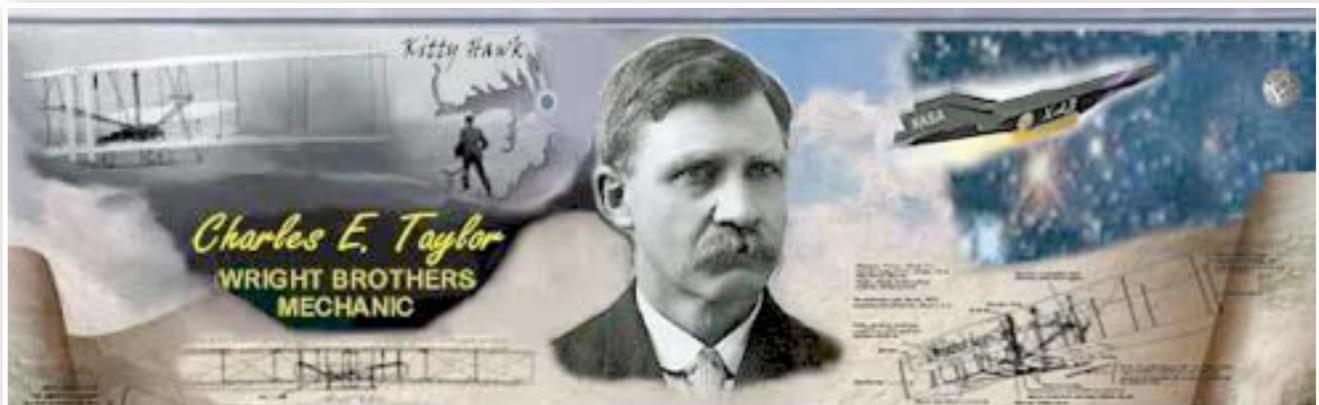


Aviation Human Factors Industry News

Volume IX. Issue 05, March 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:

★Victim Pinned Under Landing Gear At Airport

★Worker Dies After Safety Warning Falls on Deaf Ears

★Crash pilots could have stopped ill-fated Tu-204

★Bad Judgement Gets Worse

★Trends in Human Factors and MRM

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★FAA's Safety Management System Earns Recognition

★Identifying Fatigue-Related Accidents with FACTS™ 1.5

★Air NZ: Flight safe despite pilot twice nodding off

★And Much More

Victim Pinned Under Landing Gear At Airport

A man was killed at the Lynden Pindling International Airport yesterday after the landing gear of a plane he was working on [collapsed](#), crushing his skull.

It happened around 9:45am at the Domestic Section of the LPIA.

Assistant Police Commissioner Hulan Hanna said police initially got word that a car had crashed into a plane in the domestic section of the LPIA, however when officers arrived they discovered the man pinned under the left wheel of the aircraft. "What we do know is the individual was working on the left side of the aircraft when the left landing gear collapsed [pinning him](#) to the bottom. Sometime after a local nurse from the Princess Margaret Hospital, who is attached to the airport, examined the body and pronounced him dead at the scene. He has some injuries to the right side of the head in the area of the ear and to the top of his head," he said.

"He is a Caucasian male believed to be in his early 40's from Florida. At the time he was clad in a pair of black cargo shorts, a navy green tee-shirt and wearing a pair of black tennis shoes with white ankle socks. The aircraft is owned by persons from the Florida area and at the time it was being leased by a company out of Grand Bahama."

ACP Hanna said the plane, a Beech 1900 19 seater, was at LPIA for its regular inspection.

He said the freak accident, caused minimal interruption at the airport as police rushed to secure the area and prevent incoming passengers from seeing the horrifying scene.

[An airport worker, who wished to remain anonymous, said she could see the accident about to happen but knew there was nothing she could do about it.](#)

She said: "I could see the plane shaking from where I was. It's like the whole thing happened in slow motion. He was under the plane working then boom, it fell and you just knew he was dead. It was a horrific thing to witness. I would never want to see something like that again in my life."

The investigation is being conducted by the Royal Bahamas Police Force in conjunction with officers from the Airport Authority.

Investigations continue.



Worker Dies After Safety Warning Falls on Deaf Ears

Perhaps the most devastating kind of workplace fatality is one where a worker, through a lack of training or knowledge, commits an unsafe act and dies.

But what if a worker been warned after being observed committing an unsafe act, yet does so again and dies? That situation occurred recently in Radlett, England, when a recycling plant worker died after trying to free a blockage in machinery. Jason Griffin, 31, died as a result of sustaining serious injuries to his lower legs when he climbed into a compressor that reduces polystyrene to fist-sized pieces.

A co-worker who spotted Griffin inside the machine one day earlier warned him not to climb inside it.

A supervisor who had trained Griffin told an inquest into his death that he was shocked at Griffin's actions in climbing into the machine, "because it's just something you'd never expect anyone to do."



Crash pilots could have stopped ill-fated Tu-204

Landing tests using a prototype Tupolev Tu-204SM indicate that the crew of an ill-fated Red Wings flight at Moscow could have stopped the aircraft despite the long, late touchdown.

The Red Wings Tu-204 overran Moscow Vnukovo's runway 19 on 29 December after attempting to engage reverse thrust. Russia's United Aircraft recruited one of the two Tu-204SM certification test aircraft,



number 64150, to assist the investigation into the fatal crash. It was fitted with video-recording systems and other measurement equipment.

Pilots performed three approaches during the test program, bringing the aircraft to a halt on the runway each time. The first approach was to illustrate that the aircraft behaved normally at light weights - the Red Wings flight was only carrying eight people, all crew - and that instructions in the aircraft's flight manual were sufficient to land the twinjet in this state.

But two other approaches involved touching down on just the left main landing-gear, at high speed, and keeping the aircraft in this state to ensure there was no automatic deployment of spoilers.

The pilots also simulated [the incorrect engagement](#) of the thrust-reversers which resulted in the Red Wings aircraft's accelerating along the runway.

As the Tu-204SM reached a speed of 124kt (230km/h) the test crew manually deployed the spoilers and activated the brakes.

"The landing distance achieved confirmed it was possible to complete the landing on the runway even after the emergency situation and [improper actions](#) of the crew during the initial touchdown phase," says United Aircraft.

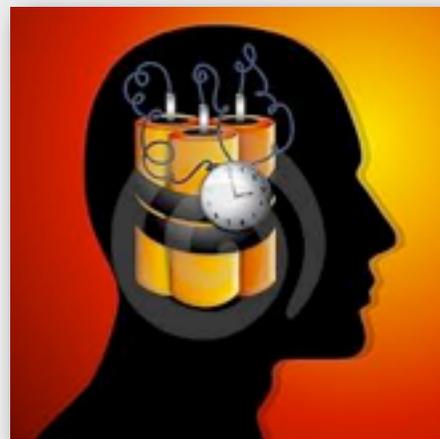
Tests were carried out both with, and without, the use of reverse thrust. While the Tu-204SM is a modernized version of the type used by Red Wings, the airframer says the two are "almost identical" in the landing phase.

Russia's Interstate Aviation Committee has also been performing a full-scale thrust-reverser control and locking mechanism analysis of the Aviadvigatel PS-90A engine, with another Tu-204 (RA-64050).

Bad Judgement Gets Worse

A pilot who had twice extensively damaged airplanes by flying into thunderstorms tries it a third time. This time he doesn't live to tell about his own foolishness.

Remember back to when we were student pilots, with maybe 20 hours under our belts? We all asked our instructors ["How many hours do you have?"](#) Even if the answer came back as "400," we were in awe because our instructor had 20 times our experience. Of course he was a great pilot; he had all those hours.



Later, after earning our private certificates perhaps we met a pilot with 1000 hours, and then someone with even more flight time and a fancy airplane came into our aviation life. If we were sharp enough, we soon realized that hours in a logbook or the type of aircraft being flown can't hold a candle to a difficult to pin down concept known as [judgment](#). Judgment we learned is the real core of what makes someone a good pilot.

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

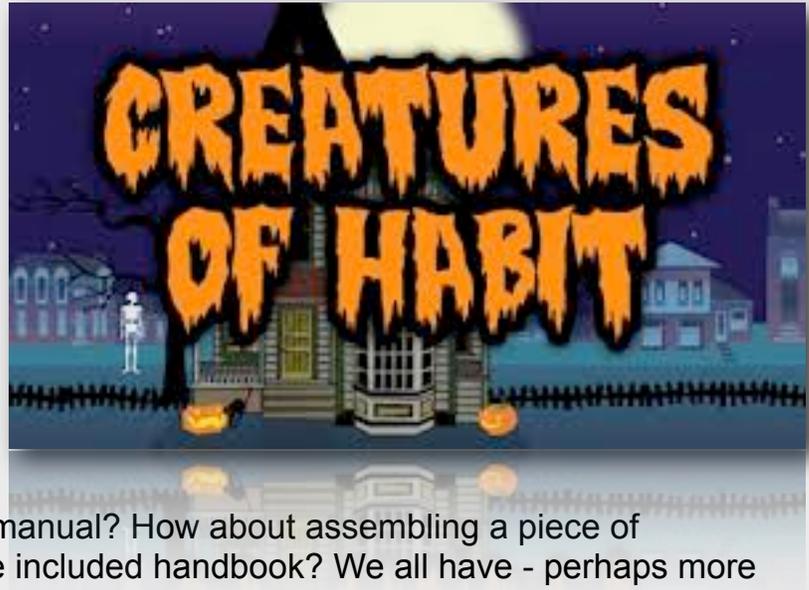
[More...](#)

Trends in Human Factors and MRM

As humans, we find comfort in being [creatures of habit](#): we do what works well for us; or to follow a simple adage: “[what gets rewarded gets done](#)”. But if we step back and consider: why do we take this approach? - some deeper analysis uncovers some troubling attitudes. Have you ever performed a task or an event not according to “the book”, i.e., the manufacturer’s instruction manual? How about assembling a piece of machinery without following the included handbook? We all have - perhaps more times than we care to admit. If this sounds familiar, do you ask yourself why you may have taken this “[personalized](#)” approach?

Today, the study of human factors in combination with a dozen external factors ([The Dirty Dozen](#)) is also the study of human behavior. With the growing importance on safety management, we now want to examine the reasons behind our decisions. This is not an exercise in assigning blame, so we can determine “who did it.”

So why do we deviate from standard practices? This behavior is widespread and frequently the cause of our maintenance problems. It is also a major problem in the piloting world. But why don't we follow the time-tested procedures and proven practices?



In our training course regarding Human Factors, we've asked these questions of many of our students. To our surprise there is a common answer: [pressure to get the job done](#).

The pressures of our job performance become a big source of our own [internal stress](#). Scheduling deadlines, customer demands, job security, cost issues, and other factors contribute to creating an imposing foundation for these stresses. Beyond our professional life, we also have family issues, financial issues, and possibly health issues. To help cope, we credit our natural capability for resourcefulness and turn [to shortcuts and quick answers](#) to fulfill these demands and get the job done.

Unfortunately, when we take short cuts in our performance - and the job gets done with no apparent adverse result, [we begin to rationalize these techniques as acceptable](#). As we perform these short cuts repeatedly over time, with no adverse effects on the results (and our superiors might even complement our job performance for “. . . saving time and money”), these tactics are rewarded and, thus, become the ["norm"](#) for our performance.

In any accident or similarly unintentional incident, a set of performance-influencing factors (we list as the "Dirty Dozen") can be attributed to the chain of events induced by human error. Behind the cause of an event a "dirty-dozen-triangle" forms and then builds upon other factors. Eventually unacceptable "norms", the improper practices of an individual or group, develops to manage the pressures and stresses.

So how do we counter "norms"? We develop ["safety nets"](#) for our personal job pressures and family stress, as well as developing good teamwork and communication networks. We rely on our fellow workers to help us with our job tasks, and we objectively communicate our concerns of job pressures and individual stresses. We must also maintain [some level of assertiveness](#) while we share our concerns in a positive manner, and to ask for help when necessary. This is a good example of teamwork in action.

We must also recognize how any member of the Dirty Dozen can affect the decision-making aspect of our individual performance and how any one of them can be interrelated with the others?

Do you also see how easy it is to take the path of least resistance; "failure to use or follow proper procedures?"

Tigers and Ducks

By Dr. Tony Kern, Ed.D

A U.S. Navy pilot once wrote, “In aviation you very rarely get your head bitten off by a tiger – you usually get nibbled to death by ducks.” What he meant was that most accidents and incidents are the end game of a series of interrelated events, interpretations, decisions, warnings or actions that are allowed to progress **without recognition or intervention**. The final trigger decision, action (or inaction) may be relatively innocuous, but sufficient in itself



to totally remove a margin of safety **previously eroded** by other events. So it is in life, where we allow the detritus of sloppy attention to detail and average performance to pile up, unaware that the next straw may be the back breaker, or that a tiger lurks nearby ready to pounce on our unpreparedness. It is important to remember that even in a risk world populated mostly with annoying ducks, **head-biting tigers still exist**. Such was the case of Hurricane Sandy, a once-in-a-century storm that recently slammed the Northeastern United States. In the aftermath, we see differences in those who anticipated the unthinkable, prepared for the unknowable, who gracefully recovered from the unprecedented – and those who did not. We also see stark differences in the ability of individuals, companies, local governments and federal agencies to adapt and learn from the devastation. Now that the tiger is gone, **we can see who was taking care of their ducks**.

Luck is not evidence of wisdom

For the vast majority of us, Sandy's devastation was inconsequential, merely something that happened elsewhere. But it reminds us that when it comes to readiness, we have real choices to make. We can diligently prepare for the tiger's reappearance, or cross our fingers and hope that he doesn't come back for us. **Hope is not a strategy and luck is not evidence of wisdom or judgment**. Uncertainty lurks in every aspect of our operations, and proactive preparation is the earmark of those we see successfully emerging from Sandy's wrath.

In my book, *Blue Threat: Why to Err is Inhuman* (Pygmy Books, 2009), I have a list of insights called the “[Blue Threat Proverbs.](#)” Proverb 16 states that “Every post game is a pre game.” The ability to learn and improve following loss is the mark of a future winner. Recovery is SO much more than “returning to normal.” Ironically, recovery is also something that is prepared for in advance. A [solid safety management system](#) and disaster recovery plan will guide near and long-term actions when the tiger bites.

If you choose to reject this approach, I ask only that you make it a conscious choice – and here is the choice clearly spelled out. If you choose to decline to prepare, you are agreeing [to endure the pain of regret](#) should your future avoidable errors lead to unwanted consequences or tragedy.

Your call

That choice is yours. The reason I want to force this decision is that in today’s fast paced business world, far too many choices get made by our indecision. Here is another way of looking at it. If you are not mindful of the dangers posed by both the ducks and the tigers, you can reach a point where you have made unintentional but vitally important choices without thinking, without reflection, without planning and [with no way to reset](#) the chess board. In the aftermath of an unwelcome event, you can end up in an irrecoverable and irreversible situation you never imagined could happen to you. It might be the one you deserve, but not the one you intended. Or, you have the opportunity to choose a different path. If you want to get ready for the next tiger, [get your ducks in a row now.](#)

[FAA's Safety Management System Earns Recognition](#)

Agency Says It Allows Detection Of Minor Hazards Before They Become Major Safety Risks

The FAA’s implementation of a proactive safety management system earned the agency a prestigious global award recently. IHS Jane’s, a group of international magazines that covers air traffic control, aviation security and other topics, gave the FAA its ATC Award for Service Provision at a Civil Air Navigation Services Organization (CANSO) event. Through its safety management system, the FAA can [identify precursors to risk](#) rather than waiting to respond to specific incidents. As a result, agency officials have identified and eliminated minor hazards before they became major safety incidents. The system features various reporting programs that are collecting 10 times more data than the FAA previously gathered.



IHS Jane's praised the FAA for "implementing the largest voluntary reporting system in the world," one that focuses on data collection and analysis to identify and mitigate safety risks, and for committing resources to that system. High-ranking officials from international air navigation service providers and industry groups served as judges on the panel that picked the winner from a record number of nominees.

Identifying Fatigue-Related Accidents with FACTS™

1.5



FACTS™ 1.5 Complimentary Trial

You are invited to join the many companies around the globe who use FACTS™ to analyze which of their accidents and incidents were caused by fatigue.

Get started with a complimentary trial of FACTS™ 1.5_ – an upgraded version of the expert web-based fatigue-related accident investigation system.

Why you need FACTS™:

As you know, fatigue is one of the most pervasive causes of human error-related accidents, incidents, and injuries. Yet:

- Fatigue is under-reported and under-investigated during accident/incident investigations.
- Companies rely excessively on subjective evaluations. With no simple test (e.g., blood, urine or breathalyzer) to determine fatigue, the data is often inaccurate.
- Managers don't know the true cost of fatigue - Until now, operations and safety managers have not had a systematic nor reliable tool for investigating fatigue.

FACTS™ solves these problems. Scientifically validated and easy to use, managers can enter the details of an incident into the FACTS™ online system, and instantly determine the probability of fatigue at the time of the incident.

Benefits of FACTS™:

Analysis of accidents and incidents is a key part of any FRMS, and using FACTS™ in your organization will:

- Allow managers to determine whether employee fatigue contributed to the causation of an accident/incident or workplace error
- Provide a scientifically-validated tool for incident and accident investigation work
- Store, analyze and benchmark all your fatigue risk data over time
- Capture the true cost and impact fatigue is having on your operation

[Learn more](#)

[Register for a Free 5-Case Trial](#)

Air NZ: Flight safe despite pilot twice nodding off

An Air New Zealand pilot fell asleep twice while behind the controls of long-haul flight. The pilot, who is not named, told the Civil Aviation Authority in his "fatigue report" that during a flight from London to Los Angeles in 2011 he fell into a deep sleep **without warning**. He did the same again later, and decided to take an additional rest in his bunk.



Afterwards the pilot said he was able to continue to Los Angeles without incident. The pilot blamed exhaustion resulting **from bad sleep and delays**. He said he had **moved rooms three times in two days** in London, after problems with air-conditioning at his hotel.

A 50-minute flight delay in London and a long time spent taxiing were also blamed. The pilot's fatigue report was released to TV3 under the Official Information Act. An Air New Zealand spokeswoman said the flight in question had three pilots on board. "During the cruise phase of the flight, one of the two operating pilots nodded off twice for around a minute and woke spontaneously.

"The other operating pilot on the flight deck was aware of this, and safety was not compromised at any point."

Safety was "non-negotiable" for the company, and staff [were encouraged to report fatigue](#).

Tossing and Turning at Bedtime

Many people have trouble getting to sleep quickly, spending well over 30 minutes tossing and turning before being able to nod off. In the wake of a recent study linking sleeping pills with an increased risk of mortality and cancer, some people who once relied on medications to sleep are looking to non-pharmaceutical solutions. Haviva Veler, sleep specialist at the Komansky Center for Children's Health at New York-Presbyterian Hospital/Weill Cornell Medical Center, offers tips on how both adults and adolescents can get on the fast track to restful slumber. **What makes people fall asleep?** When it gets dark outside, the brain secretes the hormone melatonin in response to the decrease in ambient light. This causes the feeling of being drowsy or sleepy.

What do you suggest your patients do to get to sleep faster?

First, keep a constant sleep schedule, especially over the weekend. If you sleep until noon, it completely confuses your internal clock.

Next, sleep in a room that is dark, quiet and a little on the cool side. When the body starts preparing for sleep in the early evening, its temperature starts to drop. So avoid hot showers or hot milk, things that will increase body temperature. If the room temperature is higher than 75 degrees, experiments show prolonged sleep onset.

For the same reason, try not to eat big meals right before sleeping...because the process of breaking down sugars causes our body temperature to increase.



Does exercise make falling asleep easier?

Exercise during the day improves sleep. It makes you more tired so sleep will come faster and be more sustained. Just avoid excessive exercise an hour before bedtime.

Instead, during the hour before going to sleep, try to stick to quiet activity in a dim light. Avoid TV, emails, what I call i-stuff: iPads, iPods. Their bright ambient light blocks the release of melatonin. Read in low light or on a Kindle, which has a softer light.

Reading is tricky, though, because if it's very interesting, you can get too absorbed and continue for hours. A boring book or a report, something that won't excite you too much, is better than something absorbing that may keep you up.

How late in the day can people with sleep troubles have caffeinated drinks?

Caffeine is long-acting, keeps you awake at night and makes you wake up multiple times during the night. Its half-life, or the time it spends in your system, is about eight hours. So you should really stay away from it for eight hours before bedtime.

What about trying to fall asleep when you are jet-lagged?

After changing time zones, try to get as much light exposure as possible during the mornings. This increases the awake phase and helps synchronize your internal clock, which makes for better sleep. Melatonin can be useful as both a sedating agent and to adjust your internal clock to the new time zone.

Dreamliner's Battery Woes A Deja Vu Moment For Aviation Industry

Lithium-ion batteries sparked a crisis for Boeing's Dreamliner 787 - but the crisis is not an unprecedented one. Four decades ago, a very similar transition to new battery technology in airplanes [yielded similar problems](#). Audie Cornish describes what happened then - and what lessons might be learned as lithium-ion batteries become the next generation that power planes.



AUDIE CORNISH, HOST:

As we heard in that report, lithium ion batteries help power Boeing's fleet of 787 Dreamliners, which have been grounded. Now, this technologically sophisticated aircraft was tested for thousands of hours before airlines took it to the skies. That's why the recent overheating and fires in its batteries came as a surprise to many. But to some in the aviation industry those battery problems are déjà vu. Flashback to the early 1970s.

STEPHEN TRIMBLE: And that was the last time there was a transition from one kind of battery technology to a newer kind. That was the nickel-cadmium battery.

CORNISH: Steven Trimble writes for Flight International magazine. He says that for decades, airplanes used the same type of battery as cars: the lead acid battery. But eventually some planes with new sophisticated electronics needed a lighter, better power source.

TRIMBLE: And nickel-cadmium is to its previous generation what lithium ion is today to nickel-cadmium. It gives you more power for the amount of weight that you have to use.

CORNISH: Forty years ago, that new battery was promising as it became more widely used in small, private aircraft. Then the nickel-cadmium [growing pains began](#).

TRIMBLE: What they saw was a [whole series of battery failures](#) across several different types of aircraft - batteries overheating and fires. And our magazine was covering it at the time. And there were quotes from that era of people saying that they're sitting on a ticking time bomb because of these batteries.

CORNISH: The National Transportation Safety Board documented nearly one battery incident every month in 1972. None caused a crash or fatality in the U.S. but they were serious. Just ask aircraft mechanic Lee Coffman. He remembers when a Learjet had to land in Amarillo, Texas in the 1970s because of one of its nickel-cadmium batteries. Coffman, dressed in protective gear, rushed out to the plane as soon as it parked. He says the battery was so hot that he had to extract it wearing asbestos gloves.

LEE COFFMAN: The temperature was such that the paint on the stainless steel case was already changing colors.

CORNISH: Coffman left it smoldering on the tarmac that afternoon. The next day, it was still too hot to touch.

COFFMAN: The inside of the battery had just burned and melted in on itself. It looked like you had taken a torch in there and just melted the core of the battery down to a pile in the bottom of the battery box.

CORNISH: [Engineers eventually redesigned the nickel-cadmium battery](#) and it became the industry standard for airliners. In the future, will the standard be lithium ion batteries? Boeing wants it to be, at least for its Dreamliner. Boeing hopes the FAA will soon approve the company's proposed solution for overheating and fires.

As for some of its competition, Airbus recently announced that it's dropping plans to use lithium ion in its newest plane, the A350. The European manufacturer is reverting to what it describes as the proven and mastered nickel-cadmium.

Congress Wary of Outsourcing Aircraft Maintenance

Congress last year mandated the Federal Aviation Administration step up oversight of the growing trend by U.S. carriers of outsourcing aircraft maintenance to foreign repair stations.

The 2012 aviation authorization (PL 112-95) requires the FAA to ensure that foreign repair stations are inspected to guarantee standards consistent with U.S. requirements. The law also [requires](#)

[foreign repair stations](#) allowed to conduct FAA-sanctioned maintenance to administer drug and alcohol tests consistent with U.S. requirements. The issue is gaining new attention with the proposed merger of U.S. Airways and American Airlines — [one of the last major domestic airlines](#) to conduct most of its maintenance in-house. Before 2001, most U.S. airlines performed the bulk of their aircraft maintenance themselves. But by 2011, 44 percent of maintenance dollars were spent on outside contractors, according to the Transportation Department. The agency's inspector general said that 71 percent of the airframe heavy maintenance for nine major U.S. carriers in 2007 was outsourced, with 27 percent of the work going to foreign repair stations, where labor costs are lower.



North America and Europe still hold the biggest share of airline maintenance work, but Chinese government subsidies, along with investments by aircraft manufacturers Boeing Co. and Airbus, have turned China into a major player.

With easy proximity to the U.S., El Salvador — with three FAA-certified repair stations — handles major maintenance work for many American carriers. There has been concern about the quality of work at foreign stations since 1995, when the crash of a DC-9 flown by the defunct ValuJet [was blamed on errors](#) by a Turkish maintenance facility. But a Congressional Research Service report in December found little evidence to support a decline in safety in recent years as dependence on outsourcing has grown.

“Although some experts believe that safety is being compromised and the regulation and oversight of foreign repair stations needs to be improved, analyses of recent trends do not provide obvious evidence that maintenance outsourcing has adversely affected airline safety,” the CRS concluded.

THE SAVVY AVIATOR: SECRETS OF COST-EFFECTIVE MAINTENANCE

Under the FARs, *performing* maintenance is the job of an A&P mechanic or FAA-approved repair station, but *managing* maintenance is the owner's job. In essence, the FAA looks at each aircraft owner as the Director of Maintenance (DoM) of a one-aircraft aviation department. Unfortunately, [few owners know how to do this important job](#), and most do it very poorly. Many owners leave it to their A&Ps to manage their maintenance, and generally are unhappy with the results.

For the past four and a half years, I've been going around the country teaching owners how to manage the maintenance of their aircraft properly. My seminar is a very intense weekend of training -- at least 17 hours worth -- that covers a wide variety of subjects ranging from reliability-centered maintenance to regulations to engine condition monitoring to troubleshooting (just to name a few of the topics covered).



But to make a long story short, the basic principles of good maintenance management can be boiled down to [five simple principles](#). Follow these five principles religiously and you'll discover that you have a safer and more reliable aircraft while at the same time spending a great deal less on maintenance.

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

[More...](#)

New book from retired pilot details aviation safety shortfalls

A retired Cape Breton pilot has written a book detailing what he feels are serious safety issues in the aviation industry.

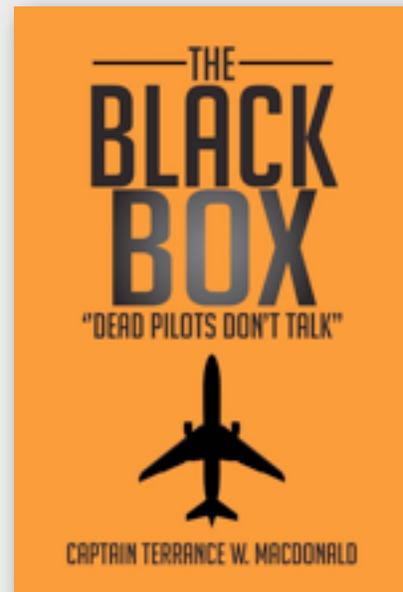
The book, “The Black Box, Dead Pilots Don’t Talk,” by Capt. Terrance W. MacDonald, is now available on various online sites such as Amazon, and through the book’s publisher at Xlibris.com. It should also be available in Sydney book stores in the coming weeks. We caught up with MacDonald, via email, to ask him about his new book:

Q: What is your background with the airline industry?

A: “I started flight training in 1972 at age 15. I was first hired as an airline copilot in April 1980. Since then I have logged over 14,000 hours commercially as both co-pilot and captain. I have flown for Sydney-based Air Bras d’Or in 1987, and spent many years flying for other airlines on routes all over Canada, the U.S.A., Saint-Pierre France and the Caribbean. I recently retired for medical reasons. Four decades of first-hand experience in commercial aviation qualifies me as an industry expert.

Q: In a nutshell, what is the book about?

A: “‘The Black Box’ focuses on aviation safety and my first-hand knowledge of how the industry falls short of being as safe as it could be and should be. A lot of excellent pilots — and many innocent passengers — have died through no blame of their own, but because of airline dereliction. Living pilots don’t talk because they fear reprisal; dead pilots can’t talk.



This book speaks for them. If they could speak, this is what they could tell you about aviation safety that you have the right to know. In aviation human life has seemingly become disposable.”

Q: What motivated you to write this book?

A: “In 1999, I survived a jet crash that drastically changed how I thought about commercial aviation. Air Ontario 1363, Swissair 111, Air France 447 and Colgan Air 3407 were all preventable crashes. After a few near-death experiences of my own, I decided to write about aviation in the hope that this story will reduce what are called accidents. But a crash isn’t an accident if it was predictable and preventable.”

Q: Would you describe the book as investigative or opinion-based?

A: “This is a tell-it-like-it-is story about the airline industry in which this author has spent four decades, simultaneously as observer and as a participant. The story is both investigative and opinion-based because the crashes in the story were investigated by either the Canadian Transport Safety Board, the American Federal Aviation Authority or the French Safety Board (BEA). Facts were taken from these government reports and my professional opinions on why I felt these crashes were Safety’s Future Moves Beyond Business As Usual.

Pre-shift Meetings Could Save a Life

Like a job safety analysis, a pre-shift meeting in any hazardous workplace is important for the safety of every worker.

Pre-shift meetings should be held before starting work each shift, and before undertaking non-routine jobs. They should also be held when there has been a **significant change in the way work is being carried out**. The objectives and benefits of pre-shift meetings are numerous.

They include:

- Keeping all crew members informed of the day-to-day challenges of working safe
- Informing workers of planned activities



- Identifying unique hazards and the required control measures to prevent injuries
- Reviewing basic safe work practices
- Informing workers how their activities will interact with others
- Allowing a shift supervisor to assess the emotional and physical capacity of the crew and ensure all are prepared for work

A pre-shift meeting allows the supervisor to ensure that all onsite personnel are appropriately trained to carry out their assigned duties, and to ensure that certifications and permits are valid and current.

The meeting also gives supervisors an opportunity to identify **possible human hazards**, such as physical or emotional fatigue, use of medication, stress.

Pre-shift meetings can also identify interpersonal issues among crew members, and can manage new or "green" workers to ensure they have completed pre-job orientations and required safety training.

Besides reinforcing basic safe work practices, pre-shift meetings can include the following topics:

- the necessity of teamwork to ensure safety
- the legal obligation of a worker to stop work if the conditions are unsafe
- being proactive to prevent accidents
- lockout procedures
- working alone procedures
- basic radio communication
- reporting unsafe conditions, such as poor housekeeping, blocked walkways, damaged PPE, slippery floors and exposed electrical wires.
- unsafe acts, such as by-passing safety devices, not using PPE, improper lifting and working alone without controls.

Pre-shift meetings also allow each employee coming off shift to ensure that his relief worker is fully informed of any job particulars, such as lockout procedures and known hazards.

Last but not least, pre-shift meetings are important to outline emergency response procedures in case of an accident or crisis. Topics might include:

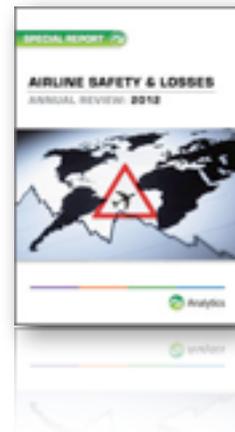
- Designated meeting areas
- Employee accounting system

- Assigned roles
- Location of safety stations, equipment, first aid and communications
- Escape routes
- Shut down procedures
- Rescue and medical duties

Airline Safety & Losses Annual Review: 2012

The Airline Safety & Losses report brings you a review of the year 2012 from the point of view of both safety and insurance.

[Download your FREE copy of the report here](#)



Last Of FAA Paper Certificates To Expire Soon

Pilots have been required to carry plastic certificates since 2010, but the deadline for replacing other paper FAA certificates, such as mechanic, repairman, flight engineer, or ground instructor, **is coming up March 31**. You still have time to meet the deadline, as long as you apply online, which takes about 7 to 10 days for processing. Mail requests will take 4 to 6 weeks to fulfill. Each certificate replacement costs just \$2. If you'd like to keep your old paper certificate, you can, but it will no longer have any official authority.



Temporary certificates and student certificates are exempted from the rule, and will remain valid until the expiration date. The FAA launched its effort to replace paper certificates back in 2005, mainly in response to security concerns. The new plastic cards are more difficult to counterfeit.

http://www.faa.gov/licenses_certificates/airmen_certification/expiring_paper_certificates/

DO NOT DISTURB!

High quality, uninterrupted sleep helps you perform optimally in **all** areas of life.

Checklist for Success

- ✓ Sleep in your bed (not on the couch!)
- ✓ Reduce noise, light, & thermostat
- ✓ Follow a bedtime routine
- ✓ Use your bed for sleep

NO TV

NO Reading

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DO NOT
DISTURB

40 million
Americans report
sleep problems.
Am I one?



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