

# Aviation Human Factors Industry News

*Volume VIII. Issue 16, April 20, 2012*



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

Hello all,

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

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## Watchdog 'ignored complaints' on dangerous flying

### Rogue Pilot Story

AUSTRALIA'S aviation safety watchdog **failed to act** against a pilot who terrified his neighbors with low-flying sweeps, before he was ultimately killed in a crash, the state Coroner has found. Judge Jennifer Coate found the Civil Aviation Safety Authority might have averted the "sad" episode if it had acted on **three years of complaints** from neighbors whose houses were buzzed.



Robert Alan How, 62, of The Gurdies near Gippsland, was killed on Christmas morning, 2008, when he flew his Cessna low over a neighbor's house and seconds later into power lines strung 25 metres above the ground. The plane burst into flames on impact in a paddock, missing the house by just 600 metres. The Coroner's report on the inquest, which has just been made public, catalogued a litany of neighbors' complaints to CASA over three years. Yet the safety regulator never acted to suspend How's basic pilot's license. CASA received at least eight complaints from two sets of neighbors from January 2006 to March 2008 covering Mr How's antics, including flying as low as house windows and banking so hard the wings were perpendicular to the ground. The neighbors complained to CASA variously in calls, emails, in statutory declarations, even submitting photographs.

CASA deemed the complaints "difficult to investigate and considered [to be] **at the low level of safety risk**", the Coroner said. But there was a "considerable" amount of evidence that CASA could have gathered "without expending that much effort", Judge Coate said. CASA told the neighbors it had a shortage of flying inspectors.

CASA told the court it was overstretched and that none of the complainants had given sufficient evidence to proceed with any action against Mr How.

But the Coroner unearthed a telling internal email from January 2009 between two CASA officers, which reads: "Looking back, it seems that we may have been able to prevent this. However, there were probably higher priorities at the time."

CASA told the Coroner its complaints and enforcement processes and resourcing has since improved significantly.

In response to the newspapers inquiries, CASA conceded the complaints "could have been better managed", but said it now had a larger budget to cover more front-line staff and "has put in place far more robust systems and procedures to manage complaints".

"Members of the public who witness flying they believe is dangerous or unsafe should report it," a spokesman said.

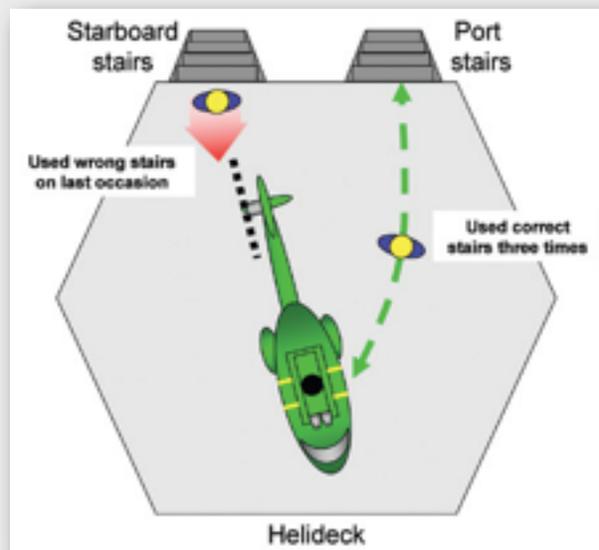
## Put more faith in barriers than hazard awareness...

### What happened?

The Helideck Assistant (HDA) was performing his duties when he became unaware of the helicopter tail rotor and walked close to it, fortunately without injury.

Two access stairways served the helideck, one on the port side, and one on the starboard side. Before landing, wind direction indicated the Port stairs should be used to offload passengers. When the helicopter landed the tail rotor was near the Starboard stairs and a toolbox talk confirmed that the Port stairs would be used.

The HDA helped offload passengers via the Port stairs, and made two further trips to the helicopter to collect lifejackets, both via the Port stairs.



However, when he came to deliver food to the pilots he mistakenly used the Starboard stairs. The HDA passed within 2 feet of the tail rotor and was totally unaware of it. The co-pilot intercepted the HDA and escorted him safely off the helideck.

### What did people do without meaning to?

The HDA mistakenly used the Starboard even after using the Port stairs several times. Even though the Port stairs were the preferred option throughout the planning and execution of the job, and even though the HDA had used the Port stairs correctly on 3 separate occasions, he still made the mistake.

### What can we learn from this incident?

- Helicopters are huge unguarded machines. The draught from helicopters makes it noisy, windy and difficult to communicate. In these conditions we often rely solely on people's awareness of the situation around them to protect themselves against the hazard.
- Even when we have performed a task correctly on several occasions, it is still possible to make a mistake.
- Had it been considered that someone could use the Starboard stairs by mistake, a chain or barrier might have prevented the error. Eliminating a task or providing a physical barrier are more effective ways of reducing accidents than trying to maintain people's awareness of the hazards.

## The Downside of Upside Down



Without detailed instructions and clear notation, nearly symmetrical parts can be installed incorrectly. Faced with the replacement of such a part, this CRJ 700 Maintenance Technician wound up with a case of component “miss-orientation.”

- The aircraft returned to the field due to the landing gear not retracting. Previously, the nose landing gear torque links had been replaced to fix a nose wheel shimmy problem.

While installing the torque links, the lower assembly was installed upside down. The lower torque link assembly looks similar upside down to the way it does right-side up. [The Maintenance Manual does not specify anything about the orientation](#), nor is there any indication on the part itself. I feel that if there had been a specific note that the part is able to be installed upside down, I would have paid closer attention to the orientation. The operational check of the installation did pass, [but it does not require a gear swing](#). A note should be added in the installation task noting that the part is able to be installed incorrectly and that it looks close to the correct installation.

## **Professionalism: A 'Must Have' For All Aviation Workers**

Everyone on the ramp can take a [few daily actions](#) to ensure safety on the job and air transportation at large. Professionalism is not something reserved for airline pilots. Everyone who works around airliners must step up to be a safety professional. That includes gate agents who move a gate walkway up to the aircraft, fuelers, all service personnel, and especially ramp workers [who are the last to touch the aircraft](#) before it flies. Industry personnel must



strive to maintain professionalism, take responsibility for personal actions and remain aware of how each individual contributes to the overall safety of a company and air transportation at large. What are a few actions you can take each day?

First of all, [you must be fit for duty](#). While fitness often refers to a physical condition, the real challenge is to ensure a mental fitness for duty. The quality and quantity of sleep is an important means to ensure necessary mental awareness and attitude.

FAA website [www.mxfatigue.com](http://www.mxfatigue.com) is a great place to review important practical tips about sleep. The basic rule: Get about eight hours of sleep every night.

While fitness for duty is a personal, professional responsibility, **management must also recognize** that schedules must be reasonable. A human cannot withstand repeating 12-hour shifts, or split shifts that do not allow for quality rest.

Safety-minded professionals use voluntary reporting systems. No one likes to make an error and then tell everyone about it. However, professionals know they can **learn from the error** and also help ensure that no one else makes the same mistake. Again, it takes cooperation between company and workforce to ensure a voluntary report of an honest mistake is treated in a just manner.

FAA is currently working with an Airlines For America (formerly known as the Air Transport Association) committee to extend the pilots' Line Operations Safety Audit into the maintenance and ramp workplace. The system will help ground service workers conduct **nonthreatening peer-to-peer audits** of normal operations. This system will help identify both the good and the suboptimal practices. LOSA will permit companies to predict problems rather than waiting for an event to occur.

Helping others is another trait of professionals. They strive to guide new employees who may not be familiar with a new aircraft or procedure. The person being mentored demonstrates professionalism by learning and, ultimately, teaching a new co-worker. **It is a two-way street.**

Professionals follow procedures. They take personal responsibility to follow the principles and practices of the manufacturer or the company manuals. **"Failure to follow procedures"** is the most common cause of personal injury and aircraft ground damage.

**"Safety Culture"** is a popular term in aviation safety circles. In a safety culture, management and workers recognize safety is critical to meet the passengers' expectations and ensure the success of a company and the longevity of everyone's job. In a safety culture, each employee knows his/her specific actions ensure continued safety. Every individual working within a safety culture is a professional.

## FAA shelves icing overhaul

An effort to update commonly used definitions of icing accumulation used by pilots and controllers since 1968 is temporarily on ice after what federal officials are [calling a flawed rollout](#) of the new terms in February. The changes had been made partially in response to US National Transportation Safety Board (NTSB) recommendations from the icing-related 1994 crash of an ATR 72 near Roselawn, Indiana.



The recommendations called on the Federal Aviation Administration (FAA) to make its definition of severe icing compatible with the "published definition" of the term, and working groups later developed quantitative rather than qualitative definitions to be used.

The legacy, qualitative definitions include "trace, light, moderate and severe" icing levels, where ["severe" calls for an "immediate flight diversion"](#) because the aircraft's de-icing or anti-icing equipment would "fail to reduce or control the hazard".

The update, published in the Airman's Information Manual (AIM) in February, included quantifiable accumulation rates for each level of icing, plus the addition of a "heavy" accumulation rate.

The definition of "severe" had also been modified to include a condition where "ice accumulates in locations not normally prone to icing, such as areas aft of protected surfaces" In the Roselawn accident, a ridge of ice had [accumulated behind the wing's pneumatic deicing boots](#), causing a "sudden and unexpected aileron hinge moment reversal", according to the NTSB.

However in the [22 March notice](#), the FAA says that after a meeting with the National Air Traffic Controllers Association (Natca) and others earlier this month, it decided to rescind the update.

"A decision was made on March 6 during a meeting of [FAA offices] to rescind the recent AIM change and the associated [general notice] that redefined icing levels in the pilot controller glossary since that change was not fully coordinated," the FAA states. "Numerous directives, advisory circulars, and automation systems were not concurrently updated."

The agency says that the new icing intensity levels in the pilot-controller glossary are "cancelled immediately" and that icing levels "will revert back to trace, light, moderate and severe".

## **FDA Issues Warning Letter to Makers of "Caffeine Inhaler"**

The US Food and Drug Administration (FDA) issued a warning letter to Breathable Foods Inc, makers of [AeroShot](#), for false or misleading statements in the labeling of their product, and told the company that the Agency has questions [about the safety](#) of the "caffeine inhaler." The FDA also expressed concern about the use of AeroShot by children and adolescents and in combination with alcohol.



The company claims AeroShot is designed to provide "breathable energy, anytime, anyplace." The company also claims on its Web site that its product is intended to be ingested by swallowing. The company's labeling is false or because these two claims contradict each other. A product cannot be intended for both inhalation and ingestion because the functioning of the epiglottis in the throat keeps the processes of inhaling and swallowing separate.

The FDA is also concerned about AeroShot's safety because label statements such as "[breathable energy](#)" may confuse consumers about the proper use of AeroShot and encourage them to try to inhale it into their lungs. Caffeine is not normally inhaled into the lungs and the safety of doing so has not been well studied. While the company claims on its Web site that decades of research have established that the particles in AeroShot are too big to enter the lungs, the company [does not point to](#) any specific research in support of this claim.

In addition, the company's Web site indicates that AeroShot is "not recommended for those under 18 years of age," and the product label states that it is "not intended for people under 12." But the Web site also appears to target these age groups by suggesting it be used when studying.

## **Study: Sleeping Pills Increase Risk of Death**

People are relying on sleeping pills more than ever to get a good night's rest, but a new study by Scripps Clinic researchers links the medications to a **4.6 times higher risk of death and a significant increase in cancer** cases among regular pill users. The results, published by the open-access online journal BMJ Open, cast a shadow over a growing segment of the pharmaceutical industry that expanded by 23% in the United States from 2006 to 2010 and generated about \$2 billion in annual sales.



The research is the first to show that eight of the most commonly used hypnotic drugs were associated with increased hazards of mortality and cancer, including the popularly prescribed medications zolpidem (known by the brand name Ambien) and temazepam (Restoril), said author Daniel F. Kripke, MD, of the Viterbi Family Sleep Center at Scripps Health in San Diego. Those drugs had been thought to be safer than older hypnotics because of their shorter duration of action. Study participants who took sleeping pills were matched with control patients of similar ages, gender, and health who received no hypnotics in order to eliminate the possibility that other factors led to the results.

Even among patients who were prescribed **one to 18 sleeping pills per year**, the risk of death was 3.6 times higher than among similar participants who did not take the medications. The study looked at patients aged 18 years and older, and found the increased risk in all age groups.

Rates of new cancers were 35% higher among patients who were prescribed at least 132 hypnotic doses a year as compared with those who did not take the drugs.

Using data stored in an electronic medical record that has been in place for more than a decade, the researchers obtained information on almost 40,000 patients cared for by a large integrated health system in the northeastern United States.

The study included 10,531 sleeping pill users who were prescribed the medications for an average of 2.5 years and 23,674 control participants who were not prescribed the drugs. Information came from outpatient clinic visits conducted between January 1, 2002, and September 30, 2006.

“It is important to note that our results are based on observational data, so even though we did everything we could to ensure their validity, it’s still possible that other factors explain the associations,” said coauthor Lawrence E. Kline, DO, who is medical director of the Viterbi Family Sleep Center. “We hope our work [will spur additional research](#) in this area using information from other populations.”

<http://bmjopen.bmj.com/content/2/1/e000850>

## **No Excuses!**

Seven ways to stop procrastinating.

The seconds are counting down; a single bead of sweat drips down your face. Your hands are moving at a feverish pace, but it doesn’t seem fast enough. Can you get it done? No! Because you procrastinated and now you’re out of luck (and time). [Luckily, with these helpful tips](#), you can avoid this situation and learn to get things done on time.



**Tip #1** – Make like Nike and “just do it.”

Next time you have a task, get it done and out of the way right then. Ignore any inner voice that tells you you’ll have plenty of time “later.”

**Tip #2** – Wake up!

Getting your task done first thing in the morning is the best way to avoid having something else get in your way.

**Tip #3** – Go up the mountain to make it down the molehill.

Start with the most difficult task on your to-do list. That way, everything after it seems like a piece of cake.

**Tip #4** – On second thought, do the exact opposite.

If you’re the type of person who gets easily defeated, rather than starting with your biggest task, start with the ones that are the easiest. That way, you’ll build up your confidence to get the rest of your work done.

**Tip #5** – You’re grounded.

Put yourself on restriction. Don’t want to do the task you need to get done? Fine; then make every other activity off-limits to yourself, too. No TV, no computer, no sports. Nothing. Unless you’re amused by staring at the wall, you’ll complete your task out of sheer boredom.

**Tip #6** – Don’t worry, be happy.

Build yourself up with positive life affirmations. Just like Al Franken’s classic Saturday Night Live sketch – you’re good enough, you’re smart enough and doggone it, you will get the deck stained. Research has shown that low-level performance anxiety and/or the fear of making a mistake is often behind procrastination. Give yourself permission to do your best, then move on without expecting perfection of yourself.

**Tip #7** -Your 15 minutes are up.

If the task is something you know will take you a long time to finish, set aside 15 minutes a day and tackle the project bit by bit. It won’t seem overwhelming, and it’s enough to make a dent in your task.

Nothing can help a procrastinator like [a can-do attitude](#) and the ideas found on this list.