

Aviation Human Factors Industry News

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

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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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Office of Aviation Medicine

Technical Report: Flight Attendant Fatigue: A Quantitative Review of Flight Attendant Comments (Avers KB, Nei D, King JS, Thomas S, Roberts C, Banks JO, Nesthus TE)

Abstract: Today's aviation industry is a 24/7 operation that produces a variety of challenges for cabin crew members including extended duty periods, highly variable schedules, frequent time zone changes, and increased passenger loads. The present content analysis study was conducted to provide a quantitative review of flight attendant comments provided on the congressionally mandated survey of flight attendant field operations that was conducted in 2008. This report can be used as a supplement to interpret the published survey results (Avers et al., 2009b).

Two hundred surveys were randomly selected for each type of operation and level of seniority. A total of 1,800 surveys with comments were content analyzed (936 paper, 864 online). Eight broad comment categories were identified, including: scheduling, health, airline and airline policy, job performance and satisfaction, meals, survey, workload, and break facilities. Each category consisted of multiple positive and negative issues identified by flight attendants. This report outlines the most frequently reported categories and issues, summarizes the key issues by type of operation (low-cost, regional, network carrier) and seniority level (junior – bottom one-third, mid – middle one-third, senior – top one-third), and provides examples of actual respondent comments for the most commonly identified topics.



For a copy of this report, please visit:

<http://www.faa.gov/library/reports/medical/oamtechreports/2010s/media/201116.pdf>

Energy Crisis

The Sales of energy drinks, shots, and mixes have increased by 26% through June of 2010 to more than \$7,000,000,000 per year in the United States.

What do you eat or drink when you need a quick boost of energy? Many people must be using energy drinks or shots. It is easy to find energy drinks that can provide five hours of energy in a shot. As a website states, "it's quick, simple, and made for hard working people." Pipeliners are hard working people. Just ask them. Some have to work at night on rotating shifts. Other work long hours and are subject to call outs at any time of the day or night.



I don't use energy drinks, but do drink beverages that contain caffeine. So I am just seeking an energy shot from a different source. It's important to research the benefits and concerns about energy drinks.

I have some health conscious and fit friends [who drink mostly water](#). They also get about eight hours of sleep most nights. What is the difference?

[Adequate sleep negates the need for energy drinks, or a least drinking a shot every five hours.](#)

What about coffee? it is available in all the pipeline facilities where I've been this year - Texas (8 places), Oklahoma (3 places), Georgia (2 places), Alberta, and New Jersey (3 places). I stayed in hotels most weeks and each had coffee in the room, the restaurants, and in meeting rooms.

Should a person be concerned about the caffeine in coffee? What are warning signs of over reliance on coffee for and energy boost?

- . You are drinking more than four cups a day or night.
- . You are experiencing anxiety, nervousness, insomnia, digestive problems or irritability.
- . You are not sleeping at night and using caffeine to stay alert during the daytime which causes sleep difficulties at night.

[Avoid an energy crisis by getting enough sleep.](#)

Charles Alday



Office 770-422-6834
Mobile 770-856-5713
Skype charles.alday
QQ(China) 1223043420

Pilot's Tip of the Week

Why does ATC "sometimes" provide VFR advisories, when at other times they do not?
Hear what ATC veteran John Krug has to say here...

A yellow rectangular graphic with the words "QUICK TIPS" in a bold, green, sans-serif font. The graphic has a slight shadow and is reflected below it.

http://www.pilotworkshop.com/tips/pilot_atc_advisories.htm

10 FACTS ABOUT DRINKING & DRIVING

Here are **10 interesting things** that you ought to know about drinking and driving.

1. **Alcohol-related fatalities** are caused primarily by the consumption of beer (80%) followed by liquor/wine (20%)
2. There is considerable evidence that laws that lower the illegal BAC limit from .10 to .08 can reduce alcohol-related fatalities by an average of 7%.
3. Access to an **unlimited amount** of alcohol for a flat fee increases the number of drinks in a sitting by 1.6 drinks on average.

4. From 1975 through 2005, it is estimated that safety belts saved 211,128 lives, including 15,632 lives saved in 2005. If all passenger vehicle occupants over age 4 wore safety belts, 20,960 lives (that is, an additional 5,328) could have been saved in 2005.

5. A standard drink is defined as 12 ounces of beer, 5 ounces of wine or 1.5 ounces of 72-proof distilled spirits, all of which contain the same amount of alcohol – about .54 ounces. 6. The average person metabolizes alcohol at the rate of about one drink per hour. Only time will sober a person up. Drinking strong coffee, exercising or taking a cold shower will not help.

7. The rate of alcohol involvement in fatal crashes is more than 3 times higher at night than during the day (59% vs. 18%). For all crashes, the alcohol involvement rate is 5 times higher at night (16% vs. 3%).

8. Impairment is not determined by the type of drink, but rather by the amount of alcohol ingested over a specific period of time.

9. There is evidence that heavier drinkers prefer to drink at bars and other persons' homes, and at multiple locations requiring longer driver distances. Young drivers have been found to prefer drinking at private parties, while older, more educated drivers prefer bars and taverns.

10. Among persons aged 12 or older, males were nearly twice as likely as females (16.3% vs. 8.6%) to drive under the influence of alcohol in the past year.



ERAU Employee Named Arizona Avionics Technician of the Year

The FAA has awarded Chris Plumb with a prestigious honor. Prescott, Ariz., Nov. 17, 2011 – Chris Plumb, an Aircraft Avionics Technician at the Prescott campus of Embry-Riddle Aeronautical University (ERAU), has been named the “Arizona Avionics Technician of the Year.”



This prestigious annual is conferred by the Federal Aviation Administration (FAA) and the Aviation Safety Advisory Group of Arizona upon an individual who has made significant to Aviation Safety. The award was presented at the annual Arizona Aviation Safety Awards Banquet at a ceremony in Scottsdale, Ariz., in November. Also nominated were Embry-Riddle employees Farrell Harris, for Arizona Maintenance Technician of the Year, and Brian Brantner, for Arizona Flight Instructor of the Year.

“Chris’s professionalism, expertise and dedication have earned him the respect of all who know and work with him,” said John “Joe” Tracy, Director of Fleet Aircraft Maintenance for the Embry-Riddle campus and Chris’s immediate supervisor. “Chris really is deserving of this award. It’s professionals like Chris, Farrell and Brian that make Embry-Riddle the best aeronautical university in the world and a great place to work.”

Embry-Riddle employers are nominated every year for these awards. Former employee Jesse Hansen was awarded the Maintenance Technician Award in 2007.

Dr. Frank Ayers, Executive Vice President and Chief Academic Officer over the Prescott campus, notes that “safety is a number one priority” at Embry-Riddle. “We strive to achieve excellence in the skies by making safety a focus in all academic programs,” he said. “The key to our safety program is the quality and commitment of individuals like Chris Plumb, who are committed to providing the best-maintained aircraft in the industry.” Embry-Riddle Prescott offers both bachelor’s and master’s degrees in Safety Science.

Georgia Hospital Lands Airline Pilot to Lead Patient Safety

Northeast Georgia Health System hires Michael Appel, M.D., both an anesthesiologist and commercial pilot, as Chief Patient Safety Officer. Northeast Georgia Health System, Inc. (NGHS) is pleased to announce it has hired Michael Appel, M.D. as Chief Patient Safety Officer. Combining his in the cockpit with more than 20 years experience in healthcare, Dr. Appel brings the right recipe for innovative improvements in patient safety.



“You don’t often get the chance to work with a person who has been an Ivy League professor, [has flown thousands of hours](#) for Delta Airlines and continues to practice anesthesiology,” says Carol Burrell, President and CEO of NGHS. “We’re excited by the ideas Dr. Appel brings to the table and proud of how he’s [already helped](#) make NGMC a safer place for patients.”

Dr. Appel credits his [expertise in aviation safety](#) as the foundation for his passion to improve healthcare. “I began reading aircraft accident reports at a young age, and couldn’t afford to fly real airplanes” says Dr. Appel. “So I learned about aviation from a safety perspective first...long before I touched the controls of a real airplane. I read every accident report I could get my hands on.”

Appel’s deep understanding of aviation safety is what set the stage for his huge disappointment with the healthcare system. “It was chaos...what I witnessed when I first stepped foot into a hospital as a medical student. It was at that moment that [I realized my mission in life](#) was to make healthcare systems safer for patients.”

During the next few years, Dr. Appel completed his medical degree at Columbia University while also becoming a private pilot. He eventually merged the two careers as a traveling anesthesiologist who flew himself to each facility. Finally in December of 2000, his lifelong dream to be an airline pilot came true when he accepted a position with Delta Connection.

“It was truly a dream come true,” says Dr. Appel. “To see, from the inside, how a system extracts the best possible outcomes from hazardous work.” It is precisely that level of performance that Dr. Appel expects from healthcare. [“It can be done, but safety is not intuitive,”](#) says Appel. “Improvements require a sustained effort in partnership with the right people.”

When Dr. Appel first came to NGHS in 2008, he took an immediate interest in patient safety initiatives at NGMC. In speaking with other doctors and hospital employees about his experiences in aviation, he was always sure to relate them back to health care. Administration quickly took notice.

“Sometimes it’s easy to get [numb to terms and tools you use every day](#), and forget the real meaning behind those terms and the true reason for using those specific tools,” says Sam Johnson, MD, Vice President of Medical Affairs and Chief Medical Officer of NGHS. “Dr. Appel’s experiences help us all look at our jobs from a fresh perspective and ask ourselves [what we can do to improve human performance.](#)”

Having considered other offers from around the country, Dr. Appel chose Northeast Georgia Medical Center because “the climate is right at this hospital to be real pioneers in patient safety,” says Appel.

He credits a team of world-class physicians, a supportive administration, an involved and progressive board of directors, but most importantly the employees of the 5,000 staff referral center who, he says, "create a unique environment, ripe for groundbreaking improvements in patient safety."

Among the many patient safety projects at NGHS, several encompass techniques [borrowed directly from aviation](#). One example uses "[root cause analysis](#)" in a way similar to aircraft accident investigations performed by the National Transportation Safety Board. By identifying a patient safety concern and working backward to fix the process itself, Dr. Appel's team makes errors less likely to be repeated.

Another approach inspired by aviation is the use of [standard phraseology](#). Like aviation, healthcare needs a glossary of sacred terms which have specific meaning. "The word 'STAT' has been so abused as to be rendered meaningless", says Appel. In 2012, NGHS will launch a 'Minutes Count' campaign to tap into the efficiency that comes from using standard words with specific meanings. "When lives are at stake, [communication needs to be crisp and concise](#)," says Appel. "Listen to the exchanges between air traffic control and pilots. They speak a language created with safety at its core."

But Dr. Appel, who is frequently invited to speak nationally on patient safety, will be the first to tell you [there are no short cuts](#). "No lecture is going to do anything for patient safety. The change we're after is [one of culture](#), and that will take decades of hard work."

[iPhones Mysteriously Explode, Spark Safety Concerns](#)

Apple's iPhones are literally hot devices, as [two spontaneously combusted](#) this month, sparking concerns about the devices' safety.

Officials report an [iPhone 4](#) glowed red and began smoking after it caught on fire during a flight in Australia, and another user in Brazil reported his Apple phone also combusted as it was charging overnight.



An iPhone 3GS caught fire earlier in November in Brazil. Apple Australia's Fiona Martin said the company is investigating the Brazilian iPhone fire, but hasn't commented yet on the Australian incident. Australian Civil Aviation Safety Authority spokesman Peter Gibson said his agency, along with the Australian Transport Safety Board and the Civil Aviation Safety Authority are investigating the latest incident. He said the ATSB plans to strip down the iPhone 4 "to try and understand just why it would start heating up," noting the phone is no longer working.

The Brazilian fire occurred after owner Ayla Mota left his 8GB iPhone 4 plugged in while he slept, awaking in the middle of the night to see "a lot of sparks and black smoke out of the cell." He switched off the power and unplugged the device.

The fires aren't the only problems iPhone owners are reporting. There have been [complaints about battery life](#), the phone screens having a yellow tinge, and even about the new iPhone 4S' signature Siri program. The fires, though, could pose a safety concern that Apple may need to address [to retain the public's trust](#) in the device.

Apple's devices have had overheating problems in the past. In 2009, some 3GS owners said their handsets were overheating, burning the white models into brown and pink colors. Faulty batteries were eventually blamed, which may be the case in the latest iPhone fires as well.

Apple also had a replacement program in place for a while for first-generation iPod Nanos because they overheated, with three Nanos catching fire in Japan before that country recalled the devices.



Call for Nominations Flight Safety Foundation–Airbus Human Factors in Aviation Safety Award

Purpose and Establishment of Award:

Established in 1999, the Flight Safety Foundation–Airbus Human Factors in Aviation Safety Award recognizes outstanding achievement in human factors contributions to aviation safety. **The nominating deadline is January 6, 2012.**

The Award will be presented at the 24th annual European Aviation Safety Seminar (EASS), February 29–March 1, 2012 in Dublin, Ireland.

Name of Nominee: _____

Position/Company: _____

Address: _____

Phone/Fax/Email: _____

***Please attach documentation to support your nomination (maximum of one page). Nominations without supporting materials or with materials over one page will not be considered by the Award Board. ***

Nomination submitted by:

Name: _____

Address: _____

Telephone: _____

Fax: _____

Email: _____

Deadline: January 6, 2012

Please return to Kelcey Mitchell, Flight Safety Foundation by fax 703-739-6708

or by e-mail to mitchell@flight-safety.org

Attention: Flight Safety Foundation–Airbus Human Factors in Aviation Safety Award

Thank you for your nomination