud.”

Autopilot Mode Mistake

Bombardier Q400. No damage. No injuries.

The Q400 was en route with 59 passengers and four crewmembers from Southampton, England, to Edinburgh, Scotland, on Dec. 23, 2008. Night VMC, with 10 km (6 mi) visibility, prevailed at the destination.

The Edinburgh approach controller issued a heading of 280 degrees to intercept the ILS localizer for Runway 24 and told the flight crew to descend from 3,000 ft to 2,100 ft and to maintain 160 kt until 4 nm (7 km) from touchdown.

“During the descent, the aircraft accelerated to approximately 200 kt with flap and landing gear up,” said the AAIB report. “The aircraft did not level off as intended at 2,100 ft but continued to descend at a constant vertical speed such that it remained at all times below the ILS glideslope.”

The approach controller apparently did not notice the deviation and told the crew to establish radio communication with the airport traffic controller. “At about this time, Flap 5 was

selected and the aircraft decelerated to approximately 180 kt,” the report said.

The airport controller noticed that the aircraft was substantially below the normal glide path and alerted the crew. “Is everything OK?” he asked.

The copilot replied, “We’re going to level now. Actually, our glideslope capture obviously failed.”

The commander saw that all four precision approach path indicator lights were red but did not recall any enhanced ground-proximity warning system (EGPWS) warnings. He disengaged the autopilot and stopped the descent about 700 ft above ground level. The crew then landed the Q400 without further incident.

Recorded flight data showed that the crew had selected the autopilot vertical speed mode to descend from 3,000 ft at a rate of 1,100 fpm. They had set 2,100 ft in the altitude selector but had not armed the autopilot altitude hold mode; thus, the autopilot remained in the vertical speed mode.

The crew had the runway in sight and therefore had not conducted a company ILS approach procedure that requires monitoring the vertical flight path by comparing indicated altitudes with altitudes shown on the approach chart.

Fog Imperils Night Visual Approach

Beech King Air B300. Destroyed. Two fatalities.

After completing a charter flight from Braunschweig, Germany, to Karlsruhe, the night of Jan. 12, 2006, the pilots decided to return to their home base in Freiburg under VFR.

Nearing the destination at 3,500 ft, the crew learned that weather conditions had deteriorated, said a report issued in late 2009 by the German Federal Bureau of Aircraft Accident Investigation.

An air inspection officer at Freiburg told the crew that ground visibility varied greatly, from about 1,500 m (4,921 ft) south of the airport to “much poorer” to the north. The estimates were based on visual observations.

Cockpit voice recorder (CVR) data indicated that the crew could not see the ground when they flew over the airport. “After a short

discussion, the commander took a decision to fly an approach toward Runway 16,” the report said.

The airport had no published approach procedure or navigation aids. CVR data indicated that the crew prepared for the approach by entering GPS waypoints in the flight management system and selecting a track of 163 degrees to follow the extended runway centerline.

The King Air was descending through a radio altitude of 1,000 ft when the copilot told the commander that he “could not yet see anything,” the report said. “After passing through the 500-ft radio altimeter acoustic marker, the copilot had sideways visual contact with the ground but could see nothing in the direction of flight.”

At 200 ft, the copilot told the commander that he saw a road. “It’s probably the feeder road, but I can’t be sure,” he said.

Two seconds after an aural alert at 100 ft radio altitude was generated, the King Air struck trees on a hilltop about 700 m (2,297 ft) from the threshold of Runway 16. Fire fighters who arrived at the site soon after the accident estimated that visibility was 300 to 400 m (984 to 1,312 ft).



PISTON AIRPLANES

Worn Wires Ignite Ground Fire

Douglas DC-3. Substantial damage. No injuries.

The flight crew was taxiing the cargo airplane for departure from San Juan, Puerto Rico, the morning of April 26, 2009, when flames emerged from the cockpit floor and from the instrument panel.

“As the pilots were shutting down the engines, they became overwhelmed with fire and smoke, and quickly exited the airplane along with the two cargo handlers,” the NTSB report said.

FAA inspectors who examined the airplane found signs of an intense fire. “Everything from the bulkhead behind the pilots’ seats to the front of the airplane was melted,” the report said.

The examination revealed that the insulation on two wires leading from the battery relay to the forward section of the cockpit had been abraded from contact between the wires.

The report indicated that the fire likely had been caused by contact between the exposed wires and worn aluminum fuel tubes leading to the fuel pressure gauges on the instrument panel. The report said that the fuel tubes had not been replaced since the DC-3 was built in 1942.

Oil Seals Omitted During Overhaul

De Havilland Beaver. Substantial damage. Five serious injuries, two minor injuries.

Day VMC prevailed when the float-equipped aircraft took off from Crossroads Lake, Newfoundland and Labrador, for a charter flight the morning of July 14, 2008. During the initial climb over land, the engine abruptly failed, said the report by the Transportation Safety Board of Canada (TSB).

The engine-failure procedure recommended by the DHC-2 flight manual is to “lower the nose to maintain the glide speed [and] land straight ahead or alter course slightly to avoid obstacles.” However, the pilot initially banked right and then turned left toward a small pond.

The Beaver had turned about 130 degrees when it stalled and descended into a bog bordering the pond. “The cushioning effect of the bog prevented more serious damage [to the aircraft],” the report said. However, the pilot and four passengers were seriously injured, and two passengers sustained minor injuries. The report said that the pilot’s head injuries might have been less severe if he had fastened his shoulder harness.

Investigators found that the pilot had reported oil pressure fluctuations between 50 psi, the lower limit, and 75 psi, the normal indication, during a local flight two days before the accident. “All other engine indications, including the oil quantity, were normal and the engine sounded normal,” the report said.

Company maintenance personnel suspected that the oil pressure gauge was malfunctioning and determined that it would be safe to fly the aircraft until the gauge could be checked after the charter flight on July 14.

An examination of the nine-cylinder Pratt & Whitney R985 radial engine revealed that,

during an overhaul two months before the accident, aluminum plugs had not been installed in the articulating rod link pins to seal the oil passage.

“Over the 90 [operating] hours since the engine was overhauled, the absence of the link pin plugs allowed a reduced oil pressure at the master rod bearing and crankpin interface,” the report said. “This caused increased heat due to friction [and] accelerated wear and smearing of the bearing material, resulting in the lack of lubrication to critical engine components.”

Goose Hits Truck

Grumman G21A. Substantial damage. One serious injury, eight minor injuries.

En route on a commuter flight from Akutan, Alaska, U.S., to Unalaska the afternoon of April 9, 2008, the pilot keyed his microphone seven times on the appropriate frequency to activate warning lights on a road that passes in front of the threshold of Runway 30 at the destination airport.

“Gates that were supposed to work in concert with the lights and block the runway from vehicle traffic were not operative,” said the NTSB report. “On final approach, the pilot, who was aware that the gates were not working, noticed a large truck and trailer stopped adjacent to the landing threshold. As he neared the runway, he realized that the truck was moving in front of the threshold area.”

The pilot attempted to go around, but the belly of the Goose struck the top of the trailer. One passenger was seriously injured when the airplane descended out of control onto the 3,900-ft (1,189-m) runway.

The truck driver, who was not hurt, told investigators that he had seen the road warning lights and waited for about 45 seconds. He said that he then looked for but did not see any landing aircraft and continued driving.

“According to the Unalaska police officer assigned to the accident case, the truck driver did not have a valid driver’s license,” the report said. “Also, his commercial driver’s license was suspended.”

HELICOPTERS

Disorientation Cited in EMS Crash

Sikorsky S-76A. Substantial damage. Three serious injuries.

The emergency medical services (EMS) helicopter departed from Sudbury, Ontario, Canada, the night of Feb. 8, 2008, to rendezvous with an ambulance at Snake Lake Helipad in Temagami.

“The entire region was experiencing localized light to moderate snowfall, and it was uncertain as to whether the flight would be able to land in Temagami,” the TSB report said.

However, the flight crew found that visibility was no less than 4 mi (6 km) during the flight and improved as they neared the destination. They did not request activation of the helipad perimeter lights.

“During the last 1.5 minutes of the approach, the pilot flying [the captain] was explaining to the [first officer] what he was doing, step by step, and what to watch out for during night approaches, including black hole illusions,” the report said. “This likely distracted the pilots [from] the task at hand.”

The “task” was a night visual approach in black hole conditions. The approach path selected by the captain passed over the town and a small hill on the southwest shore, and then crossed a narrow section of the lake to the helipad on the northeast shore.

The report said that the captain likely became spatially disoriented after crossing the hill. He perceived that the helicopter was too high and increased the rate of descent to more than 1,400 fpm, “well in excess of the recommended maximum descent rate of 750 fpm,” the report said.

The helicopter descended nearly vertically into trees near the southwest shore of the lake and about 814 ft (248 m) from the helipad. The two paramedics and one of the pilots — the report did not say which pilot — were seriously injured. The extent of injury to the other pilot also was not specified. ➤



Preliminary Reports, February 2010

Date	Location	Aircraft Type	Aircraft Damage	Injuries
Feb. 1	Watertown, New York, U.S.	Cessna 402C	substantial	7 none
The landing gear collapsed when the 402 landed long with a tail wind and overran the snow-covered runway.				
Feb. 2	Munich, Germany	Cessna 425 Conquest 1	substantial	2 none
The emergency medical services (EMS) airplane struck terrain short of the runway after both engines lost power on approach.				
Feb. 4	Restauración, Dominican Republic	Robinson R44	destroyed	2 fatal
The helicopter struck a mountain during a night flight from Port-au-Prince, Haiti, to Santiago, Dominican Republic.				
Feb. 4	Yakutsk, Russia	Antonov 24RV	substantial	42 none
The nosegear collapsed during a rejected takeoff following an engine failure.				
Feb. 4	Amarillo, Texas, U.S.	Mitsubishi MU-2B-60	substantial	4 none
The MU-2 veered off the snow- and ice-covered runway during a night landing.				
Feb. 5	Horní Olesná, Czech Republic	Bell 427	destroyed	3 none
The pilot was attempting to maneuver out of an area of thick fog when the EMS helicopter struck terrain.				
Feb. 5	El Paso, Texas, U.S.	Aerospatiale AS 350-B2	destroyed	3 fatal
The pilot was using night vision goggles when the helicopter crashed on landing during a night EMS training flight.				
Feb. 8	Lawrenceville, Georgia, U.S.	Beech Queen Air	destroyed	1 fatal, 3 minor
The pilot was killed when the Queen Air struck terrain after both engines failed during a night takeoff.				
Feb. 10	Amsterdam, Netherlands	Boeing 737-300	none	100 none
The flight crew was cleared to take off from Runway 36C at Schiphol Airport but departed instead from a parallel taxiway.				
Feb. 11	Kutai Kartanegara, Indonesia	ATR 42-300	substantial	2 serious, 54 none
An engine failed en route to Samarinda, and the crew diverted to Balikpapan, which has better facilities. The other engine failed shortly thereafter, and the aircraft was landed in a rice field.				
Feb. 11	Monterrey, Mexico	Fokker 100	substantial	96 none
Unable to extend the left main landing gear on approach to Nuevo Laredo, the crew diverted to Monterrey, where the Fokker veered off the runway on landing.				
Feb. 12	Forest City, Iowa, U.S.	Piper Cheyenne II	destroyed	1 fatal
A witness said that the Cheyenne veered sharply left on final approach and descended rapidly to the ground.				
Feb. 13	Santa Clarita, California, U.S.	Boeing 737-700	none	1 serious, 1 minor, 83 none
Two flight attendants were injured when the captain initiated a 1,500- to 2,000-fpm descent in response to a traffic-alert and collision avoidance system resolution advisory.				
Feb. 14	Schöna, Germany	Cessna Citation Bravo	destroyed	2 fatal
En route from Prague, Czech Republic, to Kalstad, Sweden, the Citation crashed shortly after being cleared to climb from FL 260 to FL 330.				
Feb. 14	Cave Creek, Arizona, U.S.	Eurocopter EC 135-T1	destroyed	5 fatal
Witnesses heard "popping sounds" and saw the helicopter rotate several times, pitch nose-down and descend to the ground.				
Feb. 16	Teterboro, New Jersey, U.S.	Bombardier CRJ200	minor	14 none
The CRJ overran the runway during a night landing.				
Feb. 17	Palo Alto, California, U.S.	Cessna 310R	destroyed	3 fatal
Night instrument meteorological conditions prevailed when the 310 struck power lines on takeoff and crashed into several residential structures. No one on the ground was hurt.				
Feb. 19	Carayaca, Venezuela	Bell 206B JetRanger	destroyed	4 fatal
The helicopter crashed in mountainous terrain during an EMS flight from Caracas to Yaracal.				
Feb. 21	Turin, Italy	Boeing 757-200	none	239 none
An uncommanded fuel jettisoning occurred during initial climb.				
Feb. 25	Nazca, Peru	Cessna U206F	destroyed	7 fatal
The single-engine airplane crashed during a commercial sightseeing flight.				
Feb. 26	Ambergris Caye, Belize	Cessna U206G	destroyed	5 fatal
The airplane, a Soloy turboprop conversion, had a technical problem on final approach and crashed short of the runway.				
Feb. 26	Nova Lima, Brazil	Cessna 310R	destroyed	2 fatal
Visibility was limited by fog when the 310 crashed close to the top of a ridge during takeoff.				
This information, gathered from various government and media sources, is subject to change as the investigations of the accidents and incidents are completed.				