Aviation Human Factors Industry News

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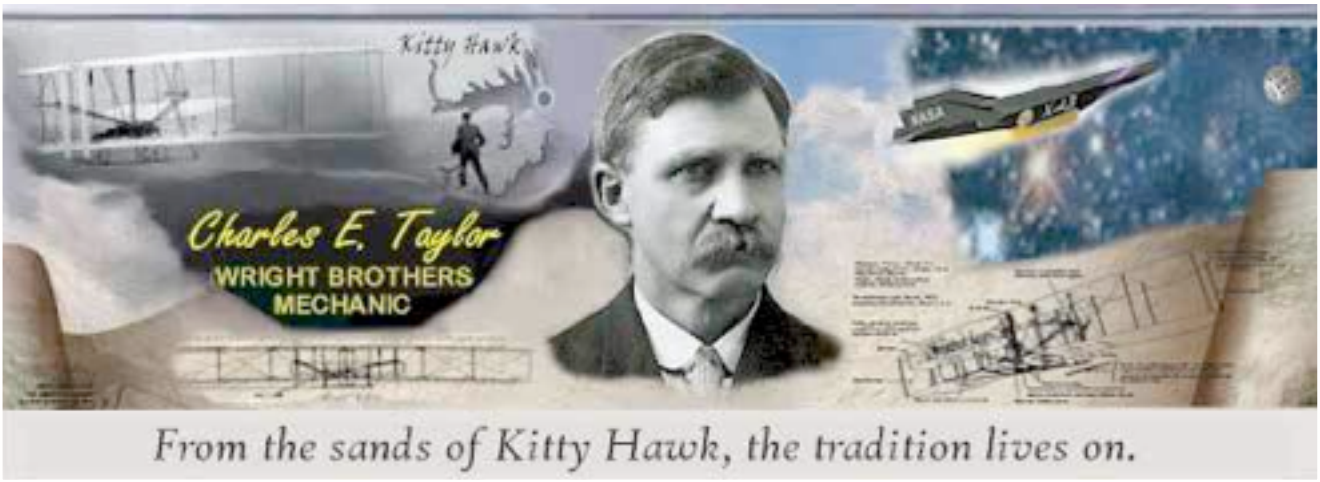


From the sands of Kitty Hawk, the tradition lives on.

Hello all,

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

Congressmen act on non-English speaking airplane mechanics

After learning that many airlines employed non-English reading mechanics, a number of house congressmen sent Obama's Secretary of, Ray LaHood a letter voicing concerns over the safety of airline passengers. Now that summer is underway and many families are preparing for summer vacations, anxiety about airline safety has been addressed by these congressmen.

Since English is the language in which the complex aircraft manuals are written, Congressman Brian Bilbray-R and 16 others are seeking to make sure the public is never put in danger because a mechanic cannot understand the instructions on how to repair technical aircraft.

The letter calls on the Secretary of Transportation to address this public safety issue by requiring all U.S. resident airline mechanics have an English proficiency section included in their certification exams.

Amid fears that many low-level airline mechanics are unable to read English in the aircraft manuals, congress has looked to the Secretary of Transportation and the Federal Aviation Administration for answers.

"Public safety demands that we enforce airline safety measures, and this includes language proficiency in both the cockpit and in the hanger where the aircraft are being repaired," Bilbray said.

It has been documented that back in 2003, US Airways Express crashed after take-off killing 21 people. According to the National Transportation and Safety Board (NTSB) found that mechanics had not connected some cables properly resulting in the crash.

The NTSB found that the mechanics in charge of repairing the cables could not read English that was written on the cables themselves.

The airlines usually hire two sets of mechanics. Certified mechanics make upwards of $25 per hour, however they are able to oversee another set of

mechanics that make less than $10 per hour, many whom are unable to read English.

Fixing airplane engines takes highly trained individuals, who follow a strict step-by-step process. Once an airline decides to skimp on wages the consumer can be the one that loses, a former Navy pilot said.

"We believe the minimum fluency standard for aircraft mechanics should be that required of international pilots as set by the International Civil Aviation Organization (ICAO). Moreover, aircraft mechanic applicants should be required to pass their written, oral and practical examinations in English," the letter to the Transportation Secretary said.

The FAA has declined to comment on this story.

A Conversation at AirSafe.com

Up To 50 Bodies found from the Air France flight 447

Brazilian Air Force personnel arrive at Fernandodo Noronha with the bodies of crash victims. The number of bodies recovered has increased to 50, and Brazilian authorities have begun the process of identifying bodies. The Brazilian Air Force has also incorporated the recommended change of the pitot system in the presidential aircraft, an A319. Air France has accelerated its effort to replace pitot tubes on its A330 and A340 Airbus fleet after members of one pilots union threatened to refuse to fly the unmodified airplanes. The airline also estimates that all the affected pitot tubes will be replaced by the end of July.

The vertical stabilizer is the largest piece of the aircraft that has been recovered. It shows no outward sign of fire or explosion, and a closer examination of the damage on that stabilizer will provide clues about

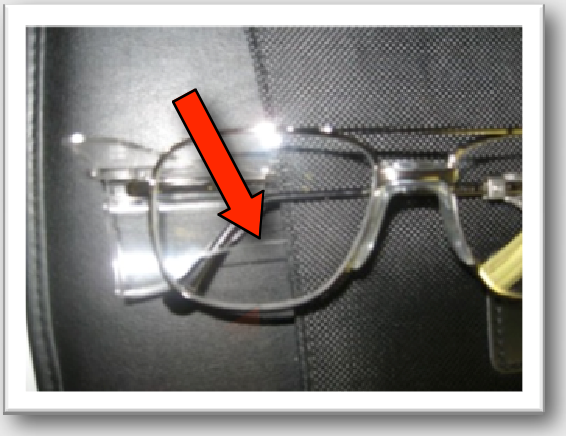
whether it separated from the rest of the fuselage on impact with the water or while in flight.

Initial Report on the Air France Accident

http://www.youtube.com/watch?v=WgXZY9YsmVc

Safety Glasses Save AMT's Eyesight

Groove in lens created from impact of cotter pin.



An AMT in Dock 14 at the Kansas City Overhaul Base, is thankful the company provides him with the necessary equipment to keep him safe while working, as he experienced what could have been a permanent injury and potential loss of eyesight.

While working on an MD80 L1 deactivated air stairs door, the AMT was doing everything right when it came to his safety as he used an air wrench to loosen a bolt on a rod end. The rod end is secured to the L1 stairs door at both ends, and he had already removed a bolt from one end. As he began removing the second bolt from the rod, the torque of the air wrench caused the rod to pivot striking him in the right eye. A cotter pin on the rod cut a deep groove across the lens of his safety glasses and the impact was strong enough to knock his head back.

Because he was wearing the required eye protection, the AMT will only have to replace the lens in his safety glasses which is much easier than replacing sight to his eye. He was extremely thankful he was wearing his eye protection.

> "The Lord God gave me eyes to see with, and I praise Him for them. It is my responsibility to care for them. My employer offers its employees prescription safety glasses at no cost to us. It would be irresponsible for me not to

use them to care for what God has given me. Just recently they protected my right eye from an impact that would have taken half of my sight." said the technician.

In early 2008, the company implemented mandatory eye wear at all their maintenance bases in accordance with OSHA Standard 1910.133, which requires U.S. employees to abide by the ANSI standard (American National Standards Institute) related to eye and face protection. The company guideline requires approved safety eyewear to be worn at all times when in production areas while work is being performed. Approved safety eyewear, both prescription and non-prescription, must meet these standards including side shields.

Good Advice for AMT's during Taxi Operations

Runway Safety Tip

Notice Number: NOTC1697

During investigations of actual runway collisions, it has been learned that there were cues that could have provided flight crews with information regarding what was about to happen. ATC recordings, reviewed after some accidents, have contained pilot and controller transmissions that could have been used as indicators to prevent an accident.

Pilots don't have to become controllers in addition to flying the aircraft, but it's always a good idea to "listen-up," especially when you're holding on a runway awaiting takeoff clearance. You may inadvertently be cleared for takeoff with another aircraft landing or departing on an intersecting runway. Or an aircraft could be cleared to land on the runway on which you're holding.
If you're concerned about safety for any reason, speak-up and ask!

Maintenance Mishap Summary

I'd like to kick this month's maintenance mishap summary off with a Bravo Zulu to a hornet squadron's AME shop that potentially saved the life of one of their pilots. While conducting an acceptance inspection on this F/A-18, it was discovered by these sharp AME's that the ejection seat was improperly installed. It was later determined that if proper maintenance procedures had been adhered to by the activity transferring the aircraft, this potential deadly situation could have been completely avoided.

If the discrepancy with the installation of the ejection seat would have gone undetected, a pilot performing a negative G maneuver could have been unintentionally jettisoned from the aircraft do to the improper seating of the holdback mechanism. Additionally, if the pilot had pulled the main firing handle, the ejection sequence would have started but would not have safely cleared the pilot from the aircraft because of the improperly installed multipurpose initiator spigots. Once again, I'd like to extend a BZ to the hornet AME's for their strict attention to detail and potentially saving the life of one of our aviators.

A Systems Approach

Use an organized approach to identify the "squeaky wheels" and apply the proper "grease."

By Dr. Bill Johnson, FAA Chief Scientific and Technical Advisor for Human Factors in Aircraft Maintenance Systems

Over 10 years ago, I asked the quality director for a large MRO, "Do you know your big challenges?" He leaned back to a filing cabinet and pulled a file labeled "MEDA DATA." On top of the fat files were a few colored bar charts. He pointed to the largest columns and talked about topics like failure to follow procedures, poor verbal and written communication, a reluctance of the work- force to speak up when they recognize conditions that are likely to cause problems and not enough qualified employees. He commented that reported events went up the closer the aircraft was to delivery date. While knowledge of the events is important, there must be an organized follow-up. He said they were taking actions to improve the job cards, promote more effective verbal and written communication, encourage and reward the employees that identify safety concerns (called hazards in "SMS speak") and build a school to develop new licensed personnel. At that time there were no regulations that required the company to take such actions. They recognized their challenges and formed an organized way to address them. It was merely good business to do so! That MRO quality director has since retired, but the safety legacy lives on.

There are a number of signs, prominently displayed in senior management offices, that depict a squatting bull. The bull is circled with the proverbial line across the circle, indicating "Not allowed." Below the circle are the words "Action only." Perhaps the same sign needs to hang in more offices where the corporate human factors programs are administered. The MRO story above is not unique. Why is the story familiar? That answer is based on the established system engineering approach to understanding challenges, identifying required change, applying solutions and then measuring again to see if the process is working. It is not rocket science—merely an organized approach to insure that safety never languishes.

Specific Actions Create a structured timetable to accomplish company-relevant actions.

Assign a responsible party. Provide the necessary resources to plan and execute the actions that are best for your organization. Establish a just culture policy that permits workers to report events. By now most organizations are doing that. Assess whether the "justice" is working. Are repeat offenders or violators receiving the proper justice? Are honest

human errors afforded proper consideration not only by the company but also by your regulator? If the policy is not written down and uniformly enforced, this would be a good time to do so. You cannot discount the importance of this step. Next, collect, verify and analyze event data. If you collected the data with excessive, non-structured reports, then you likely have an analytic challenge. Such data is interesting but usually has to be classified into a checklist, as it should have been from the start. If you are not using Boeing's MEDA, then look at it again; it has the experience of hundreds of airline and MRO users, and covers the majority of maintenance-related events.

Proper event analysis takes resources. The company must allocate appropriate analytic personnel to the data. The best analysts have a maintenance/engineering background. They are more likely to recognize, understand and communicate the data-derived challenges. Further, they will be among the first to quantify the changes when the solutions are implemented. Consider normal activity assessments. Such non-threatening observations can identify organizational strengths and weakness. Such systems can identify serious normative procedural noncompliance or regulatory violations before they become events.

World-class human factors programs can pay for themselves. This takes a systems approach to collect the right event data, track the cost of intervention and assess the return. With such analyses it is ideal to involve someone with an economics background. However, it also requires a stern maintenance manager to decide the appropriate level of analysis to make the economic case. Take care that there is constant teamwork between the maintenance engineering personnel and the economist.

The FAA Operator's Manual for Human Factors in Maintenance (www. hfskyway.faa.gov) makes a strong case for numerous demonstrated small return-on- investment examples rather than trying to justify an entire program. Diligence with normal assessments and systematic event reporting
provides the information to assess change. Challenges will never disappear, but your systems approach will ensure that you are managing them to control costs and ensure continuing safety.

http://hfskyway.faa.gov/hfskyway/index.aspx

About the Book - The Just Culture

Whack-a-Mole explores the role of human error in society, from aviation and healthcare, to driving and parenting—and where accountability rests for those errors, especially when they take the life of another. David Marx argues that regulatory and human resource prohibitions, along with the criminal prosecution of human error, have been counter-productive to helping society deal with the risks and consequences of human fallibility. Marx advocates a different approach to addressing our shared fallibility.

http://www.whackamolethebook.com/store.html

The 21st Annual FAA/ATA International Human Factors Symposium and NDT Forum

The 21st Annual FAA/ATA International Human Factors Symposium will be in beautiful San Diego, California on Sept. 2-3, 2009 at the Manchester Hyatt, located right on the bay. With a refreshed program for 2009, this important event is designed to provide "take away" solutions that can be implemented immediately upon your return to the workplace.

This year we are very pleased to have as our featured speaker, John Nance, an internationally recognized air safety analyst and advocate, best known to North

American television audiences as Aviation Analyst for the ABC TELEVISION NETWORK and as the Aviation Editor for GOOD MORNING AMERICA.

John Nance is well-known for his international support of crew resource management and expanded human performance training and is a dynamic professional speaker/consultant, presenting pivotal programs on Teamwork, Risk Management, Motivation, Coping with Competition, and other topics. With his entertaining, highly motivational, yet informative style, he is in demand to give keynote speeches at conventions and symposiums worldwide.

Please join us this year for the 21st Annual FAA/ATA International Human Factors Symposium to be held in beautiful San Diego, California on Sept. 1-3, 2009 at the Manchester Grand Hyatt.

For all the latest information on the Symposium including registration go to http://www.airlines.org/2009hfsymposium.

New Training Package

In an effort to improve aviation ramp safety, the AAGSC is looking at developing material that can be used to compliment an organizations own training program.As part of our drive to develop safety material focused on a series of core areas of safety management, we have created a new information package dealing with Fuel Vapour Hazards.

This pack includes a series of documents including posters and a video to help train staff and assist in risk assessment.

To access this package, click on the link titled "Vapour Safety" under publications on the right hand side of our web page.

http://aagsc.org/index.php?option=com_content&task=view&id=36&Itemid=1

FAA AMT Awards Renamed in Honor of Bill O'Brien

1. PURPOSE. This advisory circular (AC) outlines the participation for the Federal Aviation Administration (FAA) William (Bill) O'Brien Aviation Technician (AMT) Awards Program. This revision to the AC provides instructions for AMTs and the employers of AMTs participating in the online William (Bill) O'Brien Awards Program and addresses all the changes to the program.

2. EFFECTIVE DATE. The effective date is 06/03/09.

3. CANCELLATION. AC 65-25D, Aviation Maintenance Technician Awards Program, dated 02/07/07, is canceled.

To view the full AC click here:

http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/55D57F565DBC425C862575CF005A2A5E?OpenDocument&Highlight=65-25e