Wayward Approach

The pilots mistook the lighting on a nearby hotel for the runway approach lights.

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

'Major Degradation of Situational Awareness'

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

he crew, which consisted of two pilots and four flight attendants, had conducted a positioning flight from Dublin, Ireland, to Belfast, Northern Ireland, and a charter flight to Lisbon, Portugal, and were returning to Dublin with 112 passengers the night of Aug. 16, 2007. The copilot, 62, who had 11,000 flight hours, including 4,500 hours in type, was the pilot flying. The commander, 42, had 5,077 flight hours, including 2,626 hours in type.

"The flight progressed without incident until commencing its approach to Dublin Airport," said the report by the Irish Air Accident Investigation Unit (AAIU). Night visual meteorological conditions (VMC) prevailed, with surface winds from 260 degrees at 12 kt, visibility greater than 10 km (6 mi) and a few clouds at 2,000 ft.

The flight crew had prepared for an ILS (instrument landing system) approach to Runway 28, but that runway was closed for scheduled maintenance as the MD-83 neared Dublin Airport. The approach controller cleared the crew to conduct the VOR DME (VHF omnidirectional radio, distance measuring equipment) approach to Runway 34. The copilot briefed the commander on the nonprecision approach. The minimum descent altitude was 720 ft, or 518 ft above the runway touchdown zone elevation. The VOR was located beyond the departure end of the runway, and the missed approach point was over the approach threshold, 5.2 nm DME (9.6 km) from the VOR.

The approach controller provided radar vectors to help the crew establish the aircraft on the final approach course, 342 degrees, at 2,900 ft and 8 nm (15 km) from the runway. When the crew established radio communication with the tower controller, the commander reported that they were "established on radial 162 inbound." The tower controller cleared the crew to land on Runway 34.

The MD-83 was about 5 nm (9 km) from the runway and at 1,900 ft when it began to deviate left of the final approach course. "This deviation was due to the flight crew misidentifying the lights of a hotel at Santry Cross as those of the runway approach lighting system on Runway 34," the report said, noting that the lighting on the 16-story building, which is about 3.0 km (1.6 nm) southwest of the runway, "closely resembled" the approach lights. "It was also evident that, under night conditions, the approach lighting can be difficult to identify due to extraneous lighting from the city environs."

Because of the left crosswind, the aircraft initially was on a heading of about 336 degrees to track the final approach course. "Thus, the aircraft was pointing to the left of the runway and toward the lighted building," the report said.

At about 2334 local time, the commander became puzzled by the absence of runway edge lights ahead. He radioed, "Tower, confirm that you have ... all lights on three four on." The tower controller, who had been distracted by communications with airport maintenance personnel, noticed that the aircraft was significantly off track and told the crew to "turn right now, turn right ... You're not landing on the runway. ... Climb to two thousand feet." A minimum safe altitude warning then sounded in the control tower.

The aircraft was at 580 ft — 373 ft above ground level (AGL) — when the copilot initiated the go-around. "At the point where the go-around commenced, the aircraft was approximately 520 m (1,706 ft) from the building and 61 m (200 ft) above it," the report said. "After considering the wind, the flight crew accepted vectors and completed an ILS [approach to] Runway 16, landing without further incident at 2354."

Among the findings of the investigation were that the flight crew did not comply with the published approach procedure or with company standard operating procedures, and that they exercised poor crew resource management. Noting that the incident involved "a major degradation of situational awareness," the AAIU said that the probable cause was "the decision of the flight crew to continue an approach using visual cues alone, having misidentified the lights of a building with the approach lights of the landing runway."

Among the contributing factors was that "the fixed red obstacle lighting on the roof of the building, together with the white internal lighting, resembled the approach lights of the landing runway when viewed from the approach path," the report said.

Electrical Failure Ignites Insulation Blankets

Boeing 777-200. Substantial damage. No injuries.

here were 20 crewmembers and 185 passengers aboard the 777 when it was pushed back from a stand at London Heathrow Airport the night of Feb. 26, 2007. After the towbar was disconnected, the flight crew started both engines in quick succession, said the report by the U.K. Air Accidents Investigation Branch (AAIB).

The engine starts appeared to be normal, but "at about the time when the engine integrated drive generators (IDGs) would normally come on line, the flight crew saw the instrument displays flicker and heard a low-pitched, intermittent growling noise coming from the aft right side of the flight deck," the report said.

The engine indicating and crew alerting system showed that the right main alternating current electrical bus had failed. The crew also received indications that electrical power had been isolated from the right IDG and that the right bus tie breaker had tripped. "The flight data recorder (FDR) revealed that 40 seconds after both engines had stabilized at ground idle, the smoke detector inside the main equipment center (MEC) detected smoke," the report said. "The MEC is located beneath the flight deck and contains the majority of the aircraft's electric and avionics equipment."

Investigators determined that an internal failure had occurred in the right generator circuit breaker or right bus tie breaker contactor. "The failure resulted in severe internal arcing and short circuits inside the two main power contactors of the right main bus," the report said. The arcing and short circuits generated temperatures exceeding 1,000° C (1,832° F) and likely caused the growling noise that the crew heard.

"The heat generated during the failure resulted in the contactor casings becoming compromised, causing molten metal droplets to fall down onto the [fire-resistant] insulation blankets below," the report said. "The insulation blankets ignited, and a fire spread underneath a floor panel to the opposite electrical panel, causing heat and fire damage to structure, cooling ducts and wiring." The commander became puzzled by the absence of runway edge lights ahead.

ONRECORD

Recorded flight data indicated that 680 kg (1,499 lb) of fuel had leaked from the wing tanks during the flight. The crew detected a faint odor of electrical components burning, and the commander told the first officer to shut down the right engine. They were conducting checklists related to the anomalies when they were alerted by ground crewmembers that smoke was emerging from the MEC vent. The crew taxied the 777 to a nearby stand. "Once on stand, the flight crew shut down the left engine and the APU [auxiliary power unit], at which time light smoke appeared in the flight deck," the report said. "The batteries were switched off, and the passengers and crew disembarked via steps placed at the aircraft."

Airfield fire service personnel found the MEC filled with smoke, but the fire had selfextinguished. "They manually opened the forward cargo compartment and removed two cargo pallets to check for any additional signs of fire, but none were found," the report said. "The smoke slowly cleared in the MEC to reveal obvious signs of fire damage."

The AAIB said that the cause of the right main bus power contactor failures could not be determined conclusively but most likely was a debris-induced short circuit. "A number of modifications to the contactor design have been carried out that should make the contactor more resistant to failure," the report said. Among recommendations generated by the investigation was that the trays beneath the contactor casings be redesigned to prevent hot debris from dripping onto the insulation blankets (*ASW*, 5/09, p. 9).

Missing Bulletin Factors in Fuel Leak

Embraer 190-100. No damage. No injuries.

he aircraft was climbing through 25,000 ft, en route from Brisbane, Queensland, Australia, to Honiara, Solomon Islands, with 40 passengers and five crewmembers the morning of Sept. 2, 2008, when the cabin crew told the flight crew that they saw vapor streaming from both wings.

"The pilot-in-command walked back to check and confirmed fuel streaming at a high rate from both wings," said the report by the Australian Transport Safety Bureau (ATSB). The flight crew reported the problem to air traffic control (ATC) and requested and received clearance to return to Brisbane.

"Cabin crew reported that the fuel venting/ leakage momentarily stopped about eight minutes later but then resumed when the aircraft flaps were extended at about 4,000 ft on descent into Brisbane," the report said, noting that the leakage noticed during descent likely was residual fuel released when the flaps were extended. The 190 was landed without further incident, and airport rescue and fire fighting personnel found that the leaks had stopped.

The aircraft had departed from Brisbane with 12,800 kg (28,219 lb) of fuel. Recorded flight data indicated that 680 kg (1,499 lb) of fuel had leaked from the wing tanks during the flight.

Embraer had published an operation bulletin in February 2007 that advised 190/195 operators of the possibility that fuel can leak from the wings during climb at indicated airspeeds above 300 kt. The bulletin said that the airflow over the underwing ducts, which maintains positive pressure within the surge tanks, may become altered, causing surge tank pressure to decrease and force the float vent valves to close. This can result in fuel above the main vent lines in the wing tanks being "boosted" into the surge tanks and vented through the ducts. The bulletin says that if fuel quantity exceeds 5,000 kg (11,023 lb) on takeoff, airspeed during the climb should be maintained below 290 kt.

The incident aircraft's airspeed was nearly 300 kt when the cabin crew noticed the fuel leak. The aircraft operator and its flight crews were not aware of the information in the Embraer bulletin. "The operator advised the ATSB that they did not have access to the bulletin at the time of the occurrence," the report said.

Out-of-Rig Main Cabin Door Jams

Bombardier CRJ200. No damage. No injuries.

A fter a flight from Los Angeles to Phoenix with 50 passengers and three crewmembers the afternoon of June 13, 2007, the flight attendant was unable to open the main cabin door. She summoned the first officer, but he also was unable to open the door. The first officer summoned a maintenance technician, who entered the CRJ through the galley service door, said the report by the U.S. National Transportation Safety Board (NTSB).

"The mechanic manipulated the cabin door opening lever from inside the passenger cabin, and he successfully opened the door," the report said. "Initially, the operator's maintenance personnel examined the door, lubricated it and indicated the door was functionally okay."

An investigation of the incident was initiated by an NTSB investigator who was among the passengers. "Maintenance personnel subsequently examined the door and found that it was out of adjustment (rig) and that some internal components were inoperative," the report said. Repairs included replacement of the door's pushrod and spring assembly, adjustment of the release lever rod end, replacement of the inoperative door-assist motor, and repositioning of the lock/unlock indicators.

Examination of the operator's maintenance data revealed 13 discrepancy reports on opening and closing the door between January 2006 and June 2007. More than 800 similar service difficulty reports (SDRs) dating back to 1994 were found in the Canadian and the U.S. SDR databases.

In the incident report, NTSB faulted "the operator's inadequate maintenance program and the airframe manufacturer's inadequate response to the issue."

Unsecured Cowling Detaches and Hits Tail

Cessna Citation 560L. Substantial damage. No injuries.

he flight crew was conducting a ferry flight from Bournemouth, England, where maintenance had been performed, to Biggin Hill the evening of June 29, 2008. While climbing through 7,000 ft, the crew heard a rumble and a thud at the rear of the aircraft, the AAIB report said.

"Due to a vibration in the control column, the autopilot was disconnected and a check of the flight controls was carried out," the report said. "No abnormalities were noted." The crew heard the rumble and thud again while descending through 3,000 ft but were able to land the Citation without further incident.

"After shutdown, an inspection of the aircraft revealed that approximately 75 percent of the left engine upper cowling had separated from the aircraft, damaging the leading edge of the fin and left elevator," the report said.

Investigators found that a maintenance technician had been interrupted while he was reinstalling the cowling. "This caused him to descend from the engine, but he had no recollection of climbing back up to the engine to secure the inboard fasteners," the report said. "A further 'panel refitment inspection' and a 'postmaintenance safety check' failed to identify that the inboard leading edge cowling fasteners had not been secured."

TURBOPROPS

Spatial Disorientation on a Dark Night

Beech King Air E90B. Destroyed. Five fatalities.

ight VMC prevailed when the King Air departed from Ruidoso, New Mexico, U.S., for an emergency medical services (EMS) flight to Albuquerque, about 110 nm (204 km) northeast, on Aug. 5, 2007. Witnesses said that the airplane turned left, toward the north, shortly after takeoff from Runway 06, which is at an elevation of 6,814 ft. The King Air did not arrive in Albuquerque on schedule, and a search was initiated at 2200 local time, the NTSB report said.

The wreckage was found at 0500 the next morning 4 nm (7 km) southeast of the Ruidoso airport. The report said that the airplane was descending at an angle of 13 degrees when it struck trees and crashed on a hill at an elevation of 6,860 ft. The patient, patient's mother, flight nurse, paramedic and pilot were killed.

Examination of the wreckage indicated that the engines were producing medium to high power, and that the landing gear and flaps were retracted on impact. "There was no evidence of any pre-impact mechanical malfunction," the



ONRECORD

Considerable	
levels of residual	
magnetism were	
found within the	
compressor bearing.	

report said. "The impact damage to the airplane, presence of dark night conditions, experience level of the pilot and anomalous flight path are consistent with spatial disorientation."

The pilot held an airline transport pilot certificate and had 2,775 flight hours, including 2,239 hours in multiengine airplanes, 23 hours in the King Air and 439 hours at night. He had flown a Cessna 414A for the EMS operator before being upgraded to King Air captain in April 2007.

"Toxicology testing detected chlorpheniramine, an over-the-counter antihistamine that results in impairment at typical doses, and acetaminophen, an over-the-counter pain reliever and fever reducer often known by the trade name Tylenol," the report said. It noted, however, that the investigation was unable to determine either when the pilot used these medications or the extent to which they might have impaired his performance during the flight.

Lightning Strike Linked to Engine Failure

Cessna 441 Conquest II. Substantial damage. No injuries.

he Conquest was cruising at Flight Level 210 (approximately 21,000 ft) during a scheduled flight with three passengers from Port Augusta, South Australia, to Adelaide the morning of July 25, 2007, when the right engine failed. The pilot secured the engine, advised ATC of the problem and received clearance to descend to 9,000 ft. He landed the aircraft at Adelaide without further incident, the ATSB report said.

Examination of the engine revealed that the bearing at the front of the compressor section had failed catastrophically due to severe mechanical and thermal distress. "That bearing provided both axial and lateral support for the turbine section," the report said. "Once that support was lost, the engine's rotating turbine section shifted forward under the influence of thrust loads, resulting in rotor-to-case contact and rapid engine failure."

Investigators found that an inspection of the Conquest had been performed after a suspected in-flight lightning strike two months before the accident. "The inspection did not reveal any obvious electrical damage at that time," the report said. "However, considerable levels of residual magnetism were found within the compressor bearing and other engine components during the ATSB examination. Such levels indicated that direct electrical current from an aircraft lightning strike had passed through the engine during service. The passage of such currents resulted in undetected electrical damage and led to the eventual failure of the compressor bearing."

Magnetic chip detectors were installed in the propeller reduction gearboxes in both of the 441's engines and were checked during scheduled maintenance, but they were not connected to a cockpit warning device. "Although the fitment of such devices is not mandatory, had the aircraft been equipped with an electrically connected engine chip detector system, it is likely that the pilot would have had advanced warning of an impending engine failure," the report said.

'Lapper' Dies in Survivable Accident

Socata TBM 700. Substantial damage. One fatality, two minor injuries.

he private pilot, who had 5,688 flight hours, including 4,388 hours in his singleturboprop airplane, was participating in a voluntary program to transport medical patients. Light southeasterly winds prevailed when he landed the airplane on Runway 30 at Iowa City (Iowa, U.S.) Municipal Airport the morning of June 3, 2008, to pick up a patient and her mother for a flight to Decatur, Alabama.

The airplane was on the ground only about 30 minutes, but wind velocity had increased to 23 to 36 kt when the pilot began the takeoff from the 3,900-ft (1,189-m) runway, the NTSB report said. The TBM 700 was about 3,000 ft (914 m) down the runway when the pilot initiated rotation and was about 30 ft above the runway when it stalled, banked left and crashed in the parking lot of an office building.

"Although the accident was survivable (both the pilot and the adult passenger survived with non-life-threatening injuries), an autopsy performed on the child [the patient] revealed that the cause of death was blunt force trauma of the head," the report said.

The pilot and the patient's mother had fastened their seat belts and shoulder harnesses, but the patient, who was two years and 10 months old, was held on her mother's lap. "She stated that she held her daughter because her daughter could not fit into the airplane seat if there was a shoulder harness present," the report said. U.S. Federal Regulations allow children to be held in the lap of an adult passenger during takeoff only until they reach the age of two.

The probable causes of the accident were "the pilot's improper decision to depart with a pre-existing tail wind and failure to abort the takeoff," the report said. "Contributing to the severity of the injuries was the failure to properly restrain the child passenger."



PISTON AIRPLANES

No Safeguards for Baggage-Door Latch

Piper Chieftain. Destroyed. Six fatalities, three serious injuries, one minor injury.

passenger told investigators that the nose baggage door opened partially when the Chieftain lifted off the runway at Kodiak, Alaska, U.S., the afternoon of Jan. 5, 2008, for a charter flight to Homer. The door then opened fully when the pilot began a right turn in an attempt to return to the airport, the NTSB report said.

"With the airplane operating at a low airspeed and altitude, the open baggage door would have created additional aerodynamic drag and further reduced the airspeed," the report said. "The pilot's immediate turn toward the airport, with the now fully open baggage door, likely resulted in a sudden increase in drag, with a substantive decrease in airspeed and an aerodynamic stall."

The airport traffic controller saw the airplane roll sharply right and descend rapidly into the Pacific Ocean about 600 ft (183 m) offshore. The Chieftain quickly sank in 10 ft (3 m) of water. The pilot and five passengers were killed. The four survivors were rescued by the pilot of a float-equipped de Havilland Beaver. The report said that the probable cause of the accident was "the failure of company maintenance personnel to ensure that the airplane's nose baggage door latching mechanism was properly configured and maintained" and that a contributing factor was "the lack of information and guidance available to the operator and pilot regarding procedures to follow should a baggage door open in flight."

The baggage door is on the left side of the airplane's nose, in front of the pilot's windshield. "When the door is opened, it swings upward and is held open by a latching device," the report said. "To lock the baggage door, the handle is placed in the closed position and the handle is then locked by rotating a key, engaging the locking cam. With the locking cam in the locked position, removal of the key prevents the locking cam from moving." The key cannot be removed unless the locking cam is engaged.

However, the locking mechanism on the accident airplane's baggage door had been replaced with an unapproved thumb-latch device, and the plastic guard inside the baggage compartment, which protects the door's locking mechanism from contact with baggage, was not in place. Interviews with other Chieftain operators revealed that many of them also had replaced the original baggage door locks with a latching device that does not require a key.

"In July 2008, Piper Aircraft issued a mandatory service bulletin (SB 1194, later 1194A) requiring the installation of a key lock device, mandatory recurrent inspection intervals, life limits on safetycritical parts ... and the installation of a placard on the forward baggage door with instructions for closing and locking the door, to preclude an inflight opening," the report said.

Faulty Gauges Factor in Fuel Exhaustion

Cessna 404. No damage. No injuries.

he pilot checked the 404's fuel gauges before departing from Beverley, South Australia, for a charter flight with three passengers to Adelaide the morning of Oct. 18, 2007. The gauges indicated that there were 400 lb (252 L) of fuel in the left tank and 350 lb (221 L) in the right tank. "Given the minimum fuel requirement for the flight to Adelaide was 640 lb (405 L), including reserves, the pilot considered that he had adequate fuel," the ATSB report said.

The aircraft was 102 km (55 nm) north of Adelaide at 7,500 ft when the right engine lost power. Attempts to restart the engine were unsuccessful. "There were no apparent anomalies, and the fuel quantity gauges were showing adequate fuel in each tank," the report said. "After securing the right engine, the pilot continued to Adelaide Airport and landed without further incident."

While examining the airplane, maintenance engineers drained 90 L of fuel from the left tank and 3 L from the right tank. However, the gauge for the right tank indicated that it held 150 lb (95 L) of fuel. "An engineer found that one of the electrical circuits in the right fuel quantity indication system had a high resistance," the report said. "After wiring in the circuit was repaired, the fuel quantity gauge correctly indicated zero fuel in the right tank. Calibration of the fuel quantity indication system was carried out, and during that process the left and right signal conditioners were found to be unreliable and were replaced or repaired."

The operator revised its procedures after the incident to require a secondary means of calculating fuel load before flight, to cross-check the fuel gauge indications.

HELICOPTERS

Gear Failure Prompts Autorotation

Eurocopter AS 350B1. Destroyed. One fatality, one serious injury.

he helicopter was being used to check for unauthorized excavation of terrain over underground natural-gas pipelines the afternoon of July 12, 2007. The pilot was circling at 400 ft AGL to give the observer a good view of road work near Ballynacally, Ireland, when the master caution light illuminated and the engine suddenly failed.

"The pilot lowered the collective and attempted to enter autorotation from a low level and over difficult and undulating terrain," the AAIU report said. The observer was killed and the pilot was seriously injured when the helicopter struck rising terrain.

Examination of the wreckage revealed that the 41-tooth bevel gear in the engine accessory gearbox had disintegrated due to fatigue, causing a loss of drive to the fuel control unit.

The accident helicopter's Turbomeca Arriel 1D engine was built in 1987 and had accumulated over 8,000 flight hours. The report said that as of the end of 2007, Arriel 1 and 2 engines worldwide had accumulated about 26 million flight hours, with nine reported failures of the 41-tooth bevel gear causing in-flight shutdowns or failed starts. In July 2008, the engine manufacturer issued a service bulletin announcing availability of a modified — thicker — gear that is more resistant to dynamic stresses.

Gusty Winds Cause Control Loss

McDonnell Douglas MD 500E. Destroyed. One fatality, one serious injury.

hunderstorms were reported in the area when the pilot departed from his private helipad in Sunrise Beach, Missouri, U.S., for a brief local flight over a lake the afternoon of May 25, 2008. After flying for about four minutes, the pilot was conducting an approach to the helipad when the helicopter began to rapidly spin right. It spun four or five times before striking the water and sinking, the NTSB report said.

The passenger in the right front seat suffered a serious head injury but was able to exit from the helicopter. One of the three boys who were in the back seats drowned. "No passenger briefing was conducted, and none of the occupants were shown how to use their seat belts or doors, as required [by regulations]," the report said. "The victim, who was sharing a seat belt with another passenger, had never flown in the helicopter before and was unfamiliar with the exits and how to operate them."

The probable causes of the accident were "the loss of tail rotor effectiveness and the pilot's failure to regain aircraft control," the report said. "Contributing to the accident was the pilot's decision to fly in known adverse weather conditions and the gusty winds generated from convective outflow."



Preliminary Reports						
Date	Location	Aircraft Type	Aircraft Damage	Injuries		
April 1, 2009	Kilshanchoe, Ireland	Schweizer 269C	destroyed	2 fatal		
Visual meteorological conditions prevailed when the helicopter struck wires and crashed during a local flight from Weston.						
April 1, 2009	near Peterhead, Scotland	Eurocopter AS 332L2	destroyed	16 fatal		
	copter was en route from a North S d 11 nm (20 km) offshore.	Sea platform to Aberdeen when t	he main rotor gearbo	x failed catastrophically and the		
April 2, 2009	San Miguel, Philippines	Britten-Norman Islander	destroyed	7 fatal		
The Islander crashed in mountainous terrain during a scheduled flight from Tuguegarao to Maconacon.						
April 6, 2009	Gaborone, Botswana	Rockwell Aero Commander	destroyed	5 NA		
The Aero Commande	er was on a scheduled flight from K	asane when it crashed on landing	g. No fatalities were re	eported.		
April 8, 2009	Cubiri de la Máquina, Mexico	Eurocopter AS 350B2	destroyed	3 fatal		
The Ecureuil helicop	ter crashed after a mechanical failu	re occurred during a geological s	urvey flight.			
April 8, 2009	Pittsville, Wisconsin, U.S.	Cessna 337 Skymaster	destroyed	1 fatal		
The airplane was eng	gaged in a forest-fire-fighting opera	ation when it crashed in a field.				
April 9, 2009	Papua, Indonesia	British Aerospace 146-300	destroyed	6 fatal		
-	mountain during its second approa		·			
April 15, 2009	Shannon, Ireland	Boeing 767-300	none	168 none		
	n, Italy, to New York was diverted to	-	ne incapacitated by a	n apparent heart attack.		
April 17, 2009	Mount Gergazi, Indonesia	Pilatus PC-6 Turbo Porter	destroyed	11 fatal		
-	mountain during a scheduled flig		, , ,			
April 17, 2009	Oakland Park, Florida, U.S.	Cessna 421B	destroyed	1 fatal		
•	he right engine was on fire when t		•			
one on the ground w						
April 17, 2009	Canaima, Venezuela	Cessna 208B Grand Caravan	destroyed	1 fatal, 3 serious, 7 minor		
	d the 208 crashed during takeoff fo	or a scheduled flight to Porlamar.	·			
April 20, 2009	Phoenix, Arizona, U.S.	de Havilland Dash 8-200	substantial	17 none		
A marshaller and wing walkers were guiding the airplane to a gate when its right propeller struck a ground power unit that had been positioned 7 ft (2 m) from its required parking spot.						
April 25, 2009	Bastia, France	Eurocopter EC 145	destroyed	5 fatal		
The helicopter crash	ed in mountainous terrain during a	in air ambulance flight.				
April 25, 2009	Stockton, Utah, U.S.	Lockheed P2V-7 Neptune	destroyed	3 fatal		
Low ceilings and restricted visibility prevailed when the fire bomber struck the top of a ridge at 5,630 ft during a repositioning flight for the U.S. Forest Service.						
April 26, 2009	San Juan, Puerto Rico	Douglas DC-3C	destroyed	5 none		
The crewmembers e	vacuated when a fire erupted in th	e DC-3's cockpit while the cargo a	airplane was being ta	xied for departure.		
April 27, 2009	Guadalajara, Mexico	Boeing 737-200	substantial	116 NA		
En route from Cancún, the flight crew observed no indication that the landing gear was down and locked during approach. After airport traffic controllers confirmed that the gear appeared to be retracted, the crew elected to land with the gear up. No fatalities or injuries were reported.						
April 27, 2009	Maracaibo, Venezuela	Boeing 737-200	substantial	84 NA		
The flight crew reported hydraulic problems during departure and returned to the airport. The 737 overran the runway on landing. No fatalities were reported.						
April 28, 2009	Hamburg, Germany	Cessna 421C	destroyed	1 minor		
	ng from Hamburg International Air enwerder airport. Landing gear prob					
April 29, 2009	Massamba Village, Democratic Republic of Congo	Boeing 737-200	destroyed	7 fatal		
The 737 crashed out of control during a ferry flight from Bangui, Central African Republic, to Harare, Zimbabwe, where maintenance was scheduled.						
April 30, 2009	Yakutia, Russia	Antonov An-2	destroyed	3 fatal		
The biplane, which w snow and low visibili	vas on a ferry flight from Lensk, stru ity.	uck power lines on approach duri	ng the flight crew's th	nird attempt to land in heavy		
NA = not available						
	red from various government and med	is courses, is subject to shappe as the	investigations of the as	cidents and incidents are completed		

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