

# Go-Around Decision Delayed

**Wing tip struck the runway before the descent was arrested.**

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

### Airplane Was Not Aligned With the Runway

McDonnell Douglas MD-83. Minor damage. No injuries.

The flight was inbound with 140 passengers from Anchorage, Alaska, U.S., to Fairbanks, where reported weather conditions included a 2,300-ft broken ceiling, 10 mi (16 km) visibility and surface winds from 250 degrees at 6 kt the afternoon of May 18, 2006. The flight crew was cleared by air traffic control (ATC) to conduct the VOR (VHF omnidirectional radio) approach to Runway 19R. The first officer was the pilot flying.

When the airplane descended below the clouds, the first officer requested and received permission from the captain to continue flying the instrument approach procedure for proficiency purposes, said the U.S. National Transportation Safety Board (NTSB) report.

The final approach course is 220 degrees, and a left turn is required for landing on Runway 19R, which is 11,800 ft (3,597 m) long. The captain told investigators that, as the airplane neared the airport, he observed the precision approach path indicator lights for the parallel runway, 19L. “The first officer initially saw Runway 19L [which is 6,500 ft (1,981 m) long] while still

above the MDA [minimum descent altitude] and 3 mi [5 km] from the field,” the captain said. “I pointed out Runway 19R.”

The report said that the airplane was left of the centerline when it crossed the approach end of Runway 19R, and the first officer applied right aileron control to correct the misalignment. “The captain then gave the order to go around, and takeoff engine power was applied, but the airplane’s descent continued, and the right wing struck the runway as the main landing gear wheels contacted the runway,” the report said.

The pilots were not aware that the wing had struck the runway until they were informed by a flight attendant seated in the rear of the airplane. “After the go-around, the flight crew declared an emergency and made an uneventful landing on Runway 19R,” the report said.

NTSB said that the probable cause of the incident was “the flight crew’s delayed go-around during an unstabilized approach to land.”

### Second Officer Suffers Seizure

Airbus A330-300. No damage. No injuries.

Three pilots were aboard the A330 for a scheduled flight from Hong Kong to Sydney, Australia, on Jan. 10, 2007. When the airplane was near Cairns, Queensland, with about 2.5 hours of flight remaining to Sydney, the pilot-in-command (PIC) and the second officer were at the controls, and the copilot was in the crew rest area, the Australian Transport Safety Bureau report said.



The PIC realized that the other pilot was no longer participating in a conversation. “The [PIC] noticed that the second officer had sighed a couple of times and that his left fist was tightly clenched,” the report said. “He did not respond to touch, and foam had formed around one side of his mouth.”

The PIC requested assistance from cabin crewmembers, who removed the second officer from the flight deck and took him to the crew rest area. The copilot replaced the second officer at the controls. A cabin crewmember qualified as a nurse provided initial medical attention to the second officer.

“A medical practitioner, who was a passenger on the aircraft, was requested to provide an assessment of the second officer’s medical condition,” the report said. “The medical practitioner was able to seek further advice through radio contact with the airline’s medical center. ... The second officer was deemed to not require further immediate medical attention, so the [PIC] elected to continue on to Sydney.”

After landing, the second officer was transported by ambulance to a hospital, where he was diagnosed as having suffered a neurological seizure.

The report said that the second officer had recently returned to flight duty following an extended period of sick leave. He had suffered a seizure in May 2006, and his first-class medical certificate had been suspended by the Australian Civil Aviation Safety Authority (CASA) pending neurological assessment. At the time, the second officer had no previous history of seizures.

“The second officer subsequently underwent detailed neurological testing, assessment and monitoring,” the report said. “Medical specialist advice to CASA was that the initial event, which was diagnosed as a provoked or acute symptomatic seizure, was likely to be the result of a coincidence of a number of factors. ... The prognosis was that there was minimal risk of any recurrence.” Based on this information, CASA reinstated the second officer’s first-class medical certificate in January 2007 with the requirement that a neurologist’s report accompany any subsequent request for renewal.

“Upon receipt of information confirming that the pilot had suffered a second neurological seizure, CASA revoked the pilot’s medical certificate,” the report said.

### Commander Misunderstands Docking Aids

Boeing 737-600. Substantial damage. No injuries.

The flight crew was taxiing the 737 to Stand 19 at London Gatwick Airport after an uneventful flight from Algeria the afternoon of May 31, 2006. As the aircraft neared the stand, the commander saw that the azimuth guidance for nose-in stands (AGNIS) visual docking-guidance system was illuminated, but he told the copilot that he could not see any stopping guidance, the U.K. Air Accidents Investigation Branch (AAIB) report said.

The commander saw a ground crewmember on the right side of the stand centerline and assumed that the crewmember was a marshaller. “He also noted a sign to the right of the AGNIS which he thought might be a stopping guidance signal, but this was in fact an extinguished emergency ‘STOP’ sign,” the report said. “He elected to proceed. When he realized that no stopping guidance would be provided, either automatically or by the ground crewmember, he stopped the aircraft and, together with the copilot, completed the shutdown checks.”

The report said that the commander had “misunderstood the information provided by the parking aids and overran [by 10.3 m (33.8 ft)] the correct stopping point while looking for a positive indication to stop.” After the main cabin door was opened, the crew learned that the left engine cowling had struck the airbridge. “The gentle impact had not resulted in injuries, either to ground staff or aircraft occupants, and the passengers disembarked without further incident,” the report said.

The ground crewmember that the commander had assumed was a marshaller was responsible for chocking the aircraft’s wheels and connecting the ground power unit. The crewmember told investigators that he had observed that the aircraft had “gone a bit far” but did not consider it his responsibility to signal

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Another ground crewmember attempted to illuminate the emergency “STOP” signal but could not find the activation button.

the pilots or to activate the emergency “STOP” signal. Another ground crewmember, who had lowered the airbridge, attempted to illuminate the emergency “STOP” signal but could not find the activation button.

The report said that the AGNIS system, which provides centerline-alignment guidance, and the parallax aircraft parking aid, which provides stopping guidance, were serviceable when the accident occurred but did not comply with International Civil Aviation Organization (ICAO) standards for advanced visual guidance systems (ASW, 5/07, p. 42). Among the ICAO standards is that docking guidance systems be visible to both pilots; the systems at Gatwick’s Stand 19 were visible only to the left-seat pilot.

### Control Lost During Aileron Roll

Learjet 35A. Substantial damage. No injuries.

The captain lost control of the airplane when he attempted an aileron roll during a cargo flight from Jacksonville, Florida, U.S., to Columbus, Ohio, the night of Jan. 10, 2007. The captain told investigators that the “intentional roll maneuver got out of control” during descent through Flight Level (FL) 200 (about 20,000 ft), the NTSB report said.

“The captain reported that the airplane ‘oversped’ and experienced excessive g-loads during the subsequent recovery,” the report said. “The copilot reported that the roll maneuver initiated by the captain resulted in a ‘nose-down unusual attitude’ and a high-speed dive. Inspection of the airplane showed substantial damage to the left wing and elevator assembly.”

### Pressurization Indications Confuse Crew

Airbus A320-200. No damage. No injuries.

The aircraft was en route at FL 380 with 156 passengers from Kos, Greece, to Glasgow, Scotland, the night of Oct. 8, 2006, when the flight crew saw an excessive-cabin-altitude warning on the electronic centralized aircraft monitor (ECAM), indicating that cabin altitude had increased above 9,500 ft.

“However, the [ECAM] display showed the pressurization parameters, including the cabin

altitude, as normal, so the crew believed that the warning was spurious,” the AAIB report said. Nevertheless, the crew donned their oxygen masks and conducted the procedures specified in the flight crew operating manual (FCOM) for the cabin-altitude warning.

The no. 1 cabin pressurization system was in use, and investigators determined that the cabin pressure controller (CPC) for that system had malfunctioned and that the normal indications displayed for that system, including a cabin altitude of 7,800 ft, were erroneous. As a result, automatic selection of the properly functioning no. 2 system did not occur.

While conducting the FCOM procedures, the commander manually selected the no. 2 system and observed a cabin altitude indication of 10,400 ft on the ECAM display. Suspecting that the no. 2 system was malfunctioning, the commander reselected the no. 1 system.

“The cabin crew then reported that the cabin lights had illuminated full bright and that the seat belt signs had come on,” the report said, explaining that this happens automatically when cabin altitude approaches 13,500 to 14,000 ft and before the passenger oxygen masks are automatically deployed.

“After a few minutes, the commander re-selected system 2 and [saw] a cabin altitude of 14,000 ft,” the report said. “He reselected system 1, now believing that there was definitely a fault in system 2. The cabin crew then called to say that the passenger oxygen masks had deployed.”

The copilot told the pilot that he had sensed a pressure change in his ears. The report said that neither pilot previously had experienced physical symptoms of increasing cabin altitude and that this might have confirmed their belief that the no. 1 pressurization system was functioning normally and that the no. 2 pressurization system was malfunctioning.

The flight crew declared an emergency and conducted an emergency descent to FL 100. During the descent, the crew observed a warning that the no. 1 pressurization system had failed, and they reselected the no. 2 system. “The flight continued to Glasgow at FL 100 without

further incident, landing some 50 minutes later,” the report said.

The report, which was issued in July 2007, said that the no. 1 system CPC was sent to Airbus for examination. The manufacturer confirmed that the CPC was faulty and that the information provided to the crew was confusing. Airbus told the AAIB, “This subject will be therefore further investigated ... to review possible improvement in the current architecture.”

## TURBOPROPS

### Crew Not Warned About Severe Turbulence

Bombardier Dash 8-100. No damage. One serious injury.

Daytime visual meteorological conditions (VMC) prevailed for the positioning flight from Honolulu to Kahului, Maui, Hawaii, U.S., on Jan. 31, 2007. In addition to the pilots, a deadheading flight crew and flight attendant were aboard the airplane.

The Dash 8 was about 15 nm (28 km) west of Maui, at an altitude not specified in the NTSB report, when the captain noticed that the indicated airspeed appeared to be lower than normal for the selected power setting and that the flap indicator showed a slight extension of the flaps. He asked the deadheading captain to look out a cabin window and observe the physical position of the flaps. The deadheading captain told the flying captain that the flaps appeared to be fully retracted. About this time, the Maui approach controller told the crew to descend to 1,500 ft.

The deadheading captain was returning to his seat when the Dash 8 encountered severe turbulence for 5 to 10 seconds. “He was thrown about the cabin and injured,” the report said. None of the other five occupants was hurt.

The flight crew declared an emergency and received priority handling from ATC. After landing, the injured captain was transported by ambulance to a hospital, where a medical examination revealed that he had sustained a compression fracture of a lumbar vertebra.

The report said that soon before the Dash 8’s turbulence encounter, the pilots of a Beech King Air and a Cessna 208 had reported moderate

turbulence at 4,000 ft and moderate to occasional severe turbulence between 2,000 and 2,500 ft in the area. The approach controller relayed the pilot reports to a local flight service station but did not advise the Dash 8 crew of the reports.

### Crane Operator Mistaken for Marshaller

Gulfstream Commander 690C. Substantial damage. No injuries.

After landing at Fairoaks Airport in Surrey, England, on Jan. 23, 2007, the pilot began taxiing toward the apron, where construction was in progress. “As he approached the apron, the pilot noticed a large crane to his left and some ground obstruction cones to his right,” the AAIB report said. “He reported that he stopped the aircraft before reaching the crane and was then aware of someone in a yellow jacket, whom he presumed was a marshaller, appearing ahead of him.”

The pilot continued taxiing while watching for adequate clearance from the crane on the left and also watching the “marshaller,” assuming that he would ensure that the Commander was clear of the warning cones on the right. The pilot then heard a noise and shut down both engines. He found that the right propeller had struck a cone and a concrete block.

“Discussion with the ‘marshaller’ revealed that he was working with the crane and had come out purely because he was worried that the aircraft was going to contact the crane,” the report said.

### Vane Failure Precipitates Power Loss

Cessna 208B Caravan. Substantial damage. One minor injury.

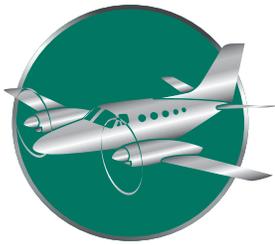
The airplane was on initial climb from Globe, Arizona, U.S., for a cargo flight the morning of July 22, 2005, when the pilot heard a loud “thunk” and noticed a total loss of power. He began to turn back toward the airport but realized that he would not be able to reach the runway.

“The pilot initially set up to land on a highway but believed there was too much traffic and he would hit something,” the NTSB report said. “He then focused on landing in a field adjacent to the highway.” The Caravan touched down on the edge of the highway, rolled down an incline and came to a stop in the field.



Examination of the Pratt & Whitney Canada PT6A-114A engine revealed a fatigue failure of the outer rim of the compressor turbine stator vane. A fragment of the rim separated and damaged the downstream turbine blades. The engine had accumulated 4,461 hours of operation. The operator had received approval to extend the engine-overhaul period from 3,600 to 5,100 hours.

The report said that the operator had failed to conduct borescope inspections of the compressor turbine vane during fuel nozzle checks, as recommended by the maintenance manual and by Service Information Letter PT6A-116, issued in January 2003.



## PISTON AIRPLANES

### Disorientation During Night Takeoff

Piper Aztec. Destroyed. Four fatalities.

The pilot purchased the airplane in the United States on Dec. 23, 2005, and flew it to Providenciales Airport in the Turks and Caicos Islands, a British territory. On Dec. 26, a friend asked the pilot to fly him and four other people from South Caicos to Providenciales. “The pilot agreed to do so,” the AAIB report said. “A payment of US\$300 was reportedly arranged for the flight.”

Nighttime VMC prevailed for the flight to South Caicos, to pick up the passengers. The pilot had 300 flight hours, including seven flight hours in the Aztec, and held a U.S. commercial pilot certificate. The report noted that he did not meet recency-of-experience requirements for flying at night with passengers.

After boarding the five passengers, the pilot was not able to start one of the engines. “After a while, the aircraft battery was drained, and the engine would no longer turn over,” the report said. The pilot called a relative who lived on the island and asked him to bring a battery booster to the airport.

Two passengers decided not to fly. After boarding the three remaining passengers, the pilot was able to start both engines with the help of the battery booster. “The takeoff run was described as short, and the aircraft turned

to the left very soon after it was off the ground,” the report said. “The aircraft was seen to climb in the turn at first, then [enter] a steep descent.” The Aztec struck the water at high speed about 2340 local time.

“Detailed examination found evidence of a substantial number of pre-impact powerplant anomalies but no signs of pre-impact failure or malfunction of the aircraft or its equipment relevant to the accident,” the report said.

AAIB said that the accident investigation identified the following causal factors: “A lack of appreciation by the pilot of the difficulty of executing a turn, very shortly after takeoff, in conditions of almost complete darkness; [and] a loss of control of the aircraft as a result of spatial disorientation.”

### Main Gear Strikes Fence During Go-Around

Beech 58P Baron. Destroyed. Three fatalities.

The airplane was on a business flight from Corpus Christi, Texas, U.S., to Jeanerette, Louisiana, the afternoon of July 18, 2006. The Baron was about 15 nm (28 km) from the airport when the approach controller cleared the pilot for a visual approach and advised him of “light-to-moderate and possibly heavy precipitation” south of the airport.

The pilot said that he had the weather in sight, canceled his instrument flight rules flight plan and selected the airport advisory radio frequency. The destination airport was uncontrolled and had no instrument approach procedure.

The NTSB report said that there was a thunderstorm near the airport, and visibility was 1 mi (1,600 m) in heavy rain when the Baron touched down about halfway down the 3,000-ft (914-m) runway. Witnesses heard an increase in engine power and saw the airplane become airborne near the end of the runway.

The landing gear struck the airport perimeter fence, and the airplane struck a building, a utility pole, several trees, the roof of a house, several power lines and a mobile home. Both occupants were killed on impact; a person inside the mobile home was killed in the post-impact fire.

NTSB said that the probable causes of the accident were “the pilot’s continued flight into

adverse weather conditions and his delayed attempt to abort the landing.” The 58-year-old pilot held an airline transport pilot certificate and had about 18,300 flight hours; his medical certificate had been revoked in 2002 for reasons not specified by the report.

### Fuel Exhaustion Leads to Ditching

Cessna T303 Crusader. Destroyed. One serious injury.

The aircraft was at FL 100, about 30 nm (56 km) from the English coast, during a cargo flight from Braunschweig, Germany, to Oxford on Sept. 19, 2006, when the right engine began to run rough. The pilot selected the fuel boost pump; the right engine recovered briefly, then lost power. “On checking the fuel gauges, the pilot observed that they were indicating in the ‘red sector,’” the AAIB report said.

The left engine lost power soon thereafter, when the aircraft was about 160 nm (296 km) from the destination. The pilot declared an emergency and ditched the aircraft near a ship about 9.5 nm (17.6 km) southeast of Aldeburgh.

“The aircraft survived the impact without breaking up, and when it came to rest, the pilot unstrapped, abandoned the aircraft through the emergency hatch, climbed onto the right wing, took off his shoes and got into the water,” the report said. The aircraft sank about three minutes later.

There was no life raft aboard the Cessna, and the pilot had forgotten that two life vests were stowed in the rear of the cabin. Water temperature was 17 degrees C (63 degrees F). Personnel aboard the ship launched a life boat, but a Royal Air Force search-and-rescue helicopter reached the pilot first. He had been in the water for 18 minutes and was suffering from hypothermia when he was winched aboard the helicopter. After being transported to a hospital, he was diagnosed as having suffered a fractured vertebra.

AAIB said, “The investigation determined that the aircraft had run out of fuel, due to insufficient fuel for the intended journey being on-board the aircraft at the start of the flight.” Investigators calculated that 545 lb (247 kg) of fuel were required for the flight and that there

were 353 lb (160 kg) of fuel aboard the airplane when the flight began.

## HELICOPTERS

### Loose Cowling Severs Tail Rotor Shaft

Sikorsky S-76A. Substantial damage. No injuries.

The quick-release fasteners on the helicopter’s drive shaft cowling had not been secured following recent maintenance on the tail rotor drive shaft. The NTSB report said that the pilot failed to notice the loose fasteners before conducting a charter flight on April 19, 2006.

The helicopter was flown from an offshore platform in the Gulf of Mexico to West Houston Airport and was air-taxied to the ramp. The pilot said that he made a right pedal turn to face the terminal building and was lowering the collective to land when the helicopter began to spin to the right.

The copilot said that the S-76 made three full turns before it struck the ground. The left main landing gear collapsed, and the four main rotor blades struck the ground. None of the 10 occupants was injured.

Examination of the helicopter revealed that the loose cowling had contacted and severed the tail rotor drive shaft. NTSB said that the probable cause of the accident was the failure of maintenance personnel to secure the cowling.

### Stuck Check Valve Causes Fuel Starvation

McDonnell Douglas 600N. Substantial damage. No injuries.

The helicopter was cruising 500 ft above ground level during a business flight from Granada, Mississippi, U.S., to Vicksburg on Feb. 6, 2007, when the engine lost power without warning.

The pilot conducted an autorotative landing on a logging road. The tail boom and main rotor blades were damaged in the hard landing. The two occupants were not injured.

The NTSB report said investigators found that a fuel transfer check valve in the aft section of the fuel tank was stuck closed, causing the engine to be starved of fuel. ●



**Preliminary Reports**

Date	Location	Aircraft Type	Aircraft Damage	Injuries
July 3, 2007	Carlsbad, California, U.S.	Beech E90 King Air	destroyed	2 fatal, 1 minor
<p>Visibility was 1/4 mi (400 m) when the airplane struck power lines on takeoff and crashed on a golf course, killing the two occupants. One person on the ground was injured by debris.</p>				
July 5, 2007	Inverin, Ireland	Cessna 208B Caravan	destroyed	2 fatal, 4 serious, 3 minor
<p>Instrument meteorological conditions (IMC) prevailed when the airplane struck terrain on approach to Connemara Airport during a demonstration flight.</p>				
July 5, 2007	Culiacán, Mexico	Rockwell CT-39A Sabreliner	destroyed	9 fatal
<p>The pilot lost control of the airplane after the tire on the right main landing gear exploded during takeoff for a cargo flight. The Sabreliner overran the runway and struck several motor vehicles. All three occupants and six people on the ground were killed.</p>				
July 7, 2007	New York	Eurocopter France EC 130B4	substantial	8 none
<p>The helicopter was on approach to the West 30th Street Heliport during a sightseeing flight when the pilot heard a loud bang and felt a vibration. Main rotor speed decreased, and the pilot deployed the floats and conducted an autorotative landing on the Hudson River. The occupants, who were wearing life vests, were rescued by boaters.</p>				
July 8, 2007	Muncho Lake, Canada	de Havilland Canada Twin Otter	destroyed	1 fatal, 4 NA
<p>The airplane crashed soon after takeoff from a gravel airstrip. One passenger was killed.</p>				
July 10, 2007	Sanford, Florida, U.S.	Cessna 310R	destroyed	5 fatal, 4 serious
<p>The airplane had leveled at 6,000 ft after departing from Daytona Beach when the pilot declared an emergency because of smoke in the cockpit. The Cessna struck trees and two houses during an attempted emergency landing at the Sanford airport. The two occupants of the airplane and three people on the ground were killed; four people on the ground were seriously injured.</p>				
July 11, 2007	Fort Lauderdale, Florida, U.S.	Airbus A320, Boeing 757	none	172 none
<p>Daytime visual meteorological conditions prevailed when the A320 was taxied onto the active runway while the 757 was touching down on that runway. The airport tower controller told the 757 crew to go around. The 757 passed less than 100 ft over the A320.</p>				
July 17, 2007	São Paulo, Brazil	Airbus A320-200	destroyed	186 fatal, 30 serious
<p>Heavy rain was falling when the airplane overran the 6,365-ft (1,940-m) runway, crossed a highway and struck a gas station and a cargo depot. All 168 occupants and 18 people on the ground were killed; about 30 people on the ground were seriously injured.</p>				
July 17, 2007	Santa Marta, Colombia	Embraer ERJ-190	substantial	59 NA
<p>The airplane veered off the left side of the runway while landing and came to a stop on an embankment, with its nose in the Caribbean Sea. None of the occupants was killed or seriously injured.</p>				
July 19, 2007	Longmont, Colorado, U.S.	Beech C-45H	destroyed	1 serious, 1 minor
<p>Both engines lost power during an instructional flight. The airplane struck a tree and a power pole, and crashed in a field.</p>				
July 23, 2007	Dire Dawa, Ethiopia	Antonov An-26	destroyed	1 fatal, 8 NA
<p>After departing for a cargo flight, the airplane was climbing through 3,500 ft when the left engine failed. One passenger was killed during the forced landing.</p>				
July 24, 2007	Ketchikan, Alaska, U.S.	de Havilland Canada DHC-2	destroyed	5 fatal
<p>IMC was reported in the area when the float-equipped Beaver crashed in mountainous terrain at about 2,300 ft during an air-tour flight.</p>				
July 29, 2007	Moscow	Antonov An-12BP	destroyed	7 fatal
<p>Visibility was 100 m (328 ft) in fog when the Antonov crashed in a forest soon after taking off from Domodedovo Airport for a cargo flight.</p>				
July 31, 2007	Puerto Concordia, Colombia	Douglas DC-3C	substantial	10 NA
<p>The flight crew conducted an emergency landing in a rice field after one engine failed. None of the occupants was killed.</p>				

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.