

Question of Command

In the absence of SOPs, authority for a land/go-around decision was uncertain.

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

Captains Did Not Designate a PIC

Israel Aircraft Industries Astra SPX. Substantial damage. One minor injury.

Both pilots conducting the business flight from Coatesville, Pennsylvania, U.S., to Atlanta the evening of Sept. 14, 2007, were qualified as captains in the Astra. They routinely took turns flying the airplane from the left seat; however, they did not formally decide who had authority as pilot-in-command (PIC) for each flight, said the report by the U.S. National Transportation Safety Board (NTSB).

The right-seat pilot, the pilot monitoring (PM), was the aviation department's chief pilot. He held type ratings in several business jets and had 10,800 flight hours, including 2,200 hours in the Astra (now called the Gulfstream G100). The left-seat pilot, the pilot flying (PF), also held several business jet type ratings and had 16,042 flight hours, including 1,500 hours in the Astra.

As the airplane neared Atlanta's DeKalb-Peachtree Airport, the pilots were cleared to conduct the instrument landing system (ILS) approach to Runway 20L, which is 6,001 ft (1,829 m) long and 100 ft (30 m) wide. "The threshold was displaced 1,000 ft [305 m] due to obstructions," the report said. "The runway had

precision markings that were in good condition. It was equipped with a precision approach path indicator [and] a medium-intensity approach lighting system with sequenced flashers."

Weather conditions included surface winds from 270 degrees at 7 kt, scattered clouds at 1,800 ft, broken clouds at 2,500 ft and an overcast ceiling at 3,800 ft. Reported visibility was 1 1/4 mi (2,000 m) in light rain and mist. However, the visibility decreased to 1/2 mi (800 m) in heavy rain and fog as the pilots conducted the ILS approach.

The Astra was descending on the glideslope when the PM announced that he had the approach lights in sight. The PF replied that he also had the lights in sight and disengaged the autopilot. "The [PF] then attempted to continue and land visually, though they were flying in moderate to heavy rain," the report said.

The PF told investigators that he initially had "good visual contact" with the approach lights but lost sight of the lights shortly after activating his windshield wiper. The PF said that he announced this to the PM and considered initiating a missed approach but did not go around because the PM replied that he still had the approach lights in sight. (The Astra has two windshields, each with its own wiper.)

Cockpit voice recorder (CVR) data indicated that the PM then began to direct the PF, saying, "Just follow the glideslope ... little bit to the right, little to the right. ... There it is. You got it?" The PF replied, "Yep, I got it." Seconds later, however, the PM again began providing directions, saying "Okay, to the left, left, left, left." The

Both pilots realized that there was only about 1,000 ft of runway remaining.

PF asked, “I’m on the runway now, right?” The PM replied, “Yeah. ... I got it.”

The PM took control of the airplane, but both pilots realized that there was only about 1,000 ft of runway remaining. “We’re not going to make it,” said the chief pilot, now the PF. The other pilot said, “I don’t know what to do.”

The Astra was substantially damaged when it overran the runway, struck the localizer antenna complex and traveled several hundred feet before coming to a stop near the airport fence. The chief pilot sustained minor injuries; the left-seat pilot and the two passengers were not hurt.

Investigators found that the Astra’s windshields had not been maintained in accordance with the manufacturer’s recommendations to preserve their water-shedding coating. The report said that this contributed to the left-seat pilot’s loss of visual references after activating his windshield wiper.

The report said that during post-accident interviews, when queried about who was in command, “the [chief pilot] stated that he was confused as to who was the PIC and that he and the [left-seat pilot] were ‘co-captains.’ When asked about standard operating procedures (SOPs), the [chief pilot] advised that they [i.e., the aviation department] did not have any. They had started out with one pilot and one airplane, and they now had five pilots and two airplanes.

“The [chief pilot] later stated that they probably should have gone around when the flying pilot could not see out the window.”

Short Circuit Breaches Oxygen Hose

Boeing 767-200. Substantial damage. No injuries.

The freighter had been loaded, and the pilots were preparing to start the engines for departure from San Francisco International Airport the night of June 28, 2008, when they heard a loud pop and hissing sounds. The first officer said, “Hey, there’s something going on in the back.” He opened the cockpit door and saw black smoke and flames near the ceiling of the entrance/service compartment, which is between the cockpit and the main deck cargo compartment. He told the captain, “We’ve got a fire ... a big fire.”

The CVR then recorded the sounds of the lavatory smoke detector and the fire warning bell. The first officer reported the fire to air traffic control (ATC) and requested aircraft rescue and fire fighting (ARFF) service. Unable to use the main door or service door because of the proximity of the intensifying smoke and flames, the pilots evacuated through their cockpit window exits.

The NTSB report said that ARFF personnel arrived about four minutes after the first officer reported the fire. They were unable to open the airplane’s doors because of fire damage and initially used skin-penetrating nozzles to fight the fire. The fire was contained within about 25 minutes and extinguished about 18 minutes later.

Examination of the airplane revealed extensive thermal damage to the cockpit, the entrance/service compartment and the two forward cargo containers in the main deck cargo compartment. “[The operator] reported that the substantial damage to the airplane resulted in a hull loss,” the report said.

Investigators determined that the fire most likely began when a short circuit in adjacent electrical wiring penetrated the hose for one of the three supplemental oxygen masks stowed in the entrance/service compartment and ignited a metal spring inside the hose. The oxygen and the polyvinyl chloride hose material, a plastic that chemically decomposes when exposed to heat, fueled the fire.

NTSB concluded that the probable causes of the accident were the design of the supplemental oxygen system hose and “the lack of positive separation between electrical wiring and electrically conductive oxygen system components.” The investigation generated several recommendations regarding aging oxygen hoses, the proximity of oxygen system components to electrical wiring, smoke detection systems in cargo aircraft, and other issues (ASW, 7/09, p. 10).

Wind Shear Strikes on Short Final

Boeing 747-400. Substantial damage. No injuries.

Visual meteorological conditions (VMC) prevailed at Manchester (England) Airport the night of March 1, 2008, but the surface

winds were strong and gusty. The flight crew of the 747, inbound on a cargo flight from Dubai, was cleared to conduct the ILS approach to Runway 23R. The automatic terminal information system reported winds from 280 degrees at 25 kt, gusting to 42 kt, and moderate to severe turbulence on approach to Runway 23R.

The aircraft did not encounter significant turbulence during the approach, but the enhanced ground-proximity warning system (EGPWS) generated a wind shear warning when the aircraft was 500 ft above ground level (AGL). The crew conducted a go-around and requested and received ATC radar vectors for another ILS approach. “The second approach was described as smoother but still with a strong wind from the northwest, resulting in a crosswind from the right which was close to the operator’s limit for landing this aircraft,” said the report by the U.K. Air Accidents Investigation Branch (AAIB).

The report said that the second approach was stable until the commander disengaged the autopilot and autothrottle system at 220 ft AGL. The aircraft drifted above the glideslope and right of the localizer. The commander was correcting when the wind shifted to a direct right crosswind and increased in velocity. “The aircraft started yawing right and rolling right,” the report said. “Left control wheel and rudder inputs were made, slowing the rate of roll to the right but not stopping it before touchdown.”

Meanwhile, airspeed had decreased 20 kt within one second and then increased 23 kt within the next four seconds before touchdown. Rate of descent increased from 700 fpm to 1,400 fpm but was reduced to 300 fpm before touchdown.

The aircraft was drifting left of the runway centerline and was banked nearly 10 degrees right when it touched down on the right main landing gear. The no. 4 engine nacelle struck the runway and was substantially damaged. The 747 then rolled left, and the no. 1 and no. 2 engine nacelles scraped the runway. A tire on the left main landing gear burst as the crew stabilized the rollout and brought the aircraft to a stop

on the runway. Investigators traced the tire failure to a malfunction of an anti-skid control valve that had prevented the wheel brake from releasing.

“There were no abnormal indications on the engine instruments, and after an external check by the airport fire fighting and rescue service, the aircraft taxied on to a stand,” the report said.

Engine Cowling Separates, Strikes Tail

Canadair CRJ200. Substantial damage. No injuries.

While holding for takeoff from Capital City Airport in Lansing, Michigan, U.S., the night of April 7, 2007, the flight crew received indications that the left thrust reverser was unlocked. “The captain cycled the reverser and had decided to return to the gate when the messages cleared,” the NTSB report said. “With the issue apparently resolved, he elected to take off.”

The crew felt a slight vibration during climb-out and suspected that it was caused by the thrust reverser. Later, during cruise flight at 16,000 ft, the crew heard a loud bang, and the airplane pitched up and rolled left. “The autopilot disengaged and the left thrust lever moved to idle during the event,” the report said. “The first officer ran the checklist to stow the reverser. The captain decided to continue to the intended destination because the thrust reverser messages had cleared and the vibrations had stopped.” The airplane was landed at Chicago O’Hare International Airport without further incident.

Examination of the CRJ revealed that the translating cowling for the thrust reverser system on the left engine had separated and struck the empennage, causing the loud bang heard by the crew. “The inboard leading edge of the left horizontal stabilizer was dented and crushed aft, consistent with impact damage,” the report said. “The left side skin of the vertical stabilizer was punctured immediately forward of the center spar.”

The report said that inadequate maintenance by the operator had contributed to the accident. “Damage to the thrust reverser components was consistent with prior operation with the reverser

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out of alignment and jamming of the translating structure,” the report said. “Review of the aircraft’s maintenance records revealed a history of anomalies related to the left engine thrust reverser.”

SOPs Neglected in Taxiway Collision

Airbus A321, Boeing 777. Substantial damage. No injuries.

After landing at London Heathrow Airport on July 27, 2007, the A321 flight crew was taxiing the aircraft to the assigned stand when they noticed that the electronic stand entry guidance system had not been activated. “The Airbus commander stopped his aircraft about 50 m [164 ft] short of the intended parking position,” the AAIB report said. “It was aligned with the stand centerline but with about half the aircraft protruding into the taxiway behind.”

The A321 commander attempted to establish radio communication with the airport ground traffic controller, but the frequency was congested and his call was not acknowledged. Meanwhile, the controller had approved the 777 flight crew’s request for pushback from an adjacent stand.

The 777 pushback crew consisted of a tug driver and a headset operator, both of whom were in the tug’s cab when the collision occurred. The tug driver initially did not see that the A321 was partially obstructing the taxiway behind the 777. “The tug driver reported that he ... applied the vehicle’s brakes but was too late to prevent the collision,” the report said. The collision damaged the 777’s left aileron and wing panel, and the A321’s vertical fin and fairing.

“The accident occurred primarily because the Boeing 777 pushback was not conducted in accordance with the aircraft operator’s normal operating procedures and safe practices,” the report said. The tug had a radio capable of receiving and transmitting messages on the ground controller’s frequency, but the radio had not been turned on. Although it was standard practice for the headset operator to walk alongside an aircraft during pushback, he remained in the tug’s cab; he was not aware of the collision until the 777 commander asked what had happened.

The tug driver was working a double shift and had been on duty for nearly 14 hours when the collision occurred. The headset operator had worked a 16-hour night shift and had about 12 hours off before reporting back on duty less than an hour before the collision. “The pushback crew’s working-time records for the preceding four weeks showed that working-hours rules had not always been adhered to,” the report said. “Both crewmen had worked in excess of the permitted 72 hours per week for at least part of the four-week period. ... The possibility that fatigue played some part in the ground crew’s performance cannot be discounted.”

Attention Diverted During Close Call

Boeing 737-700, Airbus A330-200. No damage. No injuries.

Night VMC prevailed on July 2, 2008, when the airport traffic controller cleared the A330 flight crew for takeoff on Runway 34R at Seattle-Tacoma International Airport and shortly thereafter told the flight crew of the 737, which had been landed on Runway 34C, to exit on high-speed Taxiway F, which is near the end of the runway, and to hold short of Runway 34R. The 737 captain, the PM, acknowledged the instruction.

“The first officer steered the airplane onto the taxiway, gave control to the captain, ran the ‘After Landing’ checklist and shut down the right engine,” the report said. “During this time, the captain was consulting his airport diagram while taxiing.”

The controller asked the 737 crew to verify their hold-short clearance, and the first officer acknowledged. “The hold-short markings, in-pavement lights and elevated guard lights were visible and illuminated, but the flight crew of the Boeing 737 did not notice them,” the report said.

The airport surface detection equipment generated aural and visual warnings when the 737 was taxied onto Runway 34R at a ground-speed of about 12 kt. The A330 flew over the 737 at 425 ft AGL. There were 314 people aboard the two airplanes.

The tug driver had been on duty for nearly 14 hours.



The report said that the probable cause of the incident was the 737 flight crew's "diverted attention during taxi."

TURBOPROPS

Elevator Trim Rigged in Reverse

Convair 580. Destroyed. Three fatalities.

The flight crew was conducting the first flight in the cargo airplane following maintenance that included rigging of the flight controls.

The captain, a check airman for the company, had more than 16,000 flight hours. The post-maintenance test flight from Columbus, Ohio, U.S., to Mansfield, Ohio, the afternoon of Sept. 1, 2008, also was intended as a training flight for two newly hired pilots: the first officer, who had more than 19,000 flight hours, and the observer, who had about 500 hours.

VMC prevailed when the airplane departed from Runway 05L at Rickenbacker International Airport. CVR data indicated that neither the captain nor the first officer called for the landing gear or flaps to be retracted, or for the power to be reduced from the takeoff setting. About a minute after takeoff, the first officer requested and received clearance to return to the airport.

The NTSB report said that during the 2-minute 40-second flight, the captain repeated the instruction "pull" 27 times. At one point, the observer said, "Come back on the trim?" The CVR then recorded the sound of the elevator trim wheel in motion and the captain replying, "There's nothing anymore on the trim."

Recorded ATC radar data indicated that the airplane entered a downwind leg for Runway 05L at 900 ft AGL and turned to a base leg at about 187 ft AGL. The Convair then descended steeply to the ground about a mile southwest of the airport.

The report said that the probable causes of the accident were "the improper (reverse) rigging of the elevator trim cables by company maintenance personnel and their subsequent failure to discover the misrigging during required post-maintenance checks." A

contributing factor was "the captain's inadequate post-maintenance preflight check."

Skydiving Flight Encounters Icing

Antonov An-28. Substantial damage. Two minor injuries.

The aircraft, a turboprop version of the An-14, was being used for skydiving flights from an airstrip in Osterdalen, Norway, on July 16, 2004. After conducting six drops, the aircraft was refueled in preparation for the next flight with 20 parachutists who were to jump in two groups, said the report issued recently by the Accident Investigation Board of Norway.

The flight crew flew the aircraft to 15,000 ft and maintained a southerly course over the drop zone — the airstrip — where the first 10 parachutists jumped. "The aircraft continued on that course for a short time before turning through 180 degrees and getting ready for the next drop at the same location on a northerly course," the report said.

VMC prevailed, but a large cumulonimbus cloud was nearing the drop zone from the north. "To reach the drop zone above the runway, the aircraft had to fly close to this cloud," the report said. "[A videotape] showed that the parachutists became covered in a layer of white ice within 2–3 seconds of leaving the aircraft. The ice on the parachutists only thawed once they had descended to lower altitudes where the air temperature was above zero."

As the commander made a turn away from the cloud, still maintaining the low power setting and airspeed used for the drop, the first officer saw that ice had formed on the windshield. He engaged the anti-icing system without informing the commander of his action. The anti-icing system uses engine bleed air, and the An-28 manual warns that fuel flow to the engines will be shut off automatically if the anti-ice system is selected when engine compressor speed is low.

Both engines flamed out when the first officer engaged the anti-ice system, and the propellers were feathered automatically. The first officer made several unsuccessful attempts

to restart the engines using a checklist that did not specify that if the autofeather system had engaged, the propeller-feathering levers had to be moved fully aft and then fully forward to recycle the system; the engines cannot be started unless the autofeather system is armed.

With no hydraulic pressure to extend the flaps, the commander had to maintain a relatively high airspeed on approach to the 600-m (1,969-ft) runway. “The final approach was further complicated because the [commander] had to avoid the last 10 parachutists who were still in the air and who were steering toward a landing area just beside the airstrip,” the report said.

The An-28 touched down about halfway down the runway. The commander realized that he would not be able to stop the aircraft on the runway and lifted off to clear a 2.5-m (8.2-ft) embankment about 60 m (197 ft) beyond the end of the runway. The aircraft cleared the embankment but struck a ditch and flipped over while rolling out in a marshy area.

Noting that the crew had not used supplemental oxygen while flying the unpressurized aircraft at 15,000 ft, the report said that their performance might have been affected by hypoxia. “The fact that the first officer switched on the anti-icing system without asking the commander first indicates that crew collaboration was not functioning at its best,” the report said.

Instrument Takeoff Goes Awry

Beech King Air E90. Destroyed. Two fatalities.

Visibility was 1/4 mi (400 m) in fog when the King Air departed from Runway 24 at McClellan/Palomar Airport in Carlsbad, California, U.S., for a business flight to Tucson, Arizona, the morning of July 3, 2007. The airport is on a plateau surrounded by lower terrain, according to the NTSB report.

The pilot apparently did not achieve a positive rate of climb or track the extended centerline of the runway. The King Air struck a power line about 90 ft (27 m) below field elevation and 2,500 ft (762 m) beyond the end of the runway. The airplane then struck a transmission tower, crashed on a golf course and

burned. “The debris path was along a magnetic bearing of 270 degrees,” the report said, noting that both engines were producing power on impact.

The pilot had a private license and 1,177 flight hours, including 286 hours in the E90 and 268 hours of instrument flight time.

PISTON AIRPLANES

Fuel Quantity Indications Neglected

Piper Navajo. Destroyed. One serious injury.

The pilot had flown five passengers from Mount Isa to Century Mine, both in Queensland, Australia, the morning of July 27, 2008, and was returning alone to Mount Isa. He had conducted the takeoff and climb to cruise altitude with the inboard wing fuel tanks selected, as required by the aircraft operating manual, and had selected the outboard fuel tanks prior to leveling off at cruise altitude. However, the pilot did not monitor fuel quantity during the flight and neglected to switch from the outboard tanks to the inboard tanks during descent, said the report by the Australian Transport Safety Bureau (ATSB).

The Navajo was descending through 3,000 ft about 33 km (18 nm) from Mount Isa when the left engine lost power. The right engine lost power shortly thereafter. The pilot, who had 470 flight hours, including 30 hours in type, mistakenly believed that the engines were still producing power and did not feather the propellers or switch fuel tanks.

The aircraft descended rapidly at a low airspeed. “The aircraft impacted the ground at an angle of approximately 30 degrees left-wing-down and 30 degrees nose-down,” the report said. Investigators found signs that the flaps were retracted and the landing gear was partially extended during the forced landing on sparsely wooded terrain.

ATSB concluded that the engines had lost power because of fuel starvation and that power could have been restored if the pilot had selected the inboard tanks, which contained sufficient fuel to complete the flight. Alternatively, if the



pilot had feathered the propellers after losing power and maintained control of the aircraft, he might have been able to land the Navajo on a highway 4 km (2 nm) from the accident site, the report said.

Control Lost During Split-Flap Takeoff

Beech Duke. Destroyed. One fatality.

A flight instructor who saw the Duke in the run-up area near Runway 27 at New Castle (Delaware, U.S.) Airport the morning of Dec. 4, 2007, said that the run-up appeared normal, except that it was performed with the flaps extended. Before takeoff, the pilot of the Duke requested and received clearance from ATC for a right-turn departure. During initial climb, however, the airplane banked left at about 50 ft AGL. The left bank steepened, and the airplane stalled at about 300 ft AGL and spun to the ground.

The NTSB report said that when the pilot attempted to retract the flaps before takeoff, the left flap retracted but the right flap remained fully extended. Examination of the wreckage revealed that a component in the right-flap drive mechanism had fractured in overload. “The pilot could have identified this condition prior to takeoff, either visually or by means of the flap indicator, which received its input from the right flap actuator,” the report said.

A study performed by the manufacturer said that control of the airplane in the split-flap configuration and with full power could have been maintained, “though marginally,” at airspeeds as low as 70 kt.



HELICOPTERS

Overheated Heater Fills Cabin With Smoke

Sikorsky S-76B. Minor damage. No injuries.

The flight crew was conducting a positioning flight from Denham, England, to Coventry the night of Nov. 22, 2007, when they detected an unusual odor. “The crew began to troubleshoot the problem and switched off the

heating system as a possible source,” the AAIB report said.

The helicopter was about 15 nm (28 km) from Coventry when the cockpit began to fill with smoke and the copilot felt heat begin to build near his seat. “Given the increasing levels of smoke in the aircraft, the crew considered making an emergency landing but decided it was safer to reach the airfield, where full fire cover had been placed on standby,” the report said.

The smoke and heat intensified significantly. The crew landed the helicopter near the fire crew and evacuated quickly. “Eventually, the smoke and heat dissipated, and the aircraft was declared safe,” the report said.

Examination of the S-76 revealed that the auxiliary electric heater had overheated and had melted the plastic ducting between the cabin and the cockpit. “The electronic control box for the heater was removed and subsequently confirmed to have failed, probably disabling the overheat protection and cockpit controls for the system,” the report said.

Brownout Causes Spatial Disorientation

Eurocopter AS 350B-3. Substantial damage. Three serious injuries.

Dark night VMC prevailed when the pilot, flight nurse and paramedic were dispatched to the site of a motorcycle accident near Ash Fork, Arizona, U.S., on June 27, 2008. The pilot, who was using night vision goggles, conducted an approach to the landing zone over a sparsely vegetated dirt field, the NTSB report said.

“Halfway through the approach, the flight encountered brownout conditions, and the pilot began to perform a go-around,” the report said. “He reported being confident that he had initiated a climb, but shortly thereafter the helicopter impacted the ground.”

NTSB determined that the probable cause of the accident was “the pilot’s spatial disorientation resulting in his failure to detect and compensate for an unintentional descent during a go-around.” The report said, “Contributing to the accident were the pilot’s inadequate choice of landing approach, reduced visibility from brownout conditions and the dark night.”

Preliminary Reports, June 2009

Date	Location	Aircraft Type	Aircraft Damage	Injuries
June 2	Halavelhi Resort, Maldives	de Havilland DHC-6	destroyed	7 minor
The float-equipped Twin Otter flipped over while landing on a lagoon during a charter photography flight.				
June 3	Santa María de Caparo, Venezuela	Bell 407	destroyed	5 fatal
The helicopter crashed in mountainous terrain.				
June 6	Sittwe, Myanmar	Fokker F28-4000	substantial	NA
Three of the 68 occupants sustained unspecified injuries during a runway-excursion accident on landing.				
June 7	Port Hope Simpson, Labrador, Canada	Britten-Norman Islander	destroyed	1 fatal
Visibility was limited by fog when the airplane struck a hill on approach during an emergency medical services (EMS) positioning flight.				
June 7	Anchorage, Alaska, U.S.	de Havilland DHC-2	destroyed	4 minor
The float-equipped Beaver struck a fence during takeoff from Lake Hood and crashed in a garden.				
June 9	near Santa Fe, New Mexico, U.S.	Agusta A109E	destroyed	2 fatal, 1 serious
The police helicopter was on a search-and-rescue mission when it struck a ridge in night instrument meteorological conditions (IMC).				
June 10	Coomera, Queensland, Australia	Bell 206B-II	destroyed	2 serious, 3 none
The JetRanger struck the ground and rolled over after the engine failed on final approach.				
June 12	Bridgeport, Connecticut, U.S.	Pilatus PC-12/47	substantial	7 none
IMC prevailed when the airplane touched down about halfway down the 4,677-ft (1,426-m) runway and struck a blast fence.				
June 13	Orange, Virginia, U.S.	de Havilland DHC-6	none	1 serious
The Twin Otter was making a low pass over a landing area when it shredded a skydiver's parachute canopy. The skydiver was seriously injured.				
June 14	Tanah Merah, Indonesia	Dornier 328	substantial	33 none
After landing, the airplane veered off the right side of the 950-m (3,117-ft) gravel runway.				
June 15	Rapid City, South Dakota, U.S.	Beech King Air B100	none	1 serious, 4 minor
The patient was seriously injured when the airplane encountered clear air turbulence on descent during an EMS flight.				
June 18	Newark, New Jersey, U.S.	Boeing 777-200	none	1 fatal, 237 none
The first officer took control when the captain became incapacitated during a flight from Brussels, Belgium, and landed the 777 without further incident in Newark.				
June 18	Fort Worth, Texas, U.S.	Learjet 45	substantial	2 none
The airplane was being taxied to a run-up area following engine maintenance when it struck an embankment and a hangar.				
June 22	Mollet del Vallès, Spain	Aerospatiale AS 350-B3	destroyed	2 fatal
The helicopter crashed after dropping water on a forest fire.				
June 23	Barcelona, Spain	Partenavia P-68	destroyed	2 fatal
The airplane crashed in a garden after an engine failed during a training flight.				
June 24	Holbrook, Arizona, U.S.	Beech Travel Air	destroyed	4 fatal
Witnesses said that the pilot appeared to be ill before departure and that the airplane appeared to be turning back to the airport when it banked steeply and descended to the ground.				
June 25	Maryland Heights, Missouri, U.S.	Piper Cheyenne	substantial	2 none
The airplane was on a positioning flight when it overran the runway while landing at Creve Coeur Airport, traveled down a ravine and came to a stop in a cornfield.				
June 25	Caticlan, Philippines	Xian MA60	substantial	55 none
The twin-turboprop airplane had a tail wind when it was landed long, overran the runway and came to a stop in a drainage ditch.				
June 29	Wamena, Indonesia	de Havilland DHC-6	destroyed	3 fatal
The Twin Otter was on a cargo flight from Dekai when it struck a mountain at 9,600 ft during approach to Wamena.				
June 30	Moroni, Comoros	Airbus A310-300	destroyed	152 fatal, 1 serious
Strong winds prevailed when the flight crew of the A310, inbound from Yemen, conducted a go-around during a night approach to the island airport. The airplane subsequently stalled while turning base and crashed in the sea.				

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.