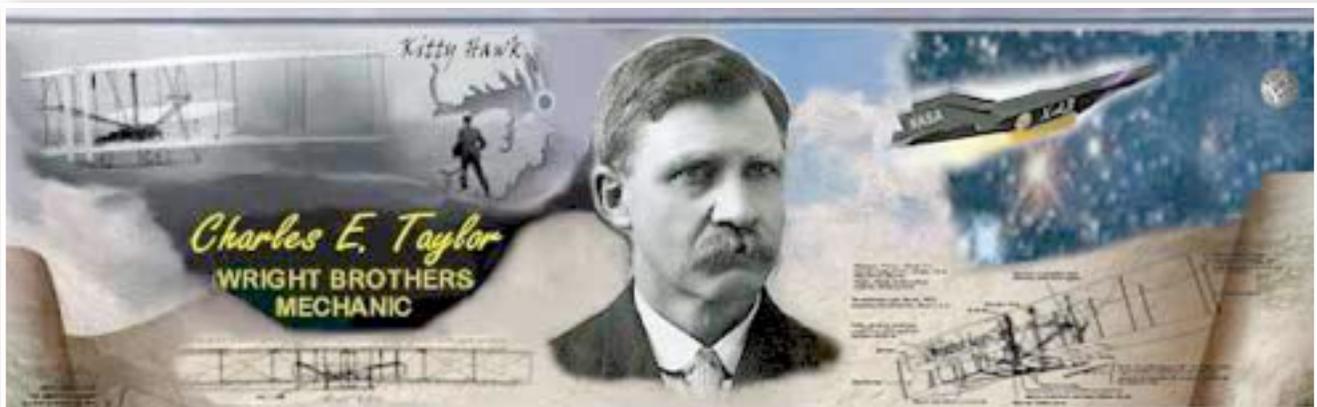


Aviation Human Factors Industry News

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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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★DGCA asks airlines to fix work hours for maintenance staff

★FAA Team Maintenance Safety Tip February 2012

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US Airways airport worker dies in 'tragic accident' in Phoenix

A US Airways employee died Friday after becoming stuck between two luggage conveyor belts at Phoenix Sky Harbor International Airport, The Arizona Republic reports.

The Republic writes:
Robert Demarco, 60, was working about 11:50 a.m. (local time) in the U.S. Transportation Security Administration's checked- baggage inspection area of Terminal 4 when he became stuck between the upper and lower conveyor belts of the baggage system, said Officer James Holmes, a Phoenix police spokesman.



Phoenix police officers and Fire Department paramedics responded to the inspection area, where Demarco was pronounced dead.

Holmes tells the Republic Demarco's death does not appear to be suspicious. "This appears to be a tragic accident and Phoenix Police detectives will be working hard to determine exactly how and why this incident occurred," Holmes is quoted as saying by FOX 10 of Phoenix.

"It's a sad incident," US Airways spokeswoman Michelle Mohr adds to the East Valley Tribune of suburban Phoenix. "We're cooperating fully with authorities in helping to determine how this happened. Right now, our concern is Mr. DeMarco's family and colleagues and taking care of them." Demarco leaves behind a wife and four children, according to the Tribune.

<http://www.myfoxphoenix.com/dpp/news/local/phoenix/us-airways-employee-killed-at-sky-harbor-airport-02172012#>

DGCA asks airlines to fix work hours for maintenance staff

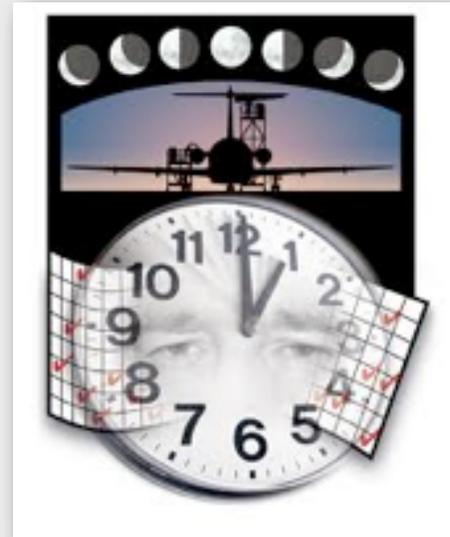
Concerned over work pressure of [aircraft maintenance personnel](#) (AMP) occasionally taking a toll on safety, aviation regulator DGCA has asked all airlines to formulate duty time limitations for this workforce in line with pilots and cabin crew. The DGCA, in a latest airworthiness circular, has asked all airline companies to frame policy for AMP duty time limitations and giving them adequate rest period like pilots and cabin crew, official sources said.

Recommending a maximum of eight hours duty with breaks keeping in view logistic and other constraints, the regulator has made it clear that no scheduled shift [should exceed 12 hours](#) and asked the airlines to "scrupulously adhere" to these duty time limitations.

Observing that the maintenance personnel should get adequate rest between two shifts, the sources said the risk became more prominent when [night shifts were in tandem](#).

"Therefore, the number of continuous night shift should not exceed more than two and should be followed by at least two successive days rest period," they said.

Wherever work allocations involved multiple aircraft or engines in a shift, the circular said due consideration should be given to the complexity or criticality of the task and quantum of work.



FAASafety Team Maintenance Safety Tip February 2012

FAA Safety Team | Safer Skies Through Education

Maintenance Safety Tip

Notice Number: NOTC3508



Your toolbox is locked...you have finished all your paperwork...you are headed out the door...ready for the weekend! But wait...the phone rings, or your boss catches you in the parking lot. One of your “always bad timing” customers is inbound with what sounds like a simple maintenance problem. Ever been there? Of course you have. Probably more times than you like to think about.

You have a choice to make. The job sounds simple and you want to finish it up quickly so you can get on with your weekend. You need to give 100% right now, just like you did this morning when you were fresh and ready to conquer the day. Unfortunately, all too often we accept these jobs when we are far from 100% -- [both physically and mentally](#). Let’s face it, you are already dreaming of sitting around the campfire or wetting that fishing line in your favorite lake. The family is packed and waiting for you to get home. You want to beat the crowds and get the best campsite...but now that’s all changed.

Stop, step back, take a deep breath and [take inventory of the situation](#). You **have** to bring your A-game when you meet that inbound aircraft. All your experience, expertise and training won’t be enough if your mind is somewhere else. The last job of the day deserves -- no demands -- the same level of focus you brought to the first job this morning.

Too Many Cooks (Series #2) Video length - 19 minutes

This video was the second of the series produced by *System Safety Services*.

The video is based on an actual helicopter accident in which a simple error (the AME fails to tighten a cannon plug **after he is distracted by a phone call** from his irate wife) begins the chain of events that leads to an unnecessary autorotation into the ocean. The "Dirty Dozen" are illustrated as the primary causes of the maintenance error in judgment that results in an almost humorous accident. (See Case Study #2 below)

The video is used in *System Safety Services*, Human Performance in Maintenance Part 1 (helicopter), workshop as well as in our Pilot Decision Making Part 1 (helicopter) workshop.

Copies of this video, the training booklet and the facilitator notes that accompany it, may be obtained from *System Safety Services* in VHS NTSC or PAL format as well as on DVD with appropriate chapters.



Case Study #2

Mr. Distracted Meets Ms. Dimples

A Flight Instructors Omission

In the early nineties I had an incident at a flight school I was part timing at as a CFI. It was a beautiful day, I had a student set up for a morning flight. We were going to review Stall Recognition and Recovery along with Unusual Attitudes. To set the stage, I was waiting in the line shack for the student. Having a cup of coffee and in serious conversation with the female receptionist.



My student, we discuss the mission. I send him off to preflight the aircraft (A 1968 C-150) which he is familiar with. I continue my conversation with miss dimples. [Talk about a distraction](#). My student returns and declares the pre-flight completed with full oil and fuel. We walk out to the flight line, I double check the oil and the fuel caps.....Off we go to the practice area and 5000 feet. I am putting the student through the gambit. The student's performance is good. Life is good..... Recovering from a Departure Stall, I looked down to the R/H wheel, which I had looked at a few times in clearing the area.....This time a very [Bright and Shiny Orange Jack Pad](#) catches my eye.....WOW !!!!! I take the controls and make straight and level. There on the R/H gear leg is the jack pad the mechanic used to change the tire. As the old C-150 with the flat gear legs, these jack pads just slip on. It's about 3 lbs worth of metal, no telling what it may have done coming off the gear strut crashing to earth. Unfortunately, as pilot in command I won the idiot of the year award. This scenario could have caused great harm to someone on the ground. The mechanic [forgot](#) to remove the jack pad. The student missed it.....I, the CFI did not bother to back up the students pre-flight. Talk about shades of the Twilight Zone. [A sequence of failures](#). Distractions..... Complacency..... are killers for you or someone else. The lesson learned, assume nothing.....keep focused on your mission. I remember this incident as it was yesterday and still use it to show how dropping your guard for what ever reason can be a [Human Factor](#) to an Incident/ accident.

[Input Error Triggers Stall Warning On Regional Jet](#)

Investigators have found that the crew of a QantasLink Boeing 717 with roughly 100 passengers experienced stick shaker activation during a 2010 flight on two of three approaches, because of pilot [error prior to takeoff](#). The flight was out of Perth for Kalgoorlie and on the first approach, the stick shaker activated as the jet descended through 1,100 feet. The crew elected to go around and the stick shaker again on a second approach as the aircraft passed through 350 feet.



The third landing attempt was successful but not without difficulty. According to investigators, the captain had **entered improper data** that resulted in a weight calculation that was off by more than 21,000 pounds.

The problem went **unnoticed** by the pilots because of the **crew's failure to observe standard cross-checking technique**, according to investigators, and the pilots had **assumed** their control problems were due to turbulence. The error left the crew with undetected incorrect guidance for the aircraft's approach. And, according to investigators, the flight crew "did not follow the prescribed stall recovery procedure and did not perform an immediate go around." The crew flew the third approach even though the aircraft appeared to be unstable and increasingly difficult to control. Investigators noted that the captain had been subject to **multiple schedule changes that challenged his ability to manage fatigue**, but stated he was "well rested" for the event.

FDA Goes After AeroShot: Are Inhalable Caffeine Canisters 'New Four Loko'?

AeroShot Pure Energy, an **inhalable caffeine product** that went on sale last month, is now under investigation by the Food and Drug Administration (FDA), who are concerned about whether the product is safe for costumers.

AeroShot Pure Energy canisters offers users the same amount of caffeine they can get in one cup of coffee, and advise costumers **not to use the product more than three times a day**. To get a shot, users put one end of the lipstick-sized canister in their mouths and breathe in. A fine powder containing **caffeine and B vitamins** is released and dissolves in your mouth and throat, giving you an immediate burst of energy.

AeroShot company Breathable Foods has vigorously defended the product, saying it only **delivers a "safe" amount of caffeine** without the taurine or other additives used to spike other energy drinks. Pure Energy is not recommended for or marketed to customers under 18 years of age.



For the FDA and Sen. Charles Schumer (D.-N.Y.), however, these assurances aren't enough.

Sen. Schumer, who urged the FDA investigation, met with FDA Commissioner Dr. Margaret Hamburg to push for AeroShot Pure Energy to be reviewed both for safety and for general legality.

"I am worried about how a product like this impacts kids and teens, who are particularly vulnerable to overusing a product that allows one to take hit after hit after hit, in rapid succession," Schumer was quoted as saying by [The New York Daily News](#).

Schumer worries that the product may be mixed with alcohol, and that the quick-fix caffeine product's design encourages abuse.

"This is the new Four Loko," he said, referencing the caffeinated alcohol drink banned last year by the State Liquor Authority after an [FDA investigation](#).

One problem with Schumer's argument, however, is that AeroShot Pure Energy canisters cannot be singled out in a market filled with energy boosters and caffeine fixes.

Caffeine supplements used for weight loss and energy boosts have flooded today's market, and ways for teens to take "hit after hit" of quick-fix products are already readily available.

One No Doz caplet, sold over the counter, has roughly [200 milligrams of caffeine](#), twice the amount in one shot of the inhalable "coffee" canisters. One [5 Hour Energy Drink](#) shot gives users the same amount of caffeine as one AeroShot Pure Energy hit, and is easier going down.

Nonetheless, an anonymous FDA official told [the Associated Press](#) that the product will still be tested to see if its safe for consumption and whether it could qualify as a dietary supplement.

Breathable Foods has said it will cooperate fully with the FDA investigation, and that it is confident AeroShot Pure Energy canisters will be cleared for widespread use.

"When used in accordance with its label, AeroShot [provides a safe shot of caffeine and B vitamins](#) for ingestion," its web site reads.

"Caffeine has been proven to offer a variety of potential benefits for health to individuals when consumed in moderation, from [providing energy to enhancing attention and focus](#)."

In fact, Sen. Schumer's attempt to stop the inhalable caffeine canisters from being distributed could end up boosting its popularity, which has lagged since its limited release in Massachusetts and New York. Shop owners report they have only sold a few of the AeroShot Pure Energy products since they arrived in stores.

"It's not my style," Paola Marte told The Daily News. "I'd rather drink coffee." Another New Yorker, Joe Morena, agrees: "Huffing caffeine sounds pretty disgusting."

<http://www.aeroshots.com/>

US controller training comes under renewed scrutiny

The US Department of Transportation's Office of Inspector General plans to take a fresh look at the Federal Aviation Administration's (FAA) air traffic controller facility training. According to a recent report, the OIG said the rollout of the US NextGen modernization effort could put the already stretched training resources of the FAA under **even greater pressure**.

The report stated that in 21 air traffic control facilities considered to be critical to aviation safety due to the volume and complexity of air traffic, more than half equal or exceed the 25 per cent national average of certified professional controllers eligible to retire.

At the same times, attrition of new controller trainees at more than two thirds of those facilities currently exceeds the national rate of 24 per cent.

The report found that at the New York terminal radar approach control, three out of every four new controllers between 2008 and 2010 **failed to qualify as certified professional controllers**.

The report criticized the training slot methodology used by the Air Traffic Control Optimum Training Solution (ACOTS) program office, managed since 2008 by Raytheon under a \$437m-plus contract

The OIG agrees that training and certifying such large numbers of newly hired controllers poses significant challenges for FAA which has already launched several new training initiatives.

"Accordingly, our audit objectives are to: firstly, identify steps FAA has taken to improve the facility training program for air traffic controllers; and secondly assess the effectiveness of those steps in improving training times, staffing composition, and training completion rates," said the OIG.



The FAA currently plans to hire and train nearly 11,000 new air traffic controllers through fiscal year 2020 to offset the impending retirements of those hired after the 1981 controller strike.

With so many veteran controllers retiring, FAA **faces the risk** of not having enough certified professional controllers (CPCs) to maintain continuity of air traffic operations.

Living and Working With the Reality of Risk

In our day if you throw enough money and time at just about anything you can make it work. We bask in the brilliance of technology, but in spite of our human achievements there is a shadow that keeps a steady pace with our. Reaching out to touch the shadowy figure we are reminded the shadow is ourselves. The idea of a zero accident workplace is a good thing. It is not that we don't want to work in a zero accident workplace or be assured that Little Red Riding Hood gets through the forest without a hitch. It comes back to do we want to pay for it, create it, manage it, spend time on it. Build a toll road with only an entrance and an exit, make it a one way shot from home to granny's house. Beat back the brush, smooth out the road, make it wide. Build it like a bowling alley lane with gutters on both sides to keep everything moving along with unimpeded motion. But truth be known **we live everyday with risk**, it is an inherent part of life, work and even play.



Looking back on the year we observe accidents that could have been prevented, lives that have been lost - that could have been saved if we had just spent a bit more, built it a different way, looked at it a little harder, add yet another component to the system. Somewhere along the curve of our best laid plans and what is sensible and sustainable there is a collision. This is our location on the curve - the locus, the intersection, our address, where we live. Add to this the reality that **we work in an industry that is not very forgiving**. A series of seemingly insanely small and insignificant latent events linked together. The problem may have started months earlier perhaps in purchasing or receiving inspection - suddenly erupt. A system strung together like a necklace of pearls spills out and rolls across the floor. Or like chains of forged steel the system experiences an active event and the links crash to the floor.

Suddenly and with surprising speed a bird is hammered to the earth. Loss of life may be catastrophic, at other times it is a smaller aircraft and loss is low. We are reminded that in our industry very few walk away from these catastrophic events.

Post-mortem, the findings point towards the usual suspects of part failure, maintenance procedures gone awry, environmental factors and the list goes on. Looming over the rest like the elephant in the room **is the human factor**. Legislation (the creation of rules) and enforcement (compliance to the rules), money, time and effort are brought to bear upon the human equation. Its insistence to insert itself into the everyday things that constitute our lives and workplace is not to be ignored. As we move into a new year we are closer to the necessity of **real risk assessments**. From the smallest of companies to the largest, risk assessment, mitigation of risk and the reality of economics clash. This is an area that defies templates. Every company has its' own DNA, encoded by its' own personnel roster, environmental factors, customers, type of services offered and alliances forged with other companies.

The legislation of **Safety Management Systems** looms on our horizon. Formalizing risk assessments and creating systems to respond to the findings are no longer luxury items. Money and safety collide here. All of us are called to the ownership of ideas, procedures and systems that will make the most use of our money and time. **Blue Tuna** is investing in tools that remove the barriers to training (like money and time). Working at the level of helping others to make good decisions in split seconds is our call to the fray. We have chosen to work with the figure that shadows our progress, the 15% - the human equation. Being cognizance of the reality of risk factors in your workplace is the first step in a series of steps we can take together.

<http://bluetunadocs.com/>