

Aviation Human Factors Industry News

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

Hello all,

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

★Industrial action cloaked as aviation safety issue: justice

★GAO: FAA Dips Its Toes into SMS Waters

★Workarounds - Part 3

★Night Workers More Likely to Develop Cancer

★Foods that fight fatigue

★Air NZ safety video goes viral

★Practical Aviation Risk Management Course

★Gravity can be grave

★Picture This! Three Little Words Versus One Big Risk-Taker

★Alzheimer's Awareness Month

Industrial action cloaked as aviation safety issue: justice

A Justice has ruled aircraft maintenance engineers took industrial action "[cloaked as an aviation safety issue](#)" when they complained about cockpit door locks on a Qantas subsidiary's fleet. Six men were accused of misconduct over complaints Sunstate Airlines Dash 8 aircraft cockpit doors could be opened with a paddle stick or a rolled-up boarding pass. Sunstate, which carries regional air passengers under the business name QantasLink, issued each engineer with formal warnings and deducted four hours pay.

Australian Licensed Aircraft Engineers Association, which had unresolved industrial issues at the time, argued in the Brisbane Federal Court that Qantas had breached the Fair Work Act because the employees were exercising a workplace right under Civil Aviation Regulations.

But Justice John Logan, in a judgment delivered on Tuesday, said the engineers' actions, which grounded a number of Sunstate aircraft on October 19, 2010, were "[not the acts of men faithful to their trade responsibilities](#)".

Justice Logan said myriad people commuting daily by air relied upon people employed in this trade to [faithfully perform their duties](#).

He said it was important licensed aircraft maintenance engineers [worked in a culture](#) where they were encouraged to report aircraft faults.

But Justice Logan said such responsibilities [must not be exploited](#) by employers and unions negotiating pay and conditions.

"The evidence establishes that the QantasLink operators, materially Sunstate, [did promote and encourage](#) aircraft fault reporting," he said.

"It is subversive of such a culture and antithetical to the public interest for what are in reality industrial actions [to be cloaked as aviation safety issues](#)."

Justice Logan said none of the LAME employees were not tasked to undertake any scheduled maintenance to the cockpit door or lock that evening.

"It is clear to me ... that each of the LAME employees deliberately sought to find these so called defects on the aircraft concerned that evening," he said.



GAO: FAA Dips Its Toes into SMS Waters



The FAA is making progress implementing [safety management systems \(SMS\)](#) both within the agency and for the aviation industry as a whole, but the effort is likely to [take many years to complete](#), according to the Government Accountability Office (GAO). In a recent report to House and Senate aviation committees, the GAO concludes that the magnitude of SMS's potential impact on aviation oversight and the complexity of implementation are [both a benefit and a drawback](#) for the FAA. While SMS implementation could help ensure the continued safety of the U.S. aviation system, it could also drag down other large initiatives as the agency works with limited resources.

“With agency resources and capacity in great demand,” the GAO said, “it will be important for the [agency to maximize the efficiency of SMS implementation](#), both through efficient use of its workforce and creation of policies and systems that standardize and streamline implementation.”

But the government watchdog organization warned that data protection concerns from airport officials and others could prevent aviation stakeholders from fully embracing SMS implementation, thus hindering its effectiveness.

“Without assurance of protection from state freedom of information act laws,” the GAO wrote, “some aviation stakeholders [may choose to collect only the bare minimum](#) of safety-related data or may choose to limit the extent to which collected information is shared among aviation stakeholders.”

For decades, the aviation industry and federal regulators, including the FAA, have used data reactively to identify the causes of aviation accidents and incidents to take actions to prevent their recurrence. While the FAA plans to continue to use data to analyze past safety events, it is also working to use data proactively to search for risks.

The FAA is undertaking the transition to SMS in coordination with the international aviation community, working with the International Civil Aviation Organization (ICAO) to adopt applicable global standards for safety management.

ICAO requires SMS for the management of safety risk in air operations, maintenance organizations, air traffic services and airports, as well as certain flight-training operations and for organizations that design or manufacture aircraft.

Further, ICAO has established for its 191-member countries [safety management requirements](#) that mandate that civil aviation authorities—such as the FAA—establish SMS, which it refers to as “state safety programs.”

ICAO first mandated SMS worldwide for air traffic service providers, such as air carriers and certified airports, in 2001. The United Nations-affiliated organization later specified that member states should mandate SMS implementation for airports, air carriers and others by 2009.

While the FAA began to implement SMS in 2005, FAA officials informed ICAO that the agency and industry would not be able to meet the 2009 deadline. The international aviation body is allowing the FAA to [take additional time](#) because the U.S. is a leading implementer of SMS worldwide, and because the U.S. aviation system may be more complicated than other countries’ because of its size and complexity. ICAO has not specified a new date by which the FAA is expected to comply.

Workarounds - Part 3

The [pressure to make schedule](#) often found in busy maintenance organizations can unfortunately create an environment where workarounds become part of the cultural norms. As a former air safety investigator, I was often presented with an accident or incident where one of the key elements of the event was the presence of a workaround or deviation to published procedures established by the organization or mandated by the manufacturer. It’s a common problem in all organizations and is rooted in our innate ability to problem solve coupled with resource driven pressures to get the job done better, cheaper, faster. By resource I mean time, money, and labor.



Procedural deviations

Aircraft accidents are rare events and the least likely outcome of workarounds, but their severity greatly magnifies the outcome of such violations.

For example: In January 2003 a Beech 1900D crashed on takeoff from Charlotte, NC. The findings from the report:

- The accident airplane's elevator control system was incorrectly rigged during the detail six maintenance check, and the incorrect rigging restricted the airplane's elevator travel to 7 degrees airplane nose down, or about one-half of the downward travel specified by the airplane manufacturer.
- The changes in the elevator control system resulting from the incorrect rigging were not conspicuous to the flight crew.
- The QA inspector did not provide adequate on-the-job training and supervision to the mechanic who examined and incorrectly adjusted the system.
- Because the repair station's inspector and the mechanic did not follow the procedure as written, they missed a critical step that would have likely detected and thus prevented the accident.

In creating a progressive organization based on best practices, **management must lead the way** in ruthlessly examining internal processes for compliance, currency, and safety. Internal self-audit or evaluation methods are the most effective way of examining operations and challenging complacency. In using all the tools at our disposal we drive the risk posed by procedural deviations way down, to levels that assure every flight remains an uneventful journey.

It may be that some people's sole purpose in life is to be an example of what not to do in this world. Don't become the poster child for what not to do when fixing an airplane. **Take the long way home . . . no workarounds.**

Night Workers More Likely to Develop Cancer

Night work can increase cancer risk in men, according to a new study published in the American Journal of Epidemiology by a research team from Centre INRS–Institut Armand-Frappier and Centre de recherche du Centre hospitalier de l'Université de Montréal. The study is one of the **first to provide evidence among men** of a possible association between night work and the risk of prostate, colon, lung, bladder, rectal, and pancreatic cancer and non-Hodgkin's lymphoma.



"Exposure to light at night can lead to a reduced production of the sleep hormone melatonin, inducing physiological changes that may provoke the development of tumors. This hormone, habitually released in the middle of the night in response to absence of light, [plays a pivotal role in hormonal functions and in the immune system,](#)" explained Professor Marie-Élise Parent of Centre INRS–Institut Armand-Frappier, the study's lead investigator.

Despite finding that night work increases the risk of a number of cancers, the researchers are intrigued by the absence of a relationship between duration of night work and cancer risk found in the study. In theory, an increasing duration in the period of night work would be expected to be accompanied by an increase in the risk of cancer, [but the results obtained did not confirm such a tendency.](#) As well as opening up new research avenues, this finding raises questions about the factors that might influence people's adaptation to night work. Other more targeted research, including Parent's current research on prostate cancer, will also allow for a more detailed study of the consequences of night work on health.

For this research, Parent and her team analyzed data from a study on occupational exposure and cancer that was conducted between 1970 and 1985, involving 3,137 men aged 35 to 70 years who had been diagnosed with a cancer at 18 hospitals in the Montreal metropolitan area, compared to a control group of 512 cancer-free individuals from the general population.

<http://aje.oxfordjournals.org/content/176/9/751.abstract>

Foods that fight fatigue

A good, balanced diet — one that includes a variety of unrefined carbohydrates, proteins, and fats, with an emphasis on vegetables, whole grains, and healthy oils — will help keep you healthy. Eating well also provides optimum fuel for your body and can help keep you firing on all cylinders. [Certain types of foods can help preempt fatigue.](#) Candy and other simple sugars give you a quick burst of energy but that boost fades quickly and can leave you feeling depleted and wanting to eat more. [On the other hand,](#) whole grains and healthy unsaturated fats supply the reserves you can draw on throughout the day or night. So to keep your up and steady, limit refined sugar and starches to the occasional treat.



How you eat can also either boost your energy or drag it down. Eating small meals and snacks every few hours throughout the day or night provides a steady supply of nutrients to body and brain. Some people begin feeling sluggish just a few hours after eating. [But it doesn't take much to feed your brain](#). A piece of fruit or a few nuts should do it.

Smaller is better especially at lunch. Researchers have observed that people who have a big lunch typically show a more pronounced afternoon or midnight slump. One possible explanation is a sharp rise in blood sugar after eating, following by an energy dip a few hours later.

For more advice on ways to feel energized, purchase *Boosting Your Energy* from Harvard Medical School.

<http://click.mail.health.harvard.edu/?qs=861a0127b679a647e720f0b731a7611f40345f73f1def36b77536400fa73499f7ad97eb7151e9029>

Air NZ safety video goes viral

Air New Zealand's latest safety video has become [a global hit](#) on YouTube with 6.2 million viewers so far. Featuring characters from *The Hobbit* in advance of the release of the first in a new trilogy from award-winning Peter Jackson, the video was watched by more than one million people in the first day of its release. Air New Zealand's head of international marketing Jodi Williams said: "The video has been simply fantastic for growing global awareness of the forthcoming movie, Air New Zealand's brand and New Zealand as a destination."



The airline is investing several millions of dollars to help market the movie in a cross-promotion aimed at stimulating more tourism to New Zealand. A themed Air NZ aircraft will be revealed just prior to the movie's global premiere in Wellington on November 28.

<http://www.airnzcode.com/hobbitmovie/video/>

Practical Aviation Risk Management Course

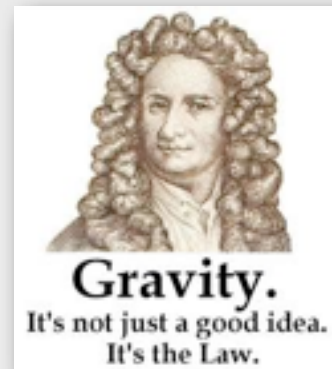
Bob Gould of Bravo Golf Aviation announces his new 2-day course “Practical Aviation Risk Management”. This course is designed for aviation maintenance technicians and flight crewmembers to link the theory of **human factors** and the “dirty dozen” to the practical application of **situational awareness** leading to risk recognition, assessment, and risk management. These factors are important elements for any individual or any safety management system. “Practical Risk Management” is accepted for 8 hours training towards FAA IA renewal. This course is taught on-site at a customer’s location.



For further information and course subjects, contact Bob Gould at 413.320.3977, or visit his website at, www.bravogolfaviation.com.

Gravity can be grave

Work stands are part of our work environment. We cannot do our jobs without them but we **frequently forget** how dangerous they can be. Gravity is not your friend when elevated by this equipment. Falls from this equipment are one of the leading causes of occupational fatalities and injuries. Last year alone they to approximately **163,000 emergency room visits** due to falling from such equipment. We often take them for granted and **get complacent** when using them. We can greatly reduce if not totally eliminate such accidents and incidents by thinking safety before use and safety during use. Read and follow all, warnings, and cautions. Report and remove damaged equipment from service and tag it until it is repaired or fixed. Choose the proper ladder or work stand for the intended task. Inspect for slippery surfaces and ensure it is not shaky or on an uneven surface. Do not overextend your reach. Use barricades/signs if placed where it can be displaced by other work activities.



Engage all locks. Do not exceed the maximum load rating. Use safety harness/fall protection. [A few attentive moments](#) before use may save you months of recovery, or death, due to unsafe use.

Picture This! Three Little Words Versus One Big Risk-Taker

If a picture is worth 1,000 words, this guy could start by paying a little attention to the [three little words](#) staring him in the face. One slip and he could be staring at a more dazzling kind of stars than the ones on this banner.



Alzheimer's Awareness Month

Know the warning signs of the most common form of dementia. Alzheimer's Disease is a devastating form of dementia that affects 5.4 million Americans. The disease results when the brain's normal communication systems are. Scientists think the brain begins to malfunction when abnormal protein deposits, called plaques, and tangles of fibers, harm the normal cells inside the brain, according to the Alzheimer's Association. Researchers today are working toward better understanding the mechanisms behind Alzheimer's and trying to find a cure. To support these efforts, November has been designated National Alzheimer's Disease Awareness Month.



Not a normal part of getting older

Some people mistake the early symptoms of Alzheimer's as a normal part of aging — but they're not. While people may have some memory loss over time, in Alzheimer's that memory loss gets progressively worse. Alzheimer's is the most common form of dementia, representing up to 80 percent of all cases of dementia in older adults.

While Alzheimer's is most common in adults over age 65, some cases strike early — affecting adults in their 40s or 50s.

Spotting Alzheimer's disease

It's critical to identify Alzheimer's disease as early as possible, according to the Alzheimer's Association. The earlier it is diagnosed, the more time the patient will have to:

- Participate in clinical trials of new medications
- Start using existing medications
- Make plans for the future regarding legal and care issues

The Alzheimer's Association identifies 10 early warning signs of Alzheimer's that you should be aware of:

1. Memory problems that affect day-to-day activities
2. Reduced ability to problem solve or make plans
3. Difficulty performing familiar tasks

4. Confusion about dates and times
5. Problems with vision
6. Confusion while talking or participating in conversations
7. Losing things and not being able to find them by retracing steps
8. Increasingly poor judgment when it comes to money or decision-making
9. Withdrawing socially
10. Mood or personality changes

If you see signs or symptoms of Alzheimer's in a friend, family member or even in yourself, it's time to see a doctor. Your doctor can help rule out other conditions that may be causing memory loss and refer you to a specialist who can diagnose and help manage Alzheimer's disease. There is no easy test to diagnose Alzheimer's, but doctors generally perform a series of tests to assess memory and rule out other causes of the dementia.

Getting support after a diagnosis

Caring for a family member with Alzheimer's disease can be emotionally draining and difficult. If you have a family member who has been diagnosed with the disease, make sure you reach out for support. The Alzheimer's Association website offers assistance to caregivers with tools, resource and community boards where you can connect with other caregivers for support. Visit www.alz.org to learn more.