



Aviation Human Factors Industry News

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Investigators find, fix more faulty wing fasteners on B-757s

US Airways has found and fixed **faulty wing fasteners** on additional B-757 jetliners since part of the wing on one of its 757s **broke off and struck a passenger window** somewhere over Maryland last month, federal investigators said last Tuesday.



In a written interim report on its investigation, the National Transportation Safety Board said that a 4-foot-by-5-foot panel of the wing flew off Flight 1250 on March 22 **because the three clips that secured the leading edge of the panel to the wing had failed** — two before the flight because of **metal fatigue** and the third during the flight.

The NTSB said it was still investigating to determine whether the wing clip failure was caused by **poor design, improper installation, or lax inspection and maintenance**. The safety board also is still studying how its factual findings might affect the entire 757 fleet.

The safety board did say that the clips that failed **were redesigned fasteners installed in 1991** after problems with the 757 wings were identified in the late 1980s.

US Airways reported to the safety board that it had inspected all its 757s since then and found "problems with wing fasteners on several other aircraft, which were since repaired and returned to service," the report said. US Airways inspected all 18 of the 757s it owns that use these fasteners and found cracked wing fasteners on six of them, in addition to the plane that lost the wing panel, said NTSB spokesman Peter Knudson.

The inspections of US Airways 757s occurred amid a flap over lax enforcement of safety orders by the Federal Aviation Administration. In the most disruptive episodes, Southwest Airlines and American Airlines canceled flights to re-inspect or repair aircraft that the FAA had ordered them to look at much earlier, but which the agency had allowed the airlines to continue flying either without doing the required inspection and maintenance or without doing it correctly.

The NTSB said it had still not found the 20-square-foot panel from Flight 1250. No one was hurt, but the outer pane on one passenger window was cracked by the errant wing panel. The inner pane was not damaged, and the aircraft remained pressurized during the flight.

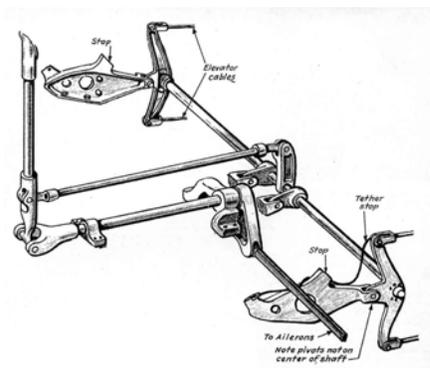
Flight 1250 was carrying 174 passengers and six crew members from Orlando, Fla., to Philadelphia at the time, and it landed safely in Philadelphia about 30 minutes after the wing panel broke loose.

The safety board said analysis of information from the flight data recorder and interviews of Flight 1250 crew members showed there was no substantial change in the aircraft's handling characteristics after the panel flew off, so the safety board reclassified the event from an accident to an incident.

[Aileron Rigging Error Missed on Preflight](#)

De Havilland DHC-2. Substantial damage. No injuries.

The pilot said that both he and the maintenance technician who had rebuilt the Beaver checked the engine and flight controls before attempting the first flight following the rebuild on April 17, 2007. Winds were from 150 degrees at 16 kts, gusting to 22 kts, when the airplane departed from Runway 14 at Ted Stevens Anchorage (Alaska, U.S.) International Airport. The Beaver was about 150 ft AGL on initial climb when it suddenly rolled right about 90 degrees, the NTSB report said.



“The pilot applied left aileron and left rudder control, but the **airplane did not respond**,” the report said. “He retarded the engine power to idle and pushed forward on the control to maintain airspeed.” The right wing, then the left wing struck the runway, and the airplane touched down hard on the main landing gear, departed the runway and struck a ditch.

“A post accident examination of the airplane and flight controls revealed that the **chain control linkage within the control yoke was misrouted at the base of the control column thereby reversing the aileron activation**,” the report said. NTSB said that the **rigging error** and the pilot’s **inadequate preflight inspection** were the probable cause of the accident.

Dallas police helicopter mechanic accused of falsifying inspection records put on leave

Dallas police officials have placed the department's lone helicopter mechanic on leave while internal investigators look into whether he **falsified important safety inspection records**.



Police Chief David Kunkle and other top DPD officials confirmed Wednesday that the inquiry began after the mechanic, was **accused of not performing a scheduled inspection he had recorded as having done**.

"There are some allegations that he **may have been dishonest** with the maintenance records," said Deputy Chief Tom Lawrence, commander of the homeland security and special operations division, which includes the helicopter unit. "From all appearances, **the pilots lost confidence in him**."

The mechanic declined to comment in detail Wednesday about the allegations against him, but he said: "I expect to be vindicated at the end of the investigation. My safety record has never been questioned before."

Chief Lawrence said he decided to place the mechanic on leave because he believed the mechanic's working relationship with the unit's pilots had **deteriorated** to the point that keeping him on the job during the investigation would be "disruptive to the workplace."

"My biggest concern is with the safety out there," Chief Lawrence said. "We want to make sure that we maintain that."

For now, the department has hired a contract aircraft mechanic to perform maintenance work on the unit's four helicopters. The mechanic has already come in and performed a 100-hour inspection on the helicopter that was grounded after questions arose.

The department replaced most of its aging fleet of helicopters last summer with three new helicopters at a cost of about \$5.3 million.

Two helicopter mechanics **left the department** for better-paying jobs in November, leaving only one mechanic. That prompted concerns among some members of the unit that **he was overwhelmed** and, as a result, that the helicopter unit's safety may have been compromised.

"You're putting **your life in the hands of the mechanic** to ensure that aircraft is in good working order," said retired Senior Cpl. Bruce White, the helicopter unit's former chief pilot who left about 18 months ago. "It's not like driving a car. When you have a problem with maintenance, you can't just pull a helicopter off to the side of the road and get out."

Spots hard to fill

Officials have tried to replace the two mechanics that left but said they have had difficulty because the starting pay – **about \$31,000 – is not competitive.**

The department found two candidates it wanted to hire, but both failed background checks, Chief Lawrence said.

He said the city is looking at whether it should continue trying to hire mechanics for the unit or simply outsource the maintenance work.

In the weeks preceding the investigation, the helicopter unit's pilots had become worried after noticing that the mechanic was **spending an inordinate amount of time in the office and apparently not working on the aircraft,** department officials said.

A pilot's test

One veteran pilot decided to conduct an unsanctioned **sting operation** of sorts on the mechanic in late March, officials said. The pilot placed **markings on an inspection plate** of an aircraft that was due for a 100-hour inspection as a way to see if the work had really been done.

When the pilot checked, he found that the **markings had not been disturbed,** officials said. Yet records indicated the inspection had been done and the parts had been changed, officials said.

The commander of the helicopter unit, Lt. Anthony Williams, said he "immediately took the aircraft out of service to look at the part." After meeting with pilots this month, Lt. Williams said he and Chief Lawrence decided to have the helicopter re-inspected.

Chief Lawrence said that the mechanics explanation about the inspection **was not acceptable to him.**

"The mechanic was getting in over his head and he wasn't telling anybody," Chief Lawrence said. "He wasn't relaying it up the chain of command."

David Payne, a pilot and retired police lieutenant who headed the helicopter unit for nearly two years, said there is no way that one mechanic should be expected to maintain four helicopters. But he also said any mechanic found to have falsified records could never be trusted again.

"It also brings into question other previous inspections and maintenance which may or may not have been done."

[FAA Guidance Highlights Foreign Issuance of 8130-3 Tags](#)

What about aircraft parts that are already outside the United States, but that do not bear an 8130-3 tag? In addition to the changes to permit easier access to class III export 8130-3 tags (see previous newsletter), the FAA has also added new guidance to implement the recent regulatory change that **permits 8130-3 tags to be issued outside the United States.**

Order 8130.21E change two has **added new language** to explicitly permit DARs to issue 8130-3 tags outside the United States. Before this year, 8130-3 tags could not be issued outside the United States unless the applicant had obtained a special exemption from the regulations. Such exemptions had been issued to a number of large companies. The FAA **decided to eliminate** this limitation in light of the wide range of exemptions that were being issued.

Under the new guidance, designees will still need to apply for geographic expansion in order to obtain the privilege of issuing 8130-3 tags outside the United States. This will require the designee and/or the 8130-3 applicant to file for a no-undue-burden finding with the FAA. Although the FAA has published parameters for making such a finding in the case of a manufacturer-applicant, the **FAA does not yet have published parameters** for no-undue-burden findings for designees who wish to issue 8130-3 tags for overseas distributors.

Mistakes killed parachutists before they could jump from plane

The deaths of two British parachutists in Australia after a **series of safety errors** has implications for British training centers, a coroner ruled recently.

Susan Williams, 49, was preparing for her first-ever parachute jump when the small Cessna plane carrying her crashed into a dam on take-off, only 500m from Willowbank airfield in Queensland, Australia, killing five on board.



An inquest in Maidstone, Kent, learnt that a **series of errors** led to the crash in January 2006, which also killed Colin Hicklin, 41, a skydiving expert from Birmingham. An Irish-born instructor, the pilot and an Australian skydiver also died.

Stephen Beck, the Deputy Coroner, said that witnesses had seen smoke billowing from the Cessna's engine as it prepared to take off, the plane was **200lb over the recommended weight**, none of those on board was wearing a helmet or seatbelt, the floor restraints holding them in place were insufficient and the fuel did not conform to recognized safety standards.

Recording a verdict of accidental death, Mr Beck said: "There are serious safety issues here and I feel the findings of this report should be made available to both the British Parachute Association and the Civil Aviation Authority in this country. **There are lessons here to be learnt on this side of the world.**

"Clearly there is not one particular thing that caused the crash but there are a **number of safety issues** and recommendations for future operations should be made."

Mrs Williams, a mother of two, moved from Farnborough, Kent, to Australia in 2002 with her husband John, a major in the British Army who was also a qualified skydiver. She booked the tandem parachute jump from the Brisbane Skydiving Center after being inspired by her husband's skydiving adventures.

Following yesterday's hearing, her son Carl, from Maidstone, Kent, said the centre was **"incompetent"** and should never have been operating.

He added: "I was so angry when I heard all of those things. They just didn't have the right things in place. They shouldn't have been operating – it's a disgrace really.

“It’s been so hard to get over this – the last two years have been hell. Mum was my best friend – I miss her so much.”

A previous report by the Australian Transport and Safety Bureau (ATSB) failed to find what caused the plane’s engine to lose power on take-off.

It concluded that while the fuel did not conform to safety standards and the plane had been overloaded, neither factor would have caused the crash. **It said a number of “less significant anomalies” may have been to blame.**

Last October’s report found that there were several factors which would have made it harder for passengers to survive. Only two of the seven people on board survived. The ATSB said: “Had the cabin occupants been suitably restrained, there was the possibility that their injuries may have been less severe.”

It also stated that a tandem master and student were **also found to be harnessed together, compromising safety.** “Their harnessing together prior to the take-off would have adversely affected the ability of one or both of them to successfully exit the submerged aircraft,” the report said.

The report made several safety recommendations, including having the Australian Parachute Federation (APF) audit its members’ aircraft to improve safety features and the use of helmets in future flights.

FAA: No leniency for blatant AD abuse

Top FAA officials last week stressed that there will be no leniency for carriers that have **blatantly violated safety rules** in the agency’s ongoing investigation of airworthiness directive (AD) compliance.



"Forget about it, the aircraft is grounded," said FAA director of aircraft certification services John Hickey, when asked whether carriers who have discovered certain AD compliance issues might be able to work with the FAA to keep aircraft flying while closing out issues not related to safety of flight.

Hickey and FAA director of flight standards, James Ballough, discussed the issue last week at the MRO North America conference in Ft. Lauderdale, Florida.

FAA is currently in the second phase of its review of AD compliance at US airlines, launched in the wake of revelations in March that Southwest Airlines continued flying 46 Boeing 737s with local FAA approval, long after certain metal fatigue safety checks were due.

Phase one of the review, which looked at 10 ADs per aircraft make and model at each US airline, revealed that **only 1%** of the more than 2,400 ADs reviewed were not complied with. In **phase two**, to be completed by the end of June, the FAA is reviewing **10%** of all ADs across fleet types for all carriers.

Hickey says non-compliance is generally falling into three categories: cases of **"very blunt noncompliance; workmanship issues**, especially in the area of wiring systems; and **slight deviations**, akin to dotting the I's and crossing the T's".

Workmanship issues will likely result in groundings too, says Hickey, while slight deviations may be resolved with the help of an FAA "rapid response team".

In addition to the **five-part plan** FAA has already announced to strengthen the AD process -- including creating a safety issues reporting system and **trying to eliminate ambiguities in how ADs are worded** -- Hickey says the agency may also investigate the level of **wiring system training** that takes place at airlines and maintenance organizations and study whether its "lead airline" program is satisfactory.

Hickey's organization, which generates ADs for US-certificated aircraft, works with original equipment manufacturers and a "lead airline" as a test case before mandating an AD across the fleet.

He adds that some of the wiring ADs that have grounded large portions of the American Airlines fleet were issued before the "lead airline" program was implemented.

A focus on the clarity of ADs will also expand to foreign made aircraft.

Currently the FAA does not have to provide the same level of implementation review for the ADs issued by foreign countries and applied here through bilateral agreements.

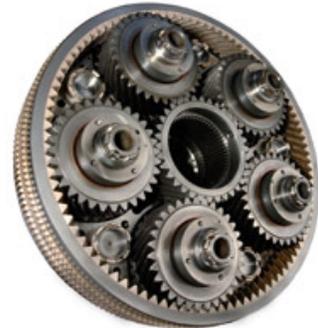
"An AD by Airbus or EASA **may not have the same level of user friendliness,**" Hickey explains.

Pratt & Whitney, Airbus in engine test

Airbus has agreed to test Pratt & Whitney's **new jet engine**, giving the French airline access to new technology and the Connecticut-based jet engine manufacturer the chance to showcase its new product.

The flight test of the **Geared Turbofan** is set to begin at the end of the year, the two companies announced Monday.

Todd Kallman, president of Pratt & Whitney commercial engines, said the test will provide installation and operating data to evaluate the performance of the engine. Pratt & Whitney is a subsidiary of Hartford-based United Technologies Corp.



Airbus, which is based in Toulouse, France, downplayed the prospect of a deal to eventually buy Geared Turbofan engines.

"At this point in time, the tests do not imply either a technological or a business decision on future product developments," Airbus said in a statement.

Japanese machinery manufacturer Mitsubishi Heavy Industries Ltd. **already has chosen Pratt & Whitney's Geared Turbofan** to power its new mid-sized regional jet.

Pratt & Whitney has been developing the engine technology for 20 years. The manufacturer says the engine provides significant improvements in **fuel efficiency** that will result in fewer carbon emissions and lower fuel costs for airlines, and generate less noise than other airplane engines.

Airbus said in a statement that the deal with Pratt & Whitney is for "routine and ongoing research into new technologies for the long term."

"The trials are an example of Airbus' commitment, as an eco-efficient company, to look at all **new technologies and innovations** that could potentially bring environmental and economic benefits to the aviation sector for the longer term," the statement said.

Richard L. Aboulafia, a vice president at Teal Group Corp., an aerospace and defense industry research group in Fairfax, Va., called the deal "quite significant."

"It's a major step for the most important narrow body manufacturer to be closely examining this engine," he said.

The test of the **Geared Turbofan** will use an Airbus-owned A340 flying test bed. The testing will provide information about takeoffs, landings, engine performance at various altitudes and other flight data.

ASRS Updates Web Site Reporting Forms

- The ASRS web site (<http://asrs.arc.nasa.gov>) has been updated with new "interactive" Adobe Acrobat versions of the program's reporting forms. After web site users download a reporting form, they can now fill it out using their computer to enter information. All four ASRS forms have been updated with this new interactive feature. The forms include:
 - **General Form** (for pilots, dispatchers, airport personnel, and others)
 - **ATC Form** (for Air Traffic Controllers)
 - **Maintenance Form** (for aviation maintenance personnel)
 - **Cabin Crew Form** (for airline cabin crew members)



Important Note: The free (non-commercial) version of the Adobe Acrobat Reader does not allow users to "save" information entered into the forms. Once the forms are filled out using the freeware version of the Acrobat Reader, *they must be printed* to preserve the information entered. Reporters can print a duplicate copy of the report for their own records at this time, also. Completed forms should be mailed to ASRS at the address given on the form.

Ratchet Crimp Tool has ergonomic design to facilitate use.

Ergonomic ratchet crimp tool has 4 crimp stations, ranging from 22-8 gauge, and color-coded crimp nests that help user match correct terminal. Mating mechanism prevents jaw slippage and misalignment, while handle length facilitates crimping process by requiring minimal force application. Release switch near handle operates with one push towards crimp nest. Designed for heat-shrink terminals, tool also accommodates standard insulated terminals.



Related categories: [Electrical Equipment and Systems](#) | [Portable Tools](#)



Human Factors Training Posters

Maintenance and Ramp Safety Society

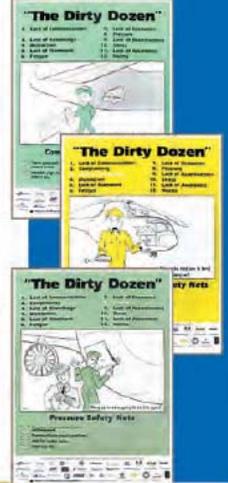
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REMEMBER!
Safety and Profit
Work Together

32% Of Registered Nurses Say They Should Not Be Driving After Work

For those in the medical profession **sleep is essential**, for the care of their patients. But what happens after they head home is concerning the medical community.

In a national online survey conducted by the American Society of Registered Nurses (ASRN.ORG), 32% of the Registered Nurses surveyed said **they were too exhausted and fatigued after work to be driving and "shouldn't be on the road."**

"Nurses who work at **night** are four more times likely to experience a drowsy-driving episode," said Linda Scott, director of Grand Valley State University's nursing program.



"In addition, the risk of crashes almost doubles for drivers working night shifts that exceed 12.5 hours in length."

There are two main causes of drowsy driving:

-- Sleep restriction

Persons getting less than the recommended seven-to-eight hours of sleep each night are more likely to feel tired the following day, which can ultimately affect their **cognizance** behind the wheel. Not getting enough sleep on a consistent basis can create "**sleep debt**" and lead to chronic sleepiness over time. While some factors, including working at a job that requires long hours and family responsibilities, are beyond a person's control, other reasons for sleep restriction represent a **lifestyle choice**. This includes sleeping less to have more time to work, study, socialize or participate in other activities.

-- Sleep fragmentation

Sleep fragmentation causes an inadequate amount of sleep and can **negatively affect a person's functioning** during the daytime. Sleep fragmentation can have internal and external causes. The primary internal cause is **sickness, including untreated sleep disorders**. External factors that can prevent a person's ability to have a full, refreshing night of sleep **include** noise, children, bright lights and a restless bed partner.

Eight to nine hours of sleep is optimal and sufficient sleep benefits alertness, memory and problem solving, and overall health, as well as reducing the risk of accidents according to the National Sleep Foundation. A widely publicized 2003 study performed at the University Of Pennsylvania School Of Medicine demonstrated that **cognitive performance declines** with fewer than eight hours of sleep.

For nurses who work mandatory overtime, double shifts or simply do not get off until after midnight or sometimes morning, it is nearly impossible to ensure seven to eight hours of sleep.

So how do nurses avoid drowsy driving? That can be up for debate.

The American Academy of Sleep Medicine (AASM) has a **few tips**, although some are impossible to follow:

-- **Get enough sleep**. AASM recommends that adults get seven-to-eight hours of sleep each night in order to maintain good health and optimum performance.

-- **Take breaks while driving**. If you become drowsy while driving, pull off to a rest area and take a short nap, preferably 15-20 minutes in length.

-- **Consume caffeine**. Caffeine improves alertness in people who are fatigued.

-- **Do not drink alcohol.** Alcohol can further impair a person's ability to stay awake and make good decisions. Taking the wheel after having just one glass of alcohol can affect your level of fatigue while driving.

-- **Do not drive late at night.** Avoid driving after midnight, which is a natural period of sleepiness.

Nationwide, drowsy driving is the direct cause of approximately 100,000 police-reported crashes annually, resulting in an estimated **1,550 deaths**, 71,000 injuries and \$12.5 billion in monetary losses, according to the National Highway Traffic Safety Administration (NHTSA).

Midnight Shift Nugget

Healthful Midnight Munchies

If we weren't meant to eat late at night, why is there a light inside the refrigerator? Besides, there are times when you've just gotta have something. The trick is to **be prepared**.

Because the main problem with nighttime nibbles has less to do with when you're eating than with **what you tend to eat after hours**. Instead of reaching for a pint of mint-chocolate-chip or a slice of day-old pizza, stock up on the following -- there's something here for every midnight muncher.



If you're burning the midnight oil . . .

You could mainline coffee to get your PowerPoint project done overnight, but that'll just leave you with a world-class case of jitters the next morning, when it's time to run your project by the boss. A better bet, believe it or not: **a salad of dark greens and chopped veggies**. The complex carbs in the veggies will give you energy, and they're full of folate, which new research suggests helps your brain work faster.

If you're just tossing and turning . . .

Starchy carbs may help you nod off. Why? Foods that quickly raise your blood sugar also raise blood levels of the amino acid tryptophan, which the **brain converts** to mind-soothing serotonin. So unless you have diabetes, try microwaving a potato, warming up some instant rice, or popping an English muffin into the toaster, and then wait for the ZZZs to happen.



If you're on a diet, or you're just plain hungry . . .

Give that rumbling tummy a **little protein**, such as a low-fat cheese stick, some lean turkey, or even an egg-**white omelet**.

Getting about one-third of your daily calories from lean protein keeps you feeling full, and there's new evidence that it may also help you burn a few extra calories while you sleep.

If you're stressed to the max . . .

Rich, sugary comfort foods actually do short-circuit stress, but they also contribute to belly fat. So try to resist the chocolate chip cookies and grab a handful of unsalted almonds instead. The satisfying crunch will help you work off your anxiety, while the B vitamins and magnesium help your brain make relaxing serotonin. And at only 160 calories for about 22 almonds, you won't add weight worries to your woes.

Aviation Program To Help Kids Of The Fallen

Retired Marine Corps Col. Jack Howell wanted to help the children of fallen soldiers and through the magic of aviation he has found a way. Teens-In-Flight is a program designed to provide flight scholarships to the teenagers of soldiers that were killed or severely disabled in the Gulf War, Iraq, and Afghanistan. "I wanted to do something more to help the grieving families," Howell told AVweb. "These scholarships will make flight training accessible to these kids and will encourage them to use their brainpower to succeed."

The scholarships are also available to children from non-military families who are disadvantaged. The aircraft and instruction has so far been provided free of charge through the generosity of local instructors and flight schools but as the program expands, Howell told AVweb in a podcast interview, he's looking for corporate sponsors. Anyone interested can contact Howell through the [Teens-In-Flight Web site](#).



Currently there are programs established in Jacksonville, Fla., and Flagler County, Fla. A new program is expected to open in Colorado Springs through the help of A-Cent Aviation and Peak Aviation. The Colorado program will serve kids at nearby Fort Carson, which has also committed support to the project. By the end of the year another program is expected to open in Killeen, Texas, to support the families of nearby Fort Hood. Hundreds of flight hours have already been donated, and the program is still growing. Howell hopes that with more funding this program will expand nationwide. "We can teach teenagers many lessons through aviation," said Howell.

10 Habits for Environmentally Friendly People

Still, there are some general principles of environmentally responsible work that are basically the same across all businesses and industries. Here are 10 habits to try to cultivate.



1. **Reduce the amount of natural resources you use, including materials and energy.**
2. **Reuse materials and energy.**
3. **Recycle as much as possible.**
4. **Practice safe waste management, making sure that materials, products and waste don't harm health or the environment.**
5. **When you travel (even to and from work) practice fuel efficiency and help reduce auto emissions:**
 - **Drive steadily and don't speed;**
 - **Use carpools and public transportation if feasible; and**
 - **Encourage the use of fuel-efficient, well-maintained vehicles in the workplace.**
6. **Do your part in recycling programs. This may include separating your trash in the lunchroom. It may also include separating job-related materials and supplies as directed. Be sure to carefully follow instructions about how to separate and store materials.**
7. **At work, encourage the substitution of less hazardous substances wherever feasible.**
8. **Be alert for opportunities for your company to exchange waste materials with other companies.**
9. **Encourage better disposal practices for hazardous materials. Large quantities of hazardous waste may need to be incinerated, or treated chemically or physically, either on the site or elsewhere. Small quantities need to be treated with equal respect. Do not just toss unused quantities or empty containers into the trash, and do not dump hazardous substances down the drain. Dispose of them according to company policy and manufacturers' directions.**
10. **Be aware of your company's environmental responsibilities, and your individual responsibilities as well.**

Conclusion

There is a direct link between environmental protection and **your personal safety**. Chances are that the procedures and materials that are safer for the environment will also be safer for you in the long run.

Bad Designs

Men's room sign

This sign is on a men's room door at the Houston Museum of Natural Science. It seemed that maybe this restroom was for handicapped men **only**. Just to be sure some guys walk up to the door, look at the sign and then walk away, presumably to go down stairs to the IMAX lobby, like the sign says. Other guys went on in. It was a perfectly normal men's room. You really don't know what to expect!



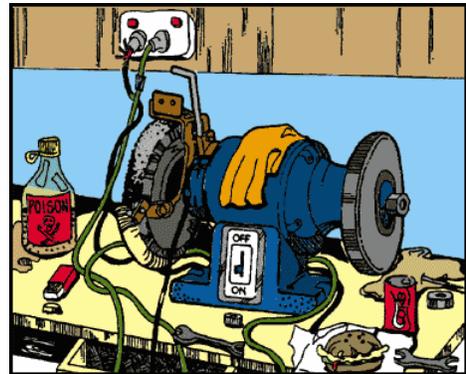
Design suggestion

The words **MEN** and **HANDICAPPED** need to be separated on the sign. By putting them next to each other and giving them about the same amount of salience, one is misled into thinking that the room is only for handicapped men.

Hand Tool Hazards Are As Old As We Are

Ever since the first caveman smashed his thumb with a rock, people have been getting **injured by hand tools**.

Hand tools today are much more effective and specialized, but the injuries are much the same. Fractures, bruises, scrapes, punctures and cuts are some **consequences of carelessness** with hand tools. So are eye injuries caused by flying bits of wood, metal or other materials. Even repetitive strain injuries can result from the incorrect use of tools.



Today there are effective ways to prevent hand tool injuries - **by following safe work practices and wearing the right protective gear**.

Keep these hand tools tips in mind:

- **Select the right tool for the job.** Using pliers instead of a wrench, or using a nail hammer to strike a steel chisel can result in broken tools or dangerous flying particles.
- **Use the tool correctly.** For instance, never add an extension to a wrench handle because it could slip and you could be struck with great force.

- **The tools must be in good condition.** If you find defects, such as sprung jaws on wrenches, mushroomed heads on striking tools and loose or cracked handles, turn in the tools so they can be repaired by qualified persons or replaced. Cutting tools should be kept sharp; dull tools require more force to operate, resulting in injuries.
- **Store the tool correctly to prevent damage to it and injury to people.** Don't leave tools on overhead shelves where they can fall, or with blades exposed where someone can touch them.
- **And this is a very important piece of advice about using hand tools - wear the correct Personal Protective Equipment!**

Of utmost importance is your **safety eyewear**. Safety glasses with sideshields or safety goggles are needed to protect you from particles. A broken piece of the tool or a particle can strike your eye in an instant - faster than you can blink to protect yourself.

In addition, you may need gloves. Leather gloves provide some protection from cuts, scrapes and bruises. Padded gloves may be needed to protect you from repetitive strain injuries caused by vibration or impact. For cutting tools, metal mesh gloves and a leather apron may be required.

Safety-toed footwear may be needed to protect you from falling tools or materials.

Talk to your safety supervisor **about the PPE** needed for your particular work situation, including the type of eye protection. Hand tool injuries have been around as long as mankind, but at least today we know how to prevent them.

AUDIO SAFETY TALKS!

Pneumatic Nailers

"Nail gun," "air hammer," whatever you call it, air-powered nailers are here to stay. And nail guns can be every bit as **dangerous** as any other kind. Along with the intrinsic hazards associated with compressed air, this kind of tool brings additional hazards. Nails that ricochet off the workpiece, improper tool use or a mistake in loading or unloading the nails can scar for life, injure or even kill. Have your workers listen to this talk.



[To listen to the talk, click this link](#)

THE 3 FASTEST WAYS TO GET YOUR RESUME CHUCKED INTO THE TRASH

When you reply to a job ad, the first hurdle you have to clear is the hiring manager. Just because you have the right credentials doesn't mean you won't get screened out.



Hiring managers tend to be very picky. I guess the task of having to wade through piles of resumes and cover letters doesn't exactly bring out the generous side of them. A recent survey of 650 hiring managers reveals the three biggest pet peeves of hiring managers. Committing one or more of these offenses is enough to land your resume in the circular file:

1. Using the Same Language from the Job Posting

44 percent of hiring managers say they automatically reject any resume or cover letter that parrots the exact words of the job ad.

2. Sending a Generic Cover Letter or Resume to Multiple Employers

48 percent of hiring managers say they want the resume and cover letter to be customized to the position. If it looks like you've spammed the same letter to numerous employers, e.g., you start the letter "Dear Human Resources Department" and include irrelevant past jobs, you're meat.

3. Spelling or Grammatical Errors

Misspelling words or using improper grammar drives hiring managers crazy. 49 percent of them say it's grounds for instant rejection. So use your computer spell check function.

Source: www.careerbuilder.com



Shelf Life: How Long Does Fruit Stay Nutritious?

You've got a ripe banana and a juicy plum. Which one's antioxidants will hold up best after a couple of days in your fruit bowl?

The answer: Eat the banana now. Turns out bananas may lose their antioxidant qualities quickly. Dark plums, on the other hand? They could actually get a tiny antioxidant boost with short storage. Here's how other fruit holds up.



Time on My Side

The antioxidants in black grapes, apples, oranges, and tomatoes (yes, tomatoes are fruit!) also seem to hold up well during storage. But not so much when it comes to apricots and cherries. [Check out the nutrition profile of all these fruits with this online tool.](#)

Fun with Polyphenols

Researchers are busy finding the best way to measure the antioxidant power of individual pieces of fruit. Not an easy task, because the content can vary from piece to piece within the same variety of fruit, depending on the fruit's genes, the environment in which it grew, when it was harvested, and how it was stored. But you don't have to wait for the final results. [Start boosting the colors in your diet right now with these tips.](#)

RealAge Benefit: Eating a diverse diet that includes 4 servings of fruit per day can make your RealAge as much as 4 years younger.

PICTURE THIS!

You've probably heard the phrase "the right tool for the job." It's possible the perpetrator of this hardware horror hadn't. The plug shown was installed at a Marine Expeditionary force facility in Iraq, and the occupants of the building were running a microwave on it. But the plug is of the British type, carrying 240 volts and requiring a fuse. **That would mean that the only right tool for this job was a fuse.**

