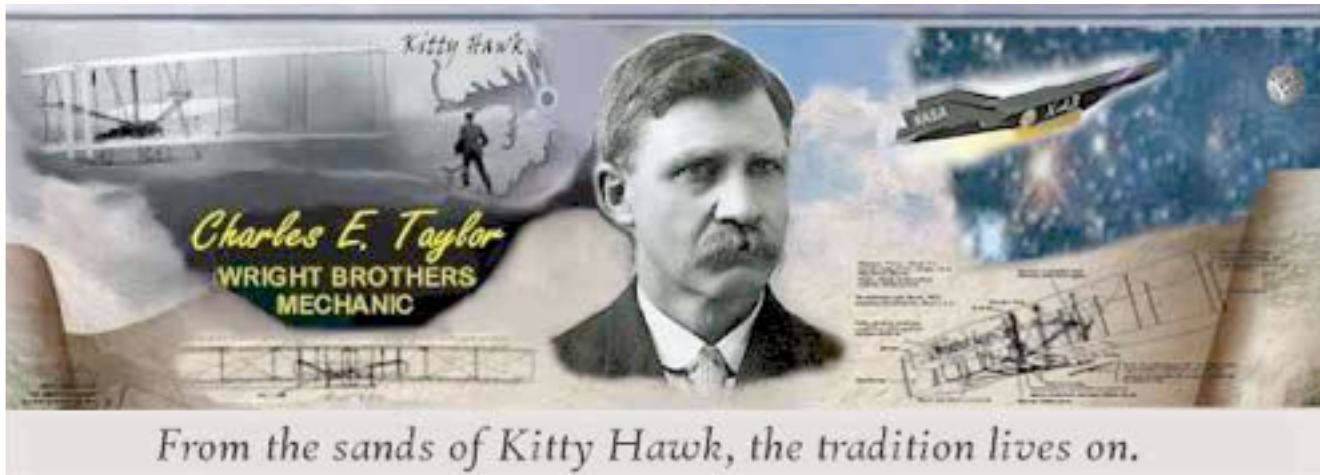


# Aviation Human Factors Industry News

*Volume VI. Issue 07, February 26, 2010*



Hello all,

To subscribe send an email to: [rhughes@humanfactorsedu.com](mailto:rhughes@humanfactorsedu.com)

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

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## Flashlight found in tail cone of plane that crashed in Ellis County, safety board says

Investigators found a **flashlight inside a critical area** of a small airplane that crashed last month, killing a Dunbar High School sophomore and his flight instructor. The flashlight was found in **the tail cone, near the stabilator push-pull tube linkage**, which allows a pilot to guide the plane up or down, according to a preliminary report released Wednesday by the National Transportation Safety Board.



### **Part of the push-pull linkage was fractured.**

One witness told investigators that the plane was in an uncontrolled spin as it headed toward the ground. Eric Schultz, 15, and his flight instructor, Gregory Green, 36, were killed in the Jan. 23 crash.

Investigators are **examining maintenance records** and trying to determine how the flashlight ended up in the tail cone, said Keith Holloway, a spokesman for the safety board.

The teen's father, Thurman Schultz, had read parts of the preliminary report but was unaware that the flashlight had been found.

"To be honest, I don't want to comment on that right now," he said.

A stabilator affects the up-and-down motion, or pitch, of the aircraft's nose. Investigators **found marks on the flashlight** and tail cone near the stabilator controls, which indicates that the **object was likely wedged** in that area at one point, said Jon Kettles, a Dallas aviation lawyer and pilot.

If a flashlight were jammed under the stabilator controls, flying the plane would be similar to driving a car with the steering wheel detached, Kettles said.

"Mr. Green would have just been a passenger," Kettles said. "... That's got to be one of the most horrible experiences to have to be unable to control the aircraft."

John Eakin, who researches aircraft maintenance and safety records for lawyers and crash investigators, said aircraft mechanics **have a check system to ensure that all tools are accounted for** after working on a plane, such as a **foam cutout in which each tool sits**.

"Where were the provisions to make sure that a mechanic does not leave that in there?" Eakin said.

## **Commuter plane hits LAX walkway, none injured**

A United Express twin-engine turboprop commuter plane struck a passenger jetway bridge at the Los Angeles International Airport last Tuesday. All 28 passengers and three crew members on board deplaned safely and were not hurt. The Brazilian-made Embraer airliner approached Gate 82 situated at the far eastern end of the United Airlines Terminal 8.



United Express flight 6199 had just arrived from Palomar Airport in Carlsbad, according to Ian Gregor of the Federal Aviation Administration.

The FAA said that the pilots **were following instructions from a ground handler**.

**The plane either rolled into the jetway bridge, or the jetway operator moved it out too quickly.** This event is still under investigation.

In either case, the spinning propeller hit it, sending shattered metal flying.

The Embraer 120 was left at the gate through most of the day while FAA safety investigators examined the wreckage.

Late Tuesday afternoon, the plane was towed away under police escort to a hangar at the west end of the airport for repairs.

This was a very close call. The fact that no one was hurt by **flying metal parts** probably had more to do with luck than skill.

video: <http://abclocal.go.com/kabc/video?id=7281446>

## KLM 737 takes off from taxiway at Amsterdam Schiphol

Dutch investigators have opened an inquiry after a KLM Boeing 737-300 **took off from a taxiway** at Amsterdam Schiphol on February 12, 2010. The aircraft, registered PH-BDP, was departing on a service to Warsaw when the incident occurred.



Flight KL1369 was supposed to use runway 36C but instead took off from taxiway B which runs parallel on the eastern side.

A spokeswoman for the Dutch Safety Board states that the incident is being classified as "serious" by the investigators.

The aircraft continue to Warsaw and the crew was interviewed on return, she adds.

KLM lists KL1369's scheduled departure time as 20:20 and the spokesman says the incident took place at 20:36.

Amsterdam Schiphol **would have been in darkness** at this time. Meteorological data from the airport shows good visibility and weather

## Crash jet 'not properly serviced'

Records **wrongly** showed maintenance work to have been completed.

Safety work on a plane whose nose landing gear collapsed at London City Airport **had not been properly completed** by a parts manufacturer.



Smoke filled the British Airways Avro 146 jet, carrying 67 passengers, as it landed on 13 February 2009.

A **fatigue crack** led to the landing gear fracturing, an investigation found.

Improvement work on the plane had not been fully finished by the US firm responsible, even though records showed it had been.

The Air Accidents Investigation Branch (AAIB) also found there had been **"poor surface finish during manufacture"** of the aircraft, necessitating the safety improvements which were not properly completed.

#### Emergency chute

As the plane, which had a crew of four on board, touched down at the end of a flight from Amsterdam, the nose landing gear penetrated the fuselage.

All the passengers were safely evacuated from the plane, 66 of them leaving via an emergency chute.

Two people suffered minor injuries and the airport was shut for several hours.

The AAIB report noted the plane's public address system was knocked out due in part to damage sustained in the crash.

However, no safety recommendations were made by the AAIB as inspections and maintenance have been tightened since the crash.

British Airways said it welcomed the report.

"There are no specific safety recommendations for BA, but we have worked with the relevant authorities and manufacturers to **ensure that the highest safety levels are maintained**," said a spokesman.

## Tail Rotor Pedal Lock neglected

Hughes 369. destroyed. one fatality, one serious injury.

Shortly after lifting off from a fishing vessel near Honiara, Solomon Islands, the morning of Dec. 28, 2008, the helicopter began to spin. A witness, the helicopter's maintenance technician, saw the pilot "trying to grab the pedal lock" and later told investigators that the pilot **likely had forgotten to remove the tail rotor pedal lock before takeoff**.



The helicopter descended out of control, and the fixed floats separated when it struck the surface of the Solomon Sea. The helicopter then sank and was not recovered. “The pilot, a Philippine national, was not found and is presumed dead,” the NTSB report said. “The passenger, a Chinese national, sustained serious injuries.”



## Toyota crisis hits aviation, too

As the automobile industry is shaken by auto recalls by first Toyota and then Honda, the world of aviation is going through **a seat crisis**. Seat manufacturer Koito Industries, whose bigger partners include Toyota, has been found to have used **non-certified material** in 150,000 plane seats. The seats, which have been manufactured since 1995 and are in use in nearly 1,000 jets on 32 airlines, are now under scrutiny. Japan’s Transport Ministry has launched an investigation.



The scandal unfolded last year **thanks to a tip** from a Koito employee. The company was sending different products for certification, according to a letter by the employee to the Transport Ministry.

The letter spurred an undercover investigation. Koito’s records were checked. The investigation showed that 30,000 of these suspicious seats were used by Japan Airlines and 26,000 by All Nippon Airlines. Other airlines using these seats include Air Canada, KLM, SAS, Thai and Singapore Airlines.

Having received the crucial information, Airbus sent a memo to operators in September last year. The European giant announced it would not accept Koito-made seats to its planes, while seats already ordered were exempt from this decision.

Japan's Transport Ministry said the risk is not big enough to halt flights, but demanded the manufacturer change the seats as soon as possible. Koito, while reassessing its designs, temporarily halted production. As a result, deliveries of Singapore Airlines' A380, Thai's A330 and All Nippon Airlines' Boeing 777-300ER jets will be delayed for at least two months.

**From a simple bolt to complex systems**, all equipment in planes have to be certified by aviation authorities during design and manufacturing. The certification of a small change takes years sometimes. Sensitive tests are made and the reaction of systems to even the most remote malfunctions is assessed. On seats, the authorities are extremely sensitive **due to the risk of fire**. Fabric and other material should have chemicals that help prolong ignition.

## **Global Expresses, G550 In Collapsed Hangar**

The bill to general aviation from a weekend's massive snowstorm on the east coast could hit tens of millions of dollars and most of that could come the partial collapse of one building at Dulles International Airport. As we reported Saturday, part of the roof of Dulles Jet Center **came down under the weight of the snow**. At the time, all that was known was that there were

aircraft inside but photos provided to AVweb by a reader show a scene that is enough to make any insurance executive shiver. Two Bombardier Global Express jets and a Gulfstream 550 appear to be in takeoff attitude inside the hangar, their tails pushed to the floor under the weight of the crushed structure of the building. It's not immediately known whether they can be repaired and it might be tricky getting them out from under the twisted steel.



The storm also took out Dulles Aviation's hangar at Manassas Regional Airport. Newspaper reports say there were no aircraft or people inside the hangar when it came down. The ordeal may not be over, however.

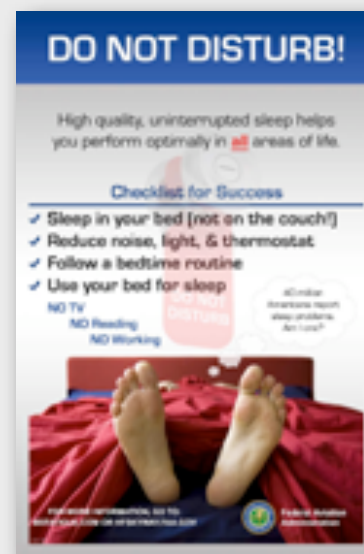
More Photos: [http://www.avweb.com/avwebbiz/news/GlobalExpressesG550InCollapsedHangar\\_201991-1.html#gallery](http://www.avweb.com/avwebbiz/news/GlobalExpressesG550InCollapsedHangar_201991-1.html#gallery)

### **3 New Human Fatigue in Aviation Posters!**

**Human Fatigue Awareness/Educational Posters**  
The Federal Aviation Administration has produced a series of educational posters designed to bring awareness to **human fatigue** in aviation maintenance (MX).

Each poster is part of a MX fatigue themed series designed to improve awareness of fatigue related issues. The posters provide information on how **MX personnel can change their lifestyle and work habits** to improve safety and quality of life. These eye-catching posters provide helpful and practical tips to battle the problem of human fatigue.

Click on the poster to download (high resolution PDF format) FREE. Print as many as you'd like to display in work and rest areas. While supplies last, you can contact your local FAAST team representative for 11" x 17" paper copies. Order in sets.



<https://hfskyway.faa.gov/HFSkyway/FatiguePoster.aspx>

### **Those "Stupid" Goggles**

How often have we heard the endless list of excuses about why people aren't wearing those **"stupid" safety goggles**? Complaints I've heard: "they're uncomfortable," "I lose my peripheral vision," and, my all-time



favorite, "It's more unsafe for me to wear them since I can't see as well when I have 'em on." I've heard a number of reasons for not wearing, but I want to share a story about **why** you should wear them.



It was early afternoon on a hot, humid October day in Incirlik, Turkey. We were there as the expeditionary EA-6B squadron supporting Operation Northern Watch. The morning's launches still were patrolling the skies over Iraq, and our maintenance crews were readying the remaining aircraft for the next day's mission. We had to do a post-installation turn of an engine on one of our Prowlers to leak check the bleed air lines. This engine had been removed to change a defective intake duct or "white house" as it is commonly called.

A turn brief was held by maintenance control, and the maintainers headed to the line. After a pre-flight inspection (pre-turn in this case), the plane captain (PC) made sure everyone was in the correct uniform (**with goggles down**), and he then signaled the engine operator to start the port engine. Within seconds, hydraulic fluid, which was under pressure, began spraying all over the top of the engine, engine bay doors, and the keel area of the aircraft. This was **bad news** because the maintainers were in this area to look for leaks. The fluid sprayed and covered three people before they could get out of the way. The troubleshooter on the port side immediately signaled the PC to shut down the engine.

We found **two hydraulic lines that had not been tightened down** after the engine was installed. Some people might say, "Big deal, why are they writing this? After all, nobody got hurt." **I wrote this story because no one got hurt.** If these people hadn't worn their goggles, this story would be about another injury, and we would have had to write an injury report.

The story might have read "One sailor blinded and two received serious eye injuries, all requiring immediate medivac." The number of lost workdays and personal pain avoided is the success **that makes this a great story.**

Fortunately, this story had a happy ending. **Complacency** did not get the best of these technicians, and they literally will live to see another day. Those "stupid" goggles aren't so stupid after all. Are they?

Petty Officer Arnold wrote this article while assigned to the VAQ-133 Wizards.

## COMPLACENCY

There's an old adage that aviation is not inherently dangerous but it is unforgiving of **carelessness, complacency, or neglect**. As humans, we're creatures of habit and that can lead to problems, especially regarding workplace safety. "One of most dangerous things that can happen at work is to become complacent," said Trinda Meinhardt, Safety Partner in Los Angeles. "

Meinhardt tells the story of a **recent injury involving an aircraft mechanic**. He was putting an MD80 engine into a cradle-something **he had done a thousand times before**-when suddenly the engine shifted. It fell on his hand and severed his little finger.

"This accident was terrible," said Meinhardt. "And it could have been much, much worse."

Meinhardt recognizes that human beings are often uncomfortable with change and most people like predictability in their lives. "But **complacency can lull us into a false sense of security** that can lead to serious injury," she said. That false sense of security is a **dangerous mindset**-because if we've never been hurt by something, after a while we tend to assume it will never hurt us. When a person performs a task repetitiously, there's a real risk of doing it almost subconsciously.

Many of us have experienced this phenomenon as we travel the same route home from work every day. There are days when our minds are deep in thought and the next thing we know, we're pulling into the driveway. We can recall only small bits of the trip home as if our brains and body were set on automatic. To help combat complacency, Meinhardt suggests we periodically take a few moments to ask ourselves some important questions. **Am I too set in my ways? Am I busy with too many things?**

**Am I too comfortable with the status quo to concentrate on what I'm doing?**

"If the answer to any of these questions is yes," cautions Meinhardt, "You might be getting complacent."



## United sues city of Chicago for \$1M for jet-truck collision

United Airlines is suing the City of Chicago for more than \$1 million for an accident five years ago, when a United **jet pushed back** from the gate at O'Hare International Airport **and struck a city maintenance truck**. In a lawsuit filed Friday, Chicago-based United claims that the vehicle was there **improperly and the city hadn't notified ground control**. The accident happened Feb. 2, 2005.



United had hoped to collect the \$1 million from a city insurance policy issued through AIG Inc. United's insurance paid \$434,128. And the city tried to collect \$21,600 from United for damage to its truck, according to the lawsuit filed in Cook County Circuit Court.

City officials declined to comment on the lawsuit.

## The Best Duct Tape Story Ever

A bear in Alaska attacked a light airplane (a 1958 Piper Super Cub) while it was parked in a remote field. The bear smelled the attractive odor, and went a taste. The bear was trying to get to a **cooler of bait left in the airplane**, and pretty much tore the airplane's fabric skin apart trying to claw through to the redolent cooler. Fortunately, the radio still worked.



**The pilot called and had another pilot airlift two new tires, three cases of duct tape, and a supply of sheet plastic. He patched the airplane together and FLEW IT HOME!**

**The photographs below show “repairs bush style.”**



**The lesson: duct tape – never leave home without it.**

**This incident was about nine years ago. Once back at home station, the airplane was more formally repaired. At its Anchorage base, here is what the airplane now looks like (2009 photograph):**

