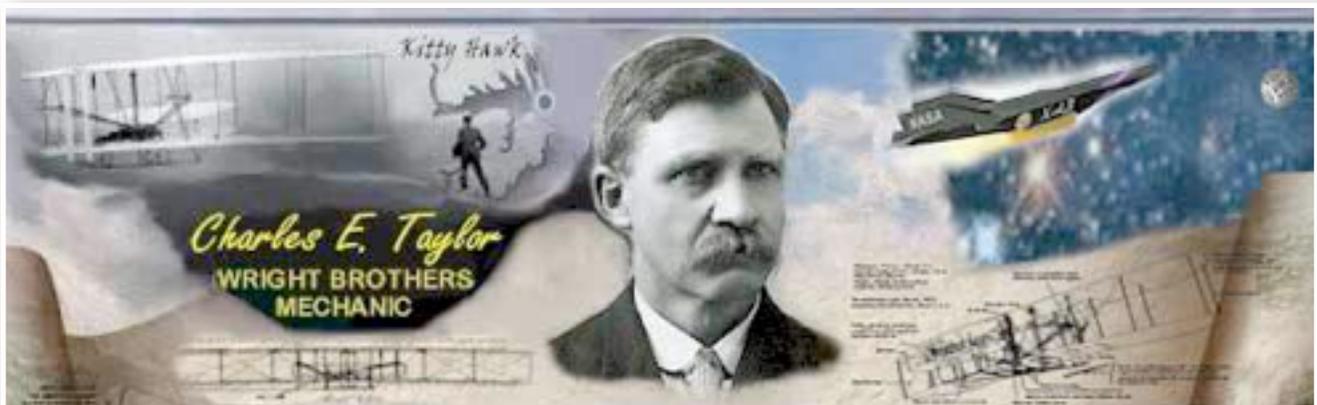


Aviation Human Factors Industry News

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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

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Judgments Against Continental, Mechanic John Taylor Reversed

A French appellate court has overturned involuntary manslaughter convictions against the former Continental Airlines and mechanic John Taylor stemming from a July 2000 accident involving an Air France Concorde SST. One-hundred-thirteen people were fatally injured when the plane caught fire on takeoff and went down in a residential area. A French court had found both the airline and the mechanic guilty of involuntary manslaughter when it determined that a metal strip which had fallen from a Continental DC-10 had caused one of the SST's tires to rupture during its takeoff roll. Pieces of the tire were said to have punctured the fuel tanks, causing the fire



The New York Times reports that, while the appellate court did not challenge the lower courts findings, it said [the manslaughter charge was unjustified](#). It upheld a payment of about \$1.3 million to Air France for "damage to its image."

Taylor had been named in the suit for fabricating and using a titanium wear strip on the DC-10 during maintenance [rather than](#) one made of a softer metal, and of attaching it improperly to the airplane.

Olivier Metzner, an attorney representing UCA, said that the ruling "is the end of the Concorde affair."

William Voss, president of the Flight Safety Foundation, said that the aviation community would view the verdict with a sense of relief. ["It reminds us that human error, regardless of the tragic outcome, is different than a crime,"](#) he told the paper.

Safe Air 'knew of engine risk'

The original fine against Marlborough aviation company Safe Air after one of its engineers was killed at work last year was "manifestly inadequate", Justice Kos has ruled.

His decision on an appeal to the High Court against the original sentence was released this month.

The decision on the fine had been reported but not the reasoning.

The decision said the original ruling did not give blame to Safe Air over the death of Renwick man Miles Hunter, who died [while working on an engine](#) at Woodbourne airfield on August 8 last year. He was [sucked into a C-130 Hercules engine fixed to an outdoor test bed](#).

Justice Kos said [the company knew about the risks](#) of the testing operation. Its engine starting ground run procedure manual [warned personnel of the danger of ingestion or severe injury](#) when walking near the intakes and exhausts of engines while they were running on the test bed. The danger of airflow from an engine was also recorded in its hazards register, where the scores given reflected the potential danger, the decision said. The probable frequency score given was two, meaning it had happened in the past; the potential severity score was four, meaning possible fatality; and the risk rating was eight, the [highest risk rating](#) to be found in that section of the register. "The degree of [culpability](#) by Safe Air in this case was high," Justice Kos said.

Safe Air bought the test bed from the United States in 2002 and [modified it](#) so people could walk in front of the air intake. However, a handrail was more to stop people falling to the ground than from being sucked into the engine.

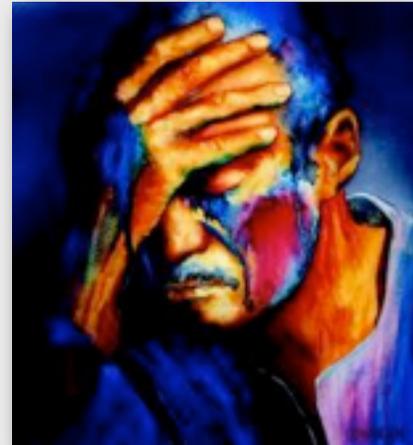
By modifying it [without considering the safety implications](#) of doing so, Safe Air did not meet industry standards, the decision said. "The risk of ingestion into aircraft engines was a hazard known to Safe Air." No-one had thought it possible for a person to be sucked into the engine on the test bed. But that depended on [employees following relatively informal work practice](#), the judge said.

It was also thought to be safe as long as no-one walked closer than 45 centimeters to the air intake.

Justice Kos concluded the relevant starting point for sentencing should have been \$125,000, rather than \$100,000.

He increased the fine by \$13,750 after the appeal by the Business, Innovation and Employment Ministry.

The Air New Zealand subsidiary, based at Woodbourne airfield near Blenheim, was originally fined \$56,250 and ordered to pay reparation of \$22,500 after a hearing in Blenheim District Court in May on one charge under the Health and Safety Act.



LOT 767 gear-up crash probe advises checklist

Polish investigators are recommending [amendments to checklists](#) to help pilots cope with alternate undercarriage deployment failure, following the gear-up landing by a LOT Boeing 767-300ER.



While the inquiry has attributed the [failure to a pulled circuit-breaker](#), it has yet to determine the probable reason why the breaker was in this state. The aircraft had suffered loss of pressure in the central hydraulic system after departing Newark on 1 November 2011, a problem subsequently traced to a damaged hose in the main landing-gear.

But having chosen to continue the flight to Warsaw the pilots found that the undercarriage would not deploy during the alternate landing-gear extension procedure.

Examination of the aircraft's electrical system found the suspect circuit-breaker - affecting [the battery bus](#) and, in turn, the alternate gear extension system - to be in the 'off' position.

Extensive testing of the electrical system, including X-rays of the circuit-breaker, did not reveal any faults.

In an interim report on the accident Polish investigation authority PKBWL has concluded that the circuit-breaker's 'off' status is the "most likely cause" of the alternate gear-extension failure.

But it adds: "A separate issue is an explanation of what was [or] could have been the reason that, at that time, the circuit-breaker was in the 'off' position."

While the reason remains undetermined the inquiry indicates that the breaker [could have been inadvertently tripped](#), because it is recommending that breakers in certain areas be physically protected against accidental contact with shoes, luggage or cleaning equipment.

PKBWL also points out that the circuit-breaker's status may be noticed by the crew only if there is a need for activation of the systems it protects.

It is recommending that [checklists be modified](#) to instruct pilots to check the appropriate circuit-breakers in case the alternate gear-extension system fails.

While the LOT crew managed to perform a successful gear-up landing on Warsaw's runway 33, with no injuries to the 231 occupants, the inquiry points out that the quick-reference handbook **did not contain any guidance** for dealing with complete failure of the primary and alternate landing-gear systems. PKBWL is advising development of a checklist for handling such a situation.

LOT opted not to repair the aircraft (SP-LPC) but instead auction its components.

Was AF447 enough to cause a reaction at airline level?

Flightglobal has **posted a study** of the airline safety issues raised by the investigation into the loss-of-control crash of Air France flight 447 in June 2009. The review examines whether the serious systemic inadequacies the accident revealed will trigger industry action to correct them.

As the review demonstrates, **the human factors issues associated** with loss-of-control in flight (LOC-I) accidents were well known before AF447, **but nothing was done**. The question is, does the Air France A330 crash have the shock-value to produce action where previous LOC-I events have only produced industry hand-wringing?



The February 2009 Colgan Air crash at Buffalo, because it happened in America, looked as if it might have the potential to move the regulators. It demonstrated that there are legally licensed pilots flying fare paying passengers **without having the knowledge or skills** to cope even in unexceptional circumstances.

ICAO, EASA and the FAA all know that radical change to the way in which airline pilots receive their airline type and recurrent training is required and, working with several specialist industry groups, **they are slowly trying** to define what those changes should be.

But the FAA will not have the mandate to change - especially to add - training requirements because, to produce a new regulation **it has to demonstrate a cost-benefit based on the US value of a human life**, and in statistical terms LOC-I accidents involving US carriers are too rare to enable them to make a case.

EASA, meanwhile, **is drawing up new training requirements**, and will eventually publish proposed regulation for comment and consultation.

The consultation phase will be interesting. More training on top of what already exists would be very costly. Different training that replaces some of what exists will almost certainly add to present training costs. And the European carriers will bridle at being presented with potentially higher recurrent training costs than their US competitors, or indeed all non-European competitors.

ICAO is the only hope for creating a global level playing field in pilot training and licensing standards. But of course ICAO has to cajole and persuade, it does not have legislative power. This takes time.

So the two questions about the AF447 safety legacy are: will anything happen? And if it does, how long will it take?

<http://www.flightglobal.com/Features/af447/>

Four in 10 British pilots admit falling asleep in cockpit

Four in 10 British pilots have fallen asleep at the controls of an aircraft, a survey has suggested, fueling concerns over safety regulations.

Recent research also revealed that a third of these pilots admitted waking up to find their co-pilot asleep as well.

In a 2012 survey for the European Cockpit Association (ECA), more than half of around 6,000 pilots from all over Europe said tiredness had hampered their ability to fly.

Of those who felt unfit, 79 per cent said that this was "sometimes" or "often" the case.

The research also suggested the issue is under-reported. Fearing the reaction of employers, 70 to 80 per cent of tired pilots said they would not file a fatigue report or declare they were unfit to fly.



To the ECA, the results were not surprising. The organization claims that long duty and standby hours, night flights and disruptive schedules contribute to pilots spending long periods awake.

The body, which represents European pilots, is using the survey to bolster its campaign demanding safer flying time regulations. It says the final proposals from the European Aviation Safety Agency (EASA) on Flight Time Limitations, published in October and designed to "harmonize" regulations across the EU, fail to protect passenger safety, and would only **marginally improve** the current situation.

"Fatigue impairs the judgment and ability of air crews to react quickly, with potentially disastrous consequences," said Philip von Schöppenthau of the ECA. "We cannot wait for another accident before the EU wakes up and realizes its rules are insufficient."

The British Airline Pilots' Association is also opposed to EASA's proposals which it said are more permissive than those currently in place in Britain. It said pilots will be able to land an aircraft having been awake for 22 hours, could face night flights of up to 11 hours long and be forced to work up to seven early starts in a row. Currently British pilots can go up to 18 hours without sleep.

However, a Government report published on September 11 said the current draft of the proposals "**will not lead to a diminution of safety** in the UK". In response to a Transport Committee Inquiry, it said the rules will offer a similar level of safety to that set by the US Federal Aviation Administration and noted that some other EU member states believed the proposals too restrictive in some areas.

The proposals will now enter the legislative process and must be finalized by the European Commission and approved by Member States before being adopted into EU law after mid-2013.

FAA Seeks Tighter Oversight Of Outside Maintenance On Commercial Aircraft

Federal regulators, seeking to **plug nagging safety loopholes**, are proposing tighter rules for industry and government oversight of outside contractors that maintain airliners and a broad array of other commercial aircraft.

Slated to be formally unveiled, the proposed package requires passenger airlines, charter carriers and cargo operators to ensure that independent maintenance firms working on their planes [comply with the same procedures and quality-control provisions](#) that apply to in-house mechanics. The proposal aims to spell out more precisely the technical details of what outside contractors should do when they overhaul planes, and to make it easier for regulators to track whether they did the work appropriately.



Under the Federal Aviation Administration's proposal, outside maintenance outfits would have to receive the same specific instructions and detailed manuals routinely provided to mechanics working directly for airlines and other commercial operators. [That often doesn't happen now](#), according to the FAA, because carriers are reluctant to share what could be proprietary or confidential data with outsiders.

The FAA, for its part, would have to be given more-precise information about the extent and location of work performed by contract maintenance providers.

The sweeping proposal, which applies to commercial planes carrying 10 or more passengers, comes after years of criticism of the FAA for failing to adequately oversee outside maintenance. Since 2003, the Transportation Department's inspector has issued [three separate reports criticizing allegedly](#) lax FAA oversight in this area. The last report, according to the FAA document posted on the Federal Register Website, was issued in 2008.

The proposed rule says it aims to "ensure consistency between contract and in-house air carrier maintenance." It also seeks to comply with inspector general recommendations to assure that FAA inspectors have the benefit of "a readily available list in an acceptable format" listing maintenance contractors working for individual airlines.

Many of the same general requirements are included in current regulations, but the latest version aims to make them tighter and more pointed. Airline maintenance manuals, for instance, often date back to an era when outsourced maintenance was not a major factor.

In recent years air carriers together [outsourced more than 70 percent](#) of their most extensive maintenance jobs to so-called third party providers, according to the FAA, about double what it was in 2003.

That trend has been partly fueled by the precarious financial condition of the country's biggest airlines, which can save money by moving maintenance visits to foreign hangars where labor rates and other operating costs are lower than in the U.S.

Acknowledging the crux of the regulatory problem, the agency's proposal notes that the current [lack of clarity and standardization](#) makes it difficult for both airlines and the FAA "to provide meaningful oversight to ensure proper maintenance that is vital for the public's continued safety."

FAASafety.gov

GA Maintenance Alert
Notice Number: NOTC4455

Safety and Security of Components

A review of recent helicopter accidents has revealed a number of [improper maintenance practices and techniques](#). Contributing significantly to these accidents is the [improper safety and security](#) of critical flight control systems, engine systems, and drive system components. In some cases, proper torque was not applied, safety wire or cotter pins were not installed, self-locking nuts were [reused](#) numerous times where they lost their self-locking capability, and critical components were removed and reinstalled without following the for Continued Airworthiness (ICAs). A preliminary review as to why these improper maintenance practices and techniques were performed and were overlooked indicates that [human factors and failure to follow written procedures](#) are potential factors. Fatigue, time constraints to perform the maintenance tasks, cell phone activity, and complacency were the [serious factors](#) related to these accidents. Click to go to this document to review 11 safety recommendations. The ultimate question the pilot or mechanic who performed the work should ask is, "[Would I place my family in this aircraft on its first flight after maintenance?](#)" Responding favorably to the safety recommendations in the document will help us answer that question with a resounding YES!



https://www.faasafety.gov/files/notices/2012/Nov/GA_Maintenance_Alert_121121.pdf

"A&P Certificate Replacement" - FAASafety.gov

A&P Certificate Replacement
Notice Number: NOTC4449

If you have already replaced your paper A&P certificate, then this message is not for you. On the other hand, if your A&P certificate is still printed on paper, please read carefully.

The FAA is under a mandate to replace all paper certificates with plastic certificates. If you do not replace your paper certificate on or before March 31, 2013, **you will no longer be able to exercise your privileges!**



All certificated Airmen, including mechanics, repairmen, pilots, etc., are required to replace their paper copy with a plastic copy, or they will no longer be able to exercise the privileges of that certificate.

The replacement cost is \$2.00, unless you still have your Social Security Number on your certificate and you ask to have it removed.

Avoid the Rush! Apply today!

The best way to get a new replacement certificate is to follow the instructions at http://www.faa.gov/licenses_certificates/airmen_certification/certificate_replacement/.

Female applicants rise for aircraft maintenance training

Aircraft maintenance schools are seeing a **30 percent increase in female applicants**, according to the Association for Women in Aviation Maintenance.

The non-profit organization, based in Edgewater, Fla., helps students with career counseling and support and assists seasoned mechanics, it reports.

The group pledges to increase opportunities for training and mentorship of women in aviation maintenance, it said.

The organization announced new officers, including Lynette Ashland of Voyager Aviation in Cincinnati, president; Jane Shelton of Pratt and Whitney of Columbus, Ga., vice president; Teressa Stark of Pensacola, Fla., treasurer; and Sharon Riffle of American Airlines in Dallas, secretary and director.



New Human Factors course is now available

The FAA P.E.A.R. of Human Factors

The FAA has developed a memory aid called **PEAR** and it makes recognition and mitigation of Human Factors even easier. PEAR is a simplified version of the SHELL model. This course will compare the PEAR and SHELL models and then explain the components of the PEAR model, which are, People, Environment, Actions and Resources. This study includes the role of the **five human senses** in aviation maintenance.

Of special concern is the study of the eye, ear and touch. The objective of this course is to explain the function of the senses and organs used daily in our lives and work. The course is built around the PEAR Model developed by **Dr. Johnson**. This course is 60 minutes in length with a quiz. This course qualifies for AMT Awards.



www.bluetunadocs.com/