



Aviation Human Factors Industry News February 23, 2009

Vol. V. Issue 4

Report Says Mechanics Missing in Human Factors Efforts

In a report titled “An Overview of Human Factors in Aviation Maintenance,” the Australian Transport Safety Bureau (ATSB) concludes, “The errors of maintenance technicians are the visible manifestation of problems with roots deep in the organization. Yet until recently, maintenance personnel were overlooked by the human factors profession.

Most significantly, maintenance errors can have grave implications for flight safety.” The report goes on to note that at the end of the work day, pilots and controllers are finished, but mechanics “know that the work they performed will be relied on by crew and passengers for months or years into the future.

On more than one occasion, **maintenance personnel have taken their own lives following aircraft accidents caused by maintenance error.**” Comparing mechanics to doctors, the report notes, “Opening up a healthy patient at regular intervals to check that organs are functioning normally would not be an appropriate strategy in healthcare, yet preventive maintenance in aviation often requires us to disassemble and inspect normally functioning systems, with the attendant risk of error.”

EMB-110 Down In Brazil's Amazon Basin, 24 Presumed Lost

Four Survivors In Saturday Air Taxi Accident

An Embraer EMB-110 Bandeirante chartered by Manaus Aerotaxis went down with reported engine trouble Saturday, crashing into the River Manacapuru in the Brazilian Amazon basin. Only four survivors of the water ditching have been found.



Agence-France Presse reports the plane had departed Coari Airport on its way to Manaus with 26 passengers and two crew. Survivors said one of the engines failed and the plane lost altitude... then as the plane prepared for ditching, it hit something and nosed into the water.

Despite the efforts of search and rescue divers continuing through the night, only four survivors were found, one of them a nine-year-old boy.

Aircraft manufacturer Embraer issued a statement Sunday expressing condolences and its willingness to assist in the crash investigation. “Embraer has made a technical team available to CENIPA (the investigation authority of Brazil's Aeronautics Command), supporting the investigations underway, and is closely following all the developments regarding this tragic incident,” said the planemaker.

Overweight suspected as 19-seater crashes with 28 on board

A Manaus Aerotaxi operated Embraer EMB-110 Bandeirante, crashed into the Manacapuru river near Manaus in the Brazilian Amazonas region, on 7 February leaving 24 of its 28 occupants dead.

The aircraft, local registration PT-SEA, had an in-flight engine failure while enroute from Coari to Manaus, say local news reports, citing survivors from the aircraft.

These reports say the pilot attempted an emergency ditching but the aircraft hit a tree and crashed into the river.

The four survivors say they escaped through the rear door of the aircraft but because the aircraft quickly sank, the remaining occupants drowned.

The Brazilian air force says it has retrieved 24 bodies from the river.

The cause of the crash remains unclear but the aircraft had 28 people on board, which is more than this aircraft type is permitted to carry because the EMB-110 is a 19-seat passenger aircraft.

A source at Manaus airport tells ATI the aircraft had 20 passenger seats. But there is no confirmation that the airline was certified to operate flights with more than 20 passengers.

He also says the passenger list only includes 20 passenger names. There were also two pilots on board so that means six of the passengers apparently travelled without adequate documentation.

An airline employee talking to ATI denies the aircraft was overweight.

He was unable to give further information on how 28 people could have travelled on the aircraft except to say there were "several children travelling on their parent's lap". Some local reports say there were eight children on board.

A local civil defence source says the police are already examining the documentation with the hypothesis that the aircraft was overloaded, making it hard for the pilot to manoeuvre it.

"But the final cause will obviously be determined by the ANAC," says the source, referring to Agência Nacional de Aviação Civil, which is Brazil's civil aviation authority.

Lawsuit Filed In January 29 Seneca Downing

A lawsuit was filed last Thursday on behalf of the estates of two victims of the fatal crash of a Piper PA-34 Seneca near Huntington, WV barely a week before.

The suit was filed in Cook County Circuit Court on behalf of the estates of a father and daughter traveling on the fated plane.



The Chicago Sun-Times reports the suit claims negligence on the Chicago-based American Polish Aero Club's part caused the crash: The club allegedly "failed to properly inspect the engines; failed to perform adequate pre-flight preparations and inspections; failed to plan proper communication during the flight; failed to safely operate the plane; failed to keep the plane on the flight path; and failed to properly monitor the engine."

The suit also alleges the plane was operated and piloted without sufficient fuel and continued to operate despite "declining weather conditions."

The head of the flying club, said the PA-34 Seneca was owned by the pilot and had departed from Lake in the Hills en route to Florida when the crash occurred.

The plane went down on January 29 in wintry conditions near Tri-State Airport (HTS) after the pilot radioed a mayday call advising controllers that the aircraft was low on fuel.

Federal Aviation Administration said, "The pilot issued a mayday. The mayday was based on low fuel." Tri-State air traffic controllers were talking with the pilot when the PA-34 Seneca made a sudden 180-degree turn and they lost contact with him.

The tower was "struggling with the pilot to maintain course alignment" before it crashed, National Transportation Safety Board said. Reports indicate snow and poor visibility prevailed in the area at the time of the crash. The airplane was destroyed as it severed a power line and impacted in a wooded area.

NTSB described weather conditions as "heavy snow, limited visibility," adding that "there is nothing... indicating a pre-impact malfunction." The final report from the National Transportation Safety Board is not expected for several months.

Qantas Fires Another Fake Engineer

QANTAS has allowed an another unqualified employee to undertake critical and specialist maintenance work on its aircraft, Last night the Civil Aviation Safety Authority said it had ordered Qantas to immediately identify all the work done by the employee over the past two years and assess the risk to air safety of each piece of work.

The authority has also ordered an audit of the qualifications of all Qantas licensed engineers — a process that Qantas said it is undertaking.

CASA said the issue was serious as licensed engineers are required to have the highest-possible qualifications and sign off and supervise the maintenance work done by others. Responsibility for checking qualifications lies with the airline that employs licensed engineers.

The latest case follows the sentencing in December of Timothy McCormack to a minimum of two years' jail after he faked qualifications to work as a licensed engineer at Qantas. McCormack had been employed as a lower-level maintenance engineer but started wearing the uniform of a licensed engineer and performing more important tasks.

It can often take 10 years training to work as a licensed engineer, with 25 basic exams, a four-year apprenticeship and hundreds of hours learning to work on a particular type of aircraft.

A Qantas spokesman confirmed that the latest case involved an employee who was an aircraft maintenance engineer who was doing work "he was not licensed to do".

The spokesman said the matter was being treated "very seriously" and the man's employment had been terminated. He was qualified to undertake Boeing 767 maintenance work but not to certify the work of other engineers.

"We do not believe there are any flight safety issues," the Qantas spokesman said.

Sources blamed cut-backs to the Qantas training programs in recent years as part of the problem.

The latest case follows a string of safety problems at Qantas last year including a mid-air drama where a 747 was forced to make an emergency landing after a hole was blown in its side. In another case an aircraft returned from maintenance in Malaysia with problems with its rudder and navigation systems while a flight attendant soon after received two electric shocks in the galley.

Qantas was also involved with the engineers association in a long-running industrial dispute for much of last year that saw, at its peak in May and June, the grounding of scores of planes. The airline estimated about 100,000 passengers were either seriously delayed or had their flights cancelled during those eight weeks.

[Cessna Mechanic Caught Stealing Parts, Selling Them On eBay](#)

A mechanic employed by the Cessna Aircraft Company has been caught with his hand in the proverbial cookie jar, stealing aircraft parts and selling them on eBay.



The Wichita Eagle reports Diego Alejandro Paz Teran, 31, was charged in federal court with the sale of stolen property. Conviction on the charges carries a top penalty of 10 years in federal prison and up to \$250,000 fine.

Investigators were drawn to the case last November when an employee of a Rockwell Collins distributor, checking for bargains on eBay, noticed an expensive piece of avionics being sold for too low a price.

A \$45,000 Collins AHC-3000 Attitude Reference Computer listed for only \$9,000 caught the eye of the Collins employee - who, being familiar with the unit, asked the seller for serial numbers. Tracing the parts to an aircraft being painted, investigators determined other parts listed online by the seller were also stolen.

Cessna officials could not comment specifically on a case in progress, but suggested nothing is necessarily amiss when aircraft parts are sold online. "There's a lot of people out selling parts legally on the Internet," company spokesman Doug Oliver said.

US Justice Department spokesman Jim Cross said the scam was a new one on him. In five years of working for the department, Cross said it was the first time he'd heard of a Wichita aircraft manufacturer employee stealing and reselling parts.

Poor Training Main Cause Of Aeroflot 737 Crash

The chief pilot of an Aeroflot airliner which crashed last year killing 88 people had alcohol in his blood but **the primary cause of the crash was poor training**, investigators said on Tuesday.

A Boeing 737-500 operated by Aeroflot-Nord crashed as it tried to land in the Ural mountains city of Perm early in the morning, killing everyone on board in Russia's worst air crash for two years.

An official commission which investigated the crash said the main cause was inadequate training which caused the crew to lose orientation, but it also identified the crew's preparation for the flight as a contributing factor.

"A forensic study... detected the presence of ethyl alcohol in the crew commander's body before his death," Alexei Morozov, head of the investigating commission, told a news conference.

"The crew commander's regime of work and rest in the period preceding this aviation accident was a factor behind his overall tiredness and ran counter to the established standards."

Morozov said the crew had lost its orientation flying at night through thick cloud, with the aircraft's autopilot and automated throttle control switched off. He said the crew had not been adequately trained to fly on that type of plane.

Jet's nose gear collapses during landing

The nosewheel of a British Airways passenger jet collapsed with a loud bang as it landed at London City Airport, sending the plane scraping across the tarmac with 71 people aboard. All aboard escaped by emergency slides, but one person was taken to a hospital with a minor injury.



The plane was arriving from Amsterdam about 8 p.m. when the front landing gear failed and the front of the plane slammed onto the runway and skidded. As a precaution the emergency slides were deployed and passengers were evacuated down the slides onto the runway, British Airways said. "One passenger suffered a minor injury."

The airline said it did not yet know what caused the landing gear problem on the Avro 146 RJ100, which had been carrying 67 passengers and four crew members. The government sent three investigators to the scene.

In addition to the person who received hospital treatment, four others were treated for minor injuries at the scene. There were no further details on the injuries.

The east London airport's only runway was closed, forcing 11 flights to be diverted to other airports, officials said. The airport handles about 80,00 flights yearly, mainly domestic and European..

"The front wheel collapsed, the cabin filled with smoke and everyone had to vacate from the rear of the plane," Hamblin said. "As I came off the emergency slide I hit my wrist on the runway. I think there are a couple of people with cuts and scrapes."

The Avro 146 RJ100, a four-engine plane made by BAE Systems, has a capacity for 100 passengers. Officials say the aircraft design makes it suitable for landings on poor quality runways.

The accident in London came a day after a commuter plane nose-dived into a suburban house in upstate New York, killing all 49 people aboard and one person in the home.

City Airport had to close for an hour earlier this month when the front wheel on a jetliner bent out of shape. No passengers on that flight were evacuated.

Recent plane crashes in Britain have involved smaller aircraft — earlier this week Royal Air Force light aircraft collided near a nature reserve in Wales, killing four people. Last year, two pilots and three passengers were killed when a Cessna jet crashed into a house in Kent in south east England.

[Electric wiring problems result in A340 fire incident](#)

Irish air accident investigators released a preliminary report regarding an incident involving a Virgin Atlantic Airbus A340 en route from Heathrow to Chicago in January 2009.

A small fire broke out in the bottom of the waste bin storage compartment of the bar unit in the First Class area. The fire was located in a hole in the floor of the compartment. The crew noted that a **damaged electric cable loom** appeared to emanate from this hole. Arcing was observed in the hole. Crew members used fire extinguishers but they could not put the blaze out. An emergency landing was carried out at Shannon.

The Investigation found that the cable loom in the bottom of the waste bin compartment had been completely severed and bore strong evidence of burning/arcing. The loom in question consists of ten wires in a protective sheath, six wires carrying 28 V DC and the other four carrying 115 V AC. This wiring provided power and dimming circuits for “mood” lighting which is recessed into the bar unit counter-top. Initial indication was that the lower edge of the metal waste bin made contact with the wiring loom. Information from drawings provided by the Operator indicated that two runners should be installed in the bottom of the compartment to keep the bin above the wiring loom, thereby avoiding contact. Furthermore, a protective metal cover should be installed over the loom in the bottom of the compartment. No evidence of the presence of the loom cover or rails was found. Initial inspection indicated **the possibility that they were never fitted.**

A fleet inspection of the Operator's A340-300 and A340-600 (which have a similar bar unit fitted but a different part number) aircraft found that a number of these aircraft also had problems relating to missing covers, rail screws and cable routing in this area. Damage to the loom was found on one other aircraft.

[Airline could be grounded over Safety flaws](#)

Transport Canada has ordered Manitoba-based SkyNorth Air to address safety concerns or risk being grounded next month.

Transport Canada said SkyNorth has been issued a notice of suspension giving it 30 days to show it has addressed safety deficiencies found in a recent inspection.

SkyNorth has until March 13 to address the problem, **which include ensuring proper maintenance and quality assurance are in place** before allowing planes to fly.

The company can still fly planes during the next few weeks, but it will be monitored by Transport Canada.

The inspection by the country's aviation authority was launched earlier this month after three of the company's planes were involved in air incidents in less than three months.

Five people survived after a SkyNorth plane suddenly crashed in dense bush near God's Lake Narrows on Nov. 22.

Last month, another SkyNorth plane was forced to abort a landing after its wing and undercarriage clipped trees. The damaged plane was able to land safely.

As well, early last month a SkyNorth plane's landing gear collapsed on the runway at Winnipeg's airport, causing several flights to be delayed or cancelled.

[BT-67 \(Turbine powered DC3\) Destroyed by Grenade in Baggage](#)

A Colombian policeman obviously didn't heed those signs at the airport with all the diagonal slashes through things you shouldn't put in your checked luggage. The grenade he had in with his skivvies went off while the turbine-upgraded DC-3 he and 26 others were on was getting ready to leave Medellin Airport.



The official line from the Colombian government was that it was a tear gas grenade but the damage portrayed in a photo released afterward suggests it might have been considerably more powerful. The aircraft was split in two by the detonation, which also removed most of the aircraft's upper fuselage.

No one was killed but eight people were injured.

[Engine Trouble Forces Helicopter Down](#)

A U.S. Border Patrol helicopter went down Thursday night near the San Onofre Nuclear Generating Station, according to the Federal Aviation Administration.

The helicopter was going from the airport in Long Beach, California, to the Brown Field airport in San Diego according to the Border Patrol's public information officer.

The McDonnell Douglas 600N made a forced landing **due to engine trouble**, authorities said.

Three people on board were able to exit the helicopter on their own and were taken to a hospital with non-life-threatening injuries, officials said.

Aerial images showed the helicopter sitting on the edge of the surf, just north of the nuclear plant. The aircraft was significantly damaged, authorities said.

The National Transportation Safety Board is investigating the case.

[Flight Deck no Place for Cell Phones](#)

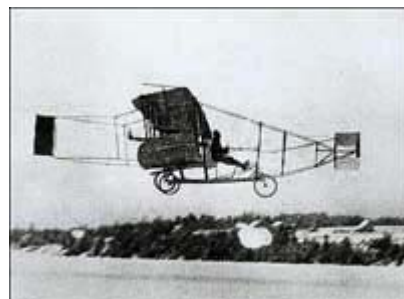
Carriers have long required that passengers turn off their cell phones and electronic devices for certain phases of flight to avoid causing interference with flight deck instrumentation, but a recent incident shows that not all carriers have made the same request of their pilots.

A Safety Alert for Operations issued early this month by the FAA notes that an aviation safety inspector conducting an en route inspection for an unnamed carrier experienced an event that was categorized as extremely dangerous. The event was caused by a pilot's cell phone. According to the alert, the First Officer's ring tone **"caused a distraction between the crewmembers during the takeoff phase and could have led the crew to initiate an unnecessary rejected takeoff."**

The inspector later confirmed that the crew had spoken correctly when they said their General Operations Manual did not prohibit them from leaving their cell phones "on" while performing on station. Digging deeper, the inspector found that the carrier's checklists did not include turning off cell phones as part of crewmember preparations for departure. While that may seemingly allow pilots some wiggle room, the FAA's policies, as outlined in a current Advisory Circular, spell things out more clearly.

[Canada Marks 100 Years Of Powered Flight](#)

There's some irony that the re-enactment of the 100th anniversary of the flight of the first powered heavier-than-air vehicle in Canada was scrubbed by cold, snow and wind. As organizers planned the re-enactment, the overriding fear was that Baddeck Bay on a lake on windswept Cape Breton Island in Nova



Scotia wouldn't be frozen over as it was on **Feb. 23, 1909** when **J.A. Douglas McCurdy** **lifted off smoothly from the ice in the bamboo-and-wire Silver Dart**. The bay hasn't frozen in the last six years. But Cape Breton has been pummeled by an old fashioned Canadian winter this year and, quite literally in the calm before the storm, flying conditions were perfect Sunday for a number of "test flights" in which Canadian astronaut Bjarni Tryggvason **flew** the replica aircraft in front of about 1,000 people.

McCurdy, a 22-year-old mechanical engineer who was bankrolled by Alexander Graham Bell's wife Mabel to design and build the aircraft. It was built and first flew in Hammondsport, N.Y. and that community's most famous son Glenn Curtiss took part and built the engine.

The current replica was built by a group of volunteers that included McCurdy's grandson in Welland, Ont. An earlier one was built by the Royal Canadian Air Force in 1959 to mark the 50th anniversary and it now hangs in the Canada Aviation Museum. The modern replica will be housed in an addition to the Bell Museum in Baddeck, where the inventor of the telephone, and keen aviation buff, spent his summers.

[Dogbert Tells it Like it Should Be](#)

