



## Aviation Human Factors Industry News

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### [Near Miss at Denver](#)

US NTSB is investigating a **runway incursion** incident at Denver International on Feb. 2 in which United Airlines 737 had to stop short after landing to avoid running into a snowplow. The aircraft missed the vehicle by 200 ft. An airport operations vehicle that was escorting the plow already had cleared the runway. NTSB also is investigating a second incursion incident at DEN that occurred on Jan. 5 when a Frontier Airlines aircraft broke off a landing attempt when the crew noticed another aircraft on the runway.



### [Bulgaria grounds 160 planes amid EU safety concerns](#)

Bulgaria's Civil Aviation Authority (CAA) **cancelled the certificate of airworthiness** of some 160 planes and helicopters due to European Union safety concerns. Safety concerns prompted the European Commission to partially exclude Bulgaria from the community's aviation market when the country joined the EU last month. (EU Business) aviation-safety.net



## ***Elevator Cable Snaps on Takeoff***

The pilot told investigators that he checked the aircraft's flight controls before attempting to depart from Denver International Airport in visual meteorological conditions at 0623 local time April 5, 2006, for an unscheduled cargo flight to Dodge City, Kansas, U.S. He said that **the elevator cable feel seemed very light during the takeoff roll**. When he pulled the yoke back at rotation speed, the yoke moved to its full aft travel, and the aircraft rapidly pitched nose-up.



**“The pilot reported that moving the yoke forward had no effect, and it felt disconnected from the elevators,”** said the U.S. National Transportation Safety Board (NTSB) report. **“The pilot quickly began to trim nose-down and reduced power to stop excessive nose-up pitch.”**

**Company maintenance personnel found that the elevator ‘down’ cable was improperly routed at the pulley in the vertical stabilizer and had worn to a point of failure from contact with a guide.**

**Maintenance records showed that the cable had been installed by a previous operator of the aircraft in 1998. The aircraft had been inspected at the current operator’s maintenance facility 10 days prior to the incident. ‘According to the inspection checklist, the elevator cables and related components were inspected, with no anomalies noted,’** the report said.

**NTSB said that the probable cause of the incident was “the failure of the elevator down cable due to an improperly routed cable by unknown maintenance personnel” and that a contributing factor was “the improper inspection of the elevator cable by the operator’s maintenance personnel.”**

## [Airline safety concern](#)

Consumer Reports says there is a major security risk with the nation's airlines.  
9NEWS at 9 p.m. 2/05/07

KUSA - Since the 9/11 attacks, the threat of terrorism has been a constant concern.

Now, according to a just-released investigation by Consumer Reports, there may be yet another serious air-safety concern. The investigation reveals that the outsourcing of airline maintenance and current government oversight of the industry could be setting the stage for disaster.

The investigation found maintenance work being done in Mexico, Singapore, and the Philippines. And with unlicensed mechanics. Federal rules allow that, as long as one licensed mechanic signs off on the work. In addition to proper training, security is another concern. [Undocumented workers have been found, and at one facility a terrorism suspect was arrested.](#)



At the same time the airlines have cut back on in-house maintenance, [Consumer Reports' investigation reveals that the Federal Aviation Administration is changing how it oversees that maintenance.](#) The investigation found that the [FAA is increasingly relying on statistical measures instead of doing a visual inspection.](#) A Government Accountability Office report says that what is happening at the FAA represents a [cultural shift in the way the agency oversees the aviation industry.](#) The Chairman of the House Transportation Committee says that is not acceptable.

[Airlines officials contacted by Consumer Reports say safety is their number one priority, but note outsourcing is more economical. In a statement, the FAA says there has been no indication that the margin of safety has been reduced because of outsourced maintenance. The probe by Consumer Reports' suggests otherwise.](#)

## [Cause of Plane's Emergency Landing in Roseland](#)

We now know why a small plane had to make an emergency landing on the main drag in Roseland two years ago.

The plane landed on a busy State Road 933 during lunch hour in December, 2004.

According to the NTSB Website, the fuel control unit on the Pilatus Turboprop failed, causing the plane to lose power.

And because of that incident, the fuel control unit for that model plane has been redesigned.

The pilot and four passengers were unhurt when the plane clipped a utility pole during the emergency landing.

**BAD DESIGN KILLS**

BDK

Our motive and our passion behind this web site's purpose.

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« You can't depend on your eyes when your imagination is out of focus. » - Mark Twain »

**PURPOSE**

**THE PUBLIC PERCEPTION**  
The world is steeped in bad design. As designers we see something every day that makes us cringe or shake our head in disgust. But bad design does more than offend the eye of the designer. It facilitates a poor public perception for what our industry does and at the same time it lowers the perceived value of our services.

Think about it. It stands to reason that if the public at large views a larger percentage of bad design than good design on a day-to-day basis, then naturally they will associate the bad design as the norm. We all have dealt with this issue in one form or another if we've been in this industry even a few years.

Computers have brought about cheap PCs, pre-installed

» LOGOWORKS 2005 - A whole year has passed since Logoworks was caught ripping off designers and even selling the "xerox" logo on their sister site "Instalogo". If you haven't seen those rip-offs then **CLICK HERE**.

It's time for an annual audit of Logoworks' online portfolio. They spend millions turning graphic design into a cheap "so-it-yourself" commodity and proclaim to have "World Class Designers". So visit their site and judge for yourself. If you find a questionable logo then let us know.

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## [Ryanair warning to pilots on safety rules](#)

Ryanair is threatening to sack pilots who fail to abide by its safety regulations in the wake of a series of dangerous approaches to airports.

CEO Michael O'Leary issued a memo to pilots warning that they will be demoted the first time they make a dangerous approach, and sacked for a second offence.



The warning follows three serious incidents in less than a year, and the fourth in two years, involving a Ryanair jet approaching an airport too fast or at the wrong height and being forced to abort landing.

The memo, dated September 25 2006, a copy of which has been obtained by The Times, states that a new disciplinary procedure is being introduced in response to a series of "high energy approach incidents over the past two years".

Pilot unions fear the memo will force the problem underground, with pilots too frightened of losing their jobs to co-operate with efforts to find out why the incidents were happening.

A Ryanair spokeswoman said: 'Safety is Ryanair's number one priority. Our safety instruction to all pilots is if in doubt you must perform a go-around - that is, a second approach of the airport.'

## [Korea-bound Vietnam Airlines jet forced into emergency landing](#)

Vietnam Airlines Deputy Director Nguyen Thanh Trung A Vietnam Airlines Airbus A330-300 destined for South Korea was forced to execute emergency landing procedures shortly after take-off Saturday, with authorities citing a glitch in the depressurization system.

All 270 passengers aboard the VN 936 flight, which took off from Hanoi and was in the air for only 15 minutes, were transferred to another plane and the aircraft repaired.



Deputy Director of the airlines Nguyen Thanh Trung said the cause was due to failures in the depressurization system.

The carrier leased the plane just last year, but it had been in service for nearly two decades, Trung said.

It had to make an emergency landing in November during a domestic flight due to an engine problem.

Also on the same day, another Vietnam Airlines plane from Dien Bien to Hanoi was suspended before take-off because of engine glitches.

Within half a month now, the airline has suffered two emergency landings.

Earlier Lai Xuan Thanh, deputy director of the Civil Aviation Administration of Vietnam, said the airline had been hit by a slew of incidents like cracking windows, engine failures, and pressure system glitches which he attributed to technical errors.

Thanh said the reason could be increased frequency of flights to meet surging demand ahead of Tet, the Lunar New Year holiday, coming in the next two weeks.



## ***Adam Air jet subject of pilot complaints before crash***

**Pilots complained repeatedly about problems** with an Adam Air Boeing 737-400 in the weeks before it crashed into the sea off Sulawesi Island, Indonesia, on Jan. 1, according to several investigators involved in the crash probe.

**Two of the dozens of complaints were about the plane's weather radar**, an item of particular concern since investigators have determined that the plane flew straight into a violent storm before it went down with 102 passengers and crew. Normally pilots would make almost any possible maneuver to avoid flying into the heart of a thunderstorm.

In the latest news from the search, signals from plane's emergency locator beacon were detected from a location about 1,700 meters — roughly one mile — below the surface of the ocean. Indonesia has said that it had no equipment capable of reaching such a depth and asked for international help.

Several officials and investigators connected with the crash investigation, who asked not to be identified because they are not designated as official spokesmen, said they **were troubled by the large number of pilot complaints about malfunctioning instruments in the cockpit of the 17-year-old plane.**

**By far the largest number of complaints concerned instruments that would tell one of the two crew members whether the plane was going up or down, and whether the plane was maintaining its course. So many complaints, called write-ups, were received from so many pilots that investigators have begun to ask whether any effort was made to repair the problems.**

The **vertical-speed indicator** on the left side of the cockpit, the captain's side, collected by far the **greatest number of complaints — 48 — in the three months before the crash**, the investigators said. The vertical-speed indicator tells how fast the plane is climbing or descending.

**Pilots complained 30 times about anomalies in the plane's left-right inertial reference system**, which helps tell which direction the plane is turning. **Problems with a fuel differential light drew 15 complaints. There were numerous complaints about inoperative cockpit instrument lights.**

**There were several pilot write-ups about wing flaps that stayed stuck at an angle of 25 degrees.** Flaps, located along the trailing edge of each wing, extend downward at various angles to help a plane slow for approach and landing. A plane would be in no danger, assuming the flaps stuck on landing. A 25-degree angle would almost never be used on takeoff, but stuck flaps at any angle on takeoff would likely force a plane to return to the airport.



Investigators are intrigued by two complaints that the plane's weather radar was **unreliable**. However, until the plane is recovered from the ocean floor, there is little they can do to determine whether the weather radar had any role in the crash.

On Tuesday, a spokesman for the airline could not be reached to respond to these specific complaints. **The company said earlier it maintained and operated its planes according to the guidelines of Indonesian regulators and the manufacturer.**

## **Asiana Pilots Suspended for Hailstorm Incident**

The Ministry of Construction and Transportation suspended two Asiana Airlines pilots whose **aircraft was severely damaged after they flew into a hailstorm** over Gyeonggi Province last year.

Asiana Airlines Flight 8942 made an emergency landing after **hailstones and lightning caused the aircraft's nose cone to shear off and windshield to shatter** over Ijuk, Gyeonggi Province on June 9. The Ministry's Civil Aviation Safety Authority said Thursday that Asiana was fined W100 million (US\$1=W936) and the pilot and co-pilot were suspended for three months and one and a half months, respectively, for the incident.

The airplane was flying from Jeju Island to Kimpo airport with about 200 passengers on board when it entered the storm. Hailstones smashed the windshield, severely limiting visibility, but the pilots were able to land the plane safely. **Asiana Airlines initially said it would award both pilots a "Well Done" award, its highest citation. But it reversed that decision when it was found that the pilots flew into the storm in violation of safety rules.**

"Other planes detected the storm in advance and returned to the airport to avoid the hailstones," a ministry official said. **"The accident was completely avoidable. It was clearly negligent of the pilots to overlook the danger signs."**



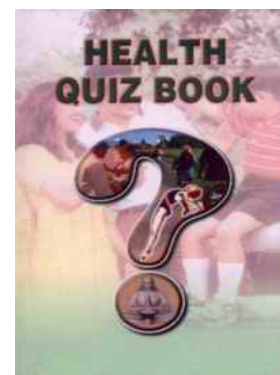
WE'VE BEEN INFORMED THAT THE SERVICE HAS BEEN SUSPENDED TEMPORARILY. THIS IS DUE TO A TECHNICAL FAULT

## **Health Quiz**

How long does it take for a life style change to become routine?

- A. two weeks
- B. one to two months
- C. three to six months
- D. at least a year

Answer: C. **"It takes a minimum of three to six months to make a new behavior permanent"** says John C. Norcross, Ph.D., a professor of psychology at the University of Scranton. **"We know it take time to learn to play tennis or master the piano, but with behavior change (we expect) to instantly succeed."**



According to Norcross, when successful resolve succumb to that hunk of chocolate cake, they think, I need to recommit and not give up, rather than view the lapse as proof that they can't realize their goal. Norcross advise enlisting the support of friends and family, finding a healthy substitute for the bad behavior, establishing a reward system, and steering clear of triggers. Still need help? Think about turning a vague resolution such as "I'm going to be healthier" into a concrete goal like "I will take a brisk walk everyday." And remember: Give yourself time.

## WELLNESS

### A Hearty Quiz

25%

Question: What does this number represent?

Answer: The percentage of healthcare costs incurred by working adults attributable to preventable risks, such as poor diet and lack of exercise.

February is National Heart Month and, as cardiovascular disease is the number one cause of death in the United States, the American Heart Association is urging employers to be an active partner in the heart health of their workers by creating a corporate wellness environment. Their studies show that worksites with physical activity programs experience:

- 20-55% reduction in healthcare costs
- 6-32% reduction in short-term sick leave
- 2-52% increase in productivity

Exercise is just part of the package, though. Another important way to lower the risks of heart disease is to eat:

- less fat
- less sodium
- fewer calories
- more fiber.

Think you've got this covered? You may want to check the labels, because calorie content may surprise you.



Drinking tomato juice:  
It won't kill you



Test your calorie knowledge with this little quiz from the American Heart Association. From each pair listed, see if you can choose the serving with the fewer calories:

1. (a) 1 cup grapefruit juice  
(b) 1 cup tomato juice
2. (a) 1 ounce feta cheese  
(b) 1 ounce Cheddar cheese
3. (a) 10 chocolate-covered peanuts (1.4 ounces total)  
(b) 2 mini peanut butter cups (0.28 ounce each)
4. (a) 2 ounces deli turkey breast on small whole-wheat pita with 2 teaspoons mayo, lettuce & tomato  
(b) 2 ounces American cheese on 2 slices 7-grain bread with 2 teaspoons mustard, lettuce & tomato
5. (a) 10 small jelly beans  
(b) 10 small gumdrops

**Answers:**

- 1 (b) – grapefruit juice has 100 calories; tomato juice has 42
- 2 (a) – feta cheese has 75 calories; cheddar cheese has 114
- 3 (b) – chocolate-covered peanuts have 208 calories; mini peanut butter cups 80
- 4 (a) – turkey on pita has 198 calories; cheese on bread has 336
- 5 (a) – jelly beans have 40 calories; gumdrops have 135

***A little at a time: Eating and exercising in bits and pieces***

It's hard to ignore advice from experts. For years, nutritionists (and mothers) have made three square meals the gold standard for healthy eating. Likewise, physiologists (and coaches) have advocated regular exercise for optimal fitness. But in today's busy world, it can be hard to sit down for three meals or to stay moving for 30 straight minutes. Is there another way? Possibly. **New research suggests that frequent small meals can be nutritionally sound and that frequent short periods of exercise can add up to fitness and health.**



**First, eating** — or grazing, as the pattern is called. Over the years, scientists have observed that when animals are allowed to nibble, they have lower cholesterol levels than when they are encouraged to gorge, even though their total food consumption is the same. Experiments on humans have produced similar findings, but the studies were brief and involved small numbers of volunteers who were given test meals in a research setting. Now, though, a study from Great Britain suggests that people in the real world may get similar results. More than 14,500 individuals between the ages of 45 and 75 volunteered for this study. Each filled out a detailed questionnaire that asked for information on how often they ate, the type and amounts of the foods consumed, exercise patterns, and other health habits. Each volunteer gave a blood sample, and each was weighed and measured.

When the scientists tallied the results, they found that the people who ate more frequently took in more calories. Surprisingly, though, they also had lower cholesterol levels. The difference was relatively slight, about 5%, but it was consistent and significant, even after exercise, body weight, smoking, and other factors were taken into account. In all, the researchers found that people who eat six or more times a day have cholesterol levels that should reduce their cardiac risk by 10%–20% compared with people who eat once or twice a day. And male (but not female) “grazers” were also leaner than “gorgers,” even though they took in more calories.

In France, a 2002 study of 330 men found that those who eat more frequently have less body fat than those who eat less frequently. For example, the Frenchmen who ate one or two meals a day had an average body mass index (BMI) of 26.2 and an average waist-to-hip ratio (WHR) of 0.95, putting them in the overweight range. In contrast, the men who ate five times a day were leaner, with an average BMI of 24.5 (normal) and a WHR of 0.93. Finally, a more recent study of 499 Massachusetts residents suggests that grazing has similar effects on both sides of the Atlantic. People who ate four or more times a day were 45% less likely to be obese than those who ate three or fewer times a day.

You may be able to divide your meals into snacks, but should you split your exercise into segments? To answer the question, the Harvard Alumni Study investigated 7,307 men with an average age of 66. Each volunteer reported the frequency, intensity, and duration of his exercise, and the researchers evaluated the cardiac risk factors of each man. None of the men had coronary artery disease when they enrolled in the study. After five years, though, 482 men had been diagnosed with heart disease. As in many earlier studies, the men who were most active enjoyed the lowest incidence of heart trouble, even after other risk factors were taken into account. But the frequency of exercise didn't influence protection one way or the other. The men who got their exercise in small chunks did just as well as those who exercised in a few longer workouts, as long as they ended up burning the same number of calories in the course of a week.

Is there something special about the mature men of Harvard? The Alumni Office would say yes, but when it comes to exercise, the answer is no.

A study of young female college students in Wisconsin found that daily exercise was equally beneficial whether it occurred in a single 30-minute session, two 15-minute sessions, or three 10-minute sessions. And in each case the benefits were substantial: In 12 weeks, the women who exercised three times a day averaged nearly 10 pounds of weight loss and also improved their cardiopulmonary fitness scores. In addition, British scientists reported similar results, finding that three 10-minute walks a day and one 30-minute daily walk had equally good effects on blood cholesterol levels and stress and mental tension. Finally, researchers in both the United States and England have found that bouts of exercise throughout the day helped clear the fatty substances that enter the blood after eating as well as 30 minutes of continuous exercise.

**What does it all mean for you?** To be healthy, you still have to eat right and exercise regularly. But the research shows that there is some flexibility in how you can approach both of these health goals. If long workouts intimidate you or if you don't have time to cook three healthy meals each day, it can be less daunting to know you have options. But, don't forget that some things never change: If you snack on the wrong food or pack in too many calories, you'll lose ground. And if you don't cover enough ground with your exercise "snacks," you won't get the full benefit of physical activity. The whole is still equal to the sum of its parts.

*PICTURE THIS!*



*END*