

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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Congress Passes Safety Management Law

The next great management theory, Safety Management Systems, is now required by law.

The President signed into law the Airline Safety and Federal Aviation Act of 2010 on August 1. One of the provisions of this new law is a requirement that the **FAA publish a notice of proposed rulemaking within 90 days that would impose a requirement for Safety Management Systems (SMS) on air carriers.** Under the law's deadline, the final rule must be issued by August 1, 2012.



Congress has directed that the **SMS** follow the model published in **AC 120-92**. This model diverges from the international standards for SMS that were published by ICAO by including additional details and elements, but it is nonetheless sufficiently similar to the ICAO model that air carriers following the new regulations ought to be in compliance with the international standards.

We should expect to see the NPRM published by November 1. It is likely that **we will all want to comment on this proposal** in order to make sure that data collection paradigms that are developed will support safety without imposing unwarranted burden on third parties. In addition, the model established for air carriers is likely to set the tone for the models that will eventually be imposed on **other certificate holders**.

The FAA continues to investigate strategies for implementing SMS rules for all certificate holding companies in aviation. WWW.PMAMARPA.COM

Three Ways to Get Workers to Wear PPE

You may think that telling your workers to wear PPE is enough, but **showing your workers** might be more effective. Here are three ways to do that:

1. Set an example

You must **SHOW** your team that you are not above the rules and regulations. Wherever PPE in your workplace is required, be sure you're wearing yours.

2. Demonstrate proper usage

If it's a requirement that PPE be used in a designated work area, then make sure your workers know how to adhere to the policy or the procedure. **SHOW** your workers where to obtain the appropriate PPE and take the time to **SHOW** them how to don and use it correctly.

3. Be consistent

The absolute worst thing you can do regarding the proper use of PPE is let someone get away without it when it is required. There is no quicker way to diminish morale or lose credibility with your workers than to be perceived as being inconsistent. If you ever witness a violation of use, never ignore it. **SHOW** your team that you mean business.



Fatigue Training Now Online



The Easy, Expert Solution to Fatigue in the Workplace

Fatigue Training Online™ is the premier online fatigue management training program for the 24/7 workforce.

The web-based system offers specialized training programs to educate workers on how to maintain alertness and high performance on-duty and get better sleep off-duty. The result is a safer, healthier, and more productive workforce.

Fatigue Training Online™ Features:

- **Authoritative information** on the causes, risks, and potential consequences of fatigue
- **Multimedia content** that provides different types of learners with the basic scientific principles of sleep, sleep disorders, alertness, circadian rhythms, and fatigue physiology so that they can reduce the risks of fatigue for themselves and those they manage
- **Unlimited 24/7 online access for 1 year** on a platform easily shared with family members
- **Interactive comprehension tests** that help reinforce knowledge retention

Why is fatigue training important to the safety of your workers?

- Shiftwork is associated with an increased risk of cardiovascular disease, gastrointestinal disorders, obesity, diabetes, and obstructive sleep apnea.
- Sleep quality and quantity is often lower for those working at night or starting early in the morning.

Why fatigue training matters to you?

- Research shows that facilities that do not provide some type of training in the area of fatigue and lifestyle management experience higher absenteeism, accidents, and staff turnover rates.
- Falling asleep on the job is more common than many managers realize, with 80% of shift workers admitting to it in confidential surveys.
- More and more industries and government agencies now either require or recommend fatigue training for employees and supervisors.

Next Steps:

- 1) [Click here to watch a demo video of Fatigue Training Online™](#)
- 2) [Read more about the features and benefits of Fatigue Training Online™](#)

3) [Purchase a course](#)

FATIGUE ACCIDENT/INCIDENT CAUSATION TESTING SYSTEM (FACTS)



How can you determine whether employee fatigue contributed to an accident or incident?

How can you reliably estimate the cost per year of employee fatigue?

FACTS is a web-based investigatory tool that helps users determine if **human fatigue** may have been a causal factor in an accident/incident. Developed by the world's leading experts in sleep, fatigue, and circadian rhythms, FACTS generates results that correlate well ($r = .91$) with conclusions reached by experts who investigated NTSB and other industrial accidents.

[FACTS helps you do the following:](#)

- Determine whether or not fatigue affected the individual involved in an accident/incident
- Calculate what percentage of your operations incidents/accidents/deviations are due to fatigue
- Estimate the cost of employee fatigue impairment at your operation

[Have an accident you want to investigate?](#)

[Try FACTS for Free](#)

FATIGUE ACCIDENT/INCIDENT CAUSATION TESTING SYSTEM (FACTS)

Fatigue is one of the most pervasive yet under-reported causes of **human error-related** accidents, incidents, and injuries in both the industrial and transportation sectors.

Because fatigue is difficult to detect (i.e., no blood, urine or breathalyzer test exists to identify it) companies have a difficult time quantifying the true impact and cost of fatigue in their operations.

To bridge this gap, CIRCADIAN® created an online diagnostic expert system to help investigators and companies readily determine (by standardizing criteria and with high probability) if **human fatigue** may have been a causal factor in an accident/incident.

<http://facts.circadian.com/facts/>

Court OK's Firing of Pilot Who Didn't De-Ice Plane

A federal judge in Dallas upheld the firing of a Southwest Airlines pilot who **failed to de-ice the wings** of a plane before takeoff. Pilot Janice McCall sued the airline and its pilots union, accusing Southwest of breaching a agreement and Southwest Airlines Pilots' Association of failing to fairly represent her wrongful firing lawsuit against the airline. McCall said Southwest should not have fired her because she had followed the flight operations manual before takeoff.

But U.S. District Judge Barbara M. G. Lynn said following the manual was not the real issue. At issue, Lynn said, was the fact that McCall **had not de-iced the wings**, which is required by federal aviation regulations when there's frost, ice or snow. "McCall herself admitted in writing two days after the incident that she had seen snow on top of the fuselage, nose, and engine cowling, but that **she had failed to 'get a good look at the top of the wings from the ground,'**" Lynn wrote.

Judge Lynn concluded that "McCall's admitted **failure to follow the preflight exterior inspection requirements** provides 'just cause' for Southwest to terminate her employment."



Lynn granted summary judgment to Southwest and the pilots union.

<http://www.courthousenews.com/2010/08/10/Southwest.pdf>

GAO Releases Report on Winter Weather Operations

The Government Accountability Office (GAO), in a report entitled "Improved Planning Could Help FAA Address Challenges Related to Winter Weather Operation," found that despite persistent efforts by FAA and others to mitigate icing risks, **aircraft icing remains a serious concern**. The agency called on FAA to develop a holistic winter operations plan that includes goals and milestones. In its report, GAO noted that ice formation on aircraft can disrupt the smooth flow of air over the wings and prevent the aircraft from taking off or decrease the pilot's ability to maintain control of the aircraft. Takeoff and landing operations also can be risky in winter weather.



GAO reviewed (1) the extent to which commercial airplanes have experienced accidents and incidents related to icing, (2) FAA's inspection and enforcement activities related to icing, (3) the efforts of FAA and others to improve safety in winter weather, and (4) the challenges that continue to affect aviation safety in winter weather. GAO analyzed data obtained from FAA, the National Transportation Safety Board (NTSB), the National Aeronautics and Space Administration (NASA), and others. Further, GAO obtained information from FAA and NTSB officials and representatives of key aviation industry stakeholders.

In response to GAO's recommendation for a holistic approach, DOT agreed to consider GAO's recommendation and provided technical comments.

To view the full report, visit the GAO website at <http://www.gao.gov/new.items/d10678.pdf>.

GAO On NextGen Human Factors Integration

The GAO says that FAA and NASA officials need to develop a cross-agency plan for **coordination of human factors research efforts**, or NextGen implementation may see cost increases and delays. "FAA has not established an agreed-upon set of initial focus areas for research that identifies and capitalizes on past and current research," said the GAO. Meanwhile, "experts GAO contacted generally agreed that FAA's and NASA's **human factors research efforts** adequately support NextGen." While efforts by both NASA and the FAA are ongoing and coordinated "in a variety of ways," the GAO says its research shows that human factors research leadership **is still lacking and coordination efforts can be improved**. The office has offered suggestions.



In the past, failure for the FAA to consider these aspects during early development led to "schedule slippages and cost increases." The GAO says experts it interviewed suggested that the FAA needed to **improve collaboration of human factors efforts** within FAA departments and establish strong leadership. A cross-agency human factors coordination research plan developed in coordination with NASA was previously recommended by the FAA's Joint Planning and Development office, but never implemented. And top-level positions that oversee human factors integration efforts have not been consistently staffed. The GAO suggests these factors be addressed by providing consistent leadership with sufficient authority to **prioritize human factors issues** and address them throughout NextGen.

Crew-Ground Integration Is Theme of Aerospace Conference in Cape Canaveral Nov. 3-5

MELBOURNE, FLA.—Representatives of industry, government and academia **human-centered design (human factors in engineering systems)** are invited to attend the International Conference on Human-Computer Interaction in Aerospace, HCI-Aero 2010. With the theme of **crew-ground integration**, it will be held in Cape Canaveral, Fl., Nov. 3-5. One goal of HCI-Aero 2010 is to focus on sharing lessons learned across industry, government and academia. Another is to develop new methods that will continue the current, unprecedented safety observed in aviation operations.



The event is organized by the Florida Institute for Human and Machine Cognition (IHMC) and Florida Institute of Technology. The program committee chair is Guy Boy, Florida Tech university professor, a senior research scientist at IHMC and chief scientist for human-centered design at NASA Kennedy Space Center. It's being held in cooperation with ACM-SIGCHI (Association for Computing Machinery-Special Interest Group on Computer Human Interaction), the International Ergonomics Association and the Air and Space Academy.

Keynote speakers include:

- Gerard D. (Gerry) Griffin, former director of the NASA Johnson Space Center and a flight director in Mission Control. He served in this capacity throughout the Apollo manned missions.
- Amy R. Pritchett, the Davis S. Lewis Associate Professor in the School of Aerospace Engineering at Georgia Institute of Technology and former director of the NASA Aviation Safety program.
- Christopher Johnson, professor of computing science at the University of Glasgow, U.K., and chair of the Scientific Advisory Board for the SESAR (Single European Sky ATM Research) program.

Presentations will explore the evolution of crew-ground interactions, laboratory research and field investigation, industrial development and perspectives, regulations and the latest trends in design.

HCI-Aero 2010 will also exhibit industrial and academic work and systems.

The cost is \$700 for professionals and \$300 for students.

To register and for more information, send e-mail to hci-aero2010@ihmc.us.

How to Get Control Of Your Time and Your Life

Does it ever feel like there aren't enough hours in the day to get everything done? How are we **supposed to balance** work and house-hold obligations and still have time for our friends and families? *In **How To Get Control of Your Time and Your Life*** , Alan Lakein provides a practical, no-no-nonsense guide to managing your personal and business time. He shows you how to set short-term goals, establish priorities and organize a daily schedule. He even provides tips for building willpower, creating quiet time, defeating unpleasant tasks and keeping yourself on target.

Throughout the book, Lakein reminds us that **time is life**. Therefore, by mastering your time, you can master your life.

