

Aviation Human Factors Industry News

Volume IX. Issue 08, April 21, 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:

★CFIT Makes a Strong Comeback,
Says FSF

★Pilots' texts contributed to
Missouri air ambulance crash:
NTSB

★Not so humble: the Pilot
Monitoring

★The High Price of Cooperating
with FAA Investigations by John
Goglia

★Jury awards \$26M to families of
victims killed in plane crash north
of Arlington

★“Missin’ Something, Shipmate?”

★Night VFR Risk Management

★Where Does the Cheese Stop?

★And Much More

CFIT Makes a Strong Comeback, Says FSF

While most aviation safety sources have identified loss of control (LOC) as the leading cause of accidents in the past few years, controlled flight into terrain (CFIT) “[is making a strong comeback](#),” according to Flight Safety Foundation fellow Jim Burin. At the FSF’s Business Aviation Safety Seminar in Montreal last week, he cited recent accidents such as the loss of the Sukhoi Superjet SSJ-100 airliner demonstrator in May last year when the [crew ignored multiple](#) automated terrain warnings and flew the airplane into a mountain in Indonesia with the loss of all 45 people aboard. Burin also mentioned that 17 turboprops with more than 14 seats were lost to CFIT accidents last year alone, with four more lost so far this year to flights into terrain.



When Burin reviewed business jet accidents over the past two years, he found that none were CFIT occurrences. What he did identify, however, was that of the 20 business aviation accidents in 2011 and 2012, the majority took place [during the approach to landing phase](#). Three business aviation accidents that have occurred so far this year also took place during the approach to landing phase.

<http://ainonline.com/aviation-news/2012-05-09/sukhoi-superjet-50-reported-aboard-missing-indonesia>

Pilots' texts contributed to Missouri air ambulance crash: NTSB

The pilot of a medical helicopter that crashed in Missouri in 2011, killing all four people on board, [was distracted by personal text messages that day and during the fatal flight](#), federal safety investigators said on Tuesday.

The National Transportation Safety Board found that the text messages were likely a [contributing factor](#) in the crash of the medical air ambulance and prompted officials to recommend new prohibitions on the use of portable electronic devices by flight crew members.

"This investigation highlighted what is a [growing concern](#) across transportation - distraction and the myth of multi-tasking," Deborah Hersman, head of the NTSB, said in a statement released with the board's report. "When operating heavy machinery, whether it's a personal vehicle or an emergency medical services helicopter, the focus must be on the task at hand: safe transportation," Hersman said. The Eurostar AS350 helicopter crashed near an airport in Mosby, Missouri, in August 2011 after running out of fuel while transporting a patient from one hospital to another about 60 miles away. Killed were the pilot, flight nurse, flight paramedic and the patient.



The NTSB found that the probable causes of the accident were the pilot's decision to take off, [despite critically low fuel levels](#) along with his inability to perform a critical flight maneuver after the engine flameout that followed when the helicopter ran out of fuel.

But the board said cell phone records showed that the pilot sent and received multiple personal text messages throughout the day, including while the helicopter was in flight and during a phone call to a communication specialist about whether to undertake the mission.

The NTSB said there was no evidence the pilot was texting at the time that the engine failed, but said that doing so at all while he was airborne [violated his company's cell phone use policy](#).

Among the nine recommendations that the NTSB made were that flight crew members be prohibited from using portable electronic devices while at a duty station on the flight deck while the aircraft was being operated.

The board also recommended to the Federal Aviation Administration that pilot training programs incorporate training on the [dangers of distraction by portable electronic devices](#).

Not so humble: the Pilot Monitoring

The "pilot not flying" (PNF) is not such a humble role, according to developing wisdom. Even when it's being carried out by the copilot.

Besides which, PNF is now out of favor as a role description, replaced by PM (pilot monitoring).

In the USA the latter has been common currency for a while, but it is now crossing the Atlantic eastward.

Right now the Royal Aeronautical

Society is running a two-day conference on the task of the Pilot Monitoring, on the grounds that so many serious recent accidents (let alone iconic accidents back in the 1970s and earlier) could have been prevented [if the role was carried out effectively](#). The Monitoring theme has been adopted for the RAeS's second conference on *Preparing the Aircraft Commander for the 21st Century*.

But we were never taught how to monitor effectively, were we? It was just one of those things [it was assumed](#) you could do. Or, like that mysterious quality known as good airmanship, it was assumed you either had it or you didn't.

One thing that's always been said is that humans are okay at doing things, but [hopeless at monitoring them](#). Is that inevitably true?

There is no industry best practice for the art of being a good PM. But a lot of people - ops people, trainers, academics, psychologists - are gathered at the RAeS trying to work out whether there could be, and what the learn-able components of good monitoring might be.

Just listening to the presentations on the first day, being a good PM [is a very complex task](#), and is often busier than that of the PF.

My favorite quote of the day came from Prof Helena Reidemar, a [human factors specialist](#) at the University of Central Missouri working in its Aviation Safety Masters Degree program. She is also a Boeing 767 First Officer at Delta and Director of Human Factors at ALPA.



She said: "Monitoring is a core piloting skill as much as stick and rudder skills are".

Well, we'd better get better at it then.

The High Price of Cooperating with FAA Investigations **by John Goglia**

My fellow mechanics this is a cautionary tale based on a true story that could have happened to almost any of us. The details are intentionally left fuzzy as the case winds itself through the FAA enforcement system. This tale begins more than three years ago when certain hapless mechanics were first questioned by an FAA inspector about maintenance they had performed. As these men were used to a cooperative relationship with their local FSDO, they willingly recounted details of the work that they had done in response to informal – and later formal – questions from FAA inspectors. Little did they realize that far from using these informal conversations to advance the safety of the air transportation system, these conversations were being gathered as evidence **to be used against** the mechanics. And so – three years later, yes, three entire years after first learning of these alleged violations – the FAA used the statements made by these mechanics to revoke their certificates. The FAA made out its entire case on the voluntarily provided statements of the mechanics. **There was not one other shred of evidence against them.**

So – while you might right now be saying, well, I would never do that. My experience is that people used to cooperating with authority figures – be they local cops, the IRS or the FAA – tend to do so, thinking that they're innocent and innocent people have nothing to hide. Well, the bottom-line is **you can be innocent and still be found guilty.** And the cost of proving your innocence or that your words were taken out of context is very, very difficult and, of course, incredibly expensive. At the point that you are facing an emergency order of revocation, you have no choice – no realistic choice – **but to hire an attorney or just mail in your certificate.**



While the hearing before the NTSB is an administrative one where you do not have to have an attorney, the reality is that the rules of evidence and the rules of practice are so complex that they require not only an attorney, but one knowledgeable in the federal and NTSB rules.

So, one of the few good things to come out of the [Pilot's Bill of Rights](#) – which faithful readers of this column know applies to mechanics as well as pilots – is that the FAA must now warn mechanics in their letters of investigation that they do not have to respond to the LOI and that failure to respond will not be held against them. [But if they do respond](#), everything they say can and will be used against them.

This warning – coming with the Letter of Investigation – may be enough to give some airmen second thoughts about responding to the FAA. But its warning is not soon enough when inspectors ask questions in the hangar or on the ramp – before an LOI is even sent.

[Moral of the Story](#): If you are not as lucky as these mechanics to have a union willing to pay for top-notch lawyers (who in the end prevailed against the FAA), join PAMA's Legal Services Plan – you do not have to be a member of PAMA to purchase the legal services plan. For pennies a day, you will have access to attorneys specialized in FAA and NTSB cases, if an inspector ever questions your work. The plan is managed by Yodice Associates, long-time defenders of airmen's rights.

And always remember, other than providing the minimum information required by regulation, never respond to an FAA inspector's question without first getting advice from an experienced attorney. [The certificate you save may be your own.](#)

Jury awards \$26M to families of victims killed in plane crash north of Arlington

A [defective carburetor](#) is blamed for the 2008 crash of a small plane north of Arlington that killed three people.

A King County Superior Court jury awarded two families \$26.1 million for the deaths of Dr. Tory Becker, an Auburn spine surgeon, airline pilot Brenda Houston, and her 10-year-old daughter, Elizabeth Crews.



The jury awarded both compensatory and punitive damages against the engine manufacturer.

The single-engine Cessna was flying from San Juan Island to Auburn when its engine failed, causing the airplane to crash into a heavily forested area north of Arlington. Investigators at the scene discovered that the [carburetor float](#), an accessory which supplies fuel to the engine, had leaked and was full of fuel.

"Once we analyzed the defects in the carburetor, our investigation [focused on the carburetor design, manufacturing process, and failure history](#)," said Robert Hedrick, an attorney with Aviation Law Group in Seattle who represents the Becker family. "Sure enough there was a [significant history](#) of similar failures for years before this accident," Hedrick said. Attorneys said the manufacturer implemented a fix for the carburetor problem more than two years before the crash [but the fix was not implemented](#) for thousands of aircraft already operating the field, including the Cessna that crashed.

The trial took place in February and March in Seattle. After hearing testimony and arguments from both sides, the jury awarded compensatory damages to the families. In a second phase of the trial, the jury awarded \$6 million in punitive damages.

Becker was in private practice in Auburn and was a staff surgeon at Auburn Regional Medical Center.

Brenda Houston was an [experienced airline pilot](#) with United Airlines.

“Missin’ Something, Shipmate?”

It was mid-afternoon on the second day of CQ flights aboard USS Abraham Lincoln (CVN-72), and I was sitting in the shooter shack preparing to go do a preflight walk-around on aircraft 503. I put on my tool pouch, [float coat](#), and cranial prior to heading out on the flight deck. An hour or so later, as I was taking a last look at the ejection seats, my flight deck chief asked me to come down off the jet so we could have a chat.



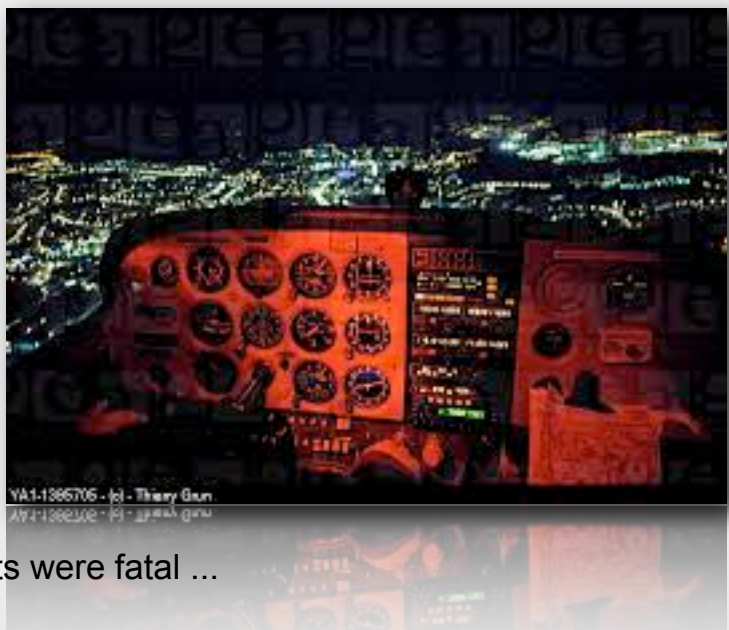
As soon as I got off the jet, he told me to inspect my float coat and see if I was missing anything. I quickly realized the [inflator assembly kit was missing](#). The chief sent me to Maintenance Control, where my division LCPO was waiting for me. He handed me the retaining nut that holds the inflator kit in the float coat and asked, "Where is the rest of the inflator kit?"

After I replied, "I don't know," he told me to retrace every step I had taken while wearing it. Starting in the shooter shack, I walked everywhere I had been (including the head) but found nothing. On my return trip to Maintenance Control, my flight deck chief walked in from the flight deck with the inflator kit in hand ([someone had found it during a FOD walkdown](#)).

The chief ordered me to fix my float coat and get back up on the flight deck to finish out the flight schedule. Everything could have been avoided [if I had just done a good pre-op](#) of my float coat prior to leaving the shooter shack. The "what ifs" started eating away at me. What if I had gone overboard and couldn't inflate the float coat manually? What if I had FODed an aircraft? Soon after this incident, I [hosted](#) a "float coat" quarters for the command where I demonstrated to the entire maintenance department the proper way to pre-op a float coat. I wasn't the first person in the air wing to have lost a retaining nut or an inflator assembly kit.

Night VFR Risk Management

Countering the argument that "The airplane doesn't know if it's light or dark," the record clearly shows [a greater number of aircraft accidents at night](#). The AOPA Air Safety Foundation's Nall Report of general aviation accident statistics shows the increased hazard of flying at night. According to the 2007 edition of the, "... only 19.2 percent of daytime accidents resulted in fatalities, but over one-third (34.6 percent) of all night accidents were fatal ...



At night, nearly half of the accidents in VMC conditions were fatal ... compared to nearly three-fourths of night IMC accidents." [There's a lot of added risk to flying in the dark](#). How can we minimize that risk?

[Click here to read the full article](#),

<http://www.aopa.org/asf/publications/nall.html>

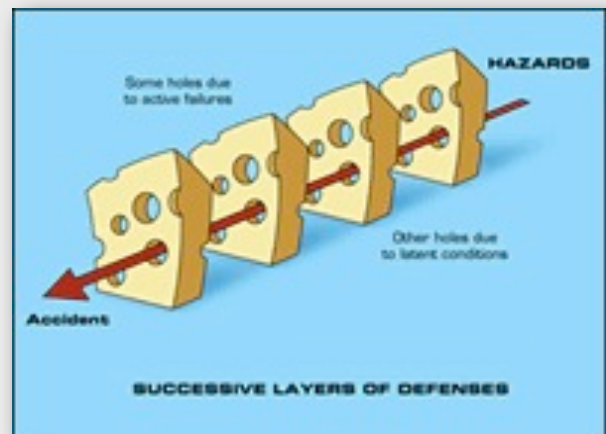
Where Does the Cheese Stop?

By now all of us in business aviation have been exposed to a [Safety Management System or SMS](#). Maybe your aviation department has implemented one or you have talked to industry colleagues about theirs.

For those of you unfamiliar, an SMS is a type of continuous improvement process whereby safety risks are identified and policies are then put in place to mitigate those risks. The performance is continuously measured, policies are changed up a bit or added if they need to be, and new risks are identified. Of course one of the critical aspects of the SMS is the continuous commitment from management and everyone involved. [The SMS is only as good as its weakest player](#). The whole reason for this system is to save human lives and to protect property.

A popular model used in the discussion of SMS and to demonstrate how accidents can happen is something called the [Reason Model](#) which was first presented by James Reason and Dante Orlandella from the University of Manchester in 1990. This is most commonly referred to as the "[Swiss Cheese Model](#)". Now, you'd think that since these gentlemen were from England that they would have chose Wensleydale, Shropshire Blue, or Stilton, instead they went with prepackaged sliced Swiss. Classy, but they have a good Reason.

In this model each slice of Swiss cheese and the holes in that particular slice, represents an either latent or active failure in the process.



It starts with pre-existing hazards and moves on to maybe failures with organization or major processes or sub-processes, and usually concludes with an 'active failure' ([human error](#)).

When the holes align all the way through the slices of cheese, the result is an accident.

[read more](#)



What Goes Up, Doesn't Always Come Down

Troubleshooting an electrical problem, a C210 Pilot, accompanied by a Maintenance Technician, cycled the landing gear a few times and then lowered and verified the gear down for a final landing. In an effort to make one last check, the gear was cycled again. Unfortunately, only half of the cycle was completed.

- The aircraft had just come out of repair for a failed alternator. Upon starting the engine the alternator again failed, but after shut down and restart, it worked until just after takeoff then failed again. So I landed uneventfully and returned to the FBO. During taxi the alternator restarted then briefly failed again. The Mechanic offered to come with me for a test flight to see if an over-voltage transient could be triggering the problem. At his suggestion, we stayed in the traffic pattern, cycling the gear up and down a few times, but could not duplicate the problem.

After the first touch and go we still hadn't seen a problem. On downwind, I lowered the gear as usual and did a **GUMPS*** check.

The Mechanic then suggested cycling the gear once more. I raised it, but failed to lower it. Just before touchdown, the Tower noticed the lack of gear and called for a go-around, but it was too late and we landed gear up with full power.

Lessons: 1) Do maintenance work at altitude away from the airport 2) Maintain a sterile cockpit in the pattern and, 3) Do a GUMPS check on final.

***GUMPS** is a commonly used acronym that is used as a final check to ensure that an aircraft is properly set up for landing. It should not be used as a substitute for the specific aircraft's descent, approach, and landing checklists.

- **G**as (fullest tank)
- **U**ndercarriage (gear down and locked)
- **M**ixture (full rich)
- **P**ropeller (high RPM)
- **S**witches (fuel pumps, magneto check, landing lights, etc.)

C-GUMPS can be used when flying a plane with a carbureted engine; "C" standing for Carburetor (heat on).

Jeppesen CrewAlert iOS app helps crew members perform optimally

Jeppesen, a part of Boeing Commercial Aviation Services, has introduced an improved version of **CrewAlert**, the leading mobile app for airline crew for **fatigue risk management**. The enhanced CrewAlert app now is able to immediately calculate a strategy from hundreds of thousands of sleep patterns and light exposure combinations to **increase crew alertness and overall flight safety**.

Currently, airline crew are increasingly being trained in fatigue risk management as required by regulators worldwide. In addition to training in the basic science behind crew fatigue, the training also contains fatigue **mitigation strategies**.



Such strategies have been designed for an average individual and are usually difficult to apply to a specific roster context given individual properties, time zone changes, departure times, and prior sleep/wake patterns.

[read more](#)

The Working Nights Health & Safety Guide

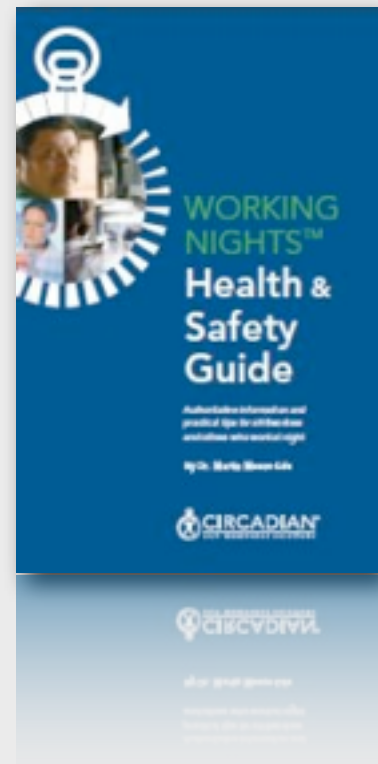
Are you educating employees about the challenges of fatigue and shiftwork?

Poor sleep, decreased alertness and health problems are well known challenges shiftworkers face when working rotating schedules or night shifts. But fatigue risks and consequences such as errors, accidents and incidents, can all be effectively managed with expert advice and practical well-proven techniques. [The Working Nights Health & Safety Guide](#)

helps people who work at night better adapt to the demands of a shiftwork lifestyle. The easy-to-read booklet addresses the issue of fatigue as well as other challenges that often accompany a shiftwork lifestyle. The booklet covers:

1. Understanding Your Circadian Rhythms
2. Work Performance and Safety
3. Sleep
4. Health Problems and Solutions
5. Nutrition
6. Family and Social Life

The new 40-page guide includes authoritative information, research, quizzes and practical tips to help shiftworkers recognize the causes and consequences of fatigue and take steps to improve their sleep, alertness, health and wellness.



It's an invaluable lifestyle/health & safety training resource for all shiftworkers. Perfect to handout to new hires, family members of shiftworkers, or to give to experienced workers as a refresher.

[Click here to buy The Working Nights Health & Safety Guide](#)

Michelin and FAA Introduce Tire Safety Training

They have partnered to offer an online tire maintenance course [The Impact of Tire Maintenance on Aircraft Safety](#). The course is available for free at [FAASafety.gov](#).

Michelin North America and the Federal Aviation Administration Safety Program (FAASTeam) have partnered to offer pilots and aircraft maintenance technicians (AMTs) an online tire maintenance course [The Impact of Tire Maintenance on Aircraft Safety](#). The course is available for free at [FAASafety.gov](#).

“Tire maintenance can often be overlooked in aviation and this course will help reinforce this very important part of aviation safety,” said Brad Beall, zone director North & South America, Michelin Aircraft Tire Company. “We have worked very closely with the FAASTeam to assemble a program that is both engaging and informative. We want people to come away with a renewed sense of the importance of vigilant tire maintenance.” [FAASafety.gov](#) is the primary training website for pilots and aircraft maintenance technicians and offers FAA incentive credits to those taking the training courses, which cover a wide range of topics. Many of the training courses address key safety issues in the industry with the intent to educate and prevent further incidents.

The training helps expose pilots and AMTs to the possible consequences of inadequate tire inflation pressure and the damages caused by Foreign Object Debris (FOD).



Following the course, which is narrated by a Michelin customer support engineer, online participants will take a test to ensure they retain key points from the training.

A special live version of the training will be presented by Michelin's Keat Pruzsensi on April 10 and 12 at the [39th Annual SUN'N FUN International Fly-In & Expo](#) in Lakeland, Fla.

<http://www.faasafety.gov/gslac/ALC/CourseLanding.aspx?cID=269>

<http://www.faasafety.gov/>

Perfect Point E-Drill

Where was this tool when I was a Technician?

Introducing the Perfect Point E-Drill, a [revolutionary new tool](#) for aerospace fastener removal and hole drilling operations. When compared to conventional mechanical drilling, the E-drill [offers the following benefits](#): 5-10 times faster than drilling out structural fasteners

- 90+% reduction in airframe damage
- The E-Drill is a forceless process, less stressful for operators than drilling
- No more hot sharp drill shards! The E-Drill collects all cut debris for easy disposal

Perfect Point Inc.



More Information

NASA Books Reveal Wisdom Gained from Failure

"Crash Course" chronicles the lessons learned from failures over the decades of remotely piloted or autonomous unmanned aircraft systems used by NASA, from Perseus to the X-36 and from subsonic to hypersonic speeds.

[Preventing future aviation accidents](#) is the motive behind two books published by NASA, one brand new and one that is a year old and has been so popular a second printing was ordered.

Both of the aviation safety-related books are available online at no cost as e-books, while printed versions of the book may be purchased from NASA's Information Center.

[The new book is](#) "Crash Course: Lessons Learned from Accidents Involving Remotely Piloted and Autonomous Aircraft." The 183-page book reveals details of past accidents involving NASA and Air Force Remotely Piloted Research Vehicles such as the X-43A hypersonic test bed, Highly Maneuverable Aircraft Technology aircraft, Perseus and Theseus science platforms, Helios solar-powered flying wing and four others.

"Learning from past experience is fundamental to the development of safe and efficient new systems and to improving existing systems as well," said Peter Merlin, the book's author. ["It's important to pass on this knowledge to future generations."](#)

According to Merlin, while some factors affecting aircraft safety detailed in the book are unique to remotely piloted vehicles, most are common to all aircraft operations, especially [where human factors are more to blame than the technology itself.](#)

"Use of the term 'unmanned' to describe any sort of autonomous or remotely piloted aircraft is often misunderstood to mean that there is little or no human-systems integration involved. In fact, remotely piloted aircraft operations involve numerous people in every aspect of control, operation, and maintenance regardless of the vehicles level of autonomy," Merlin said.



"Crash Course" is a companion to the highly popular NASA book ["Breaking the Mishap Chain,"](#) which Merlin co-authored with Dr. Gregg Bendrick, NASA's chief medical officer at the Dryden Flight Research Center in California; and Dr. Dwight Holland, a principal partner in Human Factors Associates who has served as president of the International Association of Military Flight Surgeon Pilots and the Space Medicine Association.

Published in June 2012, "Breaking the Mishap Chain" offers nine examples from aviation and space history in which accidents were primarily caused by [non-technical, human-related events](#).

For example, in 1967 an X-15 rocketplane crashed, killing the pilot, Mike Adams. In detailing the events surrounding the mishap, the authors explain how the pilot's history with spatial disorientation - what was generally called vertigo back then - and confusion about what one of his instruments was telling him contributed to the accident.

"Anybody involved in flying needs to learn the lessons of the past," Bendrick said.

"This book is unique because it integrates [aerospace history, medicine, human factors, and system design issues](#) in a compelling multi-level examination of some truly fascinating stories of aerospace exploration," Holland added.

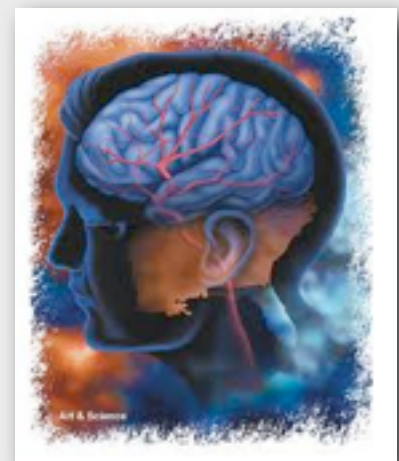
"Breaking the Mishap Chain" has been so well received that NASA ordered an additional print run to help meet the demand for the book.

"We have had lots of nice comments, good reviews, and an overwhelmingly positive response to the book," Merlin said.

Publication of "Crash Course" and "Breaking the Mishap Chain" was sponsored and funded by the communications and education department of NASA's Aeronautics Research Mission Directorate.

A New Stroke Symptom

Doctors are urging people to be on the lookout for [garbled text messages](#) as a warning sign of stroke, even when better-known symptoms like slurred speech and numbness are absent. In one of only two cases of "dystextia" reported so far, a 40-year-old man sent nonsensical texts to his wife before seeking treatment at a hospital. There, he scored fine on traditional stroke tests. "He could read, he could write. He spoke fluently," Omran Kaskar, the Detroit neurologist who treated him, tells Slate.com. But when doctors handed him a smartphone and asked him to type a text saying,



"The doctor needs a new BlackBerry", he wrote "Tjhe Doctor nddd a new bb." When they asked him to check the sentence for errors, he said it looked correct. That evidence led to a diagnosis of acute ischemic stroke, and it suggests that the brain may process texting differently from other kinds of communication.

Is Work Killing You?' Downsizing takes toll by upsizing stress

In his book, "Is Work Killing You? A Doctor's Prescription for Treating Workplace Stress," David Posen, a Canadian physician and stress management specialist, asks a question on the minds of many.

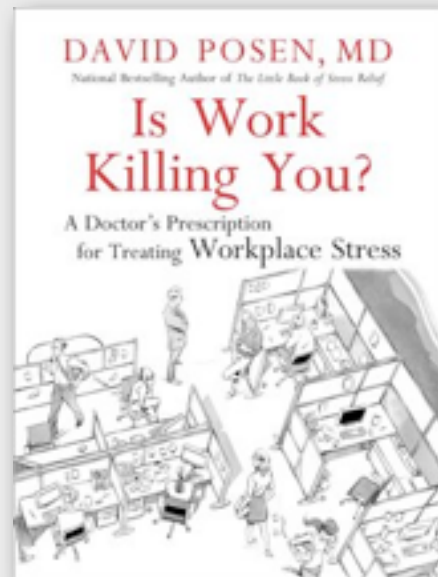
Canadian physician and stress management specialist David Posen asks a question on the minds of many in his new book [Is Work Killing You? A Doctor's Prescription for Treating Workplace Stress](#). He talks about how the recent economic slump and culture of downsizing has created more employee stress amid fear of layoffs, increased workload and the 24/7 work environment.

Q: What is it about the work environment today that seems to make it so much more stressful than in the past?

A: A lot of people talk about the fact that work is killing them. I would say it's killing their family life and their personal life. It's killing their spirit, and in some cases, it's causing very serious health problems. But the psychological effect of stress — after a while — is very damaging. They are not engaged and not enthusiastic. There's kind of an underlying resentment. There's a sullen compliance to the demands of work. They know they have to do it, but it's a struggle just to be there and be present and be focused.

Q: You've written about stress at work before. Now, though, you blame the workplace. Why?

A: I don't necessarily like the word "blame." I want to hold the workplace accountable and responsible for a good part of the problem.



Too much of the onus been put on the employees to deal with their stress themselves, and their work-life balance. I believe now that the workplace is shirking its responsibility and generating stress that even the most expert stress manager can't dissipate. Downsizing is the biggest contributor to increased workload, which leads to longer hours. When researchers ask people why they're not taking better care of themselves, the No. 1 answer is "I don't have time."

Q: You identify three big problems that contribute to burnout and low productivity. What are they?

A: The first is the volume of work — the workload itself — which I attribute to too few hands to share the load. The volume of work contributes to longer hours that affects home life and family life. The second problem is what I call velocity — the pace of the workplace. Everything has gotten faster, largely because of technology, and expectations have increased. The third aspect is abuse. There's a pattern of being rude, embarrassing people in front of other people, of harassment, of bullying, of game-playing and head games. It can include sexism and racism and things like trying to steal credit for other people's work. It can come from colleagues, bosses and even subordinates.

Q: As a physician, you have insight into the biology of stress as well as the psychological effects. Why have some workplace changes contributed to individual stress?

A: First, people are expected to multitask. Really, what we're doing is switch tasking — toggling back and forth. But it's also very stressful for the brain and raises cortisol (a hormone released in response to stress) levels, which have damaging effects for the whole body. Cortisol, when there's too much, also affects memory. Another aspect is multiple and conflicting priorities. Deadlines are getting tighter. That's tremendously stressful. People are being asked at job interviews if they're good at multitasking. We have to stop thinking of it as a virtue, because when we try to multitask, we are inefficient and make more mistakes.

Q: What has technology done to our stress levels?

A: It has increased the speed of not only the workplace but life in general to a level that is uncomfortable for most people and not sustainable. It has contributed to off-hours work. It's increased work hours. It has interfered with sleep. Reading on a tablet in bed — the light is coming at your eyes and it is biologically stimulating the brain to stay awake.

Q: So what can we do, other than quit our jobs?

A: I'm trying to raise awareness of this problem and make it OK to talk about it. Stress is affecting everybody, all the way up the hierarchy. It's not just front-line workers. The second thing is to identify small things that can make a difference and can help. For example, taking breaks throughout the day. There should be a mid-morning break, a break at lunch, a mid-afternoon break and a break at supper. In other words, we need to pace ourselves. Every couple of hours, your energy and concentration start to flag anyway. Stress builds up and there's no time to let it settle. Taking time-outs through the day is crucial and everybody needs to understand this. What individuals can also do is get the sleep they need. Not enough sleep makes us less resilient in dealing with stress and makes us less productive. Another one is, people need to get regular exercise, which they are not getting — even walking around the block or walking at lunch or going to the gym.

Building a culture of trust

Is your organization built on a culture of trust?

Look around you; there are plenty of clues as to whether trust abounds. How quickly are decisions made? How many people do you copy (or worse, bcc) on e-mails? Do executives check in on the “troops” even when on vacation?

Given that **82% of workers don't trust their boss**, trust is a scarce resource in many organizations.

When it comes to creating a trusting workplace culture, **the best place to start is with you**. As a leader, you either believe in someone's trustworthiness or you don't. Leaders who try to split the difference with “trust but verify” won't build a culture of healthy organizational trust. Trusting others doesn't mean that you abdicate your responsibility as a leader. Quite the opposite: When you create a culture of trust, you are demonstrating your belief in others — that, given the proper tools, objectives and leadership guidance, people can and will step up and give their best.



This takes courage — it's not always easy to trust when the stakes are high or grievances inform your thinking.

Trust is about creating space for people to thrive; excessive verifying diminishes that space. Use these five tips to reduce the amount of verifying happening in your company so that trust will flourish:

1. **Assume positive intent, until proven otherwise.** This is the basis for building a culture of trust. Whenever you hear incriminatory information ask yourself, "Why am I assuming the worst of this person or situation?" Seek out other reasonable explanations for why people acted the way they did. Jumping to conclusions kills trust.
2. **Banish bureaucracy.** Nothing erodes trust faster than having to jump through hoops to get something done at work. When employees are mired in excessive rules, they get the message loud and clear: "We don't trust you to do the right thing."
3. **Look at your company's written word.** For example, how long are your contracts? The longer the contract, the less that trust is present. The same goes for e-mails. The compulsion to cover every single angle to protect oneself is, at its core, a statement of mistrust.
4. **Tell employees: "I trust you to make a good decision."** Nine out of 10 times, they will. And on that 10th time, when someone messes up? It's the perfect opportunity to affirm your trust in that person. "Yeah, you made a mistake — that represents a poor decision. But I still trust you."
5. **Eliminate "we" and "they" when describing other teams.** Listen for language that hints at an "us against them" mentality. Whenever you hear someone saying, "Well, they won't _____, so we have to _____," take out the pronouns. Insist that people use others' names, not for the purpose of blaming others but to humanize the interaction.

For a trustworthy vibe to take root in your organization, someone has to go first. It may as well be you. As Ernest Hemingway said, "**The best way to find out if you can trust somebody is to trust them.**" So go on, give trust a try. When you offer up your trust without the constraints of constant verification, you just might find that far from being scarce, trust is a renewable resource.

<http://www.forbes.com/sites/tykiisel/2013/01/30/82-percent-of-people-dont-trust-the-boss-to-tell-the-truth/>