Load Miscalculation

Aft CG causes pitch and steering problems.

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 on aircraft accidents and incidents by official investigative authorities.



JETS

Commander Did Not Notice Error

Boeing 747-400F. No damage. No injuries.

he center of gravity (CG) was 4.8 percent mean aerodynamic cord (MAC) behind the aft limit when the aircraft took off Sept. 21, 2004, from Oslo Airport in Gardermoen, Norway, with three crewmembers aboard for a cargo flight to Incheon International Airport in Seoul, South Korea. As a result of the imbalance, the aircraft began an uncommanded "autorotation" at a calibrated airspeed of 120 kt — 34 kt below the target rotation speed, said the report by the Accident Investigation Board of Norway.

The aircraft was relatively light and was accelerating rapidly. It became airborne at 165 kt, and pitch attitude increased from 11.5 degrees nose-up to 19.5 degrees. The commander used stabilizer trim to control the pitch attitude. Airspeed during initial climb was 158 kt — 18 kt below the target safety speed.

"[During cruise flight,] the commander realized that the aircraft balance was wrong due to the far forward trim setting," the report said. "The crew suspected a wrong CG location and contacted the company office through SAT-COM [satellite communication]." The company advised the crew that the CG had been miscalculated and would be 10.7 percent MAC aft of the aft limit on landing in Seoul. "This could at best have caused a loss of control or a tail strike during landing," the report said.

The crew relocated some cargo pallets to shift weight forward; the CG was 7.2 percent MAC aft of the aft limit as the aircraft neared Seoul. "During the approach briefing, the landing configuration and performance parameters were discussed to reduce the possibility of a tail strike during touchdown and landing rollout," the report said. "Emergency equipment was requested to stand by."

The report said that the approach and landing went as planned. However, during the landing roll, the aircraft pitched nose-up at 60 kt; the nose landing gear strut extended, which caused the nosewheel-steering system to disengage. "The commander stopped the aircraft on the runway and shut down all engines," the report said. "The aircraft was subsequently towed to the parking stand."

The report said that the load master had made a mistake in calculations during load planning, and the loading resulted in a CG at 37.8 percent MAC; the aft CG limit is 33.0 percent MAC. The load manifest, however, indicated that

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the CG was at 27.0 percent MAC. The commander did not notice the mistake in the load master's calculations before he signed the load manifest. The report said, however, that the pilot operating manual did not contain aircraft-specific data that would have enabled the commander to check the load manifest. "In reality, the commander was merely checking that the [weight] and CG values were within limits for takeoff and landing," the report said.

The aircraft was equipped with an on-board weight and balance system that automatically computes and displays gross weight and CG. "At the time of the incident, the operating procedures of the aircraft's weight and balance system were not provided to the crew, and the crew was not trained for their use," the report said.

Misset Altimeter Results in Altitude Bust

Airbus A310. No damage. No injuries.

he aircraft was en route with 84 passengers from Tehran, Iran, to Birmingham (England) Airport the night of Nov. 24, 2006. Reported weather conditions at Birmingham included surface winds from 160 degrees at 10 kt, visibility greater than 10 km (6 mi) in light rain, few clouds at 1,600 ft and scattered clouds at 2,200 ft. QNH, the altimeter setting that results in a display of height above mean sea level, was 982 hPa.

The U.K. Air Accidents Investigation Branch (AAIB) report said that the copilot, the pilot monitoring, advised the approach controller on initial radio contact that they had received the automatic terminal information system (ATIS) information; he read back the reported altimeter setting of 982 hPa. However, the flight crew had not reset their altimeters from the cruise setting, 1013 hPa.

While providing radar vectors for the instrument landing system (ILS) approach to Runway 15, the controller cleared the crew to descend to 2,500 ft. The controller later observed on his radar display that the aircraft was descending through 2,500 ft and told the flight crew that they had been cleared to 2,500 ft. The copilot replied, "Two five hundred, two thousand five hundred." The aircraft continued to descend, and the controller told the crew, "Yes, if you could climb back up to two thousand five hundred, please, and turn right now onto one two zero degrees." After a brief pause, the copilot acknowledged the instructions, but the aircraft continued to descend. The controller said, "You are still descending. Climb two thousand five hundred feet. Acknowledge." The copilot acknowledged the instructions; the aircraft continued to descend.

The controller then told the crew that there was a 1,358-ft television mast 4 nm (7 km) ahead of the aircraft and to climb immediately. Suspecting that the crew had misset their altimeters, the controller added, "QNH nine eight two. Confirm you are indicating one thousand five hundred feet."

"At this point, the crew realized that the altimeters were still set to the standard pressure setting of 1013 hPa and not the Birmingham QNH of 982 hPa," the report said. The commander initiated a climb, and both pilots set their altimeters to 982 hPa. The copilot told the controller, "Just got it now and climbing, reading two thousand feet." The controller cleared the crew to maintain 2,000 ft until intercepting the localizer and advised that the aircraft was clear of the television mast. The crew conducted the approach and landed without further incident.

"The crew could not recall any distractions or unusual flight deck activity at the point at which they would normally have adjusted the altimeter sub-scales," the report said. With the altimeters set at 1013 hPa, the indicated altitudes during approach were 930 ft higher than the aircraft's actual altitudes.

Elevator Trim Controls Rigged Incorrectly

Hawker 800 XP. No damage. No injuries.

fter being repainted, the aircraft was departing from Peterborough, Ontario, Canada, for a positioning flight to Buffalo, New York, U.S., on June 2, 2005. As indicated airspeed neared 190 kt during initial climb, the pitch-trim system reached its nose-down limit, the Transportation Safety Board of Canada report said.

"The operating procedures of the aircraft's weight and balance system were not provided to the crew." The flight crew maintained airspeed below 190 kt and diverted to Lester B. Pearson International Airport in Toronto. "During the approach to Toronto, the rudder began to vibrate and seize, and the flight crew declared an emergency," the report said. "The aircraft landed ... without further incident. An inspection revealed that the elevator trim controls were incorrectly rigged."

The landing gear doors and flight control surfaces had been removed from the aircraft in preparation for repainting. "When the elevators were removed, the elevator trim control rods — two on each of the left and right horizontal stabilizers — were also removed," the report said. A maintenance engineer had marked the number of turns required to remove each rod on tags and attached the tags to the rods. After repainting, the rods were reinstalled using the same number of turns marked on the tags.

The rigging of the elevators was not checked, as required by the aircraft maintenance manual. "The rationale for this was that there were no reported flight control problems when the aircraft arrived, the aircraft was reassembled back to the way it was received, and the rigging should not have changed," the report said, noting that the company that performed the work did not have the equipment required to perform a rigging check.

Investigators found that the rigging of the elevator controls was such that "with full nosedown trim selected, the aircraft was rigged in a nose-up condition," the report said.

Smoke Prompts Emergency Landing

Avro 146-RJ100. No damage. No injuries.

Soon after departing from Zurich–Kloten (Switzerland) Airport for a scheduled flight to Brussels, Belgium, the morning of Dec. 5, 2005, the flight crew saw smoke emerge from the left console. The senior flight attendant advised the flight crew that smoke also was visible in the cabin, the Swiss Aircraft Accident Investigation Bureau report said.

The flight crew donned their oxygen masks, declared an emergency and requested and

received clearance from air traffic control (ATC) to return to Zurich. The commander transferred control to the copilot and conducted the emergency checklist, which included deactivation of the air-conditioning packs. "During the approach, the smoke dissipated in the cockpit and cabin," the report said. "For safety reasons, the crew kept their oxygen masks on."

The commander told investigators that he was unable to stop the continuous flow of oxygen in his mask, which made communication with the copilot and ATC difficult. "As a result, during the approach, he also handed over to the copilot communication with ATC in addition to controlling the aircraft," the report said. After an otherwise uneventful approach and landing, the aircraft was taxied to the stand, where the 63 occupants deplaned normally.

Investigators found a defective oil seal in the no. 2 engine. "It is highly probable that this caused oil residues to evaporate, smoke to be generated and this smoke to enter the cockpit and cabin air-conditioning circuit," the report said.

Neglect of SOPs Leads to Ramp Damage

Boeing 767-300. Substantial damage. No injuries.

he airplane was at the gate, ready to be pushed back for departure from Washington Dulles International Airport on June 17, 2006. "A ramp employee, operating a tractor with a baggage cart in tow, was on the left side of the airplane when a pushback guideman on the right side of the airplane signaled that he needed hand wands for the pushback," said the U.S. National Transportation Safety Board (NTSB) report.

The tractor operator told company officials that he forgot that he had a baggage cart in tow and did not follow standard operating procedures (SOPs) when he drove under the airplane to reach the guideman. "In the process, the baggage cart impacted the underside of the fuselage about 25 ft [8 m] aft of the nose and 17 ft [5 m] in front of the wings," the report said.

NTSB said that the tractor operator's failure to follow SOPs was the probable cause of the

The tractor operator forgot that he had a baggage cart in tow when he drove under the airplane.



accident and that a factor was his "diverted attention to an on-time departure."

TURBOPROPS

Lack of Training Cited in Tail Strike

ATR 72-200. Minor damage. No injuries.

he copilot was the pilot flying during the scheduled flight with 40 passengers from London Gatwick Airport to Guernsey, Channel Islands, the morning of May 23, 2006. The copilot conducted a visual approach using the correct approach speed and the runway's precision approach path indicator (PAPI) lights for glide path guidance, said the AAIB report. The aircraft bounced after touching down on the runway.

The commander said that the copilot had conducted a good approach and that the bounce was caused by "insufficient flare being applied before touchdown." Neither pilot believed that the bounce was sufficiently severe to warrant a go-around.

"In an attempt to cushion the second touchdown, the copilot ... over-pitched the aircraft, resulting in the tail bumper making contact with the runway surface," the report said. The commander took control after the second bounce and landed the aircraft. The only repair required was repainting the steel skid-shoe at the base of the tail bumper.

"The copilot was relatively inexperienced, this being his first airline aircraft type, and he could not recall ever having received formal instruction in recovery techniques for bounced landings," the report said. "The company operating manuals contained no information on bounced landings. ... There is no formal requirement in the United Kingdom for pilots to receive training in bounced landing recovery techniques at any stage in their training."

Based on the findings of the incident investigation, the AAIB recommended that the U.K. Civil Aviation Authority "require aircraft manufacturers, operators and training providers to issue appropriate guidance to pilots in the techniques for recovering from bounced landings."

Pilot Expedited Landing, With Gear Up

Piper Cheyenne. Substantial damage. No injuries.

he pilot was conducting a post-maintenance test flight in Fairbanks, Alaska, U.S., on July 8, 2006. The maintenance was not related to the landing gear, the NTSB report said. While returning to the airport, the pilot was asked by ATC to expedite his landing because of traffic.

The pilot told investigators that he extended the landing gear and that it collapsed on landing. The investigation determined, however, that the landing gear was retracted when the airplane touched down on the runway.

The company that employed the pilot recommended to NTSB that "the gear-unsafe horn should be wired through the audio panel, so as to be more easily heard by pilots wearing noiseattenuating headsets," the report said.

Distraction Blamed for Runway Incursion

de Havilland Twin Otter. No damage. No injuries.

W isual meteorological conditions (VMC) prevailed when the aircraft, with 16 passengers aboard, was landed on Runway 27 at Glasgow (Scotland) Airport the morning of Aug. 29, 2006. The airport tower controller told the crew to back-taxi on Runway 27, hold at the intersection of Runway 23 and cross Runway 23 after an Embraer 145 passed by after landing on Runway 23.

While holding at the intersection, the commander, who also was a training captain, began debriefing the copilot on topics that were not specified in the AAIB report. During the debriefing, the commander sketched illustrations on a piece of paper. "By being 'head down' on the flight deck, he became distracted and lost his sense of time and situational awareness regarding the landing Embraer 145," the report said.

After completing the debriefing, the commander perceived that the Twin Otter had been stationary for some time and, not having the 145 in sight, believed that it already had passed by. He began to slowly taxi the Twin Otter onto Runway 23 but then saw the 145 about to touch down and used reverse thrust to back off the runway.

The airport's runway incursion monitoring and conflict alert system (RIMCAS) did not provide a warning because, after the Twin Otter was landed on Runway 27 to expedite its arrival, the system was set to the "VISUAL" mode, which caused it to monitor only the surface area of Runway 05/23. At the time, Runway 23 was the active runway. The report said that the system would have provided a warning if the "CROSS RUNWAY" mode had been selected to monitor the holding-point areas on Runway 09/27 as well as the surface area of Runway 05/23.

PISTON AIRCRAFT

Stall During Single-Engine Go-Around

Cessna 421C. Destroyed. Two minor injuries.

he left engine failed when the pilot reduced power about 600 ft above ground level while departing in VMC from Runway 06 at Palwaukee Municipal Airport near Chicago, Illinois, U.S., on Aug. 5, 2005. The pilot said that he confirmed that the landing gear and flaps were retracted, and then declared an emergency and told the airport tower controller that he was returning to land. The controller cleared the pilot to land on Runway 34, the NTSB report said.

The pilot said that although the operating engine was at idle power, the landing gear was extended and the flaps were extended to 45 degrees, he was unable to slow the airplane on short-final approach to the 5,000-ft (1,524-m) runway. "I crossed the fence at 118 kt," he said. "Because of the excessive airspeed, I overshot the runway."

The airplane was about halfway down the runway when the pilot attempted to go around. He brought the operating engine to full power and retracted the flaps to 15 degrees, but did not retract the landing gear. The airplane stalled, struck the roof of a building and then struck an embankment and trees about 0.5 nm (0.9 km) from the airport. Inspection of the left engine revealed that the starter adapter shaft gear had failed. The report said that visual inspections of the starter adapter had not been performed in compliance with a service bulletin issued by the engine manufacturer. "The service bulletin contained a warning that stated, 'Compliance with this bulletin is required to prevent possible failure of the starter adapter shaft gear and/or crankshaft gear which can result in metal contamination and/or engine failure," the report said. Three months after the accident, the U.S. Federal Aviation Administration issued an airworthiness directive requiring compliance with the service bulletin.

Long Touchdown on a Short, Wet Runway

Beech 58 Baron. Substantial damage. No injuries.

A line of thunderstorms was approaching the airport from the northeast as the aircraft neared Denham Aerodrome in Uxbridge, Middlesex, England, on Aug. 13, 2006. The pilot believed that his first approach to Runway 06, which had an available landing distance of 706 m (2,316 ft), was too fast, and he conducted a go-around, said the AAIB report.

As the pilot maneuvered the Baron for another approach to Runway 06, rain began to fall heavily on the airport, and witnesses saw standing water on the runway. Several witnesses said that the second approach appeared to be faster than normal and that the aircraft touched down with about 470 m (1,542 ft) of runway remaining.

The pilot told investigators that he conducted a normal approach, but the aircraft floated as it crossed the runway threshold. "As the [pilot] applied the brakes, the aircraft began to slide, departing the left side of the runway and skidding with its right wing foremost through a hedge at the aerodrome boundary," the report said. "It came to rest on a public road just beyond this hedge. There was no fire." The six occupants deplaned without injury.

"Standing water can cause an aircraft to aquaplane or lose directional control, which may account for the aircraft sliding off the side of the runway," the report said.



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Control Lost During Missed Approach

Piper Seneca III. Destroyed. Two fatalities.

During his preflight weather briefing the morning of Nov. 6, 2005, the pilot was told that overcast ceilings from 100 ft to 700 ft had been reported along the entire route from Fredericksburg, Texas, U.S., to Tomball, Texas. However, the destination airport, David Wayne Hooks Memorial Airport, reported a clear sky below 12,000 ft and 7 mi (11 km) visibility.

The NTSB report said that the pilot questioned the briefer about the reported ceiling at the destination airport. The briefer said, "That's what they are saying, but I kind of find it hard to believe that everyone around them is [reporting] one to three hundred overcast and they're clear below twelve thousand."

As the Seneca neared the destination, the pilot was cleared by ATC to conduct the localizer approach to Runway 17R. Reported weather conditions at the airport now included a 300-ft overcast and 3 mi (4,800 m) visibility with fog. The published minimum descent altitude for the localizer approach was 620 ft — 468 ft above the runway touchdown zone elevation — and the minimum visibility was 1 mi (1,600 m).

Recorded ATC radar data indicated that the airplane remained right of the inbound approach course and descended to about 300 ft above ground level (AGL). As the airplane descended, the airport tower controller issued a low-altitude alert and told the pilot to check his altitude. The pilot replied, "We're going to climb back up and go missed approach." The airplane began a right turn but remained at about 300 ft AGL. The published missed approach procedure calls for a climb to 1,000 ft and a climbing right turn to 1,800 ft.

About 40 seconds after reporting the missed approach, the pilot said, "I got the tower. Can I go ahead and land?" About this time, the airplane began a left turn. The controller cleared the pilot to land but received no response.

The airplane's height above the ground varied between 300 ft and 800 ft as the left turn was continued. The airplane then entered a continuous descent. Witnesses saw the Seneca emerge from the clouds at a high rate of descent and in a nose-low and a nearly vertical leftwing-low attitude. The airplane struck the roof of a truck parked near the airport boundary, a power line pole, a berm adjacent to a public road and a vehicle on the road, and came to rest in dense vegetation off the side of the road. The vehicle driver received minor injuries.

"A weather observation taken approximately two minutes after the accident included a visibility of 1 3/4 statute miles [2,800 m] with mist and an overcast ceiling of 300 feet," the report said.

HELICOPTERS

Loose Fuel Line Fitting Causes Power Loss

Bell 206L-1 LongRanger. Destroyed. Two fatalities, two minor injuries.

he helicopter lost power about five minutes after departing from an airport near Patterson, Louisiana, U.S., for a charter flight to an offshore platform in the Gulf of Mexico the morning of March 14, 2006. "The commercial helicopter pilot subsequently made a hard forced landing at an off-airport site comprised of tall vegetation and soft terrain," the NTSB report said.

The helicopter came to rest upright, and the two rear-seat passengers exited before it was engulfed in flames. The pilot and front-seat passenger were killed.

Examination of the engine revealed that the nut connecting the fuel line to the fuel nozzle was loose and had not been secured with a lock wire. A fuel-nozzle inspection, which was required every 50 hours, had been performed the evening before the accident occurred. "This inspection required the removal, disassembly, cleaning, inspection, reassembly and reinstallation of the fuel nozzle," the report said. "An interview with maintenance personnel revealed that fuel nozzle installation procedures found in the engine manufacturer's maintenance manual had not been followed."

Postaccident tests indicated that a loose fuel nozzle can cause a substantial loss of power and



a flameout. "Testing further revealed that conditions would have been conducive for an in-flight fire," the report said. "Investigators could not determine if the fire originated in flight or during the ground impact."

Wind Shear Blamed for Hard Landing

Bolkow 105DB. Substantial damage. No injuries.

he helicopter was engaged in a public transport flight to resupply and maintain several lighthouses in Ireland on Dec. 13, 2006. Wind velocities in the area were 60 to 65 kt at 2,000 ft and 25 to 30 kt with gusts to 45 kt on the surface, said the Irish Air Accident Investigation Unit report.

The pilot expected to encounter turbulence on approach to the helipad at a lighthouse in Howth. He described the initial approach as relatively smooth. About 15 ft above the helipad, however, the helicopter began to descend rapidly, and application of power had no effect on reducing the rate of descent.

The helicopter landed hard and remained upright. The pilot shut down the engine, and he and his passenger exited the helicopter. Examination of the helicopter revealed substantial damage to the landing gear cross-tubes.

"Because of the strength of the gradient wind, there was certainly potential for localized significant wind shear and severe low-level mechanical turbulence," the report said. "These effects could have been exacerbated by mountain wave activity."

Adverse Weather Encountered in Box Canyon

Robinson R22 Beta. Destroyed. One fatality.

he pilot was among several pilots who were delivering helicopters from Torrance, California, U.S., to various locations on Sept. 20, 2005. The NTSB report said that all the flights "required a departure along the same easterly route, through a mountain pass and then over high desert terrain that included another line of mountains."

While waiting for weather conditions to improve sufficiently for departure, the pilot appeared to be anxious, and he said that he had to reach his destination — Las Vegas, Nevada — by 1600. Estimated flight time was between 2.6 and 3.0 hours. He departed from Torrance at 1425, flying the last helicopter in a group of four helicopters bound for Las Vegas and spaced about 15 minutes apart.

"While en route, other pilots in the group observed rain and lightning to the northeast of their track once they were east of the mountain pass and elected to [continue eastbound to] remain clear of the observed weather," the report said. After crossing the mountain pass, the accident pilot radioed another pilot that he was heading northeast.

"The helicopter was equipped with a GPS [global positioning system] navigation system, which had the capability to guide the pilot on a straight-line course to his destination, which could save about 17 minutes of flying time," the report said. "The pilot [likely] followed the GPS direct course and encountered restricted visibility, rain and moderate turbulence. He unintentionally flew into a box canyon and collided with rising terrain while attempting to reverse course out of the canyon." The accident occurred about 1600. The pilot had not filed a flight plan; the U.S. Civil Air Patrol located the wreckage at 3,370 ft on a 3,900-ft slope at 1100 the next day.

Engine Failure Traced to Fuel Control Unit

Eurocopter France EC120B. Destroyed. Two fatalities, one serious injury.

A n overspeed and catastrophic failure of the engine occurred during a law enforcement patrol flight near Fair Oaks, California, U.S., on July 13, 2005. The pilot and front-seat observer were killed, and the observer-trainee was seriously injured when the helicopter struck terrain near the bottom of a steep hill.

NTSB said that the probable cause of the accident was the failure of a diaphragm in the engine fuel control unit that caused increased fuel flow. "The diaphragm's failure was the result of improper installation by the engine manufacturer," the report said. ●

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Preliminary Reports				
Date	Location	Aircraft Type	Aircraft Damage	Injuries
April 1, 2007	Klagenfurt, Austria	Piper Seneca	destroyed	2 fatal
The aircraft reportedly broke up while cruising in visual meteorological conditions.				
April 1, 2007	Lake Germain, Quebec, Canada	Piper Chieftain	destroyed	1 fatal
The aircraft was en route from Sept-Îles, Quebec, to Wabush, Newfoundland, when it crashed on the frozen lake.				
April 1, 2007	Milwaukee, Wisconsin, U.S.	Bombardier CRJ	none	43 none
A horizontal stabilizer nose-down trim runaway occurred soon after departure. The flight crew declared an emergency and returned for a landing in Milwaukee. The preliminary report said that the aircraft was returned to service after the trim switches were lubricated and the horizontal stabilizer electronic control unit was replaced.				
April 2, 2007	Darwin, Northern Territory, Australia	IAI Westwind	none	NA none
The aircraft was climbing through Flight Level (FL) 340, en route to Alice Springs, when loud bangs were heard and cabin pressure was lost. The crew donned oxygen masks, descended to 10,000 ft and returned to Darwin.				
April 11, 2007	Wagga Wagga, New South Wales, Australia	de Havilland Canada Dash 8	none	NA none
Soon after departing from Wagga Wagga for a flight to Sydney, the left engine failed. The crew returned and landed the aircraft without further incident.				
April 11, 2007	Wheeling, Illinois, U.S.	Swearingen Merlin III	substantial	5 none
The aircraft had accelerated to about 75 kt on the takeoff roll when the left engine began to surge. The pilot could not maintain directional control and rejected the takeoff. The aircraft departed the left side of the 5,000-ft (1,524-m) runway.				
April 12, 2007	Traverse City, Michigan, U.S.	Bombardier CRJ200	substantial	52 none
Visibility was 1/2 mi (800 m) with snow when the aircraft overran the 6,501-ft (1,982-m) runway while landing at Cherry Capital Airport. The nose gear separated, and the aircraft came to a stop about 100 ft (30 m) beyond the runway.				
April 18, 2007	Abu Dhabi, United Arab Emirates	Airbus A300	destroyed	none
The aircraft was destroyed by a fire that erupted during maintenance.				
April 19, 2007	Kahuku, Hawaii, U.S.	Hughes 500	substantial	4 none
The pilot conducted a forced landing at Turtle Bay Resort after the engine failed.				
April 19, 2007	Chicago, Illinois, U.S.	McDonnell Douglas DC-9-30	minor	NA none
The roof of the tug struck the aircraft's radome during pushback from the gate.				
April 20, 2007	Jackson Bay, British Colombia, Canada	Beech D18S	destroyed	1 minor, 5 NA
The left engine lost power immediately after liftoff. The aircraft yawed left, and the floats separated on contact with the water. All six occupants exited with life vests before the aircraft sank; they were rescued about a half hour later.				
April 21, 2007	Changuinola, Panama	Bell 206	destroyed	2 fatal, 2 serious
The pilot reportedly lost control while landing the helicopter in a confined jungle clearing on the side of a mountain.				
April 23, 2007	Revelstoke, British Colombia, Canada	Piper Navajo	destroyed	2 NA
Returning from an aerial-photography flight, the pilot noticed an unsafe gear indication after turning final. He attempted to conduct a go- around, but the engines did not respond. The aircraft was landed gear-up beyond the end of the runway. Both occupants exited before the aircraft was consumed by fire.				
April 25, 2007	Kopinang, Guyana	Pilatus Britten-Norman Islander	destroyed	3 fatal, 2 NA
The aircraft was on a scheduled flight from Kato to Kopinang when it struck trees and crashed.				
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.				