

Aviation Human Factors Industry News

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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:

★Hangar Fire At Hooks Airport
Injures One

★Liar, Liar

★Human Factors Mitigation Tip

★Full gas tanks could stop many
small plane crashes

★FAAST Blast

★FAA: Overshot Flight Was On
Canadian Frequency

★New Democrat transport critic
calls for review of Canada's
aviation safety regime

★GAO Suggests Reporting of
Workplace Injuries, Illnesses Likely
Inaccurate

★Aircraft Mechanic Gifts

★Holiday Safety

Hangar Fire At Hooks Airport Injures One

Several Aircraft And Hangar Destroyed

A fire at DWH in Harris County, TX, broke out around 11 am, last Sunday, in hangar. Most of the two-story facility collapsed during the blaze, **destroying multiple aircraft** and vehicles inside along with a second-story residence.



Houston's KPRC Local 2 reports that 68-year-old Del Martin owned the hangar and suffered first- and second-degree burns during the fire. Martin was taken to nearby Memorial Hermann Hospital for treatment.

Several local fire crews were called to help extinguish the blaze. KHOU reports that water was pulled from the seaplane landing strip as the **nearest hydrant was over two miles away**.

Although the fire was contained and did not spread to adjacent buildings, the smoke could be seen for miles and caused concern among locals. Several residents reported hearing "an explosion" though investigators had no indication an explosion occurred.

There is conflicting speculation about the cause of the fire being reported. The Harris County Fire Marshal's Office will lead the investigation into the official cause of the fire.

Liar, Liar

I am an aviation electrician's mate second class. **I used to be** an LPO and a, but all of that changed in a matter of minutes. During flight operations aboard USS Dwight D. Eisenhower (CVN-69), my shop was tasked with repairing an aircraft that had landed with a downing discrepancy. That discrepancy involved the flight control -



surface trim system, more specifically, the pitch trim. I quickly discovered that the stab-trim actuator was jammed internally. Due to a **manpower shortage** in my shop at that time, I was picked to start the maintenance on the aircraft, with another CDI to inspect my work.

I had the removal-and-installation section of the MIM printed out for the job I was doing. I signed out my tools and headed to the flight deck to begin. During the removal process, I came to a point where I had to dismount the standard central air-data computer (SCADC) from its rack and move it so I could continue. The SCADC is a vital component in that it receives inputs from the pitot static system, which in turn drives the barometric altimeter and airspeed indicator, both of which are critical instruments for the aircrew.

After moving the SCADC, I discovered that I still didn't have enough room to get to a cotter pin and locking nut that I had to remove. At that point, **I decided to deviate** from the MIM. I disconnected the SCADC and removed it so I could access the cotter pin, locking nut, and electrical connector located behind it.



With the SCADC removed, the job flew by. I removed the actuator and turned it in to supply. All I had left to do was to receive the new part and to install it. After I received the new actuator, I notified maintenance control that I had the new part and was going back to work on the discrepancy. The controller told me that **I needed to expedite installation** because the aircraft had been slated for the evening flight schedule.

I went to work. I measured the actuator's nominal length—**without a CDI to witness my measurement**—and began to install the actuator back into the aircraft. I ran into a couple of bumps and tangles in **my hurry and got frustrated**, but I eventually finished the installation. I reconnected the SCADC, secured it, checked my tools, and grabbed a QAR to inspect my work.

This is **where it all went downhill** for me. Following up on his pass down from another QAR from the opposite shift, the QAR inspected my work and asked if I had disconnected the SCADC. At that point, I did the unthinkable: **I lied**.

After talking to the QAR, I went down to maintenance control and told them that installation was complete and that they could ops check the system. The controller also asked me if I had removed the SCADC. **Once again, I lied**. I walked maintenance-control personnel through my removal and installation process—quoting from the MIM— and assured them I hadn't disconnected or removed the SCADC.

I was dismissed, only to be called back to maintenance control a short while later. When I arrived, **I knew I was in trouble**. Again, they asked me if I had removed the SCADC. Once again— knowing I had been caught—**I lied**. That's when maintenance control called upon the testimony of the day-check QAR standing in front of me. It was only after he looked at me and said, "Yes, you did," that I finally 'fessed up.

I don't know why I persisted with a lie that was so dangerous. My reasoning was **to dodge a 30-minute ops check** of the pitot-static system. I was sure the SCADC was "good" because I had worked on it. You see, disconnecting the SCADC requires a test to ensure it is working. This test could prevent something catastrophic from occurring if, for some reason, the SCADC isn't working right. But, I was **in too much of a hurry** to get the aircraft "up" for the flight schedule.

After everything was said and done, I was relieved of my position as LPO. My status as a CDI also was terminated—all because **I had been willing to sacrifice my integrity**. Without integrity, there can be no trust, and how do you work with someone who can't be trusted? Integrity and trust are two things you gain over time through hard work—and that you can lose in an instant.

Human Factors Mitigation Tip

Human Factors is an effort to understand human capabilities and, and apply that understanding to equipment, systems, facilities,



procedures, jobs, environments, training, staffing, and personnel management for safe, comfortable, and effective human performance.

Pressure is one of the Human Factors. **Pressure** is explained by external or internal forces demanding high-level job performance. This can be real or perceived.

Pressure Safety Net:

- Pressure can be self induced. Don't wait until the last minute
- Recognize when pressure becomes excessive or unrealistic
- Seek assistance. Ask for help
- Communicate your concerns
- Be assertive; know when to say "NO"
- Always take the time to do the task safely
- FOLLOW CORRECT PROCEDURES

Shortcuts can be DEADLY

Full gas tanks could stop many small plane crashes

Aviation officials say there's a **simple way to prevent** hundreds of small crashes: **fill up the gas tank.**

The National Transportation Safety Board says running out of fuel has been a cause or factor in **238 small plane crashes** in the past five years.

Those crashes have killed 29 people.

The NTSB says there were 8,016 crashes of civilian planes from 2004 through 2008. That category excludes commercial flights and military aviation.

Pilot error is blamed in about 75 percent of those crashes, which killed 2,640 people on board.

Tom Haueter (HOW'-der) is director of the NTSB's Office of Aviation Safety.



He says while continuing to fly into bad weather is a **common error**, running out of gas is also "way at the top."

FAAST Blast

Notice Number: NOTC2049

FAAST Blast — December 08, 2009
Biweekly FAA Aviation News update.

SAIB Issued for Beechcraft Dukes FAA issued a Special Airworthiness Information Bulletin (SAIB) on November 30 to address an airworthiness condition with flap systems on Hawker Beechcraft Model 60 (Duke) Series twin-engine powered airplanes. The SAIB stems from an accident with a Duke that **may have been caused by a malfunctioning flap actuator**. FAA recommends owners, operators, and **maintenance personnel** thoroughly review, understand, and follow the information published in the Duke Model 60 maintenance manuals **to maintain the flap system properly**. This includes attention to the correct flap rigging system, actuator overhaul and inspection criteria, and the use of proper lubricants.



To view the SAIB, go to <http://www.faa.gov/aircraft/safety/alerts/SAIB/>.

Runway Safety

Taxiing Toward Tomorrow: Runway Safety Summit Highlights Need for Collaboration From NTSB Chairman Deborah Hersman's opening remarks, to FAA Director of Runway Safety Wes Timmons' closing statement and recap of accomplishments, the consensus was clear at last week's first FAA International Runway Safety Summit: **Focus, cooperation, and teamwork** are the key components to improving airport surface operations worldwide. To see evidence of this need for global collaboration one only had to look as far as the roster, which included nearly 500 attendees from 17 different nations. Many of the topics presented and discussed by safety experts and key industry stakeholders directly involved general aviation, including airport layouts, cockpit and ATC procedures, **human factors**, and technology.

Also discussed were ongoing initiatives, as well as plans for future runway safety improvements in the U.S. and around the world.

Presentations from many of the event's speakers and panelists will be available in two weeks at <http://events.aaae.org/sites/091107/>.

FAA: Overshot Flight Was On Canadian Frequency

CBS4 in Colorado has learned the pilots of Northwest Airlines Flight 188 first in touch with **Canadian air traffic controllers** after losing radio contact for more than an hour raising the possibility their cockpit radio had been tuned into the **wrong frequency**.

The crew flew well beyond their destination of Minneapolis/St. Paul in October. The pilots indicated they were using their laptop computers to discuss company flight scheduling procedures.

For more than an hour U.S. controllers tried without success to reach Northwest Flight 188. It was designated "nordo," which means "**no radio**."

The plane flew from San Diego beyond its destination of Minneapolis as controllers tried unsuccessfully contact it numerous times.

The final communication before the radio blackout was from the Denver air traffic control center in Longmont. It directed the Northwest flight to a radio frequency of **132.17**. CBS4 has learned when contact was finally resumed the pilots were speaking with controllers in Winnipeg, Canada. One of the Winnipeg radio frequencies is similar to the one they were directed to tune to, **132.12**.

Aviation safety consultant Steve Cowell said it's common for pilots to tune to the wrong radio frequency.

"Absolutely they could have dialed in the wrong frequency. They could have **dialed in a seven for a two or vice versa** in this circumstance," Cowell said.



The Federal Aviation Administration released transcripts of the radio search for Northwest Flight 188, but no mention was made of any contact with Canadian air traffic control. Now FAA spokesperson Laura Brown has told CBS 4 News, "We found this out afterwards about Winnipeg. There was no way the controllers would know and did know how the pilots happened to come back up on that frequency."

Brown said the matter remains under investigation.

Northwest 188 finally spoke with Minneapolis air traffic control 77 minutes after the pilots' last contact with U.S. controllers. An air traffic controller asked the pilots what had happened. The reply stated, "Ah, Roger, **we got distracted** and we've overflown Minneapolis."

The pilots' licenses were revoked by the FAA. They are appealing. The Canadian air traffic control operator Nav Canada would not comment on the contact with its Winnipeg center.

New Democrat transport critic calls for review of Canada's aviation safety regime

Transport Canada **needs to review** its entire Aviation Safety program revelations by **safety inspectors and mechanics** testifying before the House of Commons Transport Committee, said New Democrat Transport Critic Dennis Bevington (Western Arctic).



"We heard how inspectors are spending all of their time **doing paperwork** rather than actually making sure aircraft are safe and we heard that the pilots who the aircrafts are not always qualified," said Bevington. "The change to safety management systems has resulted in Transport Canada **not being aware** of serious safety violations."

A Safety Management System (SMS) approach **has the airlines developing their own programs to deal with safety problems**. Transport Canada began the move to SMS in 1999. The system is recommended by the International Civil Aviation Organization but only with continuation of regular safety inspections and enforcement.

Currently SMS is in place for large airlines. In an email sent on November 13, 2009, Martin Eley, Transport Canada's Director General of Civil Aviation, wrote that there are "**common concerns**" with SMS.

Eley goes on to say that implementation of SMS for air taxi and commuter operations will be delayed until January 2011.

"This delay shows Transport Canada is aware of problems with the system, what I don't understand is why they think it can continue to work for large airlines," said Bevington. "If it isn't protecting Canadians on small airlines how can it protect Canadians when they fly on the large airlines which carry the vast majority of passengers?"

In responding to a Bevington's question in the House of Commons on December 1, Transport Minister John Baird said he sees aviation safety as the government's concern.

"I'm glad the Minister agrees that the role of Transport Canada is to ensure public safety," said Bevington. "That is why he should order a review of the safety regime and **fix the system** immediately."

GAO Suggests Reporting of Workplace Injuries, Illnesses Likely Inaccurate

The US Government Accountability Office (GAO) says workplace injuries illnesses are likely widely **underreported and frequently inaccurate**.

The Occupational Safety and Health Act of 1970 mandates that the US Department of Labor collect and compile work-related injury and illness data.

However, the GAO report states that the Occupational Safety and Health Administration (OSHA) doesn't always require its inspectors to interview workers about injuries and illnesses. Such interviews would help OSHA verify the accuracy of employer-provided injury and illness data.



Comments from stakeholders interviewed by GAO officials, coupled with surveys of occupational health practitioners, suggest that workers may not report work-related injuries or illnesses because they **fear job loss or other disciplinary action**, or are worried about jeopardizing rewards based on having low injury and illness rates.

And employers may not record such incidents because they are afraid of **increasing their workers' compensation costs** or jeopardizing their chances of winning contract bids for new work.

More than one-third of occupational health practitioners surveyed by GAO said they had been **subjected to pressure** to provide insufficient medical treatment that avoids the need to record an injury or illness.

Read a summary of the GAO report, including recommendations to the Department of Labor here.

<http://www.safetymagazine.com/send/link.php?M=259189&N=870&L=1829&F=H>

Aircraft Mechanic Gifts

Stuck on what to get your Aircraft Mechanic as a holiday gift? Check out these selections:



http://shop.cafepress.com/aircraft-mechanic?utm_medium=cpc&utm_source=google&utm_campaign=exp--expand+-+gifts+-+us&utm_term=aircraft+mechanic+gift&utm_content=search-b&cmp=knc--g--us--exp--internl--b--aircraft_mechanic_gift&gclid=CNCq17KNvp4CFc5L5QodgkgJpQ

Holiday Safety

The National Fire Protection Association (NFPA) publishes safety information that can be used not only at the workplace, **but also at home**. to NFPA, U.S. fire departments annually respond to an average of **250 structure fires caused by Christmas trees**. Nearly half of them are caused by **electrical problems**, and one in four resulted from a heat source that's too close to the tree. The NFPA offers the following advice for picking, placing and lighting the tree:



- If you have an artificial tree, be sure it's labeled, certified or identified by the manufacturer as fire-retardant.
- If you choose a fresh tree, make sure the green needles don't fall off when touched; before placing it in the stand, cut 1-2" from the base of the trunk. Add water to the tree stand, and be sure to water it daily.
- Make sure the tree is not blocking an exit, and is at least three feet away from any heat source, like fireplaces, space heaters, radiators, candles and heat vents or lights.
- Use lights that have the label of an independent testing laboratory, and make sure you know whether they are designed for indoor or outdoor use.
- Replace any string of lights with worn or broken cords, or loose bulb connections. Connect no more than three strands of mini-string sets and a maximum of 50 bulbs for screw-in bulbs.
- Never use lit candles to decorate the tree.
- Always turn off Christmas tree lights before leaving the home or going to bed.
- Include information on your community Christmas tree recycling program.
- After Christmas, get rid of the tree. Dried-out trees are a fire hazard and should not be left in the home or garage, or placed outside the home.

- Bring outdoor electrical lights inside after the holidays to prevent hazards and make them last longer.

By following these fire prevention tips and measure, the NFPA says you can **greatly reduce the risk of fire** in your home, and enjoy a safe holiday season. The holidays can quickly turn from joyful to tragic when a fire occurs. By taking simple precautions, people can avoid potential fire hazards, and make this time of year a healthy and happy one.

Visit www.nfpa.org/holiday for more information and safety tips.