



## Aviation Human Factors Industry News July 07, 2008

Vol. IV. Issue 26

## Continental to stand trial for 2000 Concorde crash

French and British investigators sort through the remains of the crashed Concorde

US Continental Airlines and two of its employees are to stand trial for manslaughter over the crash of an Air France Concorde airliner in 2000 that killed 113 people, officials said Thursday.

A former French civil aviation official and



two senior members of the Concorde program will be tried on the same charge, with proceedings expected to start early next year and last two to three months, judicial officials said.

The New York-bound Concorde crashed in a ball of fire shortly after takeoff from Paris Charles de Gaulle airport on July 25, 2000, killing all 109 people on board and four workers on the ground.

A French accident inquiry concluded in December 2004 that the disaster was partly caused by a strip of metal that fell on the runway from a Continental plane that took off just before the supersonic airliner.

The Concorde ran over the superhard titanium strip, which shredded one of its tires, causing a blowout and sending debris flying into an engine and a fuel tank.



Continental Airlines and its workers are charged in connection with a failure of aircraft maintenance.

The two employees, both US citizens, are John Taylor, a mechanic who allegedly fitted the non-standard strip, and the airline's chief of maintenance Stanley Ford.

Continental had pledged to fight any charges in the case. A successful prosecution is expected to result in millions of euros (dollars) in damages against the airline.

The French inquiry also found that a fault on Concorde's distinctive delta-shaped wings, which held its fuel tanks, contributed to the crash.

The former Concorde officials and aviation boss are accused of failing to take the necessary steps to detect and correct the fault.

Henri Perrier, 79, was director of the first Concorde program at Aerospatiale, now part of the EADS group, from 1978 to 1994. He is suspected of having known about a design fault since 1979 but failing to rectify it.

Jacques Herubel, 73, was Concorde's chief engineer from 1993 to 1995, during which period a similar incident occurred in London, with debris from a burst tire puncturing a Concorde fuel tank but without causing an explosion.

Finally Claude Frantzen, 71, was director of technical services at the civil aviation authority DGAC from 1970 to 1994, during which period the Concorde was hit by a string of incidents.

The trial will aim to pin down the share of responsibility of the US airline, the Concorde and French aviation officials.

"The primary cause of the Concorde accident was the loss of the strip that caused the tire to burst," summed up the prosecution.

"But the disaster was only possible because mistakes were made in the maintenance of aircraft airworthiness that led to the explosion of the tire and the loss of the aircraft."

The Concorde crash began the process which led to all Concordes, both French and British, being taken out of service in 2003.

The plane, born of British and French collaboration, made its maiden commercial flight in 1976. Only 20 were manufactured: six were used for development and the remaining 14 entered service, flying mainly trans-Atlantic routes at speeds of up to 1,350 miles (2,170 kilometers) per hour.



## Flight Safety Foundation News Release

Flight Safety Foundation An International Organization for Everyone Concerned With the Safety of Flight

#### Flight Safety Foundation Questions French Manslaughter Charges in Concorde Crash. 1 page [PDF 23K]



In response to the announcement from France today that prosecutors have decided to charge Continental Airlines with involuntary manslaughter and bring criminal charges against some Continental employees, the French Civil Aviation Authority, and the Concorde program in connection with the tragic crash of the Concorde in 2000, Flight Safety Foundation President and CEO William R. Voss said:

"Like other recent and failed attempts to criminalize aviation accidents in France, these manslaughter charges appear rather dubious and short-sighted. Absent willful intent or highly egregious conduct, we seriously question the basis for putting companies and aviation professionals through the ordeal of criminal prosecutions. In addition, we're very concerned criminal prosecutions will discourage the free flow of information from operators to management to regulators, to the detriment of aviation safety."

## **Nosegear Collapses During Towing**

British Aerospace Jetstream 41. Substantial damage. No injuries.

The ground crewmembers were not wearing headsets and were using hand signals to communicate with the commander during pushback from the stand at Birmingham (England) Airport on June 26, 2007. The aircraft was towed onto a taxiway, the parking brake was set, and the nosewheel was chocked. However, the ground crew was unable to disconnect the towbar.



"The aircraft was now blocking the taxiway and obstructing another aircraft that was waiting to taxi," the AAIB report said. "The flight crew obtained ATC permission to return to the stand. The commander used hand signals in an attempt to communicate his intentions to the [ground] crew."



The commander pointed at the aircraft waiting to taxi, at himself and then in the direction of the stand. When a ground crewmember pointed at the stand, the commander gave him a thumbs-up signal to confirm his intention to return to the stand. However, the ground crew apparently understood the commander's thumb-up signal to mean that the Jetstream's brakes were off and that he was ready to return to the stand. The commander had not released the parking brake. "Without and further signals, the tug commenced reversing and the nosegear collapsed," the report said, noting that the propellers came close to striking the ground.

The driver of the tow vehicle told investigators that the ground crew was not using headsets because they were unserviceable. Both the airport and the operator required voice communication between the ground crewmember-in-charge and the aircraft commander during towing operations." Despite these requirements, it was not unusual for a pushback to be conducted using hand signals only," the report said. "Howerver, following this accident, ground-handling staff has been instructed to use a headset at all times."

## Brazil grounds six VarigLog aircraft after checks

Brazilian aviation regulator Anac has grounded six of VarigLog's aircraft after a surprise inspection detected a number of issues with the aircraft.



VarigLog, the cargo carrier spun off from

the historic Varig airline before the latter entered bankruptcy two years ago, operates a 21-strong fleet of aircraft according to Flight's ACAS database. These include seven Boeing 757s, five Boeing 727s, three McDonnell Douglas DC-10s and two Boeing MD-11s.

According to an Anac source, one DC-10, two MD-11s, two 727s and a Boeing 757 were found not to have undergone adequate maintenance procedures and in one case, the insurance policy on an aircraft had expired.

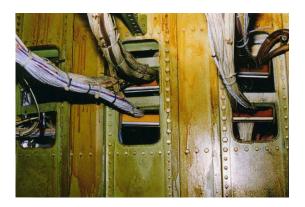
While no official VarigLog spokesman could be reached, a source close to the company says that some of the aircraft, however, had already been grounded voluntarily as part of the company's downsizing process announced last May, although he could not specify the aircraft.



## FAA Studies Aim To Boost Airliner Wiring Safety

Self-repair technologies and new regulations bloom from FAA-sponsored research

Increased inspections of wire bundles in airliners that resulted in recent flight cancellations are an outgrowth of more than a decade's worth of FAA research into the safe transmission of electrical power and new technology developments such as self-repairing wire.



This work has led to stricter regulations for airlines to maintain and inspect wires. The FAA offers a variety of technologies that can be used to meet the new obligations. Hardware from the research includes innovative circuit breakers, connectors and wiring bundle clamps and new methods to mitigate potential hazards.

The FAA has designed a set of tools for carriers to assess risks of operating older aircraft. In the aging process, wiring becomes vulnerable to insulation cracking and chafing, which can lead to electrical shorts and a fire hazard. A risk assessment model is available through the William J. Hughes Technical Center near Atlantic City, N.J., where a wiring testbed is offered to airlines without cost.



"No one technology solves all problems," says Michael Walz, the FAA's aircraft electrical systems program manager for research and development at the Hughes center. "We've done extensive research into how wires fail and the reasons why they fail, and we have gotten beyond that into tough insulation, self-healing wires and repair techniques."

Repair to an exposed and positively charged wire appears as a green cover on the wire after application of a polyvinyl alcohol spray from a hand-held device. Polyimide is the material used for insulating wire. Credit: UNIVERSITY OF DAYTON RESEARCH INSTITUTE



A key researcher in self-repairing wire, Robert E. Kauffman, is launching the application as a commercial enterprise. A chemist and fluids analyst at the University of Dayton Research Institute (UDRI), Kauffman has applied for a patent on a spray of nontoxic polyvinyl alcohol that can be applied to bare wires in a frayed bundle as a temporary fix or as a preventative coating on wiring at the point of manufacture. Kauffman devised the concept under an FAA grant totaling \$1.3 million, \$240,000 of which was for self-repairing wire studies.

The latest grant through 2008 also allows Kauffman and his team to explore whether the use of a listening device planted near runways—or anywhere between landing points and the gate—could pick up radio-frequency signals from wet, exposed conductors in aircraft and help mechanics locate problem areas.

Kauffman has decided on the commercial course, where he expects the fix will be more easily accepted for household and industrial uses, which may enhance its chances for adoption later by aviation.

The FAA has not approved the self-healing wire for aviation, saying that more research is required. "It is necessary to understand the long-term ramification of the material and to ensure the treated wire is as stable as the original installation," according to officials at the agency's transport directorate.

In its response, the FAA further said UDRI envisions the self-healing wire treatment as a repair to wire breaches that would allow an aircraft to travel safely to a maintenance facility for a permanent repair. Research will focus on arc and abrasion testing of a pre-treated wire to be produced by a manufacturer.

"Once approved for aviation use, this technology, along with other developments such as arc fault devices, may provide additional protection against faults in aircraft wiring," the agency said.

Aging wiring has been under intense study since the center wing tank explosion that caused the 1996 loss of TWA Flight 800. Kauffman was one of the original researchers and part of a team from the university and SRI International. They concluded that fuel tank residues that form near low-sulfur jet fuel, water and silver-coated surfaces are conductive and can ignite fuel if exposed to electrical power even as low as a radio battery output. But the NTSB, based on available evidence, could not identify the energy-release mechanism or the location of the ignition.



Arc Fault Circuit Interrupter Breaker



In 1999, the FAA widened the study of electrical systems research with two programs co-sponsored by the Defense Dept.—a project with the Navy to develop an arc-fault circuit breaker and another with the Air Force for wire testing equipment. The agency's Aging Transport Systems Rulemaking Advisory Committee launched a review of wiring on recently retired aircraft.

The FAA has identified technologies and approaches airlines can adopt to inspect for wiring defects. These are presented on a spreadsheet on the FAA web site and include costs of each inspection. Last fall, the agency issued Advisory Circular AC 25-27 that described inspection and maintenance procedures, one of 12 ACs growing out of the Enhanced Airworthiness Program for Airplane Safety/Fuel Tank Safety Final Rule issued last November.

Since 2004, research has focused on proof-of-concept studies and how to mitigate and prevent hazards including self-repairing wire. Kauffman's research is one of two proof-of-concept studies. The other, a NASA program, proposed using a chemical additive to insulation that would repair a damaged area when heat was applied. The study showed some progress, but funding has been exhausted.

Walz says the Boeing 787 is being equipped with solid-state versions of arc-fault circuit breakers. These contain an electronic board that seeks an arc signature and shuts down automatically if it finds one. It's a smart version of the electro-thermal circuit breaker, which trips by heat.

Research has focused on a wire bundle smart clamp. It sends a signal when it's not properly installed or when it no longer functions and could allow wires to sway and possibly be damaged. Walz is leading studies into another preventative method called fault current management, which involves limiting electrical current on a power line, possibly using resistors. He says fault current management would apply to many pieces of avionics equipment that do not require strong currents. By limiting power on a line, "the most destructive power from arcs goes away."

## SMS on horizon in aviation industry

The FAA has been investigation implementation of Safety Management Systems (SMS) in air carrier and repair station environments.

SMS entails a system in which a private company uses audits to oversee its compliance with regulations and quality system,





and maintains metrics designed to create a more transparent compliance environment. The audit records and metrics would allow the FAA to engage in better risk management and oversight by permitting the government to focus it attention on high-risk safety issues. With the SMS tools in place, the government will be able to more easily audit companies to make sure they continue to follow their own quality systems.

The FAA is expected to release an Advance Notification of Proposed Rulemaking in the Federal Register this summer in order to solicit ideas on the best way to implement SMS in the aviation industry.

Many smaller companies may be interested in commenting so as to limit the paperwork that SMS will entail and to limit the amount of resources that will be necessary to the oversight of the SMS.

## Transport Canada defends giving air carriers a bigger role in policing safety of own operations

Canada's aviation system is the safest in the world, federal regulators say, fending off critics who charge that funding cutbacks are forcing Transport Canada to implement a new method of oversight that is untested and unsafe.



Growing levels of air traffic and a shortage of civil aviation

inspectors have left the transport department little choice but to introduce a controversial program giving aviation firms greater responsibility to police the safety of their own operations, said NDP MP Peter Julian (Burnaby-New Westminster).

"What we've essentially seen is the government starving Transport Canada of resources," Julian told the Commons public accounts committee yesterday.

"Here we have a systemic problem that is obliging Transport Canada to try to implement a system that is fraught with problems."

Transport Canada officials acknowledged ongoing staffing challenges, saying they're short 134 civil aviation inspectors and government salaries are making it hard to attract and keep employees.

But testifying to the committee, they were staunch in their defense of the "safety management system," insisting it provides an "additional layer" of safety. Under the change, aviation firms – not federal inspectors – oversee the safety of their individual operations.



"We're quite proud of the leadership we are showing in this area," said Louis Ranger, the department's deputy minister.

"Instead of us kicking every tire, we want to make sure the airlines themselves kick their own tires and we will make sure they do."

He touted the country's low rate of commercial aviation accidents, saying travelers have no reason to be worried. Odds are a passenger could make the hour-long flight between Ottawa and Toronto more than 300,000 times before being involved in an accident, he said.

"Canada has the safest air transportation system in the world and our safety performance continues to improve," Ranger said.

But in a recent report, Auditor General Sheila Fraser found Transport Canada had made no assessment of the potential risks before introducing the SMS program.

"This means that Transport Canada could not demonstrate to us that it is carrying out a sufficient number of inspections during the transition," Fraser told the committee.

"We were certainly concerned that there were no additional human resources in to manage this, which we interpreted as meaning that there were resources taken from the traditional oversight."

Still, they boasted Canada is a world leader in implementing SMS, which is becoming the international standard for aviation regulation.

But its implementation has sparked criticism the department is getting out of the safety business. Transport Canada admits the new program is no panacea. "People would be wrong to think that there will be zero accidents. This is just not possible. It's all about risk management," said Marc Grégoire, assistant deputy minister of safety and security.

The goal of the new program is "to save lives in the future," he told the committee. "But we can never say there will be zero lives lost."

## Michelle Goodman's Historic Distinguished Flying Cross

For the first time, the Distinguished Flying Cross (DFC) has been awarded to a woman, Flight Lieutenant and helicopter pilot Michelle Goodman, 31, of the Royal Air Force. Flight Lieutenant Goodman earned the medal by last June flying her Merlin helicopter through heavy fire and mortar rounds into the center of Basra, Iraq, at night to rescue a seriously injured soldier.





She flew at 160 mph at very low level across a hostile city using night vision goggles; her aircraft was hit with enemy fire and she executed an approach and landing at an unfamiliar landing site that was taking mortar fire and shrouded in swirling dust. Goodman kept the aircraft on the ground for a full five minutes as her crew retrieved the injured rifleman. She then flew her aircraft, which detected a missile threat and automatically launched countermeasure flares, through a path covered very closely with friendly artillery fire to distract enemy forces.

Flight Lieutenant Goodman could have elected not to take on the mission at all, determining that it required too much risk, "But if it was me lying down there," she told The Daily Mail, "I'd like to think there was someone prepared to come and get me."

The aircraft touched down at a British Field Hospital 14 minutes after launch. Before the flight, Goodman had asked her crew if they were up to the task and they agreed. Without Goodman's leadership, and her Incident Reaction Team, the wounded man would have died within 15 minutes. Goodman has completed three tours in Iraq. The DFC is one of the highest military decorations offered, below only the Victoria Cross and Conspicuous Gallantry Cross.

## **Workplace**

#### **The Vanishing Vacation**

Americans spend more time in the bathroom each year then on vacation, said Arthur J. Magida in the Baltimore *Sun.* "Compared with Europeans, Americans are vacation-phoebes." The Italians unplug for an average of 42 days a year. The French get 37 vacation days, the Germans 35. "We Americans average 13 days, a full 50 percent less than our Canadian neighbors." When we do take time off, it's in fits and starts. Only 14 percent of Americans take two weeks to more vacation at a time, according to the Family and Work Institute.



"Now more than every, we need to take a break – a real break, not just a long weekend – from our stresses-out lives," said Alina Tugend in *The New York Times.* "Vacations are not simply a luxury." For some, they're a necessity. Research has shown that men and woman who forgo vacation have a significantly higher risk for heart disease and heart attacks. It's not enough to just get on a plane or lie on a sandy beach. You need to get away both physically and mentally. "Checking your Blackberry every few hours or rushing to the nearest internet café doesn't cut it."



# WWII-era flight museum opens at Paine Field

Flying Heritage mechanic puts some finishing touches on this Republic P-47D Thunderbolt that will be displayed at the Flying Heritage Museum at Paine Field in Everett.

When people walk by the P-51D Mustang fighter plane at the new Flying Heritage Museum at Paine Field, they'll get to see more than just the restored plane.



They can watch footage of a pilot being reunited with that very same plane more than 60 years after he flew it near the end of World War II.

"It was pretty emotional when I first saw it," said Harrison "Bud" Tordoff, 85, who was on hand for a sneak preview of the new museum last Wednesday.

After three years in a small warehouse near the Arlington Airport, Microsoft cofounder Paul Allen moved his collection of 15 World War II-era planes and other aviation artifacts to a 51,000-square-foot former hangar at Paine Field. A grand opening is planned for noon Friday.

The collection has been growing and needed more room, said Adrian Hunt, executive director for the collection.

"As soon as we reached sort of a critical mass, the plan was to share it with the public," Hunt said.

In Arlington, the collection could be seen by appointment only. Now, people will be able to visit the museum during its regular hours.

The Paine Field facility not only has twice as much space as its former warehouse location in Arlington, it features more planes and more accessibility to more people. It also has more information to go with the planes from videos, photos, narratives and history.

"We're not just collecting the planes, we're trying to present the context and all the history that goes with them," Hunt said.

About 10 years ago, Allen began collecting aircraft and weapons produced between 1935 and 1945 among the five principal combatants in World War II -- the United States, the United Kingdom, Nazi Germany, Japan and the Soviet Union.



All of the aircraft and weapons represented some type of innovation at the time, and Allen paid to have everything painstakingly restored to its original condition.

In the hangar, a giant door takes up one side, through which the planes are moved.

This is convenient because most of the planes still fly and will be taken out and flown every other weekend for the public to see. This is another difference from the Arlington location.

"We have to have little diapers underneath them, they're all dripping oil and fluids," Hunt said. "They're not dry hulks you see in other museums, these are living machines we have here."

Four mechanics work on the planes to keep them flying, Hunt said.

## Napping - It's all the Rage!

Napping: A Habit of Highly Successful People?

Have you ever felt the urge to put your head down on your desk and take a short nap after lunch? Most of us would resist such a temptation for fear of being labeled lazy and unproductive. But consider that some of the most notable figures in history are known to have been consummate naptakers, including Winston Churchill, Napoleon Bonaparte, Albert Einstein, Leonardo Da Vinci and John F. Kennedy. What's more, recent research is providing evidence that a well-timed



afternoon/midnight nap may be the best way to combat sleepiness, improve work performance, and overcome the late day grogginess commonly known as the "midday and midnight shift dip."

#### Napping and the Biological Clock

Contrary to popular belief, except for insomnia sufferers, a brief afternoon/midnight nap does not necessarily interfere with nighttime/daytime sleep. In fact, an afternoon/midnight nap may be perfectly compatible with a finely-tuned biological clock.

For most people, the sleep/wake cycle includes being awake for about 16 hours and then asleep for about eight. But what many people don't realize is that the body's clock is set with two distinct dips in alertness within a 24-hour period: one at about 2:00 am and another at about 2:00 pm, corresponding to the midday dip. Fighting off the urge to sleep during these times is challenging, especially for someone already suffering from sleep deprivation.



Gregory Belenky, MD, Research Professor and Director of the Sleep and Performance Research Center at Washington State University, recommends naps as a way to make up for lost nighttime sleep. He says, "The beauty of naps is that they add to total recuperative sleep time," adding that "A large number of the world's people divide their sleep into two blocks (with the afternoon sleep called a siesta in Spanish-speaking countries). It is even possible that divided sleep is more recuperative than sleep taken in a single block."

#### The Benefits of Napping

Experts agree that the best way to fight fatigue is to get enough sleep every night. But for some people, especially those who work long hours, have caregiving responsibilities or work at night, this can be an ambitious goal.

Even people who do get enough sleep regularly may feel the effects of the midday/midnight dip, especially after a heavy meal. Studies show that taking a nap is a great way to increase alertness and reaction times, improve mood, and reduce accidents. For many people, napping is also a highly pleasurable experience.

#### **A Performance Booster**

Fatigue impairs performance and can be dangerous in certain settings. For people who work as commercial drivers, police officers, soldiers, doctors, and other safety-sensitive jobs, alertness can mean the difference between life and death. Take pilots as an example. Mark Rosekind, PhD, President and Chief Scientist of Alertness Solutions in California and former Director of the Fatigue and Countermeasures Group at the National Aeronautics and Space Administration (NASA), conducted an experiment in which he instructed NASA pilots to take short naps when possible during long haul flight operations. Dr. Rosekind found that compared to long haul pilots who did not nap, the napping pilots had a 34% boost in performance and a 54% boost in alertness that lasted for 2-3 hrs.

#### Can Napping Make You Smarter?

There are a variety of studies that show that nighttime sleep improves learning. The idea is that newly learned knowledge or skills are integrated in the brain during sleep. But does a nap serve the same role? A new study by researchers at Harvard University has provided strong evidence that it does. The Harvard researchers found that taking a 60-90 minute nap has a benefit similar to that of nighttime sleep and that combining nighttime sleep with napping has twice the effect.



#### Napping: How Long is Best?

A recent study in the research journal Sleep examined the benefits of naps of various lengths and no naps. The results showed that a 10-minute nap produced the most benefit in terms of reduced sleepiness and improved cognitive performance. A nap lasting 30 minutes or longer is more likely to be accompanied by sleep inertia, which is the period of grogginess that sometimes follows sleep.

#### **Can Napping Protect against Drowsy Driving Crashes?**

Most people are aware that driving while sleepy is extremely dangerous. Still, many drivers press on when they feel drowsy in spite of the risks, putting themselves and others in harm's way. While getting a full night's sleep before driving is the ideal, taking a short nap before driving can reduce a person's risk of having a drowsy driving crash. Sleep experts also recommend that if you feel drowsy when driving, you should immediately pull over to a rest area, drink a caffeinated beverage and take a 20-minute nap.

#### Naps + Caffeine: a Winning Combination for Night Shift Workers

Shift work, which means working a schedule that deviates from the typical "9 to 5" hours, may cause fatigue and performance impairments, especially for night shift workers. In a 2006 study, researchers at the Sleep Medicine and Research Center affiliated with St. John's Mercy Medical Center and St. Luke's Hospital in suburban St. Louis, MO, looked at the effectiveness of taking naps and consuming caffeine to cope with sleepiness during the night shift. They found that both naps and caffeine improved alertness and performance among night shift workers and that the combination of naps and caffeine had the most beneficial effect.

James K. Walsh, PhD, one of the researchers who conducted the study, explains, "Because of the body's propensity for sleep at night, being alert and productive on the night shift can be challenging, even if you've had enough daytime sleep." "Napping before work combined with consuming caffeine while on the job is an effective strategy for remaining alert on the night shift."

#### Are Naps for You?

In spite of these benefits, napping isn't always the best option for everyone. For example, some people have trouble sleeping any place other than their own bed, making a nap at the office or anywhere else unlikely. Other people simply have trouble sleeping in the daytime; it could be that certain individuals are more sensitive to the midday/midnight dip than others – those who are may feel sleepier and have an easier time napping. Finally, naps can leave people with sleep inertia, especially when they last more than 10-20 minutes. Sleep inertia can take time to wear off and has been known to impair performance.



#### What It All Means

By now you're probably thinking about ways to incorporate naps into your daily routine. Keep in mind that getting enough sleep on regular basis is the best way to stay alert and feel your best. But when fatigue sets in, a quick nap can do wonders for your mental and physical stamina.

## **COMMUNICATION SKILLS**

#### Apologizing with Aplomb — A 5-Step Method

When Elton John sang "Sorry Seems to be the Hardest Word," he was talking about love. But his words ring equally true in any situation where a quarrel has occurred and an apology is necessary to undo the verbal damage.

Peter M. Sandman, a risk communications consultant in Princeton, NJ, says apologizing



seems to be particularly hard in the workplace. So he's broken it down to five simple steps.

#### **Apology as Damage Control**

First, why bother apologizing? Isn't conflict a common workplace occurrence? And after the words have been said, isn't it better just to leave well enough alone? Sometimes. But these excuses are often simply a rationalization. Apologizing after making a mean and hurtful comment is good manners and good manners do mean something. Besides, apologizing accomplishes two other important objectives:

- Apologies Mitigate Damage: Saying you're sorry makes your "victim" feel better. That's important especially if the dispute was serious and there's a threat of litigation, discipline or other legal action in the air. Some fear that apologizing in this context is tantamount to admitting liability. But Sandman says that an apology done properly, without admitting fault, can "reduce the impulse of prospective plaintiffs to sue."
- Apologies Ease Guilty Feelings: If you have blasted one of your workers and are feeling guilty about it, the need to apologize is probably niggling at your brain. Clearing the air can improve morale both that of workers and your own.



#### **<u>5 Steps to an Apology</u>**

So, if sorry is really the hardest word, how should we say it? Sandman suggests taking these five steps:

#### Step 1: Say What You Did Wrong

Some people try to slip in a fast "I'm sorry" without explaining what they did wrong. That isn't good enough. You must also explain what you're apologizing for. Don't be vague or try to tell your side of the story.

For example, if you embarrassed a worker by criticizing him in front of his coworkers, it would be appropriate to say to that person, in private: "It was unprofessional of me to yell at you in front of everyone. I should have taken you aside and spoken to you in private."

#### Step 2: Say You're Sorry and Make It Heartfelt

Don't say that you "regret" what happened. Regret and wishing that an action had never occurred aren't the same as apologizing for it. If you want to apologize, step up to the plate and say you're sorry.

You don't have to and may not want to make self-exculpatory comments like, "It was all my fault," especially if those words could be used as an expression of guilt in a disciplinary or legal proceeding. Instead, say "I feel terrible about what I did."

#### **Step 3: Accept the Consequences**

Apologies sometimes cause the "victim" to relive the anger and emotions of the conflict. Before you can get your words out, the victim might express these feelings and air her grievance against you. That's perfectly understandable and you should be prepared to deal with it. Let the person vent without interruption.

#### Step 4: Make It Right

Correct the problem. It's tempting to fix a problem without acknowledging that there ever was one to begin with. But doing this isn't likely to defuse the person's anger. Similarly, apologizing without taking steps to ensure that the situation isn't repeated isn't sufficient. If it happens again you'll look twice as bad.



#### Step 5: Do Penance

An apology is generally more effective when you follow up your words with deeds. Consider it an act of atonement. Maybe a pizza or round of soft drinks at lunch will make up for your offense and make the apology go down easier.

#### **Conclusion**

It takes a big person to admit when they're wrong. It also takes a wise leader to know how to do it correctly.

## **Three Ways to Battle Complacency**

It's great when everyone feels comfortable in their jobs, knowing what's expected

of them and knowing how to do it. But when workers and management start feeling too comfortable, it's time to watch for signs of complacency, one of the greatest detractors from workplace safety. If your company is battling a complacent workforce, your ace in the hole is your frontline supervisor. Here are three ways a supervisor can help.



**Complacency Knows No Bounds** 

#### Complacency can affect all levels of a

company. On the floor, workers may become overly comfortable in their positions. This can lead to inattention and to injuries.

Management can also become complacent, especially if too much emphasis is placed on the company safety record. When the safety record is good, it's easy to shift focus to other areas such as productivity, quality, sales or customer service. In turn, this shift in management focus may be noticed by workers, further swinging their attention away from safety in favor of other company objectives.

As a supervisor, it's easy to become complacent as well. We are often bombarded with high priority tasks, so we expect our workers to perform as they have been trained.

To counter the effects of complacency, there are three things a frontline supervisor can do.



#### 1. Observe Behaviors

It is extremely important for supervisors to monitor their workforce for signs of complacency. Supervisors know their staff better than anyone and should be able to identify when workers become too comfortable or overconfident. Telltale signs of complacency are:

- Workers overlooking small details; or
- Taking shortcuts to complete routine tasks.

If your workers are displaying these signs, you need to introduce methods that will challenge workers regularly to remain safe on the job. These can be:

- Incentive programs;
- Individual goal setting; or
- Safety awareness campaigns.

You must keep safety at the forefront of worker consciousness, and remind your workers that safety needn't be compromised to meet other company objectives.

#### 2. Supplement Group Training With Individual Assistance

Most companies have training programs that comply with OSHA safety training mandates. These training programs are often held for groups in conference or training rooms. But believing too much in the effectiveness of group training is one way that companies display their complacency.

A supervisor's job is to ensure that the group training is reflected in individual onthe-job situations. You must make the training immediately relevant to the workers. Workers can sit through the training sessions and then go to work and circumvent a guard to prevent a jam or work on a piece of equipment without first locking it out.

Any time a worker is found to be performing a task contrary to the safety training, the supervisor must address it on the spot. Individual work instructions are very effective when delivered immediately in response to an unsafe work practice.

#### 3. Communicate Upwards

Supervisors are accustomed to receiving instruction from higher level management and disseminating the information among the workers. However, communicating safety needs from workers to managers is a great way to fight complacency as well.



Whether it's a safety concern raised by a worker or a vigilant supervisor's observation of frequent unsafe behavior in the same area of the workplace, communicate it. Notifying management of unsafe conditions keeps everyone focused on safety.

Just remember to follow up with both the management and the worker(s) involved. Workers want to know that their supervisors truly are concerned with their individual well-being, and managers are people, too; they may forget or get sidetracked.

Keep in mind that the goal is to get results when we become aware of any unsafe conditions or areas in need of improvement.

#### Conclusion

Anyone can become complacent at work. Frontline supervisors are in an excellent position to provide the individual attention needed to keep workers and management focused on workplace safety, while working together to achieve other profitable company objectives.

### Alaska again tops the nation for work-related fatalities

The sun sets over Mount Edgecumbe as the Jean C., a limit purse seiner, returns to the harbor after an opening of the sac roe herring fishery in Sitka in March. According to a recent study, Alaska again tops the nation with the highest per capita workrelated death rate.

#### Fishing is among the state's most dangerous jobs

Alaska topped the nation in the number of workrelated deaths in 2006, according to a recent study.



The study, released late last month by the National Institute for Occupational Safety and Health, showed that 44 people died on the job in Alaska in 2006, the nation's highest number of per capita work-related fatalities. That's a significant increase over 2005, when the state had only 29 fatalities.

Most of the deaths occurred in the state's more dangerous occupations, including construction, mining, oil and gas exploration and production, and seafood processing.

Steve Standley, chief of enforcement for Alaska Occupational Safety and Health, said the primary reason Alaska took back the No. 1 spot "is because of fishing and aircraft accidents, plus this is a per capita assessment.



With Alaska having such a small population, it doesn't take many fatalities to put us in the top position."

According to the U.S. Department of Labor Bureau of Labor Statistics, there were 5,703 fatal work injuries in the U.S. in 2006, down slightly from 5,734 deaths in 2005. The rate of fatal work injuries in 2006 was 3.9 per 100,000 workers. The overall fatal work injury rate for the U.S. in 2006 was lower than the rate for any year since 1992.

Of the fatal accidents in Alaska in 2006, 24 deaths were the result of transportation incidents. There have been roughly 11 fishing-related deaths per year over the last five years.

Vince Beltrami, executive president of the Alaska AFL-CIO, the state's largest labor organization, said he found the new statistics alarming.

Mitchell said there's always room for improvement when it comes to on-the-job safety. What it boils down to, he said, is adopting a positive attitude toward working safe.

"You have to take those little steps - the reasonable measures to make sure that an accident doesn't happen. It's a hand in hand operation between agencies and employers' obligation."

## Keep your cool behind the wheel

Some people simply lose it behind the wheel.

There's the guy who darts wildly in and out of traffic, tailgates you down the road and blasts his horn the

instant the light turns green. When drivers vent their frustrations on others, heated confrontations sometimes follow.



And, where there's anger, there's often danger. In extreme cases, aggressive driving can lead to "road rage." Even minor disputes — such as arguing over a parking space — have escalated to deadly violence.

#### Avoid conflict

If someone challenges you in traffic:

> Take a deep breath, and move out of the way. Remind yourself it isn't worth getting hurt or landing in legal trouble.

> Don't return rude gestures, which could be the tipping point for an angry driver.



>Avoid eye contact, which can be seen as a challenge.

Stress less behind the wheel

To keep your cool during your commute, try:

Allowing enough time for your trip, or consider changing your route to avoid the worst traffic.

> Relaxing when traffic is snarled. Take a deep breath. You can't control traffic, but you can change your reaction to it.

> Listening to music or an audio book to make your commute more comfortable. Or, just treat yourself to a cozy seat cushion.

>Assuming the best — not the worst — in other drivers. Don't assume a driver who cuts you off or makes another mistake is intentionally being rude.

> Being polite and courteous, even if the other driver isn't.

>Taking the bus if you're angry. Getting behind the wheel is never a good idea when you're upset.

Also, avoid unsafe driving practices that might trigger confrontations. For example, yield to passing motorists, signal lane changes and never tailgate.

## **PICTURE THIS!**

Technically this probably doesn't qualify as a close call. Unless it's your possessions, heirlooms or kids inside the house, in which case it's a very close shave indeed. It's also a reminder of the hazards of hot work, and the need to consider all possible hazards before doing anything that involves fire. In this case the homeowner was cleaning his property and set a pile of leaves to burn near the house. Too near the house, as it turns out.

