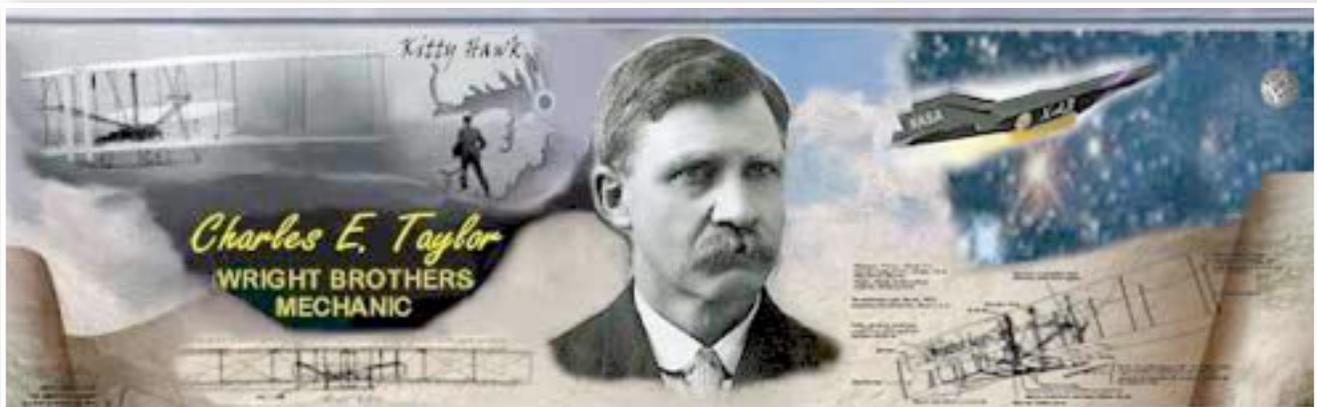


Aviation Human Factors Industry News

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From the sands of Kitty Hawk, the tradition lives on.

Hello all,

To subscribe send an email to: rhughes@humanfactorsedu.com

In this weeks edition of *Aviation Human Factors Industry News* you will read the following stories:

★**Continental To Appeal
Manslaughter Verdict In Concorde
Accident**

★**Loose wire caused Afghanistan
Global Hawk crash**

★**AI tells engineers to skip offs
★Delta Jet Rolls Off Taxiway at
Atlanta Airport**

★**A very simple maintenance error
that could have been fatal if the
strobe light had been turned on in
flight**

★**Human Error Caused Bellview,
Sosoliso Crashes - Report**

Continental To Appeal Manslaughter Verdict In Concorde Accident

Calls Decision In The 12-Year-Old-Case 'Absurd'

Continental Airlines, which is now part of United Continental Holdings, says it will ask a French appeals court to overturn the manslaughter verdict finding the airline liable for the deaths of 113 people aboard the Concorde 12 years ago. In an e-mailed statement, Continental calls the finding which blames the fire which the Air France supersonic airliner on a small strip of metal which had fallen from a Continental airplane "absurd."



Bloomberg News reports that Continental says [it has new evidence](#) it plans to present to the court in Versailles that will show the SST was already on fire before it allegedly hit the metal strip on the runway. Continental says it points to the "extreme fragility" of the airplane.

Air France is participating in the appeals process as well. The Concorde belonged to the French carrier before its merger with KLM. It says Continental is wrong to assert that the accident is Air France's responsibility.

Continental and EADS were both held "civilly liable" and fined, as was a Continental mechanic [who allegedly used an inappropriate part](#) which the court said ultimately caused the accident. The mechanic received a suspended sentence.

In another twist, Bloomberg reports that prosecutors also appealed the verdict, which cleared four French citizens, and they may now face manslaughter charges as well. One of them was a former French Civil Aviation Authority official who has challenged the constitutionality of the appeal. His lawyer says the court will have to address that issue "immediately."

FMI: http://ambafrance-us.org/IMG/pdf/Justice_ag.pdf

Loose wire caused Afghanistan Global Hawk crash

In-flight electrical failure caused a Northrop Grumman EQ-4 to crash in Afghanistan on 20 August 2011, says a newly-released accident investigation report. The aircraft crashed approximately 105nm (195km) northwest of

Kandahar. Specifically, an electrical connector to an unidentified line replacement unit (LRU) **partially separated**. This

caused electrical damage inside the LRU, which cut power to the actuators that controlled the unmanned aircraft's ailerons and spoilers. Within 1min of the power failure, the aircraft lost control after hitting minor turbulence.

"The Board President also found, by a preponderance of the evidence, that **LRU installation methods were a contributing factor in the mishap**," continues the report.

After a satisfactory preflight inspection, the US Air Force aircraft departed a forward operating base - likely to have been Al Dhafra air base in the United Arab Emirates; the region's main Global Hawk operating base - and entered the area of operations over Afghanistan. Approximately 9h into the flight, remote pilots and payload operators lost contact with the aircraft. The same electrical connector controls aircraft inputs to the Global Hawk's wing-mounted flight control surfaces, making it impossible to control.

After 25s of level flight the aircraft entered a high-speed dive from its 51,000ft (15,500m) cruise altitude, which it maintained until it hit the ground. The report suggests that the wings and other pieces were sheared off during the descent.

The crashed EQ-4 was subsequently bombed by US aircraft to ensure the destruction of classified material.

"Post-mishap analyses of in-service LRU-X-1 cap screws reflect a significant departure from required values of 18-22 inch-pounds above prevailing torque," reads the report. **"Improper torque, insufficient use of thread locking compound or reuse of a deformed lock washer could allow cap screws to vibrate loose during flight operations."**



Maintenance procedures for the aircraft were revised following the accident. The unmanned air vehicle, an RQ-4 Block 20 converted to carry the battlefield airborne communications node communications relay payload, was one of only two such aircraft flying.

AI tells engineers to skip offs

Have they heard of human factors education?

Air India (AI) has asked a section of its aircraft maintenance engineers (AMEs) to come to work daily — **without weekly offs and privilege leave — for a full three months**, at the end of which they would be entitled to use all the accumulated leave in one go. This, **however**, is subject to the availability of replacement staff.

The engineers have protested against the directive, saying it compromises airline safety and is discriminatory as the AI circular applies only to AMEs belonging to the erstwhile Indian Airlines. The new leave rule is for the one year of service that AMEs are expected to put in at outstation domestic bases. Within the three-month **no-break period, leave is prohibited except in “extreme exigency”**. The AMEs have written to the Directorate General of Civil Aviation (DGCA) and Air India CMD protesting the new rule.



An affected AME said, “At each of these outstations, a single AME is supposed to handle aircraft flying every day, working up to eight hours a day and even up to twelve hours in certain cases. He cannot even afford to fall sick, since his absence at the airport will mean grounding of the aircraft that has flown in for lack of certifying personnel.”

Another senior engineer explained why he thought the rule was discriminatory.

“While AI engineers continue to serve a maximum of 15 days at outstation bases, Indian Airlines engineers have been forced to serve for a year. Once at these stations, we are barred from taking any of our weekly offs,” he said.

In the circular issued last month, AI's engineering head Vipin Sharma said the AMEs would be eligible for leave to return to their home bases only if a replacement engineer was available. Till this circular was issued, AMEs from IA too were deputed to outstation bases for fifteen-day periods.

In an advisory issued on February 6, DGCA had described [engineer fatigue](#) as a potential flight safety hazard. "As fatigue builds up over a period of work and that this can be, at least partially ameliorated by the provision of breaks. Therefore, working longer duration without any break should as far as possible be avoided," the air safety regulator had said.

AI denied it was flouting DGCA rules. "We follow DGCA rules in letter and spirit," an airline spokesperson said. He insisted that the circular did not bar AMEs from taking weekly offs, [only asked them to postpone them until later](#).

Speaking off the record, a senior AI executive said the new rule would bring no benefit and might make flying risky. "There will be a serious threat to air safety if this system as per the circular is followed. The new rules may induce fatigue and impair the functioning of the airworthiness certification. The company gains in no way," he said.

Delta Jet Rolls Off Taxiway at Atlanta Airport

Two maintenance workers for Delta Airlines got a surprise plane ride early on Tuesday, March 13, 2012 when the Boeing 737-700 on which they were working veered off taxiway and down an embankment at Atlanta's Hartsfield-Jackson International Airport. There were no passengers on board the plane and no one was injured, a spokeswoman for the Federal Aviation Administration said.



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The two Delta maintenance workers **were conducting routine testing on the aircraft's engines around 5 a.m. when the brakes malfunctioned**, causing the plane to move, an airline spokesman said.

"They were testing the aircraft's engine run-up when they encountered some sort of problem with the plane's braking system," Delta spokesman Eric Torbenson told the Associated Press.

The plane reportedly veered off Taxiway E on the east side of the airport and landed in an embankment.

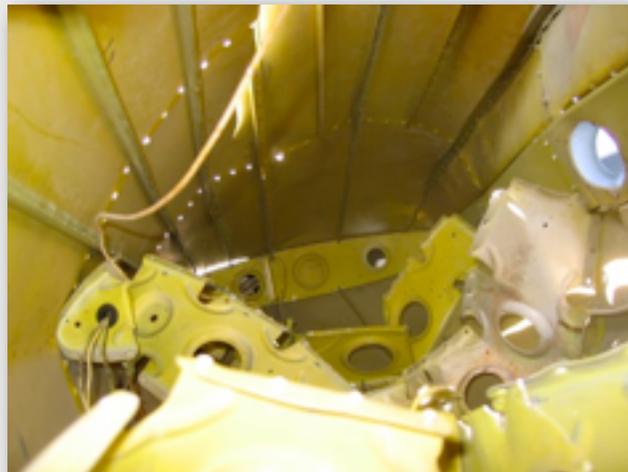
Torbenson told the AP the jet **sustained "significant damage."**

The runway adjacent to Taxiway E had to be closed to allow the plane to be moved. The Federal Aviation Administration was reporting no flight delays out of Atlanta because of the accident.

http://www.youtube.com/watch?v=pwRiSV8ci9M&feature=player_embedded

A very simple maintenance error that could have been fatal if the strobe light had been turned on in flight.

The wing tip lights electrical wiring **was not routed properly** through rubber grommets through the wing frames. The pilot selected the on position for his wing tip strobes prior to T/O and the wing blew up. Had the potential to ruin his day had this occurred in flight.



Human Error Caused Bellview, Sosoliso Crashes - Report

Fresh reports have emerged showing [harrowing human errors](#) as major contributor to the crashes that killed hundreds of people in 2005 and 2006 Sosoliso, Bellview and ADC crashes in 2005 and 2006. But the Accident Investigation Bureau (AIB), the agency in charge of investigating plane crashes in Nigeria, has continually released partial reports and mostly blamed weather for the three major plane crashes that occurred in Nigeria.

Documents obtained by The Associated Press via the Freedom of Information Act in the United States, showed that the authorities concerned [did not observe the enforced safety regulations and oversight](#) at the period of the crashes.

The U.S. became involved in those inquiries because the planes were manufactured by U.S. companies and because Nigeria requested the help of American investigators.

A report on the 22 October, 2005 crash of a Bellview Airlines flight that killed 177 people, showed the plane nose-dived into the ground at high speed.

[The plane's captain](#), a 49-year-old former pilot, had been hired by Bellview after he had been working at a dairy for about 14 years, the summary read.

The pilot also had been 'shot in the head during a robbery attempt' during that break from flying, the report said.

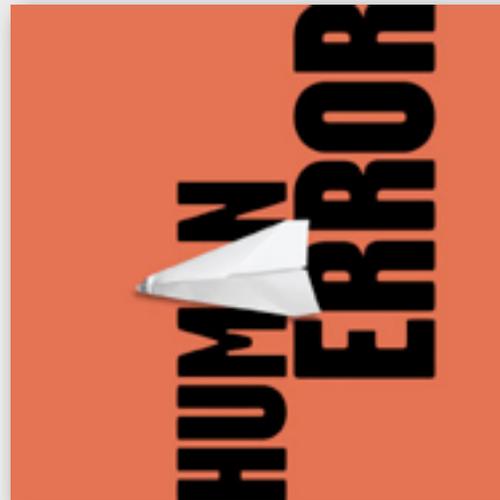
'Interestingly, the Nigerian medical records do not contain any medical or hospitalization history of this event,' the report read.

The unnamed author of the report wrote that investigators would follow up on that detail, though no other documents released by the FAA refer to it again.

Harold Demuren, Director General of Nigeria Civil Aviation Authority (NCAA), said officials had worked to ensure safety regulations were followed.

'Nigeria had a really woeful accident records and those were the results.

'However, you must add to it that things have improved tremendously since then,' Demuren said.



At the Bellview crash site, deep in rural Nigeria, villagers looted the few pieces of what remained from the plane, likely including its 'black box' recorders, according to an investigation summary.

The December 10, 2005 crash of a Sosoliso Airlines flight full of school children from Abuja to Port Harcourt, which killed 107 people, including famous cleric, Pastor Bimbo Odukoya, appears to have involved both pilot [error and weather](#).

The U.S. Federal Aviation Administration (FAA), report says that the pilot was 'reportedly [racing a thunderstorm](#)' nearing the airport.

The inclement weather also forced the pilot to make an instrument landing, meaning that visibility had been reduced to the point the pilot needed to rely on instruments to make his landing, the report read.

The plane crash landed on the grass alongside the runway, broke apart and caught fire.

The third plane crash, which happened on October 29, 2006, Aviation Development Co. (ADC), flight from Abuja to Sokoto killed 96 people, including Muslim spiritual leader, the Sultan of Sokoto, Muhammadu Maccido.

The report said that the plane crashed 76 seconds after going airborne.

The report noted that just before the crash, alarms began sounding in the cockpit and the pilots' [incorrect actions stalled the plane](#).

'Although bad weather may have created the situation, which the pilots reacted to, they reacted inappropriately.'

Even more disturbing for investigators was the airline's operation manual for pilots and cockpit staff, which '[did not contain any information on adverse weather condition as that section was blank](#).'

The manual was duly approved by the NCAA, despite containing the blank section.

'The deficiency in the operation manual would probably make it difficult for pilots to take appropriate decision on when to go or not to go in (an) adverse weather condition,' the report said.

Many times, the ex-commissioner of the AIB, at conferences had claimed that the full report was not available.

The spokesperson, Mr. Tunji Oketunbi, also in many interactions with journalists claimed the reports were not out as investigations were still on-going.

A 2009 study done for the World Bank concluded the aviation authority spends more than 90 per cent of its budget on salaries and [cannot fund training or equipment needs](#).

The authority 'is still struggling to enforce quality, safety, and security standards on federal agencies operating Nigeria's airport and airspace systems,' the study said.

Demuren, the authority's director-general, acknowledged that challenges remain for his agency as it has an aging work force and old equipment, but he insists things have improved greatly.

In the five years since the ADC crash, Nigeria has not had another major commercial airplane crash, something the nation's leaders point to with pride.

In August 2010, the U.S. announced it had given Nigeria the FAA's Category 1 status, its top safety rating that allows the nation's domestic carriers to fly directly to the U.S.

The Nigerian government said it also now has full radar coverage of the entire nation.

However, in a nation where the state-run electricity company is in tatters, state power and diesel generators sometimes both fail at airports, [making radar screens go blank](#).

Yet, air travel has never been so popular in Nigeria, whose growing upper and business class rely on air travel to avoid the country's poorly maintained and dangerous roads.

The country had nearly 14 million air passengers in 2009, according to a December study by Lagos-based Ciuci Consulting and Financial Derivatives Co.

The nation's largest carrier, Arik Air Ltd., soon will have a fleet of 40 aircraft, the study said.

'Yet Arik, like the nation's seven other domestic carriers, faces [increasing economic pressure](#) from rising jet fuel costs in a nation that must import majority of its fuel, despite being Africa's top oil producer,' said Fola Onasanya, an analyst at Ciuci Consulting.

'Major maintenance must be done outside the country, as Nigeria does not have the manpower or capability to do it locally.

Government [regulations and taxes also add additional burden](#) on companies in a nation where airlines have scrimped on maintenance in the past to cut costs.

There's always been that [pressure](#),' Onasanya said.