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Defective fasteners installed on Boeing 737's

The Federal Aviation Administration is taking a close look at a problem affecting of hundreds of Boeing-made jets.

It's no longer than the diameter of a quarter, but a little part called a **nutplate** is used to help hold airplanes together.



Now, tens of thousands of others **lack an important coating of cadmium**. That nearly invisible coating is important because it prevents the stainless steel nutplate from reacting with the airplanes aluminum, which can **lead to corrosion**.

The problem is focused on Boeing supplier Spirit Aerosystems in Wichita, Kansas. They're the one's that build the 737 fuselages and ship them to Renton by train.

Spirit says the untreated nutplates from one of their suppliers **got mixed in with treated plates** from another were installed by the thousands. Spirit employees are now inside Boeing plants trying to find and replace the bad nutplates on new jets.

As for planes already delivered to airlines, the details are still being worked out. The Federal Aviation Administration does not consider this a safety of flight issue, provided that airlines **inspect for any corrosion** and replace the untreated parts.

"The good thing here is it has been caught early. The FAA is on top of it," said former Boeing engineer Todd Curtis. He now runs the Web site Airsafe.com

Take Southwest Airlines. It's a big 737 operator with 42 affected planes and is awaiting direction from Boeing and the FAA. A spokesperson says they, "Expect any replacement will be incorporated within scheduled maintenance visits." The spokesperson adds that the problem it will not get to the point of corrosion.

Alaska airlines has 15 affected jets and is taking a similar approach, but what worries Curtis are some developing countries with less regulation.

"This kind of thing might fall through the cracks," said Curtis.

Even if left alone, it would years for any corrosion to show up. The question the FAA wants to answer: Just how many years?

Spirit says the untreated parts **were also used** in the nose sections of 777's, 747's and 767's.



The "Dirty Dozen" in ASRS Maintenance Reporting

"Lack of Knowledge"

A B757-200 technician interpreted the stamped numbers on the APU (Auxiliary Power Unit) and engine fire bottle squibs as expiration dates. The main "dirty dozen" factor that contributed:



Lack of Knowledge: Lack of training for the task

- ...Aircraft was in phase check...I was tasked with checking the APU #1 and #2 engine fire bottle squibs for expiration on their 10-year life cycle. I was not given OJT [On the Job Training] before performing the task. I interpreted parts of the stamped numbers on the shoulder of the squibs to be dates. This aircraft went to heavy check, and it was found that these squibs were near expired or expired...After receiving OJT in reference to the...occurrence, I realized the expiration dates were etched and not stamped on the shoulder of the squibs. I suggested, and my company will modify, their phase task cards to require a date and serial number block be added to the task cards.





When Times Get Tough Cut Human Factors Training

Our industry, like its flights, has always had its economic ups and downs. After many good years of up and expansion, it had started on a downturn when 9-11 struck and the downturn became a slide that, once more with time, turned into another up cycle with rapid expansion for all. Then comes sky high fuel prices with the global financial meltdown and down we go again

When the downturns come, airlines begin to cut back expenses in order to remain profitable. Their poorer paying routes may be deleted and some less than full flights may be cancelled. With fewer flights, some staff is laid-off and aircraft purchases are deferred.

All the above makes good economic sense and has gone on now for almost 100 years. However there is one thing that does not make economic sense and yet is **very common** in hard economic times and that is to **cut human factors training**: at least until the better times come back.

This does not make good economic sense.

To start with; why do we provide mechanics with human factors training? Is it just to satisfy a regulation? Or is it in order to appear to be doing something about the **maintenance errors** that keep occurring? I would hope that we provide the training in order to **arm the mechanic with knowledge** on how to avoid the error he never intends to make. If the training is done right, it will enable the mechanic to recognize when the **potential for error is highest** and how to install **"Safety nets"** to catch an error before it becomes an accident.

History has shown that the most likely time for errors to occur is when times are tough. This makes sense as when times are tough, resources become scarcer and everyone is expected to **work harder with less**. **Fatigue** may come to play a greater role in judgment calls. The more fatigued a person is, the more prone they are to develop a "don't care" attitude. They are thus more prone to let things go that shouldn't. The consequences can be disastrous.

The continuous fear or stress of possible lay offs also can play a role in interfering with a person's judgment. **Chronic stress** results in a person being able to accomplish less in spite of their working harder. **Burnout** and more lost time due to illness are a common occurrence.

On top of all this there will be the constant pressure to do more with less. This more with less has its limits and unless the mechanic is assertive and speaks up, the **pressure limit** will very often be exceeded. The survival of the company now appears to depend on the taking of short cuts and this becomes a **dangerous norm** within the company.

Deferring or letting things go in order to continue functioning with the lack of resources becomes accepted and even demanded.

To save money, the company will often “buy out” the experienced worker who is rightfully receiving the highest pay and in his place hire a learner at a much lower pay scale. With this comes a person who **lacks the knowledge** of the retired person and the chance for error due to lack of knowledge increases.

The “saved” money from not training the personnel to recognize the error dangers soon disappears with an increase in **maintenance errors**. These errors can be very expensive and threaten the existence of the company at a time when it can least afford it.

So when the times get tough and money becomes tight; save money by training your personnel **on how to avoid human error**. The savings of the errors that are not made may be hard to measure but the improvement in teamwork and productivity should be visible and even measurable.

Good training on error reduction is one of the best “**Safety nets**” you can invest in; and now is the time to do it.

*Gordon Dupont CEO
System Safety Services*

[FAA Issues Updated Air Carrier Maintenance Programs Advisory Circular](#)

The FAA has issued advisory circular (AC) 120-16E, entitled “Air Carrier Maintenance Programs.” An updated AC 120-16D, which was issued in 2003, AC 120-16E describes the scope, content, and function of air carrier aircraft maintenance programs. This AC describes the background of air carrier aircraft maintenance programs as well as the FAA’s regulatory requirements.



This AC applies to Title 14 of the Code of Federal Regulations (14CFR) part 119 air carriers conducting operations under part 14 CFR parts 121 and 135. For part 135 operations, this AC applies only to maintenance conducted pursuant to section 135.411 (a)(2). AC 120-16E also applies to each person used by or employed by an air carrier certificate holder for maintenance, alteration, preventative maintenance of its aircraft.

AC 12-16E describes and explains each of the **10 elements** of air carrier maintenance programs: airworthiness responsibility, air carrier maintenance manual, air carrier maintenance organization,

accomplishment and approval of maintenance and alterations, maintenance schedule, required inspection items, maintenance record-keeping system, contract maintenance, personnel training, and continuing analysis and surveillance system.

These 10 elements are a change from the nine elements listed and described in AC 120-16D, which AC 12-16E replaces. In some cases this change represents an addition to the elements, and in others, a more descriptive element wording.

Cowling Separations

Current preflight procedure to ensure that engine fan cowling are latched properly may be inadequate, the U.S. National Transportation Safety Board (NTSB) says, citing its investigations of several recent incidents in which cowlings have separated during flight.

The most recent of four incidents cited by the NTSB involved a US Airways Bombardier CL-600-2B19, which lost part of the right engine upper fan cowling during flight at 11,000 ft.

None of the 53 people in the airplane was injured in the incident; the airplane received minor damage.



In this incident, as well as the three others, the NTSB found that the latches on the cowling were **not properly fastened after maintenance performed** before the flights. In one case, the NTSB also cited a first officer's failure to follow the checklist during a walk-around inspection.

The NTSB described separations of engine fan cowlings as an **ongoing problem** and noted that records from Bombardier, Airbus, foreign investigations and the FAA showed that "since 1992, there have been **15 events** involving airbus (single aisle) model airplanes...; another **26 engine fan cowlings separations** occurred on 17 different airplane models since 1992.

"In addition, the NTSB queries to Bombardier revealed 33 domestic and foreign cases of engine fan cowling separations (including six cases in 2007 alone), dating back to Jan. 2001.

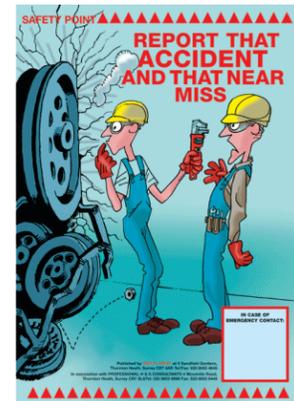
The NTSB said the cowling separations have continued to occur in Airbus airplanes and Bombardier CL-600s despite a 2003 FAA airworthiness directive and a number of service bulletins, However, the NTSB found that Airbus operators that **required dual-inspection signoffs** to confirm that maintenance personnel latched the cowlings had been successful in preventing accidents and incidents.

The NTSB recommended that the FAA require operators of Airbus airplanes and Bombardier CL-600s to **revise maintenance manual procedures and inspection documents** to require **dual-inspection signoffs** to confirm that the cowlings have been latched **after any maintenance** that requires and engine fan cowlings to be opened.

Other recommendations called for required maintenance personnel who work on these aircraft to **inform flight crews** if the cowlings have been opened before flight; requiring operators to provide guidance on conducting inspections; and determining the extent of the separation problem on all airplanes and , if it is widespread, requiring operators to institute dual-inspection signoffs after engine maintenance.

Bringing the Message Home to Your Crewmembers!

Getting employees to **report Near Misses** is a challenge. Employees often question the value of reporting what they've seen. Indeed, many fear that coming forward with a report will cause trouble and lead to **punishment**. However, I've found an effective technique to overcome reluctance: Analogize Near Misses at work to incidents at home. Since many of our employees are parents, and all of them were once children, this casts the subject in a light to which they can more easily relate. Here's how to use the technique.



Near Misses Happen at Work and Home

A **Near Miss** is an undesired event that, under slightly different circumstances, could have resulted in harm to people or damage to property, materials or the environment. Proper reporting of **Near Misses** is essential and the investigation that follows is for the purpose of **training, educating and preventing** future incidents or injury.

Near Miss is a term used by occupational health and safety professionals. But incidents also take place outside the workplace. Parents frequently handle **Near Miss** situations at home. Here's a tale of a domestic **Near Miss** to illustrate how this works.

The Near Miss Occurs

You tell your 16-year-old son (let's call him Junior) to wash the dishes. Junior drops a carving knife while loading the dishwasher. The knife falls violently to the ground and lands blade-down on the kitchen floor, just missing the foot of Junior's little sister, Suzie, by a few centimeters.

That is a **Near Miss**. As a parent, you will want to know what happened so you can take steps to ensure it doesn't happen again. But will Junior or Suzie tell you about the incident?

Junior and Suzie Decide Whether to Report It

It depends. Through life experience and social conditioning, children are encouraged not to report situations that cast a “supposedly” negative light on themselves or anyone else. And, in many families, there’s an unwritten code among siblings to keep misbehavior a secret and not “tattle tale to mom and dad.”

The motivation for such behavior is to protect oneself and one’s siblings from punishment. But there are ways to defuse this. One way is to persuade your children to always tell the truth and promise they won’t be punished for doing so.

The Happy Ending

Let’s say Junior does in fact come forward and tell you what happened. Like a good parent should, you investigate the incident and assess the risk of recurrence. As a result, you discover that Junior:

- Always rushes to load the dishwasher (1st mistake); and
- Grabs knives by the blade instead of the handle (2nd mistake).

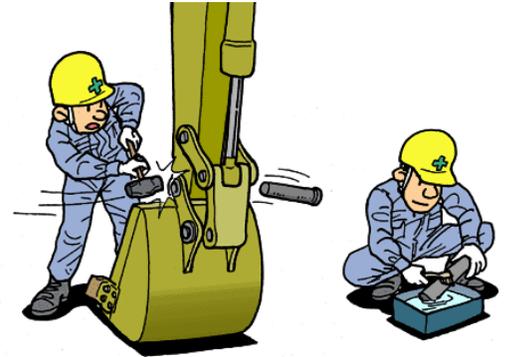
Now that you know what’s going on, you are in a position to educate Junior on the dangers of always being in a rush and on the proper handling of knives. The problem is resolved and dishwasher loading becomes safer at your home.

The Unhappy Ending

Junior and Suzie don’t report the incident. So you have no reason to suspect that Junior is rushing to load the dishwasher and handling knives by the blade. And since no injuries have occurred, the improper behavior is reinforced. So it’s repeated.

Two weeks later, Junior asks permission to go out with his buddies on Friday night. Your response: “Okay, but only after you load that dishwasher.” Junior accepts the deal but is in an even bigger hurry than usual to complete his chore. He distractedly grabs a steak knife by the blade and slices open his hand.

This accident could have been avoided. But it wasn’t. The reason: You didn’t know about Junior’s dangerous loading techniques until after an injury occurred. The Near Miss, in other words, was an opportunity to fix the problem before it led to an injury. Unfortunately, that opportunity was lost since the Near Miss wasn’t reported.



Conclusion

This is simple stuff. But it's surprising how placing the importance of **Near Miss** reporting in the context of the home situation drives home the message to employees. The technique has a secondary benefit: In addition to encouraging the reporting of **Near Misses**, it enables parents to consciously build on the practice at home and thus **eliminate dangers** that threaten their families. So give it a try.

Flight Student Killed By Airplane Propeller

A flight student died after **being struck by his airplane's propeller** at Castle Air Force Base in Merced County, according to authorities.

The Merced County Sheriff's Department says the 26-year-old Chinese citizen was making a return trip from Visalia with another flight student on Saturday evening. The two were reportedly **not certified to fly together** in the two-seater Cessna 150.



When they landed at Castle Air Force Base, they spotted a fuel truck and believed the driver would report them to the flight school if they spotted him. One student tried to run away from the airplane on foot.

The other student apparently tried to get back into the pilot seat **by walking around the front** of the airplane, according to Sheriff's deputy Tom MacKenzie. The plane's propeller struck him in the head, killing him.

The Merced County Sheriff's Department and the Federal Aviation Administration are investigating the incident. The name of the victim has not been released pending notification of the family and the Chinese Consulate.

Beyond Fly By Wire

Even before fly by wire becomes the standard, companies have been exploring the next steps to remove hydraulics from the aircraft control equation. In mid-October, Gulfstream successfully demonstrated primary aircraft flight-surface control using "fly-by-wireless" technology. And, last week, Bombardier announced it had executed a **first test flight with an all-electric Meggitt braking system**, called EBrake.



For the earlier test, Gulfstream outfitted a GV test aircraft with mechanical, fly-by-wire, fly-by-wireless, and fiber-optic fly-by-light systems to control ailerons, outboard spoiler, mid-spoilers and inboard spoilers respectively.

Pilots noted consistent handling regardless of the applied control-actuation technology and Gulfstream noted that test results make fly-by-wireless -- and its benefits of reduced complexity and weight -- a potential backup for other flight control systems.

Bombardier's test of the EBrake system during normal, emergency and parking-brake functionality showed improved control in normal and emergency modes "resulting in tight centerline control even during maximum brake applications," according to test pilot Gary Bruce. The system couples brake-by-wire control with electric brake actuation and removes relevant hydraulically actuated control systems, with the benefits of increased reliability and (fire) safety, decreased maintenance and associated costs. Both Gulfstream's fly-by-wireless and Bombardier/Meggitt's EBrake systems could reduce system weight on aircraft while removing toxic hydraulic fluids and therefore can claim environmental friendliness as side benefits to improved performance.

Sturgell concerned about voluntary safety programs

FAA acting administrator Robert Sturgell is lamenting the end of voluntary safety reporting programs at two major US carriers.

The FAA Aviation Safety Action Program (ASAP) generally frees employees from FAA penalties when they voluntarily report incidents or safety concerns.

Pilot ASAP programs at both American Airlines and Delta Air Lines remain suspended.



"We have fought long and hard for voluntary disclosure programs like ASAP," Sturgell said today during an address to the Aero Club of Washington. "They are critical for us to continue to raise the level of safety." According to Sturgell, "It's disheartening to see some of our carriers and pilot unions abandoning these programs at a time when we need them the most."

American Airlines and its Allied Pilots Association suspended their ASAP program in October as the union criticized management for tabling a proposal in the renewal process that in its view left pilots exposed to potential punishment. A similar program at Delta was suspended in December 2006.

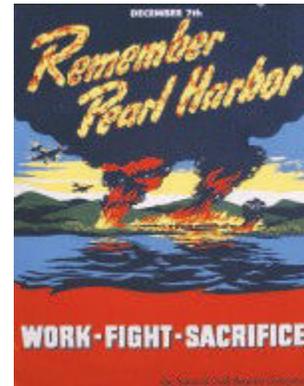
Sturgell urges separation of safety from labor issues in order to put the programs back in place. "The data we gather from them is critical".

Pilots at Delta are working to **reinstate** the program, but no definite time line has been set. No new talks between American and APA regarding ASAP have been scheduled.

Pearl Harbor Remembrance Day

On Dec. 7, at the **National Naval Aviation Museum** will feature guest speakers, musical performances and recognition of survivors

The National Naval Aviation Museum will **honor survivors** of the Japanese Navy assault on Pearl Harbor at 10:30 a.m. on Sunday, Dec. 7. The event will feature a performance by the Tate High School Band, patriotic music from Ah Declare! Quartet, guest speaker Rear Adm. Jay DeLoach, recognition of the survivors and special WWII exhibit tours.



The surprise attack on Pearl Harbor shocked the U.S. on the morning of Dec. 7, 1941 and effectively drew the United States into WWII. The Japanese targeted American ships, military installations and airfields in Pearl Harbor, Hawaii. Twenty-one ships in the U.S. Pacific fleet were damaged, and the attack claimed **2,350 lives**. President Roosevelt declared Dec. 7 "a date which will live in infamy."

To commemorate the valiant efforts of those military service members, both the deceased and survivors, the Volunteer Program at the National Naval Aviation Museum will remember the day with the following events:

Tate High School Band. 10:30 a.m. in the Blue Angels Atrium. The first 200 guests seated will receive a free commemorative collector's pin from the Volunteer Program.

Ah Declare! Quartet. 11 a.m. The group will perform a medley of 1940s and patriotic songs.

Moment of Honor. 11:30 a.m. Recognition of more than 20 Pearl Harbor survivors.

Guest Speaker Rear Adm. DeLoach. Noon. DeLoach, director of the Naval Historical Center will speak.

Visitors to the Museum are invited to a special tour of the World War II exhibit following the program. Admission to the Museum is FREE. For a complete list of events and exhibits at the Museum, visit www.navalaviationmuseum.org or call the Naval Aviation Museum Foundation at (850) 453-2389 or (800) 327-5002.



How to Choose--and Use--Ergonomic Hand Tools

This guide helps you know what makes a hand tool ergonomic and how to choose the right one for your body and the job.

Drop into any hardware store or home improvement center, and you're likely to find aisles full of tools labeled "ergonomic." But what exactly does that mean for consumers?

Simply put, ergonomics is the science of designing and producing tools, furniture, and other work-related implements that improve a worker's efficiency while reducing discomfort, fatigue, and risk of injury.



Ergonomically enhanced tools can include helpful features such as angled handles, padded handgrips, and non-slip coatings.

However, no matter how impressive a tool's design is, it is almost impossible for it to be universally ergonomic because **human physiques and project applications** vary greatly from one to the next.

Whether you're shopping for ergonomic tools or just trying to select the right one for the job from an existing collection, the key things to consider are whether or not the **tool fits your hand, how well it suits the job being done,** and whether or not it **eases your work and prevents you** from straining in ways that could lead to injury. Regardless of how user-friendly a tool is built to be, the most important deciding factor in what makes a tool ergonomic is, **ultimately, you.**

To make the decision process a little easier, here are some guidelines for choosing the right ergonomic hand tool for your body type and the job at hand:

Because finger size and placement differ from person to person, avoid using tools whose handles have built-in finger grooves. When fingers don't naturally align with grooves, excessive pressure from the raised groove edges can cause discomfort and injury.

Choose tools with handles that are covered in a soft material, such as foam or flexible plastic. Cushioned handles are not only comfortable for long hours of use, but also they provide a much firmer grip and cut down on slippage. Hard-handled tools can be quickly and inexpensively converted by just adding a sleeve.

Ensure tool handles are free from sharp edges and seams that might irritate or cut the hands.

When selecting double-handed gripping and cutting tools, opt for ones with spring-loaded handles that will automatically return to the open position.

If you need to forcefully pinch or grip an object for an extended amount of time, prevent muscle strain by switching from standard pliers to a clamp or grip.

Use only the tools that allow you to work with your wrist in a straight position. Choose single handle tools with handle diameters that range from 1 1/4" to 2" for tasks that require force, such as torquing screws and nuts, hammering, and heavy chiseling.

Larger handles allow fingers to wrap comfortably around the tool in a power grip, which prevents slippage and reduces stress and impact on hands, fingers, and wrists.

Opt for single-handle tools whose grips fall within the 1/4" to 1/2" range for tasks that call for more precision and delicacy (such as fine chiseling and driving miniature screws). The smaller diameter handles make it easy to comfortably grip tools between the fingertips without overexerting fingers, knuckle joints, or hand muscles.



Just as grip diameter affects work with single-handle tools, the grip span of pliers, snips, cable cutters and other double-handed tools can either make your job easier or cause you hand fatigue. For maximum comfort and efficiency for tasks that require more force (such as gripping with large pliers, cutting wires, or snipping through sheet metal), choose tools with a maximum "open" grip span of 3 1/2 inches and a "closed" grip span no less than 2 inches across.

Detailed jobs that involve grasping small parts and components with pincers, tweezers, or tongs are best done with double-handle tools whose grip spans range from no less than 1 inch (closed) to no more than 3 inches (open).

When a work space is tight but the task at hand requires a good deal of force, opt for "power grip" tools (with handle diameters from 1 1/4" to 2"), which are grasped with the entire hand instead of just pinched between the fingertips. This type of grip lets you finish the job in far less time with far less physical stress.

Tool length also should be matched to space constraints. Excessively long tools can force you to assume awkward work postures and wrist positions when you're trying to reach components in cramped areas. Instead, choose short-handled tools that give you the freedom to meet the target work area directly while keeping your wrist straight.

The palms of your hands are full of pressure-sensitive nerves and blood vessels. In order to avoid damaging these during high-force tasks, it's important to make sure the handles of your tools are long enough that their ends won't press into your palms. To measure, hold your hand palm-up with fingers together and thumb against the side of your hand. As long as the tool's handle is longer than the widest part of your hand (the span from the outer edge of your pinkie to the outer edge of your thumb), it's safe to use.

Ergonomic Hand Tool facilitates safe cable tie removal.

Made from heat-treated alloy steel, ACT Cable Tie Removal Tool features cutting head with smooth, curved tips that slip behind cable tie to pull it away from wire harness and simultaneously cut it **without nicking or damage**. Tool is built with double insulated and cushioned grips, return spring, lock, and properly leveraged scissor-action cutter.

It eliminates use of knives and box cutters and can safely remove plastic/copper/aluminum cable ties up to ½ in. wide.

A new tool that eliminates knives and box cutters, for rapidly and safely removing cable ties from wire harnesses, **without damaging the insulation**, has been introduced by ACT Fastening Solutions of Gardner, Massachusetts.



The ACT Cable Tie Removal Tool sells for \$46.84 (list). Literature is available upon request. Distributor and dealer inquiries are invited.

For more information contact:

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Aviation stress and fatigue study

Aviation workers feel emotionally drained and exhausted as a result of **working long hours**, according to the preliminary findings of an ITF survey, unveiled yesterday. The initial findings of the study, which was carried out by a team of 11 experts, including prominent academics, were revealed at an ITF civil aviation meeting in London, UK.



Questionnaires in nine languages were sent out to 157 civil aviation unions in 200 countries; of those surveyed, 67 per cent from 54 countries responded. They represented cabin crew, air traffic services and ground staff.

Thirty-nine per cent of respondents revealed that most of those they represented felt “emotionally drained”; 49 per cent reported that some of those they represented felt “emotionally drained”. Those representing ground staff and air traffic service workers reported similar levels of emotional exhaustion (47 per cent and 52 per cent respectively). Long and odd working hours as well as precarious employment practices, such as workers on short-term contracts, were among the key fatigue factors.

ITF Civil Aviation Section Secretary Ingo Marowsky said: “The ITF’s global affiliates wanted the federation to try to identify the main factors contributing to the global epidemic of stress and fatigue among civil aviation workers. Once we have the full survey findings we will decide what specific policy actions need to be taken.”

Gabriel Mocho who will soon take Marowsky’s place as Civil Aviation Section Secretary added: “As soon as we have the complete findings, it will be vital that we act to develop a worldwide campaign to tackle the issues the survey raises and to ensure that workers are protected.”

HOW MUCH JOB STRESS DO YOU HAVE?

ENTER A NUMBER FROM THE SLIDING SCALE BELOW THAT BEST DESCRIBES YOU

STRONGLY DISAGREE			AGREE SOMEWHAT				STRONGLY AGREE		
1	2	3	4	5	6	7	8	9	10
I can't honestly say what I really think or get things off my chest at work.									_____
My job has a lot of responsibility, but I don't have very much authority.									_____
I could usually do a much better job if I were given more time.									_____
I seldom receive adequate acknowledgment or appreciation when my work is really good.									_____
In general, I am not particularly proud or satisfied with my job.									_____
I have the impression that I am repeatedly picked on or discriminated against at work.									_____
My workplace environment is not very pleasant or particularly safe.									_____
My job often interferes with my family and social obligations or personal needs.									_____
I tend to have frequent arguments with superiors, coworkers or customers.									_____
Most of the time I feel that I have very little control over my life at work.									_____

Add up the replies to each question for your TOTAL JOB STRESS SCORE

If you score between 10-30, you handle stress on your job well; between 40-60, moderately well; 70-100, you're encountering problems that need to be addressed and resolved.

Job stress is also costly, with an annual price tag for U.S. businesses of over **\$300 billion annually** due to increased absenteeism, employee turnover, diminished productivity, medical, legal and insurance expenses and Workers' Compensation payments. Put into perspective, **that's ten times the cost of all strikes combined**. The sources, severity and consequences of job stress vary for each of us as do solutions for these problems.

Popular Health and Stress Articles



- [Antidepressants](#) - Antidepressants are among the most popular drugs because in addition to depression, antidepressants are also effective in various pain syndromes that can also be stress related.



- [Definition of stress](#) - There has been no definition of stress that everyone accepts. Therefore, it's difficult to measure stress if there is no agreement on what the definition of stress should be.



- [Effects of stress](#) - The effects of stress on health are numerous and often unappreciated. There are physical effects of stress, psychological effects of stress, emotional effects of stress – as well as effects of stress on performance and efficiency.



- [Emotional support](#) - Emotional support is a powerful stress buster. Emotional support can come from sympathetic and compassionate family, friends or health professionals but seems to be particularly effective when you can share your burdens and fears with others who are experiencing similar problems.



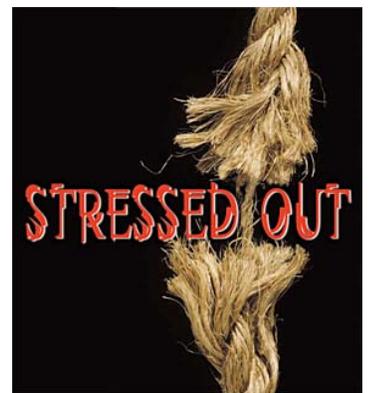
- [Heart disease treatment](#) - Since there are many factors that can lead to heart disease there are many heart disease treatment approaches. The choices of heart disease treatment with drugs may depend on what is causing the problem and the patient's symptoms.



- [Hypertension symptoms](#) - Hypertension symptoms are uncommon in most patients with high blood pressure. Hypertension is called "the silent killer" because of the relative absence of hypertension symptoms.



- [Stress](#) - We continually hear or see something about stress and particularly the adverse effects of stress on health. Because stress is different for each of us, it is difficult to define stress, much less measure.

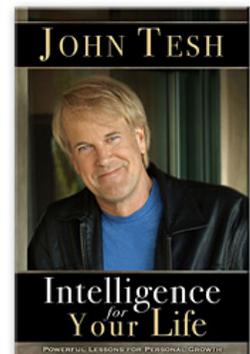




- [Stress in the workplace](#) - Stress in the workplace has become an increasingly hot topic over the past few decades. Stress in the workplace is obviously important to employees but management is also concerned about stress in the workplace for several reasons.
- [Stress reduction](#) - Stress reduction, stress reduction, stress reduction!! You're likely to hear or read about some stress reduction approach daily – and with good reason.
- [Stress relievers](#) - Stress relievers are readily available everywhere judging from the numerous products and services being widely promoted as effective stress relievers. That's because stress levels have risen so sharply that most people are searching for stress relievers that might work for them.

[John Tesh "Intelligence For Your Life Book](#)

John has uncovered a wealth of practical information and life-changing choices. He now combines that knowledge with some incredible personal experiences for his first book in an ongoing series, [Intelligence for Your Life: Powerful Lessons for Personal Growth](#). In addition to a wide range of helpful tips, John reveals what has guided him spiritually and professionally to act out his passions.



[Motorcycle Deaths Up In U.S., And Florida Leads Pack](#)

ST. PETERSBURG - Highway fatalities nationwide decreased in 2007 compared with 2006, but [motorcycle fatalities increased](#), and in no state were there more than in [Florida](#), according to federal figures released Thursday.

Florida had [530](#) motorcycle fatalities in 2007, according to data compiled by the National Highway Traffic Safety Administration. The state with the next highest number is California with 495 deaths. Texas placed third with 375 deaths, and Pennsylvania was fourth with 210, according to the NHTSA.



The figures were used by the National Transportation Safety Board for a study on all types of transportation fatalities. In most categories there were **decreases – in aviation** and in marine deaths, for instance. Though fewer people died during recreational boating, there was a slight increase in the number of people who died while passengers on commercial vessels, the NTSB said.

Aside from the increase in motorcycle fatalities, there was an increase in the number of people killed in rail fatalities – from 774 to 808. The vast majority of these fatalities were people struck by rail vehicles. Highway fatalities, which account for nearly 95 percent of all transportation deaths, decreased from **42,708** in 2006 to **41,059** in 2007. That represents a 4 percent decrease. However, the number of motorcycle deaths increased from 4,837 to 5,154, a 7 percent jump. And the 317 additional deaths in 2007 was the largest spike in any category.

In Florida, of the 530 killed, **52 percent were wearing helmets** and 48 percent were not, according to NHTSA data. The state does not require all motorcycle riders to wear helmets. California does. In that state, **86 percent of those killed were wearing** a helmet and 14 percent were not.

In Florida, 25 percent had a blood-alcohol level greater than 0.08. A driver in the state is presumed intoxicated if his or her percentage is 0.08 or greater. Thirty-two percent of the people killed had a **blood-alcohol level greater than 0.01**, the NHTSA data show.

On The Blink

What goes on in the blink of an eye? Most obvious, the lid spread tears across the ball surface, warding off dryness and scratches. We blink less when reading or staring at a computer or TV – that's why eyes dry and burn-more when tired and at times of transition, like turning a page. But blinking isn't just a reflex.



Calm slows blinking; **anxiety can cause eyeblink storms**. Think of a nervous politician or a bad liar, who usually blinks fastest after a fib. Psychopaths, when altered brain function, are less likely to blink vigorously when startled than an average Joe. Also, blinks dull brain activity related visual awareness perhaps to keep us from noticing the microseconds of dark. Blink mysteries include why babies do it less than adults-maybe because of all the new stimuli to take in and why so much variation exists in animals. Case in point: A parrot blinks 26 times a minute, an ostrich, just once.

Blink rate:

Human newborn 2 blinks per minute // Calm adult 15 blinks per minute
Nervous adult 50 blinks per minute // Staring at TV 75 blinks per minute

Steve Jobs Reveals the Key to Success

What **qualities and talents** drive achievement? One way to answer this question is to study the careers of extraordinarily successful people. Like Steve Jobs. Steve Jobs is the co-founder and CEO of **Apple Computer** and co-founder and CEO of Pixar Animation Studios. His current net worth exceeds \$3 billion. Not too shabby for a college “dropout.”



In June, Jobs explained his success with Stanford University graduates in his Commencement address. Jobs’s secret: **Look for work that you love.**

Starting Out

After dropping out of college, Jobs stayed as a drop-in taking courses that interested him. In his address he noted that “much of what I stumbled into by **following my curiosity and intuition** turned out to be priceless later on.”

Apple Computer

Jobs also talked about love and loss, and how he discovered what he wanted to do in life at an early age. He was 20 years old when he and Steve Wozniak founded Apple Computer. In 10 years the venture grew into a \$2 billion company with 4,000 employees.

Despite this success, the Apple Board of Directors fired Jobs when he was 30. Jobs commented, “What had been the focus of my entire adult life was gone, and **it was devastating.**”

NeXT Software

With the realization that he still loved what he did, Jobs started over. He founded NeXT Software Inc. In 1997 the company was acquired by none other than the company that got him started, Apple Computer.

“I’m pretty sure none of this would have happened if I hadn’t been fired from Apple,” Jobs said. “I’m convinced that the only thing that kept me going was that **I loved what I did.**”

Beating Cancer

Last year, Jobs was diagnosed with cancer. Jobs said doctors initially gave him six months to live. But Jobs's cancer turned out to be a rare, curable form. He underwent immediate surgery and has since recovered. But the experience taught him another lesson. "Your time is limited, so don't waste it living someone else's life," Jobs said. "Don't let the noise of others' opinions drown out your own inner voice."

The Lessons

The lessons Steve Jobs has learned in his remarkable career: Find what you love, don't lose faith, believe in yourself and live each day as if it were your last. "You can't connect the dots looking forward; you can only connect them looking backwards. So you have to trust that the dots will somehow connect in your future. You have to trust in something - your gut, destiny, life, karma, whatever. This approach has never let me down, and it has made all the difference in my life."

Read the full text of Steve Jobs Commencement Address at Stanford University.

[1] <http://news-service.stanford.edu/news/2005/june15/jobs-061505.html>

A Parting Thought

To dream anything that you want to dream, that is the beauty of the human mind. To do anything that you want to do, that is the strength of the human will. To trust yourself, to test your limits, that is the courage to succeed.

CRIMES BY THE HALF HOUR

Raw numbers isn't the only or necessarily the best way to convey the prevalence of crime in America. Consider that:

- **EVERY 4.8 SECONDS:** Somebody commits an act of theft or larceny;
- **EVERY 14.5 SECONDS:** A burglary is committed;
- **EVERY 28.8 SECONDS:** A vehicle is stolen;
- **EVERY 36.8 SECONDS:** Somebody is the victim of aggravated assault;
- **EVERY 1.2 MINUTES:** Somebody is robbed;
- **EVERY 5.8 MINUTES:** Somebody is forcibly raped; and
- **EVERY 31 MINUTES:** A murder occurs.

SOURCE: FBI, 2007 Crime in the United States,
<http://www.fbi.gov/ucr/cius2007/index.html>



Picture This!

Bungees to the Rescue, (or) What the Shell?

First, why didn't these guys realize the jumbo television was about 8 inches taller than camper shell? Why **didn't they measure** before going into the store, so that they could have driven home, dropped off the shell, and returned? Better yet, why not call the store, get the dimensions before you even leave, and then you'll only have to make one trip?

Of course, these guys are only making one trip, albeit one that is much riskier, **especially for whoever has to drive behind them** as the wind catches that shell and starts op-checking the load limits on those bungee cords.

