

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:

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FAASafety.gov

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"Special Safety Tip" - FAASafety.gov

Here we have an excellent example of an [accident that did not happen!](#)

While an alert IA (or mechanic) discovered the discrepancy, it appears multiple mechanics and IAs [missed "seeing" the incorrect installation](#). Initially, someone made the incorrect installation, and an Inspector missed it! This example can serve as a reminder that mechanics and Inspectors need to be diligent in performing their work. As pilots and owners, we need to encourage mechanics not to shortcut any inspections! Our very lives may depend upon it!



While the Editor's comment in the GA Alert seems to praise the IA who discovered this one, the photos clearly demonstrate a [failure to have the cable installed properly in the first place](#). It is possible there were many repeated inspections on this V35A over a number of years without anyone noticing the slow sawing action through the primary control tube. (Investigation revealed this particular airplane did not fly very often.)

We need to ask ourselves what we are relying on as the basis for the GA Quality Assurance program, as it relates to qualifications, training, recurrency, following directions, and performing proper inspections.

This is a [systemic challenge](#) for maintenance facilities and individual mechanics alike.

If you are aware of other examples we can share, please forward the details to Airmen@FAASafety.gov; we would be especially interested in any photographs you may have.

You can review this December Maintenance Alert here: https://www.faasafety.gov/files/notices/2012/Jan/2011_12_Alert_BonanzaCableCutterbrief.pdf

You can see pictures here: https://www.faasafety.gov/files/notices/2012/Jan/V35A_Pictures.pdf

Horrific crash that forever changed air transit marks 30th anniv.

Ultimately, [pilot error and improper de-icing of the jet's wings](#) were pegged as the causes of the Air Florida Flight 90 crash into the 14th Street Bridge.

For longtime Washingtonians, it may be hard to believe that a generation has passed since the disaster that shocked the nation and led to much-needed changes to safety in the air.

On Jan. 13, 1982, Air Florida Flight 90 crashed into the 14th Street Bridge and plunged into the icy Potomac River shortly after takeoff from National Airport.



Seventy-four of the 79 passengers and crew aboard the Boeing 737 perished in the crash, along with four more people on the ground.

"I remember that day so vividly," says WTOP Capitol Hill correspondent Dave McConnell, who had been covering a congressional event at the National Press Club when he was told to head to the disaster.

"I was absolutely shocked to see the bodies that had been taken from the icy waters... I think that was the most disturbing scene that I had ever witnessed," McConnell says.

The crash revived longstanding concerns about National Airport's close proximity to the nation's capital, and its potentially risky flight paths over the Potomac River.

A massive snowstorm had shut down the airport for hours before Flight 90 was [given a brief window](#) to takeoff.

Ultimately, pilot error and improper de-icing of the jet's wings were pegged as the causes of the disaster.

That finding, and the attention that the crash received for having occurred in the nation's capital, [led to changes](#) in safety for commercial flight.

"The whole issue of safety was revisited, and a lot of good came out of a horrible, horrible day," McConnell says.

Yet despite that renewed focus on safety, McConnell says he still gets an apprehensive feeling when he reflects upon the events of 30 years ago.

"What happened to those people, what happened out on the banks of the Potomac, that happened here in Washington, it's something that I don't think I'll ever forget," McConnell says.

The Air Florida crash overshadowed another deadly accident on the same day. Three people died after an Orange Line train derailed between the Federal Triangle and Smithsonian stations.

It was the worst accident in Metro history, until the Red Line crash near the Takoma station that left nine dead in June 2009.

A lesson to be learned

“LOT 767 gear Up landing”

Accident: LOT B763 at Warsaw on Nov 1st 2011, forced gear up landing
The Polish Panstwowa Komisja Badania Wypadkow Lotniczych (Polish State Commission for Aircraft Accident Investigation, PKBWL) released their preliminary report.

The open circuit breaker (Photo: PKBWL):

This picture does not show CREW bags piled up in front of the Panel - OOPS!!!

Reporting that the aircraft suffered a hydraulic leak shortly after takeoff from Newark's runway 04L, when the gear and flaps were retracted. The center hydraulic system's (System "C") pressure dropped as a result.



Just after the flaps had fully retracted the crew received a low pressure message on the Engine Indication and Crew Alerting System (EICAS), the hydraulic quantity indication reduced from 105.1% to 10.6% in 2 minutes, the aircraft was climbing through 3850 feet MSL at that point. The crew actioned the relevant checklists and consulted with the airline's operations center resulting in the [decision to continue the flight](#).

While on approach to Warsaw the crew performed the alternate gear extension procedure however the gear did not extend. While in a holding military aircraft were dispatched to visually check the aircraft and reported the gear was still in the up position. The crew attempted another gravity extension which still did not extend the gear.

About 72 minutes after aborting the first approach to Warsaw, in view of the failed attempts to lower the gear and the fuel reserves depleting the crew decided to commence a belly landing. After the aircraft came to a stop an evacuation commenced through all doors except for the right hand overwing exits, the evacuation was completed in about 90 seconds.

About 15-20 minutes after the end of the evacuation the first members of PKBWL arrived at the scene and found the ["C829 BAT BUS DISTR" circuit breaker on the P6 panel was in the popped position](#), the "C4248 LANDING GEAR - ALTN EXT MOTOR" circuit breaker was in the closed position. The recordings of cockpit voice recorder and flight data recorder were secured.

Circuit breaker C829 protects a number of systems including the alternate landing gear extension system. It's position was not recorded or indicated by any aircraft system.

After the aircraft was lifted off the runway, the circuit breaker C829 was closed, then the alternate landing gear extension was activated and successfully extended the landing gear, so that the aircraft could be towed to the airline's maintenance hangar.

On Nov 2nd the location of the hydraulic leak was identified in a damaged hose belonging to the center hydraulic system. The hose was disassembled and sent to the NTSB for further analysis.

The captain held an ATPL and accumulated 15,980 hours total flying time (thereof 14,007 hours in command) and 13,307 hours on type. The first officer (ATPL) accumulated 9,431 hours total flying time, thereof 1,981 hours on type.

Preliminary report <<http://www.transport.gov.pl/files/0/30680/20111400RWenglish.pdf>>

Cyprus court acquits 4 ex-airline officials in 2005 Helios plane crash that killed 121 people

Four former airline officials were acquitted last week of manslaughter and other charges in **the unusual crash** of a Cypriot airliner six years ago that killed 121 passengers, while victims' relatives jeered the ruling inside a packed courtroom in the island's capital of Nicosia.

In a majority decision, a panel of three judges ruled there was no evidence presented during the two-year trial that the defendants **were linked** to what caused the crash.

The prosecution had argued that the defendants failed to prevent the aircraft from being flown by **"unsuitable and inadequate" pilots**.

The judges also ruled that the prosecution failed to prove that German pilot Hans-Juergen Merten and his Cypriot co-pilot Charalambos Charalambos didn't meet the minimum standards required to do their job.

"Regardless...how the charges are viewed, they remain groundless and without supporting evidence," the judges said in their 170-page decision. "It's judged that this reason is sufficient to dismiss all charges and acquit all defendants."

The Aug. 14, 2005, crash of the Helios Airways Boeing 737-300 aircraft on a hillside north of Athens killed everyone on board and sent shockwaves through this small east Mediterranean island of 800,000 people. The plane had been on a flight from Cyprus' main airport of Larnaca to Prague, Czech Republic via Athens.

Greek investigators have said **human error was to blame** for the crash, which piqued international curiosity about the peculiar circumstances under which it unfolded. Investigators established that cabin pressure failure knocked out the pilots soon after takeoff from Larnaca airport.



The aircraft reached Athens on autopilot, but crashed after running out of fuel. A Greek fighter pilot scrambled to intercept the unresponsive jet reported seeing a man who managed to stay conscious enter the flight deck and try to pilot the plane, but to no avail.

The judges referred to testimony suggesting that despite a sound alarm, the pilots had [apparently failed to notice and adjust](#) - either before or after takeoff - a switch that would have automatically pressurized the cabin during the flight.

An autopsy showed that all the passengers were alive at the time of impact, but were in a deep comatose state because of the prolonged lack of oxygen, the court said.

The defendants included former managing director of Helios Airways Demetris Pantazis, the airline's former chief executive Andreas Drakos, chief pilot Ianko Stoimenov, operations director George Kikides and the defunct airline as a legal entity.

The manslaughter charge carried a maximum life sentence. The defendants also had faced a lesser charge of causing death by recklessness.

The ruling angered victims' relatives inside the stuffy courtroom. Some shouted "killers," and "is this justice?" as bailiffs spirited the defendants outside after the dissenting judge finished reading his opinion.

Outside the courthouse, relatives dressed in black clutched photographs of victims and wept, while others heaped abuse on lawyers exiting the building whom they thought had represented the defendants.

"Where should I go now, should I go to the cemetery again?" asked Maro Makridou, whose daughter, son-in-law and three children perished in the crash.

Cyprus Attorney General Petros Clerides told state-run Cyprus News Agency that he would consider appealing the ruling after studying it.

Saved by seconds: How an EgyptAir flight was just 37 feet from JFK's worst runway disaster

Seconds away: This diagram shows that the Lufthansa flight was headed straight and the EgyptAir craft taxied into its path

An EgyptAir flight that wandered into the path of a Lufthansa airliner on the runway at JFK International airport was **just 37 feet** from a catastrophe that could have claimed many hundreds of lives. The incident in June was the most dangerous near-miss of the year at the New York City airport, according to a new report from the Federal Aviation Administration.



The German Lufthansa flight carried 286 passengers bound for Munich. The Egyptian jetliner carried 346 passengers headed to Cairo. If they had collided, it could have been the worst commercial air disaster in history.

In a year-end report, the FAA faults EgyptAir pilots who taxied 37 feet onto the runway that was being used by the Lufthansa aircraft for takeoff, the New York Post reported.

Air traffic controllers had instructed the Egyptian plane to turn left to another runway.

Instead, they continued straight and headed into the path of a the Lufthansa flight that was barreling down the runway on takeoff.

'Cancel takeoff! Cancel takeoff plans!' an aircraft controller yelled at the German pilots.

The Lufthansa aircraft slammed on its brakes so hard that they over-heated, according to the Post.

But in the end, the planes missed each other by seconds, FAA officials believe.

The Germans were flying an Airbus A340 and the Egyptian flight was a Boeing 777.

With 632 passengers and crew on the line, the death toll from such a disaster could have been even bigger than the Tenerife airport disaster on the Spanish Canary Islands in 1977.

That tragedy also involved one aircraft taxiing into the path of another that was taking off. It claimed 586 lives and is the worst commercial air mishap in history.

KLM 737 crew lost position awareness before taxiway take-off

Pilots of a KLM Boeing 737-300 were **not using** an airport map in darkness and snowy conditions before they turned on to, and departed from, a taxiway at Amsterdam Schiphol. Dutch investigators, in their final report into the 10 February 2010 incident, said the crew **lost positional awareness** within Schiphol's "relatively complex" taxiway layout while heading for Runway 36C.



Runway 36C has two parallel taxiways, B and A, on its eastern side. While taking taxiway A, the crew accepted a ground clearance for a quicker, **but less familiar, route** to the runway via taxiway W8.

This short cut involved crossing taxiway B and then turning right on to the runway. However, the aircraft turned prematurely and lined up on the taxiway instead.

The Dutch Safety Board pointed out that the crew **was not using an airport map** because the pilots "felt sufficiently familiar" with Schiphol, KLM's home base.

But having accepted the short cut, the pilots came under **increased operational pressure**, making changes to the flight management system and giving themselves little time to visually confirm their position.

Air traffic control devoted "less attention" to the KLM flight than proved necessary, because it was assisting with a problem on a China Airlines Boeing 747 taxiing ahead of the 737. The KLM captain was **"distracted" by the radio communication**, said the inquiry board.

While the infrastructure and lighting met ICAO standards, the lighting configuration in the vicinity of taxiway W8 played a **"role in the error"** by the crew, particularly given the snowfall.

KLM has addressed the issues raised by developing a runway verification process, by which crews positively identify entry points before proceeding.

It has also considered installation of a runway awareness and advisory system. But while it made a decision in principle in March this year to equip its fleet, the Dutch Safety Board said, the carrier has not committed to implementation because it is "not satisfied" with the operation of the system.

Pilots warned on fuel safety (Australia)

Pilots need to be **more rigorous** in checking how much fuel their aircraft has before take-off and how much it uses inflight, the transport safety watchdog says.

Poor management of fuel in operating some aircraft continues to pose a serious risk they will run out of fuel before they land, the Australian Transport Safety Bureau says.

An average of 21 incidents involving fuel mismanagement have been reported each year over the past 10 years.



However, the bureau says the actual number is probably higher because not all involve power cutting out.

Its report on fuel mismanagement incidents, released yesterday, found they were most likely to happen in private or charter flight operations, which normally run with the minimum fuel required.

In the decade from 2001 to 2010, there were 10 deaths and 18 serious injuries in crashes resulting from [fuel starvation](#), which occurs when there is enough fuel to finish the flight but the supply to the engine is interrupted.

Fuel exhaustion occurs when the aircraft runs out of fuel before reaching its destination. While 82 per cent of fuel exhaustion incidents resulted in forced or precautionary landings, no one was hurt or killed.

[Seven-Year Sentence For Repeat Airplane Thief](#)

Colton Harris-Moore, the teenager whose two-year crime spree included the theft of several airplanes -- which he taught himself to fly from manuals and videos -- was sentenced recently to serve seven years and three months in jail after guilty [to 33 counts of burglary and theft](#). Harris-Moore, now 20, was "pleased" with the sentence, according to his lawyer, John Henry Browne.

"He was expecting the worst," Browne told The Associated Press. In a letter to the judge, Harris-Moore apologized for his crimes and described the "euphoria" of his first flight, even though the weather was horrible. "My first thought after takeoff was 'Oh my God, I'm flying,'" he wrote. "I had waited my entire life for that moment." Harris-Moore flew the Cessna 182 stole from Orcas Island Airport in the dark into the teeth of a Northwest wind and rainstorm that grounded a lot of other aircraft and admitted he was lucky to survive. He eventually landed it hard near Yakima. [He stole at least two more planes](#), a Cirrus SR22 and finally a Cessna Corvalis that he ditched in the Caribbean, where he was captured after police shot out the engine of a boat he'd stolen. He said he planned to use his prison time to study and he hopes to eventually go to college for [aeronautical engineering](#).

Harris-Moore also wrote about the neglectful mother who raised him and said he wouldn't wish such a childhood on his "darkest enemies."



Judge Vikki Churchill said considering Harris-Moore's background, raised with a "mind-numbing absence of hope," the outcome could have been worse. "This case is a tragedy in many ways, but it's a triumph of the human spirit in other ways," she said. Fox has reportedly bought the movie rights for more than \$1 million, and a screenplay is in the works. Under the terms of his plea deal, Harris-Moore cannot keep any of that money. Prosecutor Greg Banks told the AP he was satisfied with the sentence.

http://avstop.com/news_december_2011/letter-from-colton-harris-moore.pdf