

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:

★Dirty Dozen: Lack of Communication

★What Are The Most Dangerous Jobs?

★PMA Conference Examines Safety Management Mechanisms

★Involve Workers in Job Safety Analyses

★Is there a perfect time to take a nap?

★Shift Start Times Impact Sleep and Alertness

★NEW Flight Safety Foundation's, Aerosafety World Magazine edition in SPANISH?

Dirty Dozen: Lack of Communication

Charles Alday has offered to share this article on a topic we surely recognize as a Proud Member of the Dirty Dozen. Mr. Alday's Consulting Services is a management consulting firm that specializes in operational. Check out his excellent website: <http://www.charlesalday.com/v1/>



Do communication problems cause any operational problems at your company? I recently did a training session on professionalism in communication for some crude oil pipeline controllers. Last week I did a presentation on communication for the Southern Gas Association Operations Conference. This week a Gas Control Center Manager told me about communication issues. All indicated that **communication problems** lead to many other problems. Let me encourage you this month to improve communications – begin with your speaking and listening skills, then **encourage your team to read the article and discuss how to improve communications.**

Please click on the link below. (PDF)

[Lack of Communication](#)

What Are The Most Dangerous Jobs?

Steven Greenhouse, a reporter for The New York Times, and [Planet Money highlight](#) a new report from the U.S. Department of Labor, released yesterday: "[National Census of Fatal Occupation Injuries in 2009](#)." It may romantic to make a living as a fisherman, logger or [airline pilot](#)," he writes.

"But according to a new report that the Bureau of Labor Statistics issued on Thursday, those are the **three most dangerous** occupations in the United States."

What else made the list? Farmers and ranchers, roofers, and structural iron and steel workers.

UPDATE at 1:44 p.m. ET: As David Comarow points out in the comments section (below), it is misleading to say that airline pilots alone have one of the most dangerous jobs in the U.S. Per the report, aircraft pilots and flight engineers **have high fatal injury rates.**



[National Census of Fatal Occupational Injuries in 2009](#)

PMA Conference Examines Safety Management Mechanisms

Special Workshop Planned On Practical Implementation Of New Law

Earlier this month, the President signed into law the **Airline Safety and FAA Act**. A key element of this new law is a requirement for the FAA to publish a new law requiring **Safety Management Systems (SMS) by 2012**. The Modification and Replacement Parts Association (MARPA) announced Monday that its 2010 conference will feature a **special workshop** on practical implementation of Safety Management, as well as general session presentations on Safety Management Systems (SMS).



A Safety Management System (SMS) is the formal process of using **System Safety practices** in an organization's everyday activities **to control risk**. It is like a quality assurance system that uses **risk-based analysis** to look forward, predicts future needs, and permits a company to commit resources today to address the industry's future safety needs.

SMS is an approach that can be used throughout the aviation industry to meet System Safety standards set by the International Civil Aviation Organization (ICAO).

This year's MARPA Conference will feature several speakers addressing SMS concepts and implementation mechanisms. As a special bonus, though, John Hunter (Chairman of the MARPA Continued Operational Safety (COS) Committee) will present a workshop that will analyze case studies of how companies have used the MARPA COS standard to establish a SMS with **positive safety benefits**.

MARPA is the non-profit trade association that represents the aircraft parts manufacturing industry (PMA parts manufacturers). MARPA works closely with the FAA to help develop safety standards and tools that enable manufacturers to meet those safety standards. In addition to the Annual Conference focus on SMS, MARPA also serves on the FAA's Aviation Rulemaking Committee for SMS and has published a COS standard that is available for free to any PMA company.

The MARPA Annual Conference will take place October 27-29, 2010 at the Law Vegas Renaissance Hotel.

Involve Workers in Job Safety Analyses

A **job safety analysis** (JSA) is not always best left only to a safety supervisor. Your workers' experience in doing a job gives them superb of what can go wrong from a safety and health standpoint. While some hazards can be obvious to everyone, many workers probably encounter situations that haven't been considered by others. **Your workers' insights are vital.**

Conducting a JSA is also valuable as a training guide for new employees, a "refresher" for existing employees and as a tool for determining why an incident happened.



Is there a perfect time to take a nap?

Is there a perfect time to take a nap? It depends. Your personal situation will determine the best time for you to take a nap.

There are **three types** of naps you can take; **planned, emergency and habitual napping**. Planned (also called preparatory napping) involves taking a nap to delay getting tired early or to help stay alert later than you normally would.

Emergency napping occurs when you suddenly feel tired or fatigued and need to rest before completing a task which requires alertness. Habitual napping is when you take a nap the same time every day, for example, most children take habitual naps.

Respondents to our recent Web survey about napping found that up to 35% of respondents are too busy for either planned, emergency or habitual napping. 49% did admit to napping whenever they felt tired, while 8% take habitual naps and over 6% claim be more strategic and plan their napping.

It's true that napping can help restore alertness, enhance performance, and reduce mistakes and accidents. In spite of these benefits, napping isn't always the best option for everyone. For example, people having trouble sleeping through the night should avoid napping too close to bedtime because this could further cause sleeplessness. Learn more about naps and how they could benefit you.



<http://www.sleepfoundation.org/article/sleep-topics/napping>

Shift Start Times Impact Sleep and Alertness

Regulations that limit the number of hours worked also should provide guidance for **shift start times** to maximize workers' sleep opportunity and minimize the risk of on-the-job fatigue, according to a research abstract presented at SLEEP 2010.

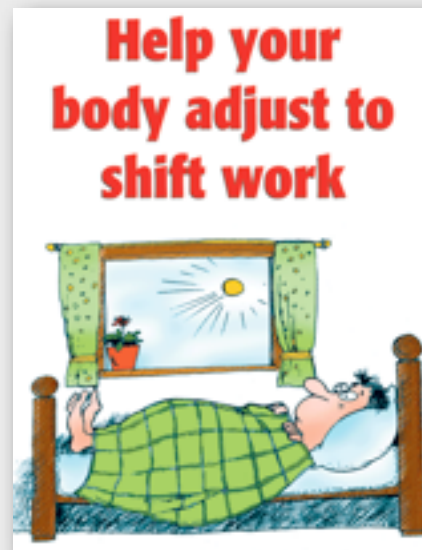
Results indicate that estimated sleep durations varied from **4.5 hours to 8 hours** according to the start time of the work shift. The **maximum** estimated sleep duration occurred when the work shift started between **9 AM and 2 PM**, and the **minimum** estimated sleep duration occurred when the shift began between **8 PM and midnight**.

"Our most interesting finding was that shifts beginning between 8 PM and midnight yielded **consistently poorer predicted performance** and less than adequate predicted total sleep per 24 hours," said lead author Angela Bowen, research assistant at the Sleep and Performance Research Center at Washington State University Spokane.

The study also predicted that **minimum on-the-job fatigue** occurred when the shift started at 9 AM, and **maximum fatigue** occurred when the work shift began at 11 PM. Furthermore, there was a relatively sudden decrease in predicted fatigue for duty periods starting after midnight compared with shifts that started just before midnight. The researchers explained that work schedules with start times after midnight allowed workers to sleep right before the duty period, which meant that they were **better rested** when the shift began.

In contrast, shifts that started just before midnight did not allow for pre-shift sleep because the **timing conflicted** with the body's early evening circadian process.

The results suggest that in addition to implementing regulations that limit the number of hours worked in a 24-hour period, employers should schedule shift start times in a way that **maximizes sleep and alertness**.



In particular, night shifts that begin after midnight may allow workers to get more sleep and experience less fatigue than shifts that start **between 8 PM and midnight**.

NEW Flight Safety Foundation's, Aerosafety World Magazine edition in SPANISH?



It is free!! And it has been done through voluntary work and kind donation from FLAP (the Latin American Pilots Federation)

Here is the direct link to the FSF page:

<http://flightsafety.org/aerosafety-world-magazine/aerosafety-world-in-spanish>

And to the pdf file:

http://flightsafety.org/asw/spanish/asw_mar10_esp.pdf

Study: Flying safety varies by development

Airline passengers flying in **developing countries** face 13 times the risk of being killed in crashes as passengers in the developed world, a researcher says. And while more economically advanced countries in the developing world have better overall safety records than the others, even their death **risk** per flight is seven times as high as that in developed countries, an article in the journal Transportation Science says.

Worldwide air-safety data from 2000 to 2007 shows the chance of dying on a scheduled flight in a developed nation like the United States, Japan or Ireland was **1 in 14 million**, said Arnold Barnett, a professor of operations research at Massachusetts Institute of Technology's Sloan School of Management and a long-term researcher on aviation safety.



On the airlines of economically advancing countries in the developing world such as Taiwan, India and Brazil, the death risk per flight was **1 in 2 million**.

And in less economically advanced developing world countries, the death risk per flight was **1 in 800,000**, Barnett said.

But with major advances in safety in the last decade, **the distinction is "between safe and very safe, and not between safe and dangerous,"** Barnett said.

While the study ends in 2007, the patterns it depicts **continue** to persist, Barnett said.

So far in 2010, there have been eight fatal accidents on scheduled passenger flights. **All eight occurred in the developing world.**

The True Values of Leadership

Leadership is something everyone talks about in business but few of us understand.

Truly effective leadership grows out of **personal values** — the deeply-held personal beliefs that determine one's priorities in life — that nurture people's passion and commitment.



This alignment of **leaders and employees values** adds value to the enterprise for customers, investors, employees and society.

It's not what leaders do that's important, **it's why they do it**. The process of leadership is to turn your values into a compelling cause for others.

Effective leaders are those rare human beings who have an **emotional commitment** to their values and can inspire others to commit to these values too. Leaders develop in organizations that consistently allow managers to live their values at work without the company constantly facilitating the process.

However, before you can live out your values, you need to figure out **what they really** are and which are most important. Here's how to get started:

1. Understand your values

It's tough to live a life of consciously-chosen values because there is relentless, **seductive pressure** to alter your beliefs.

Anybody who has a role for you — as consumer, constituent or manager — stands to profit from you not having a sure sense of self. After all, when you're not on your own agenda, you're prey to the agenda of others. It takes just a little more work to **list your personal values**, why they are important to you, and which ones really matter the most but it's important to do so.

2. Get support from your people

If your employees know what your values are and care about them, then you can live them. If they don't, you won't. Translate your values — the meaning of family, integrity, adventure, creativity, spirituality, and health or whatever your values are — into the promise of **better working conditions** for your employees. If they want those conditions, they'll protect your values to help make them happen.

3. Take responsibility

Leadership doesn't come with a job title — and you can't order it on the Internet and can't just wait for it to happen to you. Leadership happens when you **understand your values** and understand how to enroll others in supporting them. It's your responsibility to assume an active role in forming your values and then evangelize them to your employees.

The irreducible essence of leadership is living your deepest personal values every day at work and at home **without compromise**. Leaders use those values to make life better for their employees. This is why people become leaders and why people follow them.

REPORT: SIMULATOR TRAINING FLAWED

Problems stemming from simulator training have been cited as **factors** in airline accidents that caused more than half of the 522 fatalities over the last decade, according to a [USA Today](#) analysis published on. Most recently, the NTSB cited deficient simulator training as a contributing factor in its final report on a December 2008 accident in Denver, in which six people were severely hurt when a Continental 737 ran off a Denver runway. Simulated crosswind training in the airline industry is "inadequate," the NTSB reported, due to "deficient simulator wind gust modeling.



" Simulators are not able to provide pilots with **"realistic gusty crosswind training,"** the NTSB said. USA Today noted that simulators also were cited in the NTSB reports on last year's fatal Colgan Air crash and the November 2001 crash of an American Airlines A300 in which 265 people died.

[More...](#)

What Couples Are Really Arguing About

Married couples argue about all kinds of things, from money to whose turn it is to take out the garbage. But in reality, says, *Scientific America*, all fights come down to **two basic issues** that have little to do with the content of the arguments: One person feel that he or she is being **controlled or feels neglected**.

Baylor University psychologist gave a questionnaire to 3,539 married couples and analyzed such variables as the words couples used to describe a fight and the feelings they experienced.

Researchers that the tension that sparked the arguments almost always **involved deeper issues relating to whether the partners felt understood or valued. Appreciating this dynamic might help couples out how to improve communication.**



For example, says study author Keith Sanford, if a husband realizes that his wife's anger over his coming home late is really about her feeling disregarded, he could fashion an apology that includes "demonstrations of deference and expressions of appreciation.