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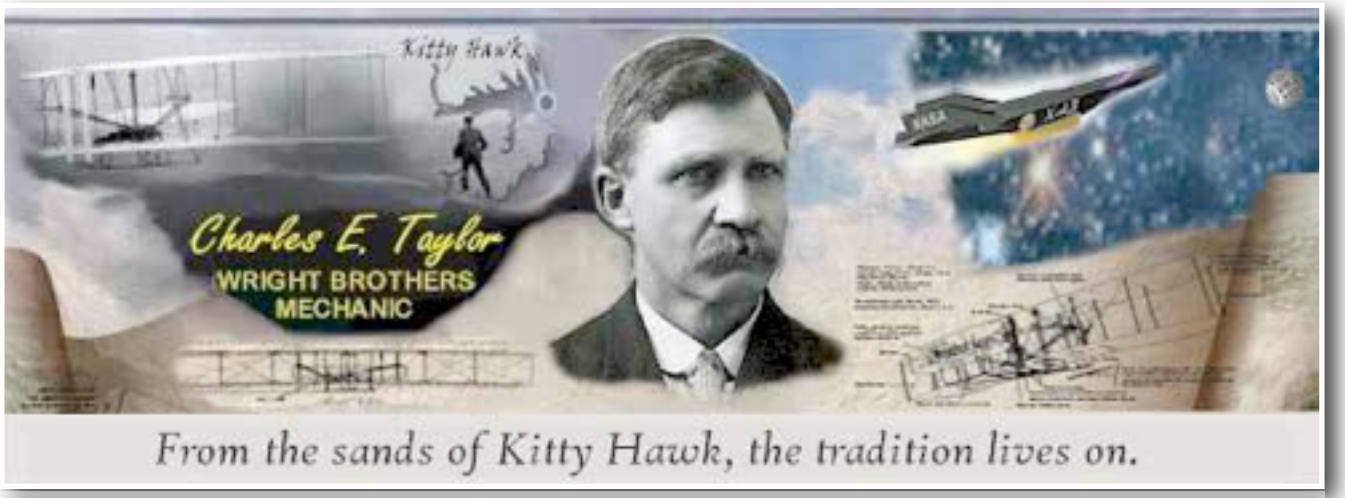


Hello all,
To subscribe send an email to: rhughes@humanfactorsedu.com
In this weeks edition of *Aviation Human Factors Industry News* you will read the following stories:

'AI ignored safety rules during fire'

A fuel leak is believed to have sparked the fire,

A probe by the aviation regulator has found several safety lapses by Air India while evacuating 213 passengers from a Mumbai-Riyadh flight after a fire broke out in the aircraft on September 4, 2009. Twenty-one passengers suffered minor injuries during the evacuation. In the report released last month, the Directorate General of Civil Aviation (DGCA) concluded that the AI's aircraft maintenance engineer failed to notice a fuel leak from the left side of aircraft before clearing it for take-off. "The engineer had left the bay without giving the final take-off clearance because it was raining," the report said.
Second, the airline ground staff were unable to report the fire to the pilots because the cockpit crew had switched off the radio communication equipment, violating the airline's operation manual.
Worse, both the pilots left the aircraft before the evacuation process was complete and not a single cabin crew member was deployed at the end of the inflated emergency slides to assist passengers.

"It could have been dangerous. Some passengers were running towards the active runway close to the bay where the evacuation took place," said a DGCA official requesting anonymity,

The report also blamed the airline engineers for failing to check the aircraft's fuel channel during routine inspection. "Constant wear and tear caused massive fuel leakage and fire," said the report.

An airport follow-me vehicle informed the air traffic controller on duty about the fuel leak but he wasted significant time in alerting the pilots, the report stated. "As per rules, the controller should have called the aircraft crew by its registration number but it kept calling the flight number," read the report.

The cockpit crew switched off the aircraft engine but was late to start the evacuation process. The cabin crew also overlooked hand signals about the fire from the ground staff.

FAASTeam Maintenance Safety Tip March 2011

Work Place Pressure -- Don't Turn One Emergency into Two.

Two wrongs don't make a right, but three lefts do. How often are we pushed into making decisions in a hurry? Whether the aircraft is late for departure or the air ambulance crew is in a hurry to get to a car accident. Something is broken (1st wrong) and as a mechanic it is your job to make sure it gets fixed properly. You may be tempted to stick a piece of chewing gum on a leak and call it good until they get back (2nd wrong). While it may seem right at the time, the proper procedure would be to replace the seal (1st left), test it (2nd left), and close out the paperwork (3rd left).

If you let the aircraft go in less than airworthy condition, imagine the pressure you will feel when all those families want to know what happened. Pressure is one of the human factor's "Dirty Dozen". Don't fall victim to pressure.

To learn more about Maintenance Human Factors and the Dirty Dozen contact your local FAASTeam Program Manager.

FAA Withdraws Advanced Notice for SMS Proposal

The FAA withdrew an advance notice of proposed rulemaking (ANPRM) released in July 2009, that solicited public comment on potential rules requiring a safety management system (SMS) for Part 21, 119, 121, 125, 135, 141, 142, and 145 holders, product manufacturers, applicants and employers. This comment period closed on Oct. 21, 2009. "The FAA is withdrawing the ANPRM because we have issued a notice of proposed rulemaking that would require [Part 121] holders to develop and

implement an SMS," the agency said in the withdrawal notice. But Part 135 charter operators, or the other aforementioned certificate holders, are not off the hook for SMS because of this ANPRM withdrawal–if anything, it only delays the inevitable. "The FAA may initiate additional rulemaking in the future to consider SMS for other product/service providers," the agency noted. The comment period for the Part 121 NPRM was extended to March 7, largely at the request of non-airline alphabet groups, including NBAA, AOPA, EAA, ARSA, NATA and others. Basically, the signers of the request believe that the Part 121 SMS rule will have a significant impact on SMS rules for other types of operation and the groups wanted more time to collect data and formulate comments. In fact, the FAA has said that SMS rules for Part 135 operators would be similar to those drafted for Part 121.

Virgin Blue's polyester uniforms prompt rash of complaints

Discomfort: Virgin Blue's new flight attendant uniforms have fallen foul of staff.

Launched in a blaze of publicity and hailed for returning 1960s chic to the skies, Virgin Blue's new flight attendant uniforms have fallen foul of staff who have labelled them uncomfortable and unsafe. One of the main problems with the uniforms is a hangover from the era - their 100 per cent polyester lining - along with ill-fitting designs, The Daily Telegraph reported.

An internal email obtained by The Sunday Telegraph reveals staff members are suffering from discomfort and "very painful" rashes as a result of the uniforms and suggested staff members wash their uniforms with fabric softener before wearing them. The Civil Aviation Safety Authority (CASA) has received at least four complaints from Virgin Blue staff since the uniforms were unveiled three weeks ago.

A flight attendant, who did not wish to be named, said she felt the airline had put fashion before comfort and safety.

"The Virgin group is all about the look and they do not have the health and safety of the crew as a priority," the flight attendant said.

"In an emergency these garments will be a hindrance, as the arms cannot be lifted above shoulder height due to the ill-fitting design."

"And in the event of a fire, being 100 per cent polyester it would be like having plastic melted on to the skin."

A male staff member, who also spoke on the condition of anonymity, has also lodged a complaint with CASA.

"With the men's shirts I keep getting rashes on my neck constantly. It is from the fabric - it is a polyester blend," he said.

"This company is all about the look. They say safety first and there is nothing safe or healthy about these uniforms. The uniforms suffocate you."

A CASA spokesman said complaints about the uniforms were confidential and no details would be released.

Launched by Elle Macpherson and designed by Project Runway's Juli Grbac, the uniforms were said to have "style, sophistication and old-world glamour".

When The Sunday Telegraph contacted the airline for comment, V-Australia spokeswoman Melissa Thompson disputed the claims, stating the airline had undertaken thorough research into the fabric used and the safety and durability of the uniforms was paramount during the design and manufacture process.

The Invisible Gorilla

Have you ever wondered how tools and other paraphernalia can get left behind when a technician closes up a workspace? From the flashlight left in a nose wheel steering cable run to rags left in fuel tanks, maintenance world is often left scratching its head trying to answer this question; how did maintenance professional miss something so obvious?

Two researchers have an answer that explains not only how a technician can leave tools behind but also how a driver can fail to see a car right in front of him before an accident, how a policeman can run past a crime without noticing it and other confounding lapses in vision.

In the late 1990's, psychology researchers Christopher Chabris and Daniel Simons conducted an experiment at Harvard University. Dubbed "the invisible gorillas," it asked participants to watch a short video in which six people – three wearing white shirts and three wearing black – pass basketballs back and forth. Participants were given one instruction: to count the number of passes made by those wearing white shirts.

Midway through the video, a student dressed in a gorilla suit walks into the middle of the circle of players, thumps his chest a few times and walks off stage. You'd think no one could miss anything so obvious, but and eye – popping 50% of those who took the test missed the gorilla. Since the original experiment, the test has been repeated in different conditions, with different audiences and in different countries, but the result is always the same. Focused on counting passes, per the instructions, about half the people miss the gorilla.

The experiment suggests that we miss a lot of what goes on around us. "We believe that we are capable of seeing what's in front of us," say Chabris and Simons in their published book, The Invisible Gorilla (Crown, 2010). "But theses intuitive beliefs are often mistaken ones that mask critically important limitations on our cognitive abilities."

Everyone is Affected

How is it that fully half of us can miss something so obvious? It's not a vision problem-it's an attention problem. It's an error in perception resulting from a lack of attention to an unexpected object. The scientific name for this is "inattentional blindness."

When people devote their attention to a particular area or aspect of their visual world, they tend not to notice unexpected objects, even when those unexpected objects are salient, potentially important and appear right when they are looking," say Chabris and Simons.

In other words, when a technician is focused on the individual items on a checklist, it is entirely possible that he could miss something not specifically on that checklist-even when that "something" is a bright red rag lying in his/her field of vision. He may think that he is paying full attention to his/her work-and that may be true to some extent-but as the researches have discovered, attention is

an “illusion.” Moreover, our “distorted beliefs” about it, they add, are “not just wrong, but wrong in a dangerous ways.”

Managers can help eliminate inattentional blindness by heightening awareness. During your next human factors training session, show your technicians the “invisible gorilla: video (available at www.theinvisiblegorilla.com) and find out what percentage miss the gorilla. Use the results as a springboard for discussion.

“Looking is necessary for seeing,” conclude Chabris and Simons. “But looking is not sufficient for seeing.” That’s the shift, technician’s need to make-not just looking but seeing. In particular, seeing the unexpected.

www.theinvisiblegorilla.com

Five Ways to Make the Most From The Mistakes You Make

Face it, we all mistakes. Heck, I’ve made a bunch today, and it is still early afternoon!

Here are two common statements made about mistakes.

- “To err is human . . .”
- “We must learn from our mistakes. ”While we know we will make mistakes, there is no guarantee we will learn from them. And if we want to be conscious learners, as leaders and human beings, we must leverage the rich learning opportunities found in mistakes. When you regularly apply the steps below, you will not only learn from mistakes but create a proactive approach to future improvement as well. Recognize it is a mistake. While we can learn from any experience, recognizing our mistakes gives us a useful humility and provides not only for learning, but improvement – the important result of this type of learning.

Recognize why it happened. Spend a few minutes thinking about the situation and the circumstances that lead to the mistake or error. What were the precursors? What circumstances lead to the mistake? Consider too what you did to contribute to our cause the error.

Consider your choices and assumptions. Since we don't typically go into a situation trying to make a mistake. It is helpful to consider the situation in retrospect thinking about the assumptions we made that contributed to the mistake and the choices we made based on our assumptions and the situations as we saw it at that time. This is a more useful and concrete step than simply looking for lessons from the mistake.

Decide what to do differently next time. This is the answer to the critical learning question, "based on what I know now, what will I do differently next time?" Answering this question with a clear understanding of both the why and your choices, will give you a more complete, confident and meaningful answer to this question.

Decide how you will anticipate this next time. The final question is to help you identify clues, warning signs or patterns that might lead to a similar situation in the future. If you have ever experienced deja vu – but not until it was too late to keep from making a mistake again, you know why this step is important in the learning process. Ask yourself what clues will remind you or what will help you anticipate a similar problem in the future.

No one likes making mistakes. This set of steps won't guarantee you make fewer, but it will, when applied keep you from repeating mistakes and will help you continue to grow your skills and improve your results. These steps will also help you practice personal accountability – as you can see that they focus you on your choices, your actions and your next steps.

STRESS

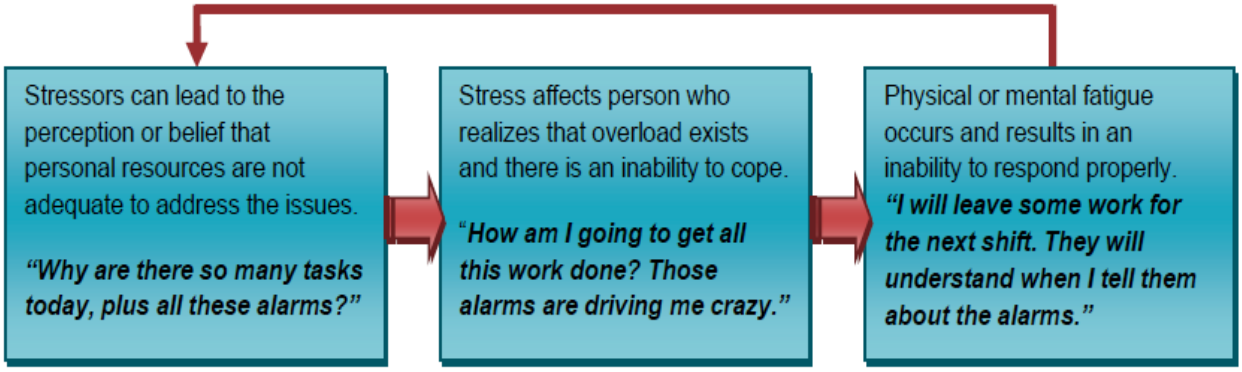
A message from another high risk, high consequence industry!

What personal goals do you set? A worthy goal is to defeat The Dirty Dozen. These articles provide information to help you understand and learn about "The Dirty Dozen Causes of Errors and Accidents." These articles include questions or topics for discussions with co-workers and family members.

Stress is relevant to pipeline controllers and supervisors because the final control room management rule requires that your company provides education in fatigue

mitigation strategies. Guess one of the major effects of stress. It's fatigue! According to a 2007 study by the American Psychological Association, 51% of those under "extreme stress" said that fatigue was the major symptom. 48% reported their stress level had increased in the past five years. How is your level?

Stress and fatigue affect other pipeliners and non-pipeliners (every human). Stress is a fact of life. Work-related stressors may be either "necessary" or "avoidable." Non-work stressors may involve relationships or be internal to the individual. Any of these stressors may lead a person to believe the abilities to respond to stressors are being overwhelmed. What work-related stressors are necessary in your job? Which are avoidable? What can you do to address each? What can management do to lessen the effects of each type? What can you do?



How do you respond to the demands that stress places on you? A caveman had two choices when facing a saber toothed tiger: fight or flee. The effects on the caveman were immediate and consequential. The physical response alleviated the effects of stress on the systems of the body. When we are faced with a stressor at work, we are not allowed to fight and we can't flee the scene. Non-work stressors cannot be addressed by fighting or fleeing. Imagine if you responded to your spouse in those ways. What are your usual responses to stress? Are they healthy or unhealthy? Helpful or harmful?

Stress was not a problem when I was a pipeline construction worker. The physical work was a healthy response, and I slept adequately most nights in order to do the same work the next day. Physical work and rest are great ways to respond to stress. This might be the crux of why stress can cause problems in a control room. Most of our work is mental, while sitting in an ergonomically designed chair in a temperature controlled environment. And many people do not get enough sleep. Does your job provide opportunities for physical tasks? If not, what physical exercises do you perform regularly? Are you getting eight hours of good sleep out of each 24 hour day? If not, why not? Are the demands from work or non-work stressors preventing proper sleep? What can be done to improve

sleep quantity and quality?

Stress became a problem when I did not respond in healthy ways. A goal for August might be to research healthy ways to respond to work and non-work stressors AND begin using those healthy ways. If you are a shiftworker, recognize and acknowledge that working rotating shifts is intrinsically stressful. First, gain Awareness by learning what causes you stress and good ways to respond. Make Choices about actions that you are very likely to complete successfully. Exercise Tenacity regularly. Stress, in addition to causing errors and accidents, can be harmful to individuals and to their operations. Use ACT as a method to set your goals related to stress management. Set your goals with the input of your family and your co-workers.

Graduate Degree Survey

My name is Thomas Harr and I am conducting research regarding the learning effectiveness of a traditional classroom (hardcopy books/manuals) versus a paperless classroom (all electronic books/manuals) in aviation maintenance training. This research will further the learning effectiveness knowledge base and fulfill my graduate research project requirements.

An anonymous survey regarding this research is located at:

http://www.surveymonkey.com/s/V9CRPBW

FAA to Kick Off GA Safety Initiative April 2

FAA Administrator Randy Babbitt plans to launch a general aviation safety initiative aimed at reducing fatal accidents 10 percent by 2018 when he visits the Sun ‘n Fun Fly-In and Expo in Florida next week. In focusing on programs that assess accidents to identify and address the risks most commonly contributing to them, the FAA’s general aviation safety initiative parallels the ongoing work of the International Helicopter Safety Team. HAI helped established and continues to sponsor that team, whose goal is an 80 percent reduction in worldwide helicopter accident rates from 2005 to 2016. The FAA is a key partner on that team and with HAI on related safety initiatives.

“Understanding the ‘why’ is critical to the ‘how’ of preventing accidents,” Babbitt said in announcing the first of more than 90 “safety standdowns” in April that will kick off with the April 2 event at Sun ‘n Fun at Lakeland Linder Regional Airport in Lakeland, Fla. Sun ‘n Fun begins March 29.

The FAA initiative is focused on categories of general aviation flying that account for the most accidents: personal/business, aerial application and flight instruction. Personal/recreation flying, aerial application and flight instruction are the top categories involved in helicopter accidents.

HAI will be exhibiting at Sun ‘n Fun and President Matt Zuccaro will be speaking at events held there, including a general aviation town hall meeting, also scheduled for April 2.