

Aviation Human Factors Industry News

Volume VII. Issue 36, September 30, 2011



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

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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Pilot of jet in 2005 Teterboro crash sentenced to 6 months

A former pilot who operated a charter jet that crashed on takeoff from Teterboro Airport in 2005 was sentenced last Monday to [six months in prison](#) after admitting that he and his cohorts flew illegal flights and falsified safety records.

The pilot of this charter jet that crashed in 2005 has been sentenced to six months in prison.

Francis Vieira, of Fort Lauderdale, Fla., was also ordered by U.S. District Judge Dennis M. Cavanaugh in Newark to serve six months of house arrest upon his release.



The sentencing followed a hearing last year in which Vieira admitted that, [more than two dozen times](#), he altered weight-and-balance graphs for the jet that crashed in February 2005. The calculations are critical to safety and are required of pilots before flights.

Vieira faced up to six months in prison after oral arguments Monday helped Cavanaugh determine the severity of Vieira's actions. Cavanaugh issued the harshest sentence possible despite Vieira's pleas that he be spared prison time.

Dressed in a black sports jacket and khakis, Vieira stood to address Cavanaugh with tears in his eyes. He said he deeply regretted his actions and implored Cavanaugh to consider the financial and emotional burden his family has endured during the two years it has taken for his case to reach a conclusion. Vieira said the experience has been worse than his recent bout with cancer.

"Have mercy on me," Vieira pleaded. "Have mercy on my family." But Cavanaugh, who admitted several times that he has struggled with the case, said [incarceration was appropriate](#). There was a need to deter other pilots from committing similar acts, he said.

"Protection of the public is paramount," Cavanaugh said.

Members of Vieira's family, who sat in a row behind Vieira, wept as Cavanaugh handed down his sentence. The judge said Vieira should serve time close to home and that he will have at least 60 days before reporting to prison.

Scott McBride, an assistant U.S. Attorney, failed to persuade Cavanaugh to order Vieira to pay \$4.4 million in restitution to passengers on flights for which Vieira had altered records.

If Vieira successfully completes three years of supervised release following house arrest, he will be allowed to fly again, the judge said.

At a hearing last year, Vieira pleaded guilty to a count of conspiracy to commit wire fraud and to defraud the United States by impeding efforts by the Federal Aviation Administration to regulate commercial aviation.

Vieira admitted that he and his co-conspirators flew several dozen flights for Platinum Jet, many of which were for famous athletes, musicians and other well-known people, [despite not having](#) an FAA-issued certificate permitting the company to fly commercial charter flights. He also admitted that he and others falsified flight logs to indicate that certain flights were private as opposed to charter flights with paying passengers. The falsified logs enabled the company to conceal that a captain was not qualified to fly charter flights, among other violations.

Fourteen people were injured when the jet overran a runway, plowed through a fence and raced across six lanes of Route 46 on Feb. 2, 2005. The plane struck two cars before it smashed into a clothing warehouse and caught fire.

Platinum's former president, Michael Brassington, was found guilty in November of endangering the safety of an aircraft in flight. Prosecutors said the company's jets [were regularly overfueled](#) at airports where fuel was cheaper, making them dangerously overweight. Brassington's younger brother Paul, a company executive, was found guilty of conspiracy to commit wire fraud. The Brassingtons are scheduled to be sentenced on Nov. 20.

A third executive, Joseph Singh, was sentenced Aug. 16 to probation and ordered to pay \$200,000 in restitution after pleading guilty to a fraud charge. Singh admitted that an unqualified pilot was flying the jet.

Normal Accidents: Living with High-Risk Technologies

Normal Accidents analyzes the social side of technological risk. Charles Perrow argues that the conventional engineering approach to ensuring safety--building in warnings and safeguards--fails **because systems complexity makes inevitable**. He asserts that typical precautions, by adding to complexity, may help create new categories of accidents. (At Chernobyl, tests of a new safety system helped produce the meltdown and subsequent fire.) By recognizing two dimensions of risk--complex versus linear interactions, and tight versus loose coupling--this book provides a powerful framework for analyzing risks and the organizations that insist we run them.



LoPresti Set To Roll Out Unpressurized Tires

LoPresti Aviation Engineering is poised to introduce a **new type of tire** called the Never Flat. The tire features a composite band embedded inside the carcass before the tread is put on. "Technically it isn't airless as we do inflate it to 10 and psi; however, that is just to give it a smooth ride. We drilled a two-inch hole in one of our demo units and it kept right on going," David LoPresti, marketing manager and co-owner, told AIN. According to LoPresti, a regular tire rolling on the pavement flexes, a trait called squirm, and that creates rolling friction. The Never Flat dramatically reduces squirm, **extending the life of the tire by 30 percent**. Cirrus is the launch customer, though the TSO'd tire can replace any 15- by 6-ply low-profile tire. Priced at \$1,200 a pair, the tires come with a 10-year no-flat warranty. "We start the final round of testing in October with first delivery slated for the first quarter of 2012. Depending on how it rolls out we'll be looking toward the corporate market," LoPresti said.



Engineering professor to help guide safety in next generation of space exploration

Following the National Aeronautics and Space Administration's decommissioning of its 30-year space shuttle program earlier this summer, the agency will be looking in new directions for the future of space exploration — with University Wisconsin-Madison expertise on board. In the coming years, Douglas Wiegmann, an associate professor of industrial and systems engineering at the UW-Madison College of Engineering, will advise the agency as an outside expert consultant on [human factors and mission safety](#).



Wiegmann's research includes accident investigation and human error analysis; he is the author of a book on aviation accident analysis. "The work I've done in the past in analyzing the role of human error in accidents is becoming widely used and known," he says. His work includes collaboration with the U.S. Department of Defense.

This isn't Wiegmann's first time working on problems unique to space flight. He consulted for the agency first in 2003, investigating the crash of the space shuttle Columbia.

"I think that it's my general understanding of [human error and performance in complex systems](#) that led them to approach me," he says.

He says there is a broad range of [human factors](#) that might play a role in aviation or space flight accidents. "Anywhere from just the design standpoint of the aircraft or spacecraft, how decisions are made about mission priorities, and just what sorts of things can break down in the process of designing safe systems from a human operator perspective.

"I'm flattered to be asked, that they think I have something to offer them," he adds. "What the next generation of spaceflight is going to look like, no one knows yet. Being part of something new is kind of exciting."

The APP that helps you sleep like a baby

Apple has a APP that is compatible with both iPhone and iPad called the “[Sleep Pillow Ambiance](#).” Great for those days or nights you have trouble falling... it keeps its promise of getting you to sleep. “Sleep Pillow” comes with a large set of amazing sounds + matching images. Just choose your sound, set the timer - and have a great night!



<http://itunes.apple.com/us/app/sleep-pillow-ambiance-white/id410351918?mt=8#>

Another strike against bacon

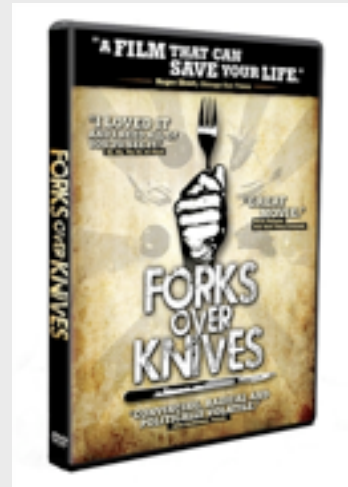
Americans' [meat-heavy diets](#) may be partly to blame for skyrocketing rates of type 2 diabetes. Researches at the Harvard School of Public Health studied the nutritional habits of more than 400,000 people and found that a daily serving of processed meat--one hot dog or tow slices of bacon--increase the risk of diabetes by 51 percent. Unprocessed red meat, such as steak or, is less damaging, but still cause s a nearly 20 percent spike in diabetes risk. 'There's no question that consumption of red meat is too high," study author Frank Hu tells Scientific American. [The average American eats more than 100 pounds of red meat per year, and more than 25 million adults have diabetes](#). Researchers think that high levels of sodium and preservatives in processed products and a type of iron found in red meat may damage cells that help regulate blood sugar.



The good news: By replacing a daily serving of meat with low-fat dairy or nuts, the study found, people can significantly reduce the risk of diabetes.

Folks over Knives

In order to be mentally, physically, and emotionally **fit for work** we have to find discipline in our sleeping, eating and stress reduction behaviors. Behavior changes require effort, time and patience until the behavior is transformed into a **habit**. Experts say it may take up to 3 - 4 weeks for habits to become cemented into our daily routine. So maybe some of you are looking to loose weight, get off some of your medications, have more energy, turn the tide on diabetes, etc. A video entitled ***"Folks over Knives"*** examines the profound claim that most, if not all, of the degenerative diseases that afflict us can be controlled, or even reversed, by rejecting animal-based and processed foods.



The major story-line in the film traces the personal journeys of a pair of pioneering researchers, Dr. T. Colin Campbell and Dr. Caldwell Esselstyn. Interested? Have a view of the DVD trailer to decide for yourself and see if the movie is playing in your neighborhood.

<http://www.google.com/url?sa=t&source=web&cd=1&ved=0CDcQFjAA&url=http%3A%2F%2Fforksoverknives.com%2F&rct=j&q=folks%20and%20knives%20movie&ei=bRZkTvONHeaq0AGPsZWqCg&usg=AFQjCNGuZqCThiP6LPp6G2YpvhcLIJZ-Wg&sig2=rg3OnUdnzSTMIMCYnuZsdw&cad=rja>

Help Workers Start & Stick to a Fitness Program

Exercise prevents—or at least reduces the severity of—musculoskeletal injuries. It also helps the body **manage workload and weight**. And the benefits aren't just physical. Exercise also increases confidence, cuts stress and improves mood. But if getting in shape were easy, everybody would do it. Fitness takes **commitment and discipline**.

Supervisors can play a key role in getting workers to get in shape. Here are some tips you can use to get your workers to get physical—and stay physical year-round.

Before You Begin

Too many workers make the mistake of rushing into a fitness program without understanding whether it's appropriate for them. So the first thing your workers need to do is recognize their current condition and identify their fitness goals. Do they want to lose weight, build muscle, endurance, strength or flexibility or some combination?

Once they make these determinations, they can find a program that meets their goals and matches their condition. Remind workers to [check with their doctor before starting a program](#). Based on their doctor's advice, they might have to modify or avoid activities such as weightlifting if they have certain health conditions or previous injuries.

Here are some questions for workers to ask their doctors:

- What type of exercise is best for me?
- How much can I do each day?
- How often should I exercise each week?
- What activities should I avoid?
- Do I have to take my pulse while exercising?
- Should I take my medication at a certain time?

It's also a good idea for workers to calculate their body mass index (BMI), which is a measure of body fat based on height and weight. (A BMI calculator is available for free on <http://info.safetysmart.com/health/bmi.html>)

Staying Injury-Free

Workers also need to be careful not to jump right in once they find a fitness program that suits them. Tell them to keep these 10 exercise tips in mind to avoid injury:

1. Always do warm ups and stretching.
2. Do exercises in a controlled manner.
3. If lifting, start out using light weights.
4. Don't go to total muscle fatigue in your first few weeks.
5. Practice and perfect your technique.
6. Remember to breathe.



7. Keep vertebrae properly aligned.
8. Strengthen abdominal muscles; they support your lower back.
9. Bend, don't lock the knees.
10. Include cooling-down time.

Sticking to It

Despite the best intentions, many find it difficult to stick to their fitness program. Here's what you can tell workers to help them overcome three of the most common obstacles to the capacity to stick to a fitness program:

Obstacle #1: Declining Motivation

Solution: Sometimes we just lose interest in our fitness programs. To overcome declining motivation, consider taking group lessons or buying an hour with a coach. This can boost your enjoyment of a sport, whether it's tennis, swimming or dancing. You might also find it easier to stay motivated if you find a compatible exercise buddy.

Obstacle #2: Busy Schedules

Solution: Make exercise a priority. Seek encouragement from your family. Be accountable to an email buddy or report what you did daily in a personal journal.

Obstacle #3: Forgetfulness

Solution: Remind yourself. Call home and leave a message on your answering machine: "Hop on the treadmill to make up for missing the noon workout!"

Conclusion

There are many reasons to get in shape. And it doesn't necessarily mean sweating for hours on a treadmill or lifting huge weights. It means attaining a level that you're comfortable with. Whether it's a brisk walk every day or a few hours at the gym once a week, it's a good habit to start.

FAA Safety

BRIEFING

September/October 2011

Your source for general aviation news and information

The Wide World of Flying

How to Achieve Excellence in GA



Federal Aviation
Administration

www.faa.gov/news/safety_briefing

http://r20.rs6.net/tn.jsp?llr=gqvqzbdab&et=1107428661728&s=8284&e=001jl6l8qt-kLuHtp_TfXIMOAEG7BHgWrMDaLjEIHtkovXfPmSxxksZAI78zUYKvwyuPk5i-TKzZdGv5ulPW6CbpFH7rN3rrolceoARQgZmKsimZGuawyRbZrVVgRXz84gK20UXeCS-K-11l3mZ8UkNmFrzQqfWFgGNO1RnG4gPTFJMas3lv_dw==