

Aviation Human Factors Industry News

Volume IX. Issue 03, February 10, 2013



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

Hello all,

To subscribe send an email to: rhughes@humanfactorsedu.com

In this weeks edition of *Aviation Human Factors Industry News* you will read the following stories:

★NTSB: Mechanic checklists a lesson in Las Vegas-area copter crash

★What Can You Do to Prevent Accidents Caused by Worker Fatigue

★Inadequate de-icing caused near-stall on Danish ATR

★NTSB Releases Probable Cause Report In 2011 Wright B Flyer Accident

★To Error is Human ... But Not With Aircraft

★Top 10 Barriers to Near-Miss Reporting

★Lithium battery fires and business aviation

★FAAST Blast

★And Much More

NTSB: Mechanic checklists a lesson in Las Vegas-area copter crash

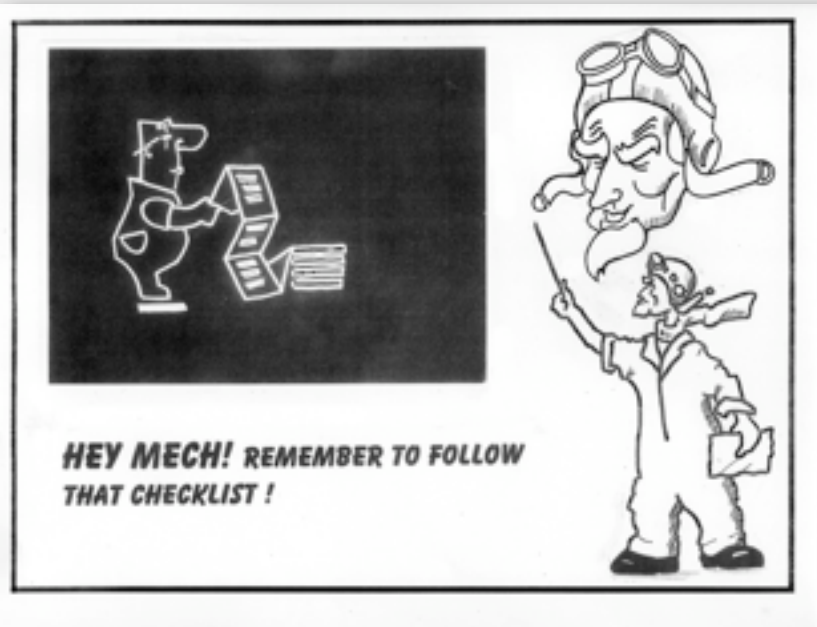
The National Transportation Safety Board, investigators examine the wreckage of a sightseeing tour helicopter from Las Vegas that crashed in the Lake Mead National Recreation Area in Nevada near the Hoover Dam on Dec. 7, 2011.

Federal regulators on Tuesday recommended that aircraft mechanics and inspectors **get enough rest and use checklists to guide their work** after a 13-month investigation of a Las Vegas sightseeing helicopter crash that killed five people when a crucial bolt came loose.

“A checklist can be a **crucial reminder** and especially helpful when we are **tired or distracted or new to a job**,” National Transportation Safety Board Chairwoman Deborah Hersman said after the five-member board reached its conclusions in Washington, D.C. “Look what checklists have done for safety in the cockpit,” Hersman said. “They can make similar lifesaving contributions on the hangar floor. **They are a backstop to human error.**”

The board cited **“inadequate maintenance”** for the December 2011 crash of the Sundance Helicopters Inc. chopper during a scenic twilight tour of Hoover Dam and the Lake Mead reservoir on the Colorado River. Investigators found a crucial bolt might have **been reused too many times and improperly installed**, with the mistake not found during inspections.

Sundance CEO Bob Engelbrecht issued a statement Tuesday promising to study the NTSB report, review the board findings and recommendations, and “look to further improve our processes and procedures.”



The board accepted 12 findings and made three recommendations based on its conclusion that a [crucial lock nut worked loose](#) in the rotor mechanism during flight, causing the aircraft to wobble into an uncontrollable climb and fall into a rocky ravine about 14 miles east of Las Vegas. Most of the six-seat Aerospatiale AS-350 helicopter was pulverized to small bits and burned.

Killed were a honeymooning couple from India, Lovish Bhanot, 28, of Gurgaon, and Anupama Bhola, 26, of New Delhi; a couple from Utica, Kan., who were celebrating their 25th wedding anniversary, Delwin and Tamara Chapman, both 49; and the pilot, Landon Nield, 31.

Nield was a devout Mormon who grew up in Wyoming and Utah and had married six months before the crash.

"I know what happened to my brother can't be changed," Nield's sister, Angalena Adams said Tuesday. "But I hope Sundance has fixed the problems that were wrong," she said.

["The choices they make to overwork their workers can affect other people's lives,"](#) said Adams, who monitored the NTSB hearing from her home in Cedar City, Utah.

Gary Robb, a Kansas City, Mo., lawyer who filed wrongful death lawsuits on behalf of the four passengers, wasn't immediately available for comment Tuesday.

Sundance was acquired for \$44 million in December by Air Methods Corp., a publicly traded Denver-based emergency air medical transportation company. Sundance has a fleet of 22 helicopters based at McCarran International Airport focusing mostly on Grand Canyon helicopter tours. It also provides firefighting, air lift, natural resource surveying and photography operations.

In his statement Tuesday, Engelbrecht said that the company had an excellent safety record and made safety its top priority.

"Based upon the investigation to date and our own internal reviews, we have already initiated a number of safety improvements," he said.

Safety board members noted that in 2003, a Sundance pilot and six passengers were killed when a company helicopter slammed into a canyon wall east of the Grand Canyon West Airport. That crash was blamed on the pilot, who investigators said violated federal aviation regulations by flying too close to the canyon wall to thrill his passengers. The company wasn't punished.

The Sundance crash of Dec. 7, 2011, was blamed on a self-locking nut that wasn't properly secured with a simple split pin during a maintenance overhaul. The NTSB report noted both the mechanic and inspector [were called in six hours early to work and worked far longer than an eight-hour day](#).

The board called [fatigue on the part of the workers a contributing factor](#) in the crash, along with "the lack of clearly delineated maintenance task steps to follow."

Nigel Turner, owner of a competing Las Vegas tour helicopter firm, Heli USA Airways, counted 90 tour helicopters a day flying in and out of Las Vegas, including his fleet of 11. He said he'd endorse a federal regulation for [hangar maintenance checklists](#).

"Let's raise the standard," he said. "There's no reason for a person to die in a sightseeing tour."

But Turner said the Federal Aviation Administration would have to implement such a requirement to avoid giving one company an edge over another.

"Everybody needs to be on the same page," Turner said. "Safety costs money, and we're in a very competitive industry."

FAA spokesman Ian Gregor said the agency agreed with the intent of the safety recommendation and would respond to the NTSB within 90 days, as required.

Nield made no emergency call before the chopper went down in rugged terrain about four miles west of Lake Mead. But a fellow tour company pilot nearby reported hearing a man's terrified shriek over the radio about 30 seconds before seeing a plume of smoke in the rocky brown hills.

Hersman noted there were no flight data or cockpit voice recorders, no onboard cameras, no air traffic control tapes and no eyewitnesses to the crash.

What Can You Do to Prevent Accidents Caused by Worker Fatigue?

One encouraging sign of action on the issue of worker fatigue is a 2012 guidance document published by an American College of Occupational and Environmental Medicine (ACOEM) task force. The document [provides guidelines](#) for creating a Fatigue Risk Management System (FRMS) in the workplace.

An FRMS should be data-driven and feature flexible strategies that are appropriate to the risk and the nature of the business.

The ACOEM task force identified [five levels of defense](#) against accidents and errors caused by fatigue. When taken together, these provide a supporting framework for an FRMS.



1. Staffing. One of the most important but overlooked causes of employee fatigue is an imbalance between workload and staffing levels. If staffing levels are lower than optimal, employees have to work additional hours or extra shifts. But overtime is often not evenly distributed. Investigators looking into the tragic BP refinery explosion in Texas (15 deaths and 170 injuries) found that control room operators were working their [30th consecutive shift](#).

2. Shiftwork. The ACOEM recommends a combination of three strategies to reduce fatigue during shiftwork:

- Design schedules that permit frequent opportunities to get nighttime sleep to recover from sleep deprivation on the night shift.
- Train workers to make maximum use of daytime sleep opportunities through naps and other tactics.
- Use environmental and task engineering that maximizes alertness on the job.

3. Employee training and sleep disorder management. Employees should be trained in the prevalence, impact, and health risks of sleep disorders. They should also learn about recommended practices, such as:

- Wake up at the same time every day, if possible.
- Avoid alcohol, caffeine, and nicotine before bed.
- Exercise, but not within 3 hours of going to bed.
- Sleep in a dark, quiet, cool room.
- Keep a sleep diary to record sleep patterns and problems.
- Nap, but not if you suffer from insomnia.

To manage sleep disorders in the workplace, ACOEM says that the first step is to screen for sleep disorders through a questionnaire, possibly combined with a physical exam.

Treatment can include:

- Behavior modification
- Continuous positive airway pressure (C-PAP) equipment
- Medications

Some transportation companies have seen a 30% drop in accidents and costs after implementing a workplace sleep disorder program.

4. Work environment. Take steps to increase employee alertness, including changes in:

- Light
- Temperature
- Humidity
- Noise
- Ergonomic design

Other recommendations include providing breaks for:

- Food
- Exercise
- Conversation
- Naps

Heavy, fatiguing work may require more breaks than lighter activity, and workers whose jobs require constant vigilance may need extra breaks to sustain their attention.

5. Individual risk assessment. Employees and supervisors should be alert to signs of excess fatigue. Co-workers should keep an eye on those they work with. Supervisors should have authority to take steps like encouraging a rest break, shifting safety-sensitive activities to others, or using a buddy approach to improve alertness.

The most practical way to identify risk is to be aware of signs of excessive fatigue such as:

- Yawning
- Drooping eyelids
- Head dropping
- Micro-sleeps
- Lapses in attention
- Accidentally doing the wrong thing

- Failing to communicate important information

To monitor signs of fatigue, some organizations use peer observation teams like those used for other types of safety surveillance, such as behavioral safety observations.

To download the ACOEM's Fatigue Risk Management in the Workplace guide, go to;

http://www.acoem.org/uploadedFiles/Public_Affairs/Policies_And_Position_Statements/Fatigue%20Risk%20Management%20in%20the%20Workplace.pdf

Inadequate de-icing caused near-stall on Danish ATR

Norwegian investigators believe a Danish Air Transport ATR 42-300 entered an un-commanded climb, and came close to stalling, as a result of [inadequate de-icing](#).

The inquiry into the event has highlighted the importance of de-icing all critical surfaces. While departing Bergen, the aircraft lifted off without any control input, 10kt below rotation speed. It continued a shallow, low-speed climb [despite both control columns](#) being moved to their fully-forward position and the engine power being increased, says Norwegian investigation board SHT.



Airspeed fell away and the ATR's stick-shaker activated, along with an audio alarm, warning the pilots that the turboprop was approaching a stall.

The aircraft eventually began to respond to the pitch-down input. Its nose lowered and its airspeed increased, and the stick-shaker stopped, but the control columns initially remained heavy to operate.

Snow and ice had been present on the turboprop while at Bergen and it was de-iced with warm water, before anti-icing fluid was applied about 8min before take-off.

But airframer ATR, which submitted a comment to the inquiry report, questioned the [quantity of anti-icing fluid](#) - some 69 litres of type-2 and 17 litres of type-1 - used on the aircraft. It said the amount of type-2 fluid ["seems to be low"](#) and suggested the level ought to be closer to 120 litres.

ATR added that the Bergen event matched the behavior of an aircraft subjected to ["improper" de-icing](#) of its horizontal stabilizer.

["The most probable scenario is](#) that the [aircraft] was either badly de-iced on [the] ground or that the hold-over time was exceeded with subsequent contamination on the horizontal stabilizer [or] elevator," it said.

SHT says there was a ["real risk"](#) of a stall and the investigators are "uncertain" whether the pilot or the stick-pusher could have prevented it should the nose have risen further.

"It is also uncertain whether it would have been possible to recover in time if a stall had occurred at such a low altitude," adds SHT.

The control columns gradually became easier to handle and the pilots continued to their destination, landing safely. None of the 27 occupants of the [9 November 2007](#) flight was injured.

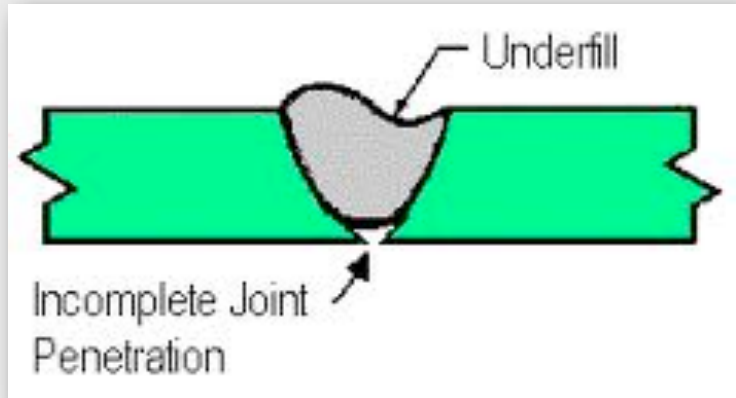
SHT notes that Danish Air Transport's empennage de-icing procedure for the ATR gives "special attention" to the area between the horizontal stabilizer and elevator, to prevent the elevator from freezing.

It says it "questions" [whether this focus](#) might have led de-icing personnel to "not be sufficiently attentive" to the need to keep the upper stabilizer and elevator surfaces completely free of ice.

NTSB Releases Probable Cause Report In 2011 Wright B Flyer Accident

Mechanical Failure Traced To An 'Incomplete Weld' On The Left Propeller Shaft

Pilot error following a mechanical failure is the probable cause of an accident involving a replica Wright B Flyer which occurred in Springfield, OH, in July, 2011. The accident resulted in the [fatal injury](#) of the two pilots on board the airplane for the test flight.



According to the operator's accident report:

"The experimental airplane was involved in the initial phases of flight testing. Flying qualities, stability and control and performance were being tested. Depending on the weather conditions test points were selected from a flight test matrix. The pilots, always two in the aircraft, would brief the flight, fly the test points and document the results.

"Depending on how well the test conditions were met the pilots would show that test point as complete and select another test to fly. The morning of the accident the pilots brief was not attended by any other person; exactly what points they were testing is not known."

The experimental amateur-built replica airplane was on a test flight with two pilot-rated occupants. Another pilot heard a radio transmission from the accident airplane indicating that they were going to land in a field about 5 miles north of the departure airport. Witnesses reported that the airplane's engine rpm varied while it was flying at a low altitude. The airplane was then observed in a spiraling descent to the ground. Post accident examination of the airplane's left propeller shaft [revealed a broken weld](#), which would have prevented the left propeller from being driven by the engine. Further examination of the joint identified [incomplete weld penetration](#) during welding, thus about 25 to 35 percent of the through thickness of the propeller shaft tube was not welded to the propeller shaft end. This incomplete weld penetration occurred in the inner areas of the joint. Visible defects, such as pores and voids, were observed in the welded areas. [The part's engineering drawing specifies complete weld penetration](#). The on-scene accident examination of the wreckage did not reveal any other pre-impact anomalies.

Despite the resultant partial loss of thrust, the flight crew should have been able to maintain control of the airplane during the forced landing attempt.

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The flight crew's failure to maintain airplane control following a partial loss of engine thrust during cruise flight. Contributing to the accident was the failed weld as a result of incomplete welding on the left propeller shaft, which led to the partial loss of engine thrust.

To Error is Human ... But Not With Aircraft

The very famous quote that is often used **to justify our mistakes** was made way back in 1709 by Alexander Pope. The second half of this quote, much less quoted, is "To forgive (is) divine." I would like to apply this 300-year old quote to our modern day profession, aircraft maintenance, and see what we can do to lessen this human trait. We humans do make a lot of errors and these errors range from the trivial ("where did I leave my car keys?"), to the ultimate tragic loss of life(s).

Firstly, what is an error? In its simplest form, it is "anything in which the result was not what you expected". Thus, if you are divorced, you made an error when you married. Interestingly, some of us go on to repeat the same error more than once. (has anyone been divorced twice?)

Thus, if we are to reduce human error, **we have to learn from our mistakes**. This can be an expensive way to learn as it requires us to make an error before we react. Sadly, we don't always learn, but blame the error on being careless, stupid, dumb or just too lazy to do it right. Then it comes as a surprise when you make the same mistake again. In order to learn from our mistakes we have to first learn why we make them and what we can do to avoid making them in the future. With that understanding, we can now begin to learn from the errors we make. We can begin to create "**Safety Nets**" in order to ensure that we don't make the mistake again. A Safety Net is a practice or procedure that you use to help ensure that an error is not repeated.



Alexander Pope
1688 - 1744

"To err is human. To forgive divine"

"To err is human. To forgive divine"
1688 - 1744
Alexander Pope

For example: you decide to always leave your keys hanging on a special hook whenever you enter the house. This will lessen the chances of you losing them somewhere. Better yet, let's try to learn from the mistakes of others as well. That is a lot less expensive and often a lot less painful. To do this we need to know about the mistakes and thus **they have to be reported and analyzed**.

This is where the other half of Pope's quotation comes to play – To forgive (is) divine. Giselle Richardson, a keynote speaker at a human factors symposium, informed our industry that “only the Mafia with their cement boots have a harsher discipline policy.”

Often we, and others in our industry, will **tend to hide the things that we don't have to report**. Before most people will report their errors, they have to understand why they made the error, and trust the system to treat them fairly if they report their error. To trust the system there must be a **just culture** in place.

A just culture is one where any error or near miss will not result in discipline except in cases of recklessness. Recklessness must be defined as a case of an error in which the person knew there was a significant chance that an error could occur and chose to do it anyway.

These reported errors can now be analyzed (risk analyses) and corrective actions can be put in place to eliminate or lessen the chance of the error occurring. That is what a correctly functioning **Safety Management System** will do. What we are talking about is really very simple. We begin to sweat the small stuff so that we don't have to sweat the big stuff. We work, breathe and sweat the small stuff and with our participation, we and our industry will be Safer.

Mr. Pope had it right over 300-years ago.

Gordon Dupont

www.system-safety.com/

Top 10 Barriers to Near-Miss Reporting

It's a given that reporting of near misses reduces injury incidents. A report of a near miss (close call) creates an opportunity for identifying and removing hazardous conditions and work practices.

Then why is it so difficult to get your people to report near misses? Maybe they're discouraged by one of these common barriers:



1. They don't know they are supposed to report near misses.
2. They don't know how to go about it. They don't know they should go to the supervisor.
3. They are afraid of being reprimanded or disciplined for actions that led to the incident.
4. They feel pressure from co-workers to keep quiet so nobody gets into trouble.
5. They are under pressure to maintain a clean incident record because the team will win a prize.
6. They are new and want to make a good impression.
7. The work culture says "suck it up and don't make a big deal out of it."
8. Co-workers are viewing the incident with humor instead of seeing the hazard. If everyone is laughing, how serious could it be?
9. Last time they tried to talk to the supervisor about something, they were belittled or disregarded.
10. It's just too much trouble filling out those forms.

Lithium battery fires and business aviation

Martin Hamilton, Vice President Business Development and Marketing at AirCare Solutions Group, explains the causes of Lithium battery fires on board aircraft and [outlines the recommended emergency procedures](#) for protecting yourself and your passengers.



With many documented cases of Lithium Battery fires over the past years on both cargo and commercial flights, and with the recent grounding of the Boeing 787 due to a lithium battery, it's no wonder we receive the number of calls we do weekly at Aircare FACTS Training from business aviation customers around the world.

While the chances of a fire caused by a lithium battery are very small, fire in the aircraft in general is one of a crewmember's [worst fears](#).

The seemingly specialized nature of a lithium battery fire makes pilots and flight attendants even uneasy, and with good reason.

I wanted to take the opportunity to explain a little about Lithium battery fires and [what we teach](#) as part of our emergency procedures training for business aviation pilots and flight attendants.

Recommended procedures for Lithium Battery fires in aircraft [read more](#)

FAAST Blast

Notice Number: NOTC4539

FAAST Blast — Week of Jan 21 – Jan 27, 2013 Biweekly FAA Safety Briefing News Update

[What's on FAA TV?](#) Did you know that there is a host of aviation videos about safety, trending news items, training, NextGen, and administration policy, right at your fingertips at <http://www.faa.gov/tv/> ? Links on the main page allow you to share the content via your favorite media platform, or you can download the videos as an MP4 for future use.



<http://www.faa.gov/tv>

Book Focuses On Pilot Fatigue And Its Consequences

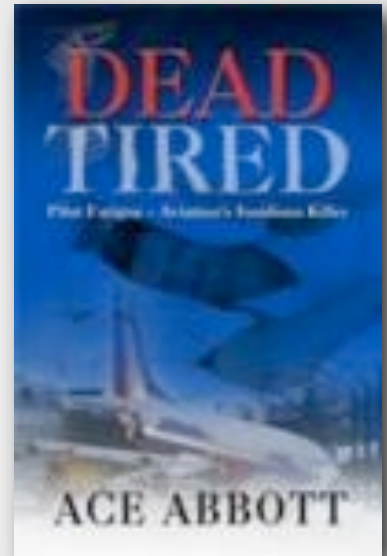
Author Says It Is A 'Scathing Expose' Of FAA Inaction

Tired pilots crash airplanes at a much higher rate than well-rested pilots. That's the assessment of Ace Abbott, author of ["The Rogue Aviator,"](#) who recently released his second book, "Dead Tired: Pilot Fatigue- Aviation's Insidious Killer." The book has an accompanying website where one can garner information about the book and read excerpts

Abbot says his book is a "scathing expose" of the FAA's failure to act regarding the [cockpit fatigue](#) issue throws light on how this powerful agency can be undermined by special interests.

Do Cargo Pilots need To Be Well-Rested? The answer from the FAA is a glaring no! This determination was a result of the over-riding power of cost-effectiveness, or as the Harvard Business School will euphemistically state, ["Maximum utilization of human resources."](#) After 50 years of obsolete, fatigue-inducing government approved 16 hour work days for pilots, the FAA finally—with the impetus of an angry Congress—steps forward with some rule changes that will reduce pilot fatigue in the cockpit. However, as a result of monetary considerations they [exempted](#) cargo pilots from the new rules. This policy is being challenged by the cargo pilots. IPA, the UPS union has filed lawsuits.

The Continental Flight 3407 fatal accident in Buffalo, NY, is the focal point of this book's primary theme that politics and money will override good judgment in aviation policy-making. Deadly aircraft accidents with tired pilots in the cockpit have been an offshoot of the politics of profit. The important role played by a group referred to as The Friends of Continental Flight 3407, is presented. This group's aggressive activism was paramount in the Congress-mandated regulations for decreased workloads for commercial pilots. [An in-depth discussion of the politics of flight and duty time rules for commercial aviation is a major theme of this book.](#)



During his stint as a featured author at the Oshkosh Air Show, Ace Abbott took time from his Author's Corner book signing duties to deliver a speech on the front-and-center issue of pilot fatigue. His speech was well-received and he will continue to address aviation groups and present seminars on this very important element of aviation safety.

Abbot says that although the book is directed at the aviation community, the non-pilot can also glean information on the subject of fatigue countermeasures that would benefit tired auto or truck drivers. The results of [recent sleep deprivation studies](#) are presented in this book—knowledge that could prevent sleep-deprivation accidents in non-aviation environments. Information about all aspects of fatigue (sleep deprivation) and useful antidotes is presented in *Dead Tired*.

www.deadtiredpilots.com

Cockpit Apps Launches New Fuel Tankering App

iFuel Calculates Fuel Burn, Prices, Ramp Fees

The developer of the popular flight log app iLOG has launched its newest product - iFUEL. iFUEL is a simple to use app allowing pilots to determine when to tanker fuel using an iPhone or iPad.

The app, developed by Cockpit Apps and available through iTunes, helps pilots [take the guesswork out of tankering decisions](#) by taking into account fuel prices at each destination, burn rate for the specific aircraft, and ramp fees. It even takes into consideration the possibility of waiving a ramp fee if a certain amount of fuel is purchased. Other calculation factors include taxi fuel burn and reserve fuel requirements. After the parameters are entered, pilots can definitively determine actual fuel costs and how much money can be saved by tankering, down to the penny. Operators can expect to save several thousand dollars a year by using the app depending on the flight profile, a savings they can record and communicate to the aircraft owner.

Robert Creek, career pilot and creator of iFUEL, developed the app to take the guesswork out of his own tankering decisions while flying for an operator in Chicago, IL. He commented, "Quite simply, iFUEL [saves me time](#) and it saves my boss money. Plus, it's easy and it works well."

Date Set For 3D 'Top Gun' Release

Paramount Pictures has said it will release a 3D version of Top Gun for a six-day run in select Imax theaters starting Feb. 8, and then will debut the film on Blu-ray on Feb. 19. The popular aviation film, starring Tom Cruise, has been remastered from high-resolution original negative scans and was painstakingly converted to 3D under the supervision of the film's director, the late Tony Scott, the studio said. "Rendered in 3D, the film's complex, long shots reveal extraordinary depth and clarity, allowing viewers to explore every detail of the action," according to the studio. "From the spectacular aerial dogfights to the intense close-ups in the cockpits, each frame enables the audience to feel a part of the story." The film will be available as a Blu-ray 3D disc or in a 2D version that includes the re-mastered film in high definition plus a six-part documentary on the making of the movie, interviews, and commentary. The U.S. Navy cooperated in the production of the original film, which was released in 1986. The Navy made several airplanes and an aircraft carrier available to the crew. Aerobatic pilot Art Scholl was killed while working on the film in 1985, when he failed to recover from an inverted spin in a Pitts biplane and crashed in the Pacific Ocean. Cruise had been working with director Tony Scott on a sequel, but after Scott's death in April that project was put on hold indefinitely.



The *Top Gun* [film](#) is in theaters for only a week, starting Feb. 8; tickets and locations can now be found [online](#).

Women Cope with Burnout in Different Ways

Emotional exhaustion and physical and [cognitive fatigue](#) are signs of burnout, often caused by [prolonged exposure to stress](#). Burnout can cause negative health effects including poor sleep, depression, anxiety, and cardiovascular and immune disorders. The findings of a 9-year study of burnout in middle-aged working women are reported in an article in Journal of Women's Health. In the

article, "Development of Burnout in Middle-Aged Working Women: A Longitudinal Study," authors Annika Evolahti, PhD, Daniel Hultell, PhD, and Aila Collins, PhD, Karolinska Institute, Stockholm, Sweden, found that in contrast to previous research findings that showed burnout to be stable over time, they were able to cluster the women in the study into groups characterized by different developmental patterns of burnout. Some middle-aged women had high levels of burnout followed by recovery, whereas others had increasing, decreasing, or stable levels over a 9-year period. The authors explored how these patterns related to changes in work-related and other types of stress in the women's lives [and individual personality factors](#).




"This important study expands our understanding of burnout in working women, in terms of both patterns of development and relation to various stressors and individual factors," says Susan G. Kornstein, MD, editor-in-chief of Journal of Women's Health, executive director of the Virginia Commonwealth University Institute for Women's Health, Richmond, Va, and president of the Academy of Women's Health.

<http://www.liebertpub.com/jwh>



"Preventing Drowsy Driving Among Shift Workers"
Employer Administrator's Guide

This guide will help you plan and implement a program to educate your shift workers about sleep-improvement methods and [the dangers of drowsy driving](#). It's recommend that you review the entire guide so you can determine which activities fit the needs of your organization. The guide includes the training and education sessions on PowerPoint.

[Click here](#)  to download a printable version (PDF) of this document.

[PowerPoint Training](#)

[Better Sleep Video](#)

[Workplace Posters](#)

[Shift Worker Brochure](#)

[Better Sleep Tip Card](#)

[Brochure for Shift Work Families](#)

Truck hits airplane at Salt Lake City airport; driver injured

An airport truck driver was hospitalized Sunday night after his vehicle collided with the wing of a parked cargo plane.

The 6:20 p.m. collision sent fuel stored in the plane's wing spewing onto the tarmac on the east side of the airfield, Salt Lake City International Airport spokeswoman Barbara Gann said. [Part of the plane's wing came through the truck's windshield](#), injuring the driver, she said.

Salt Lake City Fire Department hazardous materials crews were working to clean up the spill, she said.

The cause of the accident was unclear Sunday night, Gann said. Fog, which had blanketed the Salt Lake Valley earlier in the day Sunday did not appear to be a factor, she said.

The driver's name was not immediately released. He was taken by ambulance to Intermountain Medical Center, but the nature of his injuries and his condition were unknown Sunday night, Gann said.



Free SMS Course!

Above All...Safer Skies



The Aviation Consulting Group

www.tacgworldwide.com
1-800-294-0872
inquiries@tacgworldwide.com



ABC's of SMS Free Courses

Our "ABC's of SMS" course is a free one-day training event that enables attendees to fully understand the basics of Safety Management Systems. This is a highly cost-effective way to get your SMS "need-to-know" information! Since the course is broad in scope, we invite operators from all aviation sectors to attend. These include, but are not limited to:

- Airports
- Flight schools
- Airlines
- Charter operators
- Business/corporate aviation
- MRO's
- FBO's

Upcoming Courses

- February 8, 2013: Honolulu, HI
- March 1, 2013: Myrtle Beach, SC
- March 8, 2013: San Juan, PR

ABC's of SMS

**One full day of SMS training...
for free!**

Course Topics

- **Part 1 (SMS Fundamentals)**
 - Introduction to SMS
 - Policy
 - Safety Risk Management
 - Safety Assurance
 - Safety Promotion
- **Part 2 (SMS Breakout Topics)**
 - GAP Analysis
 - SMS Manual
 - Safety Culture
 - Reporting Systems
- **Part 3 (SMS in the "Real World")**
 - Various Topics Relating to "Real World" SMS
 - Open Forum / Q&A
 - Conclusion

For more information and registration information please visit:

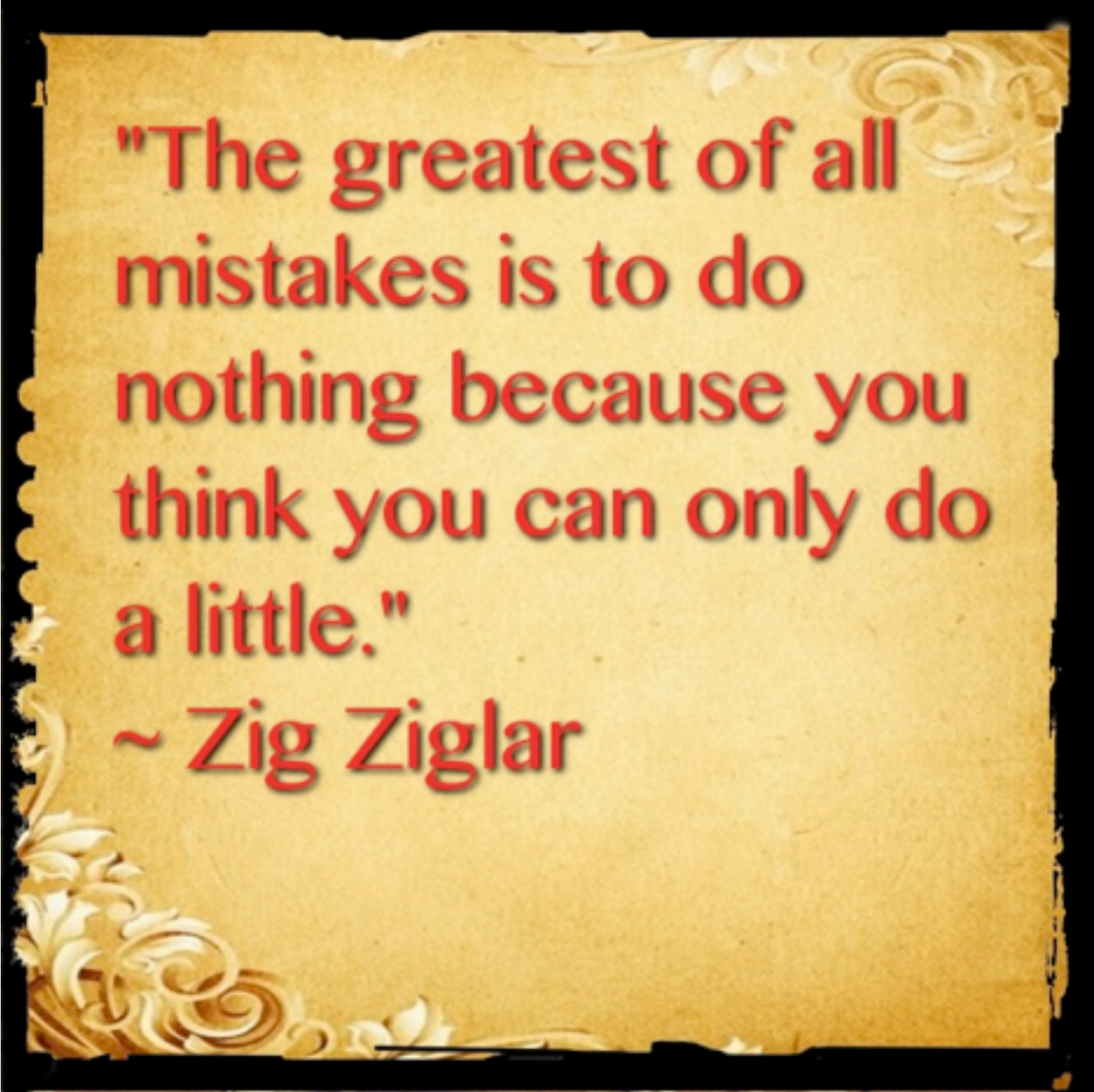
www.tacgworldwide.com/master.htm



Note: These courses fill quickly and registration is offered on a first come, first served basis. We highly encourage early registration!

for free!
One full day of SMS training...
ABC's of SMS

We highly encourage early registration;
is offered on a first come, first served basis.
Note: These courses fill quickly and registration



"The greatest of all
mistakes is to do
nothing because you
think you can only do
a little."

~ Zig Ziglar