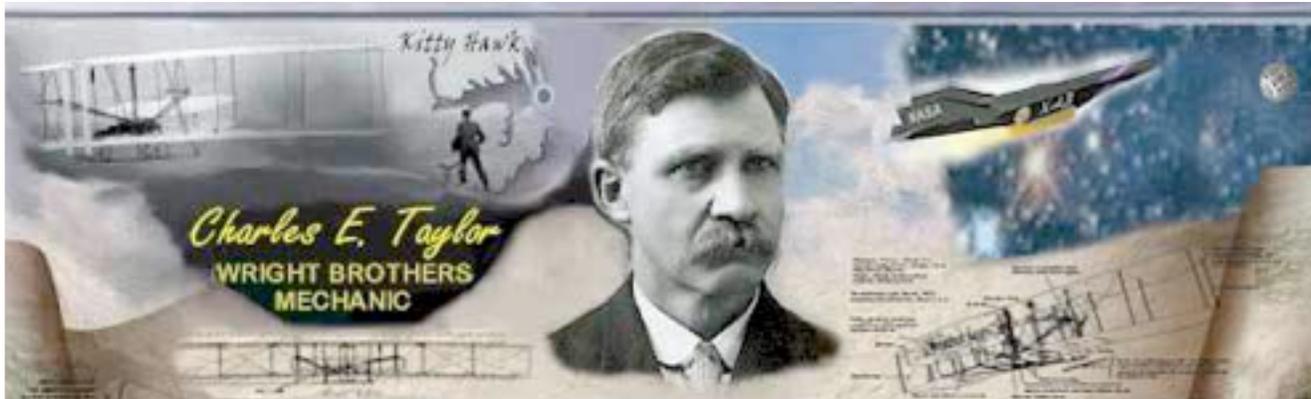


Aviation Human Factors Industry News

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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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French investigators rule on Air NZ crash

An Air New Zealand Airbus A320 plunged into the Mediterranean when its pilots **mistakenly began a test of sensors** they did not know had been damaged three days earlier. The damage to the sensors had occurred when the aircraft had been **washed down with a fire hose**, France's state crash investigator has found.



The aircraft was returning from a charter at the time so was not carrying passengers. However the crash near France's Mediterranean ^[2] coast in November 2008 killed five New Zealanders and two Germans.

Apparently the sensors had iced up and the pilots stalled the plane. This very rare event is usually recoverable but in this case the plane was too low and hit the sea.

Director of the French investigation authority, Jean-Paul Troadec, said the plane could not be stalled normally. He said that while the pilots were all well trained, they **were not test pilots** so were not qualified to carry out the tests that they undertook.

The report made safety recommendations, which have been supported by Air New Zealand chief executive Rob Fyfe, according to Fairfax media in New Zealand.

“While this report will not change the fact seven families lost dads, husbands, brothers and sons and we lost great colleagues, the findings will benefit the entire aviation industry,” Fyfe said.

BA passengers tried to halt 777 take-off after taxiing error

Two passengers attempted to stop a British Airways Boeing 777-200 from off from a Caribbean airport last September, after realizing the crew **had lined up at the wrong runway** intersection, but were too late to prevent the departure.

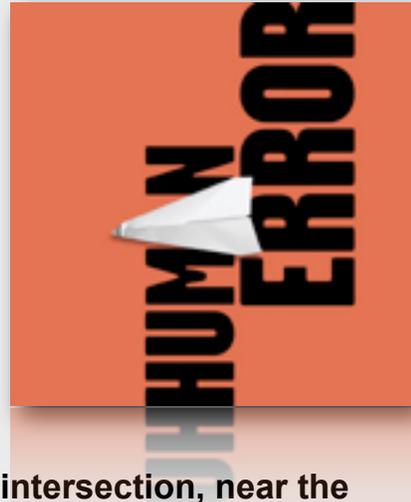
The pilots of the twin-jet, bound for Antigua, had intended to depart from the southwestern end of runway 07 - the 'A' intersection - at St Kitts' Bradshaw International Airport. Despite specifically requesting a departure from 'A', the aircraft **mistakenly** taxied instead for the 'B' intersection, near the runway's midpoint, leaving available take-off distance of just 1,220m (4,000 ft). The take-off performance calculations had been based on a distance of 1,915m.

The oversight **escaped detection** despite several references and queries in the communications between the crew and air traffic control.

In details of the event released today, the UK Air Accidents Investigation Branch reveals that the carrier's station engineer and airport duty manager were on board the 777 and realized **the error** as the aircraft lined up on the runway.

The engineer quickly moved from his seat to speak to a member of the cabin crew, telling her that he needed to contact the pilots immediately to warn them the aircraft was wrongly positioned.

In the cockpit the captain **had specifically commented** that the runway looked short. Neither pilot had been to the airport before and the lack of a tractor meant the crew had taxied the jet from the stand themselves. But, in spite of the captain's concerns, **neither cross-checked** the jet's location on the runway.



Instead the captain told the co-pilot to "stand on the brakes", says the AAIB, and apply a high thrust setting - some 55% of N1 level - before releasing the brakes for the take-off roll.

In the cabin behind, the station engineer realized that the aircraft was powering up for take-off and **abandoned his bid** to reach the crew. The 777 accelerated but reached the touchdown-zone markers for the reverse-direction runway 25 by the time it passed the crucial V1 decision speed, and lifted off about 300m from the end of the paved surface.

Source: AAIB

Taking off from the 'B' intersection reduces the available distance by 1,110m and the AAIB says that British Airways does not authorize 777 departures from this point on runway 07. The incident, on 26 September last year, occurred in daylight although the sun was low in the west.

While the AAIB attributes the event to simple **lack of familiarity** with the airport, combined with disorientation from **poor signage**, it also underlines the **psychological factors** which contributed to the failure to identify the error.

Bradshaw is a simple airport, and the crew **did not conduct a taxi briefing**. The AAIB says that the crew would probably have briefed the route at a larger, more complex airport.

It adds that the crew appears to have suffered from "**confirmation bias**", noticing only the evidence that backed their mistaken assumption of being at the correct intersection.

Crew resource management training should address this tendency in two ways, says the AAIB: by emphasizing the need to "seek evidence that disproves assumptions whenever they are called into doubt" and by providing communications skills needed for "confident and clear discussion" of the problem.

Groundbreaking Held For Flight 5191 Memorial

47 Passengers, Two Crew Were Fatally Injured In Departure Accident

Families of some of the passengers who were aboard Comair Flight 5191, which **crashed on departure** from Blue Grass Airport in Lexington, KY, on August 27th, 2006, broke ground last week on a memorial dedicated to those lost on the flight. The flight was operated by Comair under a codeshare arrangement with Delta Connection.

The relatives of the passengers were joined by Kentucky Governor Steve Beshear and Lexington Mayor Jim Newberry. The event marked the 4th anniversary of the accident in which 49 of the 50 people on board the aircraft were killed.

The NTSB determined that the aircraft was cleared to take off from Lexington's runway 22, but attempted departure from runway 26, which **was not long enough** for the Canadair regional jet.

The Associated Press reports that the planned memorial is a metal sculpture which will stand 17 feet tall and consist of 49 ascending doves. It is hoped that it will be completed by the 5th anniversary of the accident next year. Governor Beshear said the state will make \$100,000 available for the sculpture, which is estimated to be about a third of its cost.



FMI: <http://governor.ky.gov>

Safety call after jet's plunge over Norfolk

Air investigators have called for improved safety procedures after an Easyjet Boeing 737 plunged 9,000 ft over Norfolk.

It happened west of Norwich in January 2009 during a **post-maintenance check flight**.

There was **confusion** between the two pilots, the Air Accidents Investigation Branch (AAIB) report said. It has made recommendations to Boeing and to the European Aviation Safety Agency.

In the report, which catalogues what happened when the plane plunged suddenly, the AAIB said the co-pilot had received **"no formal training"** to conduct such a flight.

'Lack of communication'

It also said various elements of the flight "demonstrated practices which would have been deemed unacceptable in normal operations".

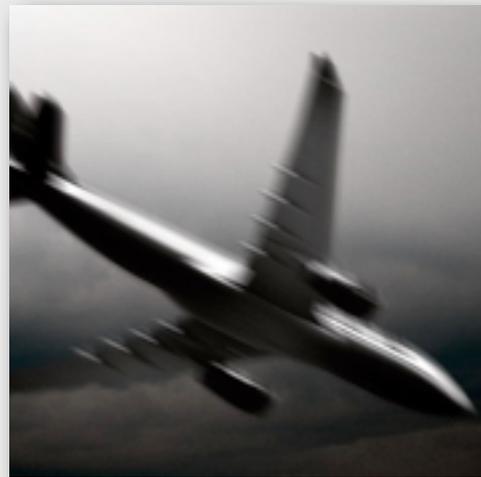
The report said that when things started going wrong on the flight, there was **"a lack of any kind of communication"** between the pilots and the two observers for more than a minute and 15 seconds.

The report added that the co-pilot "only realized something was wrong" when the captain made an emergency PAN call - one stage down from a Mayday call.

The AAIB said one of the observers had been seated on a storage cupboard behind the captain's seat and was not restrained by a safety harness.

The report questioned the **overseeing of post-maintenance and customer demonstration flights**, saying that airlines had "few options other than to devise their own demonstration schedule".

The report said that a number of safety actions had already been taken since the incident.



New York City Is Building A Garbage Dump Next Door To LaGuardia

Pilots Say It's Another Flight 1549 Waiting To Happen

New York City officials have been given a green light by a panel of "federal experts" to **build a trash transfer facility** less than half a mile from LaGuardia Airport, which has local pilots warning of another situation like Flight 1549, but with no guarantee of the same result. The facility would be used to transfer garbage that is in sealed containers from trucks to barges which transport it out to sea. But the pilots say, sealed containers or not, **the site will attract large flocks of birds which tend to congregate around such facilities.** "It's just not a smart place to put it," said former US Airways Captain Chelsey "Sully" Sullenberger, who was the pilot on Flight 1549 which famously ditched in the Hudson River after striking a flock of geese. No lives were lost in what has become known as "The Miracle On The Hudson."



The facility was OKed because air traffic approaches LaGuardia's Runway 31 differently than it does at most airports, placing the trash transfer station **just outside the runway's protected zone.** But a wildlife biologist told USA Today that the birds who will be attracted to the trash site **will behave** just like any other birds.

The FAA was originally cool to the idea of the facility so close to the end of a runway at a major airport, but determined it would be safe if the city kept the building there under 100 feet tall. A study ordered by the DOT indicated the facility could operate safely as long as the New York Sanitation Department **took aggressive steps** to keep the birds away.

New York's deputy commissioner of sanitation Harry Szarpanski told the paper that the city operates a similar facility in Staten Island, and it does not attract birds. He said the facility is completely enclosed, no trash is loaded outside the building, and that air filters cut the odors that would attract birds to the site.

Construction is already underway at the site near LaGuardia. Wildlife Biologist Russell DeFusco, who was hired by opponents of the facility, said while newer trash site designs are far better at keeping birds away, an FAA study showed that even the most recent designs attract a few, and that can be **dangerous for aircraft**.

FMI: www.faa.gov, www.nyc.gov/sanitation

Airline staffer dies in freak mishap at airport

In a tragic incident, a woman crew member of AirAsia died of shock after her right hand got stuck in the telescopic aerobridge that was being after passengers boarded a **Kuala Lumpur-bound flight** at the **Rajiv Gandhi** (RGI) International Airport in Shamshabad on Sunday morning.



The victim, Amrita Roy, 25, of Kolkata, was a guest services officer of AirAsia. The accident occurred immediately after she ushered in passengers on board the Hyderabad-Kuala Lumpur flight (AK 224). After the last passenger boarded the plane, Amrita Roy first went into the aircraft to check whether the number of checked-in passengers matched with those inside.

At around 9.36 am, she got onto the aerobridge number 55 to jot down other details like push back and stock off timings, police said.

While noting down the details, Amrita **leaned on to the aerobridge glass wall and did not notice the retraction process**. Initially, her left hand got trapped in the retracting bridge and she used her right hand to pull it out. Her left hand became free, but the right one got trapped and crushed. Her colleagues immediately raised an alarm and the retraction stopped, RGI airport inspector R Sanjay Kumar said.

Due to the injury, Amrita immediately collapsed and went into a shock. Her colleagues immediately rushed her to the Cal Centre Apollo Medical Centre at the airport for emergency medical attention, where she succumbed while undergoing treatment at around 10.40 am, an airport spokesperson said.

FAA Rule Offers Pilots More Rest

This proposed regulation would provide a nine-hour opportunity for rest prior to duty, which is one more hour than the current rules specify.

The Federal Aviation Administration proposed a regulation to increase commercial pilots' rest opportunities before they go on duty, with FAA Administrator Randy Babbitt saying it is needed to protect 700 million passengers and pilots who fly in U.S. airspace annually. **"Fighting fatigue is the joint responsibility of the airline and the pilot**, and after years of debate, the aviation community is moving forward to give pilots the tools they need to manage fatigue and fly safely," Babbitt said.

One of FAA's Aviation Rulemaking Committees that includes representatives from labor, the aviation industry, and FAA provided input that is included in the rule, according to the announcement posted on the DOT Fast Lane blog.

The announcement said the rule includes:

- One consistent rule for domestic, international, and unscheduled flights
- A nine-hour opportunity for rest prior to duty (a one-hour increase over current rules)
- A new approach for measuring a rest period that guarantees the opportunity for eight hours of sleep



- Different requirements based on time of day, number of scheduled segments, flight types, time zones, and the likelihood a pilot is able to sleep

It will give pilots the right to decline an assignment **without being penalize** if they feel fatigued. FAA also said it prepared guidance for air carriers that are required by Congress to develop a **fatigue risk management plan**. FAA included this rule in its April 26, 2010, semiannual regulatory agenda, and said comments on it are already being accepted.

(RIN 2120-AJ58, www.regulations.gov).

Game Over: Time to Hit the RESET Button



Tackling a mission **without a plan** is a recipe for disaster. As maintainers, we are taught to plan and prepare for every evolution with ORM in mind. **Risk management** is preached ad nauseam. We hear it so often that it should be second nature.

Sometimes, however, we fail to plan and manage risk when not on the job, and this is how I found myself waking up on top of the oil-cooler access doors of Red Stinger 101.

Our ship spent a multi-day port visit in Singapore. Though I could have stayed in a local hotel, I thought it best to save some money and return to the ship. Besides, I didn't feel the need to go partying with fellow Sailors. "Why go out and spend money on entertainment when I own an Xbox 360 and a number of games?" I thought. I hadn't had a chance to play the games much, so staying within the safe confines of the ship presented a perfect opportunity to recoup and stay out of trouble.

If I had practiced ORM, I might have foreseen the **effects of sleep deprivation** and managed my downtime better. Instead, I stayed up and played video games for almost **48 hours before my duty day**. It never crossed my mind that doing this could be dangerous.

After all, what did I have to do on duty? We had no flight schedule or heavy maintenance pending. A daily inspection was the only thing on my plate. **What could go wrong?** We do those all the time. I could do “dailies” in my sleep—or so I thought.

I started my inspection by checking the service and inspection points in the hydraulics bay, then worked my way aft. I lay down on my back atop the oil-cooler access to inspect the droop stops and rotor-system hardware. It was a hot, muggy day, and I had **slept only three hours within the last 48**. I was sluggish; the gentle sway of the aircraft made my eyelids heavy.

I don't know how long I had been asleep when I felt the aircraft wobble from someone climbing up to check on me. I sheepishly bolted upright. In retrospect, I definitely should not have stayed up two nights in a row playing Xbox. Being drunk on duty is highly unsafe and punishable by the UCMJ. But having **deprived myself of sleep** for two days was just as dangerous. Had I rolled over in my sleep, I easily could have dropped several feet to the nonskid below, possibly catching a tie-down chain or other piece of gear. A fall like that would have put me out of commission. Had I kicked or flailed about (perhaps in an Xbox-induced dream), I could have damaged the upper IRCM mount, exhaust ejectors, or rotor-blade trim tabs, costing the Navy both time and money.