

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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2011 shaping up to be 'safest ever' year for fliers

It appears 2011 may end up as the safest year on record for fliers.

So far, there's been [one fatality for every 7.1 million passengers](#) traveling on a commercial or charter flight somewhere around the globe, according to an assessment by Ascend, an aviation industry consulting firm based in London.

That compares with the previous record of one passenger death per 6.4 million fliers in 2004. "[It's the safest ever,](#)" says Paul Hayes, Ascend's director of safety, noting that the report did not count deaths that resulted from terrorism or other acts of violence. "Fortunately, the airlines are getting safer, quicker than they're expanding."



The global numbers reflect a recent safety trend by [U.S.](#) airlines, which haven't experienced a passenger death in a crash [in four of the last five years](#). The exception was 2009, when a [Colgan Air](#) turboprop crashed near Buffalo on Feb. 12, leaving 50 dead.

"Even if you took frequent flights (in the USA), as business travelers do, the chance that sooner or later you'll encounter a crash is extremely low," says Arnold Barnett, a statistics professor at MIT's Sloan School of Management who closely studies aviation. "We have an extraordinary record here in the past five years. It's unlike anything that preceded it.

"When people talk about how flying is so miserable now — they don't serve you meals — this, you can argue, is secondary to the fact that there are [very few calls to the next of kin](#) compared to the numbers there used to be," he says.

U.S. airlines had 17 fatal accidents from 2000 through 2009, including the four planes lost during the terror attacks of Sept. 11, 2001, says the U.S. industry trade group Airlines for America. That's in comparison with 44 fatal accidents throughout the 1970s.

[Better technology and improved training of crews have helped](#) make flying less hazardous, travel experts say. But better sharing of information across the airline industry has also been key.

"With the increased amount of data and sharing of data, we can now anticipate potential risk areas better than we ever had before," says Steve Lott, Airlines for America spokesman. "We can make improvements long before we have any sort of incident."

Although U.S. carriers are "at the safest point that we've ever been," Lott says, "it doesn't mean we can take a break or rest on that strong record."

NTSB: Total highway fatalities down, truck-related fatalities up

There are still " ... far too many deaths each year," said NTSB Chairman Deborah A.P. Hersman

Despite an overall downward trend in transportation fatalities in the United States, estimates for 2010 released by the National Transportation Safety Board (NTSB) recently reveal a rise in several categories, including motorcycles, medium and heavy trucks, buses, rail and pipeline. The deadly natural gas pipeline accident in San Bruno, California, that killed eight people and was investigated by the NTSB, contributed to the rise in pipeline fatalities. "Though the NTSB continues to advocate for changes to address [human factors](#), equipment, and infrastructure improvements to prevent crashes, we continue to see far too many deaths each year," said NTSB Chairman Deborah A.P. Hersman. The data indicate that overall transportation fatalities decreased to 34,925 in 2010 from 35,994 in 2009.



The total number of fatalities on U.S. roadways dropped by about 1,000 (33,883 to 32,885) with the majority of vehicle-related deaths involving passenger cars and light trucks and vans. [Motorcycle-related deaths saw the largest increase](#) (4,469 to 4,502), but deaths also rose for occupants in medium and heavy trucks (499 to 529) and buses (26 to 44).

Rail fatalities increased from 742 to 813, with the majority at grade crossings, though deaths on light, heavy and commuter rail rose from 229 to 253.

The recreational boating segment of the marine industry saw 672 deaths in 2010 compared to 736 in 2009.

Other marine categories, including cargo transport (16 to 14), commercial fishing (49 to 30), and commercial passenger vessels (13 to 17), saw smaller changes.

The majority of aviation deaths occurred in the general aviation category (450), down from 478 in 2009. While fatalities in commercial aviation (52 to 2) and foreign/unregistered (4 to 3) dropped, air taxi deaths (17) remained the same.

How would you paint your Dreamliner?

Have you always thought it would be fun to come up with your own paint scheme for an aircraft? If so, then Boeing has just the thing for you ...

The U.S. jetmaker has rolled out [a page on its website where users can do just that](#). The "[Design Your Own Dreamliner](#)" page is just what it sounds like, offering aviation enthusiasts a chance to come up with their own unique design for a Dreamliner (such as the ones shown here in this post).



Menus give options for numerous graphics, color and "paint" options. Several fonts are available for adding text to your aircraft design.

One person to have already experimented with the page is aviation blogger David Parker Brown of [AirlineReporter.com](#). He offers this advice (see below) for those thinking about taking a stab:

The key is to remember that you need to make the same design on both sides, otherwise your design doesn't really work in the 360 view.

http://i.usatoday.net/communitymanager/_photos/today-in-the-sky/2011/12/16/2-boeingx-large.jpg

Those who complete a design can submit it to Boeing for approval.

Once that happens, it will be added to the company's gallery of user-generated designs, which range from a "[Boca Juniors](#)" Dreamliner to a "[LUV Express](#)" version that seems to pay homage to Southwest.

Enjoy!

<https://designyourown.newairplane.com/>

<http://www.airlinereporter.com/2011/12/design-your-own-boeing-787-dreamliner-livery-its-easy/>

<https://designyourown.newairplane.com/#%21/en/gallery/>

Airshow Teams Announce 2012 Schedules

The [Air Force Thunderbirds](#) and the [Navy's Blue Angels](#) released their 2012 schedules last week at the International Council of Air Shows annual meeting in Las Vegas. Both teams fly their first show in March -- the Angels at El Centro,, and the Thunderbirds in Yuma, Ariz. The Thunderbirds also are scheduled to fly at Sun 'n Fun, in Florida, March 31 and April 1. The ICAS schedule can be downloaded below. Besides the military teams, however, much of the season's schedule remains to be filled -- the slot for EAA AirVenture, for example, is nearly empty -- but you might find your favorite airshow on the 13-page list. Recently, with Washington stalled over the national budget, concerns have arisen that the military jet teams may be affected. Last week, about 100 performances by Air Force one-ship teams were grounded to save money, but at least so far, the two jet teams seem to be fully funded for another year.



[The Blue Angels cost about \\$37 million per year](#) to keep flying, according to The Associated Press.

AVweb's Mary Grady spoke with John Cudahy, president of ICAS, about the coming airshow season; [click here for that podcast](#).

http://www.avweb.com/pdf/ICAS_AirShowsCalendar2012.pdf

Winter Blues: Seasonal Affective Disorder

It's very common to feel a little depressed and irritable during the dark winter months. For most people, poor mood and other negative feelings are relatively mild, and these symptoms disappear with the last snow. But for other people, depression can be so severe that normal, day-to-day living becomes a major struggle. People who become seriously depressed in winter each year are often suffering from [seasonal affective disorder \(SAD\)](#) - a form of depression triggered by lack of sunlight.

If you're interested in learning more about SAD, then Dr. Norman E. Rosenthal's book *Winter Blues: Seasonal Affective Disorder: What It Is and How to Overcome It*, is a great resource.

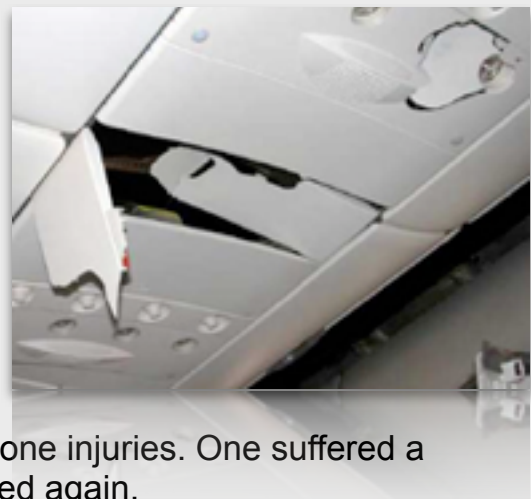
Written for both lay and professionals, the book provides information about the diagnosis and treatment for Seasonal Affective Disorder (SAD). It includes a self-test to help you evaluate your own level of SAD and includes step-by-step guidance on coping with SAD.



Airline, Manufacturers, Still Paying For 2008 Incident

Almost 150 passengers have been paid up to \$400,000 each for their experience aboard QF72, a Qantas Airbus A330 that suffered altitude deviations during a 2008 flight, and more lawsuits are in the works.

The Australian Transport Safety Bureau found in a final report released last week that the [faulty air data information](#) resulted in a dive that included a 150-ft drop in seconds. Sixty passengers, plus standing crew, were thrown into the ceiling. Some suffered lacerations and bone injuries. One suffered a brain injury. Two minutes later, the aircraft dropped again.



Sixteen passengers now appear to launch a multi-million dollar lawsuit against Airbus and Northrop Grumman, the manufacturer of the plane's [Air Data Inertial Reference Unit](#).

The flight was carrying 303 passengers and 12 crew from Singapore to Perth in 2008 when air data units began [feeding the aircraft's flight control computers inaccurate air data](#). Airbus has redesigned the relevant software to prevent a similar event, but an attorney who represents 160 of the flight's passengers does not believe the issue has been resolved. The ATSB found that through 128 million hours of operation, [air data corruption](#) has been noted on three times. Qantas has issued a statement the the incident was a unique event resulting from [faulty software](#). According to Qantas, its pilots responded swiftly and appropriately and no blame should be attributed to the airline. After the altitude deviations, the aircraft landed safety, but at least one passenger -- a pilot -- wonders what the result may have been if the aircraft had suffered another incident at a lower altitude. Malcolm Yeo, told TheWest.com.au, "had I known that it wasn't turbulence and that even the pilots had no idea what had happened I would have been as terrified as everyone else." He added, "If the plane unexpectedly plunged again, at a lower altitude, [we would have all been dead](#)."

The ATSB's full report and animation is available, [here](#).

Pilot's Tip of the Week

This week, Bob Martens discusses one of the most dangerous situations pilots can find themselves in.



View the tip here:

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

8 Ways To A Healthier Workday

What's your New Year's resolution?

What are the things you want to accomplish in the coming year? Work can consume the better part of your day, no matter if you work in an office, outdoors or at home. With so many pressures and responsibilities related to our jobs or businesses, it is easy to forget that work can be challenging to our mental and physical health. But, it doesn't have to be. With a few simple steps, you can be healthier while you work, and healthier overall.



1. Take breaks

Taking a break is essential during the work day. Find time to step away from the computer or desk once or twice during the day. Working continually can actually hinder your overall ability [to stay on task](#) and complete tasks well. Taking a break can help refresh the mind and body and help you pull through the rest of the day.

2. Eat well

Gone are the days of break room junk food. We know better these days—at least we should! Packing a lunch or snacks of questionable nutrition is a poor choice for getting through the work day. [Replace foods high in fat, sugar and sodium](#) with better choices that do more to fuel your body. Choose whole grains, like whole wheat bread, and fresh cheese (not processed!) and lunch meats. Fruits, vegetables and dairy products, like low-fat milk and yogurt, provide nutrition that your body and brain need to keep going during the day. And, it's better for your waistline, too!

3. Get outside

When you do take a break, consider stepping outside your home or workplace office. Getting out from under the roof [is freeing and can rejuvenate your mind and spirit](#). Even if it is cold, cloudy, wet or snowy, a few moments outside can be the refreshment you need to get back to work. Take a brisk walk around the block, or find a quiet place by a tree or bench to just breathe deeply, before heading back inside.

4. Drink well

Java in the morning is a good thing (necessary, actually, for many working Americans). Caffeine does wonders to wake the mind and jump-start your day. Too much caffeine; however, [can actually work against you](#).

The Mayo Clinic advises that 500-700 milligrams of caffeine a day, about 5-7 cups of coffee or other caffeinated drinks, can actually [cause dehydration](#). If you're a java junkie or replace the morning coffee with cups of tea, hot chocolate or caffeinated soda, you could be pushing the upper limits of daily caffeine intake. [Water is your friend](#). It keeps you hydrated and helps maintain balance inside your busy system. Have your morning coffee, and then keep a water bottle handy for the rest of the day.

5. Unplug

If you find stress invading your workday, you may need more than just a break from your desk. You may benefit from [unplugging completely](#). Meditation is a quick way to help settle anxiety and mental stress. Find a quiet spot to sit in a chair or on the floor. Keep your spine straight and close your eyes. Then, focus on breathing in deeply, holding your breath for two seconds, and letting the breath out slowly. Repeat this deep breathing for five minutes. Deep breathing can help refocus and regroup the mind while squashing stresses of the day.

6. Stand up

[A 2010 study published by the American Cancer Society](#) showed some frightening results: sitting too long increases your risk of obesity and heart disease, even if you diligently exercise every day. Considering so many of us work at a computer desk, this study is a slap in the face. So, let's work healthier by standing up!

Try spending several hours of your work day standing. Use a countertop or adjustable computer stand to work in a comfortable, upright, position. The study found that people who [sit six hours or more](#) in a workday were at the greatest risk. If possible, alternate sitting and standing as much as possible (and still keep that daily workout, too!)

7. Embrace the water cooler

If you work in an office, the stereotypical water cooler may indeed be the place to mingle with your co-workers. Embrace the opportunity to have a quick, non-business chat with someone you enjoy at the office. [Connecting with others](#) can help boost your mood and energy levels. If you work from home, don't be ashamed to take a quick break to chat around the virtual water cooler, like Facebook or Twitter.

8. Get ergo

[Ergonomics](#) can have a big impact on your physical health in the workplace. This applies to how well the equipment you use, like your computer, office chair, desk and other equipment, fits you.

For instance, if your chair is too low and you must reach up to use your keyboard, you risk straining muscles in your arms or wrists.

Be sure your most frequently used equipment fits your physical profile so you can sit, stand, bend and move comfortably. When your environment fits you comfortably, you **reduce the risk** of muscle strain and other injuries.