Aviation Human Factors Industry News

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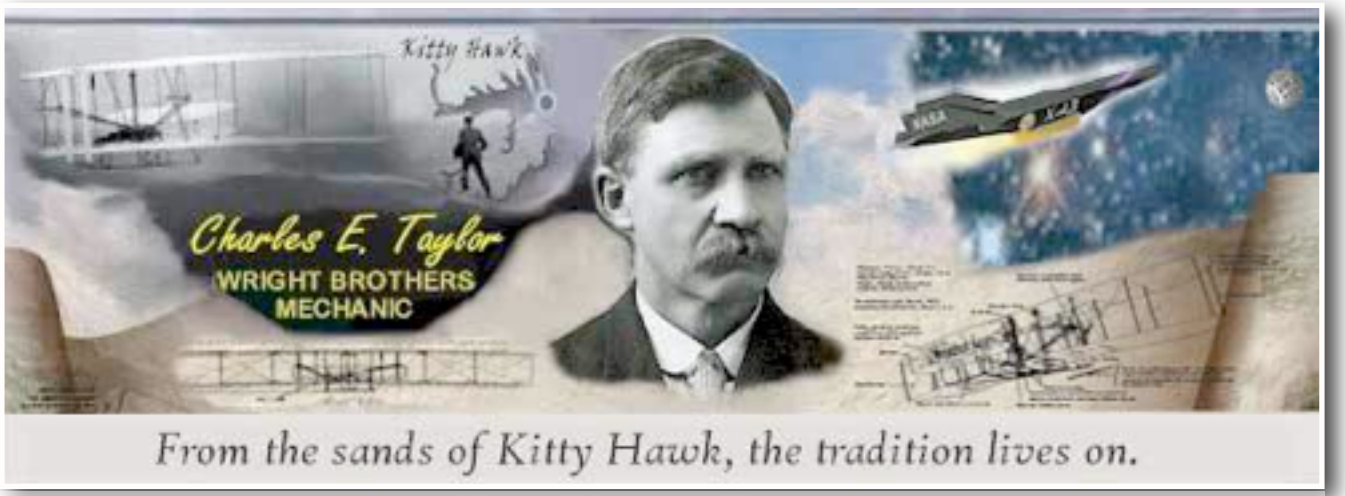


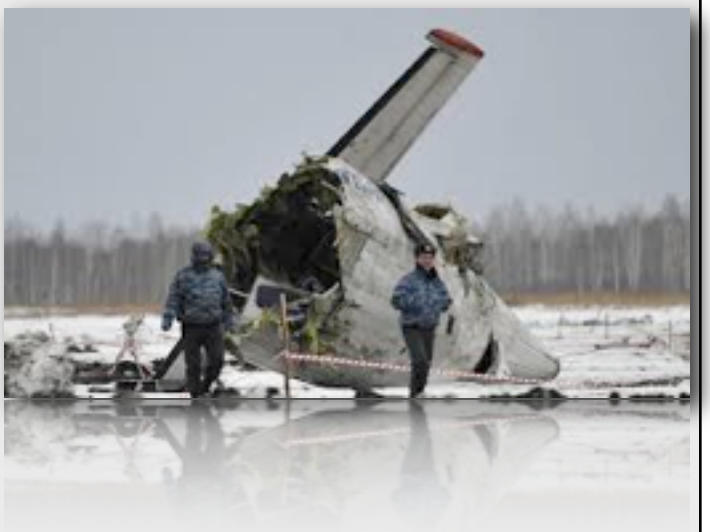
Hello all,

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:

Inspections missed icing on ill-fated ATR 72

Russian investigators have determined that the upper surfaces of the wing and horizontal stabilizer on a UTair ATR 72-200 were not inspected for ice before the aircraft stalled on take-off from Tyumen.



The aircraft had arrived at Tyumen just after 23:40 on 1 April 2012 and was parked overnight for more than 7h, during which it was exposed to wet snowfall, strong winds and freezing temperatures.

Although a technician had examined the aircraft from the ground, says the Interstate Aviation Committee, the critical surfaces could not have been seen without the aid of a ladder or elevated platform.The ATR's crew arrived at 06:30 on 2 April but, although the captain performed a walk-around, he similarly did not pay sufficient attention to the presence of ice deposits on the wing and stabilizer - despite the de-icing carried out on aircraft parked on adjacent stands.

Ground-ice warnings had been transmitted to various organizations, including the airline and its maintenance department, UTair-Technik.

Analysis by the inquiry calculated that icing reduced the aircraft's lift coefficient by about 25% and "substantially" increased its drag. The aircraft departed with flaps at 15°, at 127kt, but the climb resulted in a "significantly elevated" angle of attack.

Flap retraction started as the aircraft reached 640ft and 139kt. But at 690ft, with the airspeed at 150kt, the aircraft began to bank right by 40° - with a stall alarm sounding - then rolled into a left bank which, the inquiry says, the crew was "unable to prevent" despite full aileron deflection.

The inquiry says that the angle of attack increased to more than 25° and that the ATR's elevator deflection was "mainly" pitch-up.

It descended at over 3,900ft/min (20m/s) in a 55° left bank and struck the ground about 1,500m from the end of the runway and 400m left of the centerline. Ten of the 39 passengers, but none of the four crew members, survived the impact.

The inquiry says that a recovery technique, using 15° flap, might have resulted in a 300-400ft loss of height, but adds that recovery without flap deployment would have been "impossible".

It adds that the accident illustrated a "lack of effective control" by UTair and UTair-Technik over de-icing procedures and training.

Over a 90min period either side of the accident nine other flights - four of which were operated by UTair - departed the airport, and all except the transit flights underwent de-icing.

From NASA's Aviation Reporting System

Crossed wires" or "crossed signals" are colloquialisms often used to indicate confusion or misunderstanding in everyday conversation. When it comes to aircraft maintenance, however, crossed wires or other crossed connections may refer to actual errors in the placement of components or wiring. The following ASRS reports from Maintenance Technicians deal with aircraft components that have been improperly installed, leading to unexpected and unwanted results.

Hot Brakes: Confused Color Codes

An A-320 Maintenance Technician reported mistaking a Yellow system hydraulic line hose coupling for a Green system hydraulic coupling resulting in an improper MEL deferral.

■ Following troubleshooting procedures to determine the cause of a brake overheat, I determined that the anti-skid system was possibly not managing the brakes which was causing an overheat and not just a temperature reporting error. Maintenance Control agreed with my explanation allowing the deactivation MEL and subsequent procedure.

After retrieving the exact Maintenance Manual reference for deactivation, I entered it into [the computer] which displayed several subtasks. One of these was a specific procedure for deactivating only the Green, normal side. I chose this based on the previous Troubleshooting Manual task for complying with the Normal Brake System Tachometer Functional Test. The Troubleshooting Manual was referencing only the Green normal system with a possible fault. I misidentified the Green system and the Yellow system. Had I removed the correct hydraulic line, the brake would not have activated even though one side was disconnected and stowed. Since the brake was still active, the high temperature condition reoccurred upon landing. I was working on the Normal braking system so I decided to only deactivate that side, but confused the yellow and green hydraulic hose couplings….

The MEL reference for the deactivation procedure should be updated to read the exact subtask that will link directly to deactivating the entire brake. Currently, when this task is entered, several other deactivation choices appear.

Southwest, Asiana Crashes Show Need For Evacuation Safety Fixes

When Southwest Airlines flight 345 from Nashville went off the runway at LaGuardia this week after its nose gear failed, ten of the 150 aboard suffered injuries, and many more passengers told of ‘chaos’ and fear as everyone scrambled to get off via emergency slides. While the mishap was not as serious as the crash of Asiana flight 214 in San Francisco, which killed three of the 307 aboard, it marked the second time in weeks that scenes of an airline accident evacuation taking place at a major airport were beamed around the world—areminder to the public that while the air safety record has dramatically improved, takeoffs and landings remain the most perilous phases of flight.

Moreover, numerous studies have shown that evacuations themselves are often the cause of injury and death—indeed, they can cause more harm than the actual crash itself: Evacuations slides can fail, causing pile-ups at other exits; smoke can impair visibility, and fliers sometimes don't get directions from crews. True, aircraft are safer than ever, with better fire-proofing, stronger seats, and floor exit lighting. Still, experts at the National Transportation Safety Board and elsewhere have called for at least six more fixes that could make evacuations safer; here's, an update on where they stand:

Evacuation alarms: The pilots on Asiana 214 initially hesitated to order an evacuation, and it took an alert flight attendant who saw fire to notify the cockpit. If planes had alarm systems, any crewmember who saw a fire could immediately activate it, notifying the rest of the crew and—since PA systems can fail in a crash landing—getting passengers out of their seats faster.

Infant restraints: For decades, safety advocates and the NTSB have pushed to require all children under the age of two to sit in government-approved car seats. The FAA has consistently rejected this recommendation on the grounds that, for most families, the cost of that additional airfare would be prohibitive, pushing more people into cars for long road trips, resulting in more traffic accidents.

Better maintenance of slides: In the Asiana crash, several slides malfunctioned, opening inside the aircraft and trapping flight attendants. The NTSB says that the current failure rate of slides—about 30 percent—could be improved with more inspections. The FAA has made some changes, but hasn't agreed to all of the NTSB's proposals.

Improved passenger and crew preparation: Studies have shown that most of us ignore the pre-flight safety spiels, and that crews often don't get follow-up drills after they complete initial training. Some airlines are experimenting with videos and improved graphics. In the Asiana crash, many passengers grabbed carry-ons before they exited; something they should have known to avoid.

Additional fireproofing of cabin interiors: Seats are now more fire-proof, but high heat from fires can cause paneling to buckle in less than 60 seconds. New fire-resistant coating could slow the process.

Bulkhead air bags/seat belt harnesses: Air bags have been under consideration for aircraft for some time, but the expense and weight are serious impediments. A few foreign airlines have tested them, and the NTSB hasn't taken a position on this one.

Pinched Wire May Have Caused 787 Transmitter Fire

Investigators looking into the emergency beacon fire which damaged an Ethiopian Airlines Boeing 787 on July 12 are focusing on whether a pinched wire in the unit could have sparked a short circuit, igniting the battery.

The new suspect in the search for a cause of the fire, which erupted in one of the 787's emergency locator transmitters (ELT) while the aircraft was parked at London Heathrow Airport, emerged from forensic analysis of the Honeywell-built unit by the UK Air Accident Investigation Branch (AAIB). According to sources close to the investigation the remnants of the RESCU 406AFN showed evidence of a kink in the wiring which was likely related to its original assembly rather than something that could have occurred during its installation in the airframe.However other potential causes, including moisture build up, have not been ruled out. The FAA, which is preparing to issue an airworthiness directive calling for mandatory inspections of the ELT, says "these inspections would ask operators to inspect for proper wire routing and any signs of wire damage or pinching, as well as inspect the battery compartment for unusual signs of heating or moisture."

Although the AAIB recommended temporary de-activation of ELTS, the FAA says it will only require mandatory inspections. As of July 20, Boeing was not certain whether the European Aviation Safety Agency would follow the suggestion of the AAIB or adopt the same line as the FAA.

On July 18, the AAIB said the ELT should be made inert "until appropriate airworthiness actions can be completed." The AAIB added that it was not clear "whether the combustion in the area of the ELT was initiated by a release of energy within the batteries or by an external mechanism such as an electrical short. In the case of an electrical short, the same batteries could provide the energy for an ignition and suffer damage in the subsequent fire."

The 787 is fitted with two 6.6 lb. Honeywell RESCU 406AFN ELTs located in the main passenger cabin, one forward by the forward lavatory, aft of the flight deck bulkhead, the second in the aft cabin, above the galley outboard storage area.

The units contain an internal electronics box and external antenna and are powered by five battery cells, a different chemistry from the lithium-cobalt batteries used in the main and auxiliary power unit (APU) batteries that caused a fleet-wide grounding earlier this year.

ATSB: 737 Lands With 1,179 Lbs. Fuel Remaining

After a missed approach, the fuel condition of a Virgin-operated Boeing 737-800 with 91 aboard forced an emergency landing at a fog-shrouded alternate airport in Australia on June 18 that left the jet with 15 minutes of fuel remaining when it stopped, the ATSB said. According to the ATSB's preliminary incident report, released Wednesday, the Virgin flight had planned to arrive at Adelaide with 5500 pounds of fuel onboard but weather there diverted it to Mildura. On first approach at the alternate, the first officer reported forward visibility to be "virtually non-existent" due to dense fog. According to the report, "They were required to land from the next approach regardless of conditions."At 600 feet on the second approach, the first officer made the brace announcement and as he looked mostly out of the side window for reference, the captain "flew the aircraft into the ground." Once down, the pilots could not determine the runway remaining but safely stopped the airplane. According to the ATSB, the flight's total fuel after shutdown was 1179 pounds. The fuel condition was affected by several factors, including a decision to allow another jet to land ahead of the Virgin flight. A Qantas 737 with more than 145 aboard also diverted to Mildura. Radio communications led the crew of the Virgin jet to believe the Qantas aircraft had less fuel and the Virgin crew yielded. The Qantas jet landed with 4,629 pounds aboard, the ATSB said.

Human brain not wired to steadily monitor automated airline cockpit systems, experts say

Airline pilots spend nearly all their time monitoring automated cockpit systems rather than "hand-flying" planes, but their brains aren't wired to continually pay close attention to instruments that rarely fail or show discrepancies.

As a result, pilots may see but not register signs of trouble, a problem that is showing up repeatedly in accidents and may have been a factor in the recent crash landing of a South Korean airliner in San Francisco, industry and government experts say.Teaching pilots how to effectively monitor instruments has become as important as teaching them basic "stick-and-rudder" flying skills, a panel of experts told an annual safety conference of the Air Line Pilots Association, the world's largest pilots union, on Wednesday.

"The human brain just isn't very well designed to monitor for an event that very rarely happens," said Key Dismukes, a former top NASA human factors scientist.

While people "do very well" at actively controlling a plane, "we're not well designed to monitor for a little alphanumeric (a combination of alphabet letters and numbers) on the panel even if that alphanumeric tells us something important," he said. "We can't just sit there and stare at the instruments."

The "sheer volume of monitoring required even on the most routine flights and the diversity" of systems that must be monitored has increased, he said.

Concern about the problem is great enough that government, union and industry safety officials formed a working group last fall to come up with a blueprint for teaching pilots techniques for how to overcome the brain's natural tendency to sometimes see but disregard important information. For example, if pilots see airspeed indicators showing appropriate speeds landing after landing, their brains may filter out an unexpected low or high speed, they said.

"The human brain filters out information it considers unchanging," said Helena Reidemar, an airline pilot and the pilots union's director of human factors.

Asiana Flight 214 crashed short of a runway at San Francisco International Airport on July 6 after a nearly 11-hour flight from Seoul, South Korea. Of the 307 people on board, three have died and dozens of others were injured. One of the issues that have emerged in the National Transportation Safety Board's investigation of the accident is whether the pilots, who were supposed to be watching airspeed indicators, were aware the plane was traveling at speeds so dangerously slow that it was at risk of losing lift and stalling.

The flight's pilots set a target airspeed of 137 knots for crossing the runway's threshold. The plane reached speeds as low as 103 knots just before its landing gear and then its tail collided with a rocky seawall at the end of the runway, shearing off the tail, dumping three flight attendants onto the tarmac and sending the rest of the plane spinning and sliding.

Dismukes cautioned that it's too soon to reach conclusions about whether the three Asiana pilots who were in the Boeing 777's highly-automated cockpit were closely monitoring the plane's airspeed, "but what was going on there in terms of monitoring systems obviously is going to be a crucial issue."

Robert Sumwalt, an NTSB board member, said: "The question is, did the pilots recognize they were slow? And if not, why not?"

The board's investigation hasn't turned up any mechanical or computer problems with the plane, NTSB chairman Deborah Hersman said at briefing last week.

The board has repeatedly investigated accidents in which pilots' failure to closely monitor key systems contributed to the crash, Sumwalt said.

In 2007, after an investigation of a fatal business jet accident in Pueblo, Colorado, the board recommended that the Federal Aviation Administration require that pilot training programs be modified to contain segments that teach and emphasize monitoring skills and how to manage multiple tasks, Sumwalt said. Since then, the board has twice repeated the recommendation in response to other accidents, he said.

The FAA, however, hasn't required airlines to change their training programs, Sumwalt said. Instead, the agency suggested airlines revise their procedures to "promote effective monitoring" if pilots are found to be inconsistent in their monitoring techniques, he said.

The board doesn't believe the advice goes far enough, and has categorized FAA's response as "unsatisfactory," Sumwalt said.

One of the accidents that led NTSB to renew its recommendation was the February 2009 crash of a regional airliner near Buffalo, New York In that case, the two Colgan Air pilots weren't closely monitoring the Bombardier Q-400's airspeed and so failed to notice that the plane's speed had rapidly dropped about 50 knots, Sumwalt said. The startled captain responded incorrectly to an automated warning of an impending stall, sending the plane plunging into a house below. Fifty people, including a man on the ground, were killed.

"This is an area that is really ripe for improving safety," he said. "It's time for a paradigm shift. ... It used to be pilots were judged on their stick-and-rudder skills. They also should have to have good monitoring skills."

Some airlines are incorporating those techniques for improving monitoring skills in their training, experts said.

"We understand there is a threat. We understand there is a need to do things better," said Christopher Reed, a JetBlue Airways captain and pilot training manager who was a member of the panel.

JetBlue is trying to give pilots more time flying planes without relying on automated systems in part "because the mental habit patterns you are following by practicing those skills can help you be a better monitor," he said.

Several panel members emphasized the importance of "actively monitoring" versus "passively monitoring" cockpit systems. Pilots who are flying without automated systems are mentally engaged in flying, and they need to bring that same awareness to monitoring, experts said.

Seat Belt design May Have Played a Role in San Francisco Plane Crash Injuries

The Doctors and nurses treating passengers of Asiana flight 214, which crash landed at the San Francisco Airport earlier this month, are now considering how seat belt design may have played a role in the injuries suffered by the passengers.

As of last week, 16 of the flight's 307 passengers remained hospitalized, with four in critical condition. Of the passengers, three were killed, at least one of whom died due to an accident involving a firetruck responding to the scene.

As medical professionals began treating the wounded, they noted similar injuries amongst the victims, all associated with lap fastening seat belts. Although airline seat belts do prevent people from being ejected from their seats, they may also cause injuries to the abdomen in crash situations.

Although lap belts are common in most classes of airlines, the Asiana jet equipped its business class section with upgraded chest harnesses as well as lap belts. One passenger seated in business class noted that the chest harness prevented him from being seriously injured by not allowing his head to slam violently into the seat in front of him.

Dr. Kondrashov, of St. Mary's Medical Center in San Francisco, discussed the dangers of having lap only seat belts installed in airplanes, noting one crash victim who suffered a blow to the head which "dissipated across his neck, and (that's why he) sustained a very unstable fracture of his cervical spine."

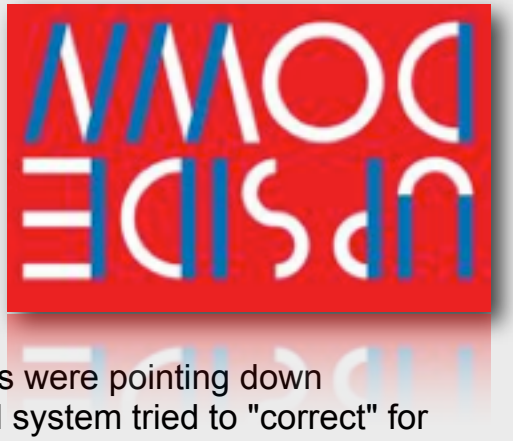
Few airlines have chest harness options, typically used only in pilot, crew, and first class seating where the passenger can lie flat or in a bed pod. A spokeswoman for the Korean airline stated that chest harnesses were not used throughout the plane as the seats in the coach areas are padded to help reduce injuries if a passenger's head slams forward.

Although there are no assurances that wearing a chest harness would have prevented all injury, it may have changed the extreme nature of the injuries sustained during the crash.

A product defect attorney indicated certain products could have performed better in crash situations. He believes the key is to balance the cost of improving the safety of a product with the risk of injury if the product is not improved. Isn't it strange that the seatbelts we put on in coach seats are the same basic design and structure as those we used decades ago? And weren't car seatbelts just lap belts in the early sixties? Well, car seatbelts have evolved so why haven't the seatbelts in airplanes? Is it because when a plane crashes, the passengers are usually killed anyway? Would shoulder harnesses have reduced the injuries in this San Francisco jet crash? And should the shoulder harnesses have been available in coach?

Russian Proton Rocket Accident Caused By Mis-Installed Sensors

Three Satellites Lost When Booster Failed.



An investigation conducted by Roscsomos has found that sensors aboard the Proton rocket that went down just after launch earlier this month were installed upside down, causing them to send incorrect information to the vehicle's onboard computers.The publication russianspaceweb.com reports that the angular velocity sensors (DUS) are marked with arrows that are supposed to point toward the nose of the rocket. Investigators combing through the wreckage found that the arrows were pointing down instead. When the rocket launched, the flight control system tried to "correct" for the data it was receiving from the sensors, causing the rocket to veer out of control and impact the ground.

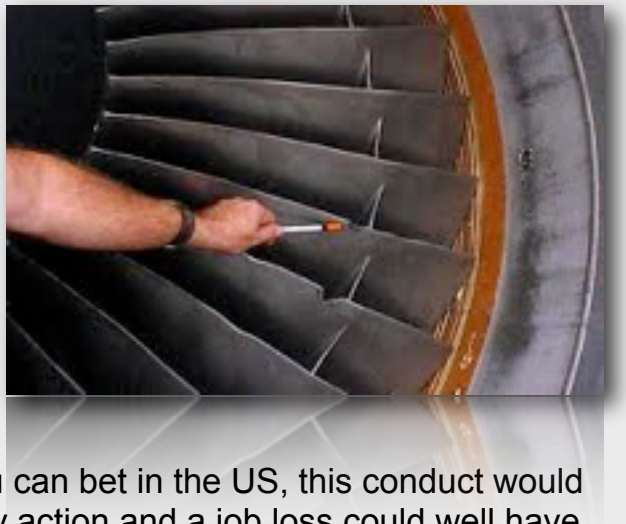
A paper trail has led to a technician who installed the devices. The website reports that while preflight checks at the Baikonur assembly building indicated that the circuits were working properly, there was apparently no visual inspection of the sensors.

The accident led to a criminal investigation. Russian Vice Prime Minister Dmitry Rogozin said the investigation "would identify those who despite numerous government requests failed to deal with many issues of quality control." He said that the rocket had been manufactured and delivered to the launch facility before his administration had put the military back in charge of certification of rocket technology.

Rogozin said that an engineering group that does not include Proton's contractors has been formed to review the entire manufacturing and quality control process, according to the report.

Hang on to Your Tools! by John Goglia

Reading about other people's screw ups reminds me of my own or those I've observed around me, where I've often thought, " that could have been me". As you might have read, recently a British Airways aircraft flying out of London's Heathrow Airport had to abort take off when a loud bang was heard out of one of the engines.



Turns out, a luggage scanner gun was inadvertently left on an engine cowling by a baggage handler – yes, I was glad it wasn't a mechanic. That momentary loss of accountability for one of his tools resulted in over a million dollars in damage to the engine. And, of course, all the other expenses of an aborted take-off, engine change and rerouting of all the passengers on other flights. No reports of whether the baggage handler suffered anything more than acute embarrassment. But you can bet in the US, this conduct would have resulted in at least some disciplinary action and a job loss could well have followed.As mechanics, we have drummed into us from the very beginning the importance of preventing foreign object debris – FOD, as we all call it – from being left behind when we complete our maintenance tasks. Sometimes, a momentary lapse – like this poor baggage handler – can mean huge damage to aircraft. And these momentary lapses can happen to all of us, even the most conscientious, given the right amount of job pressure and distraction.

This is what happened to a friend of mine, who was a supervisor at another airline on the airport where I worked. One summer day, he was shift manager when work was being done on a DC-10 with an inop. APU requiring the engines to be started using an air start unit. As the work proceeded more slowly than the departure schedule allowed, my friend decided to go out to the gate to see what the hold-up was.

In those days, as some of you may remember, pneumatic duct leaks were a major issue when using a ground air start unit to start an engine. With air leaking out of the ducts, the engine was always slow to spool and start. So the normal procedure was to advance the power lever to get enough bleed air into the ducts to make starting the other engines easier.

As you may have guessed, this is where my hapless friend walks in. He heads to the nose of the aircraft, thinking he's far enough from the engines to be safe. Unfortunately, just at that moment the pilot applies the additional power to start the other engines. In the blink of an eye, the suction from the spooling engine Hoovered everything off his body – except his clothes. Into the engine went his radio, hearing protector, pens, keys, and anything else in his shirt pocket. The damage to the engine was significant enough that the flight had to be scrapped and the engine replaced.

Moral of the Story:

Hang on to your tools. Watch where you're walking. And never forget how unforgiving engine power can be to FOD. And humans, too.

Air safety and anxiety: a pilot's perspective

As details emerge from the investigation into what went wrong aboard Asiana Flight 214, which crashed at San Francisco International Airport on July 6, killing three passengers and injuring scores more, some travelers may find themselves thinking twice about boarding their next flight.

But Patrick Smith, a commercial pilot who writes a blog called Ask the Pilot, says not to worry.According to the Federal Aviation Administration, there are 30,000 flights a day in the United States.

"And at the end of every year," Smith said, "the number of mishaps can be counted on one hand."

This is a far cry, he added, from the dark days of the 1970s and '80s, in which airplane crashes were more common and sometimes resulted in 200, 300, even 500 deaths.

In his new book, "Cockpit Confidential: Everything You Need to Know About Air Travel: Questions, Answers, and Reflections," he talks about why safety has improved, as well as less gloomy tidbits about the mysteries and pleasures of flying and travel.

Below are edited excerpts from a conversation with Smith on air safety and what you should keep in mind.

Q. You say air travel today is astonishingly safe. Why?

A. We've engineered away what used to be the most common causes of catastrophic crashes. First, there's better crew training. You no longer have that strict hierarchical culture in the cockpit, where the captain was king and everyone blindly followed his orders. It's team oriented nowadays. We draw resources in from the cabin crew, people on the ground, our dispatchers, our meteorologists, so everyone's working together to ensure safety.

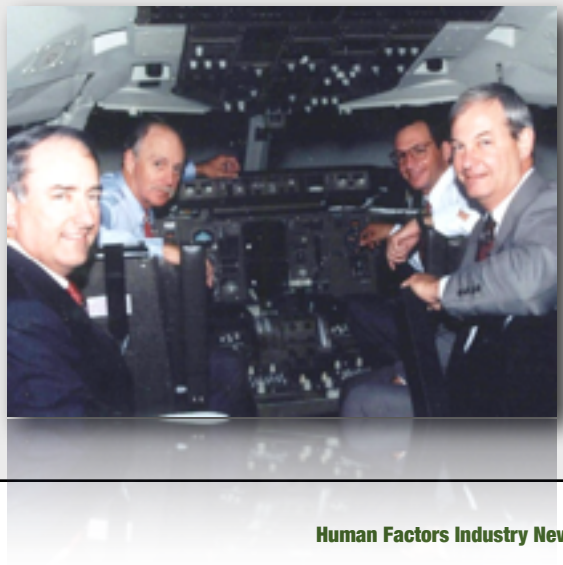
The modernization of the cockpit in terms of materials and technology has eliminated some of the causes for accidents we saw in the '70s into the '80s. And the collaborative efforts between airlines, pilot groups and regulators like the Federal Aviation Administration and the International Civil Aviation Organization, a global oversight entity, have gone a long way to improving safety on a global level.

Q. Nevertheless, are there any airlines or airplanes you avoid on account of their safety records?

A. My answer on both accounts, airline and airplane, is don't worry about it. On some statistical level, if you hash it out to the fourth decimal point, one airline or type of plane may be less safe than the other, but that doesn't mean the same thing as unsafe. This is where I part ways with some older-school colleagues because, to me, virtually all commercial carriers are extremely safe.

Wiener's Laws

As far back as 1980, renowned aviation human factors guru Earl Wiener (pictured sitting in the captain's seat of the a Northwest Airlines Boeing 757 circa 1992) was asking the question on everyone's mind after the tragic crash of Asiana Flight 214 in San Francisco earlier this month – Has automation gone too far?



Had he been around and of sound mind, Wiener would surely have weighed in.

However he passed away June 14 at the age of 80, the victim of a long bout with Parkinson's disease.

Along with his family, books and scholarly papers and a new generation of human factors professionals, Wiener left us with Wiener's Laws, 15 jewels of wisdom that will keep giving for decades to come because human nature, hence human error, is not changing all that rapidly.

The laws were sent by former student and co-worker Asaf Degani, Ph.D., now a technical fellow at General Motors. "Some are funny and some are dead serious," says Degani.

I have no explanation of why Laws 1-16 are "intentionally left blank"...

Which one is your favorite?

WIENER'S LAWS

(Note: Nos. 1-16 intentionally left blank)

17. Every device creates its own opportunity for human error.

18. Exotic devices create exotic problems.

19. Digital devices tune out small errors while creating opportunities for large errors.

20. Complacency? Don't worry about it.

21. In aviation, there is no problem so great or so complex that it cannot be blamed on the pilot.

22. There is no simple solution out there waiting to be discovered, so don't waste your time searching for it.

23. Invention is the mother of necessity.

24. If at first you don't succeed… try a new system or a different approach.

25. Some problems have no solution. If you encounter one of these, you can always convene a committee to revise some checklist.

26. In God we trust. Everything else must be brought into your scan.

27. It takes an airplane to bring out the worst in a pilot.

28. Any pilot who can be replaced by a computer should be.

29. Whenever you solve a problem you usually create one. You can only hope that the one you created is less critical than the one you eliminated.

30. You can never be too rich or too thin (Duchess of Windsor) or too careful what you put into a digital flight guidance system (Wiener).

31. Today's nifty, voluntary system is tomorrow's F.A.R.

Human Factors in Aviation Accidents to be First Massive Open Online Course at Embry-Riddle Aeronautical University – Worldwide

Human factors in aviation accidents will be the topic of the first massive open online course (MOOC) to be offered by Embry-Riddle Aeronautical University – Worldwide in August.The course, The Human Factor in Aviation, is free and open to the public. Registration opens Friday, with the class starting Aug. 19. Class size is limited to 500 students.

"Our first MOOC covers a particularly timely subject, The Human Factor in Aviation," said Worldwide Chancellor John R. Watret, Ph.D. "The recent incident in San Francisco has definitely made the industry and public more aware of the intricacies of aviation safety."

The five-week course will focus on the psychological or physiological elements related to aviation disasters. The instructor, Dennis Vincenzi, is department chair of undergraduate studies in the College of Aeronautics at Embry-Riddle Worldwide and has more than 16 years of experience in human factors.

The MOOC is one way the university is adapting to the changing needs of today's student. Students have the flexibility of viewing lectures and working on assignments based on their own schedules. There will be live sessions where students can watch the instructor and ask questions in real time. However, much of the learning is focused on students interacting with each other on discussion boards and through social media platforms such as Twitter.

To learn more about the MOOC at Embry-Riddle Worldwide, visit http://worldwide.erau.edu/degrees-programs/free-online-courses/index.html or coursesites.com

Registration opened July 19, and the class begins Aug. 19. Class size is limited to 500 students. For more information, see the website

NTSB Releases First Of Five General Aviation Video Safety Alerts

Short Programs Designed To Address Risk Management And Decision Making

The NTSB has released the first of five short videos, each featuring an NTSB investigator highlighting a particular area of general aviation safety associated with the majority of GA accidents.Every year, the NTSB investigates about 1,500 preventable GA accidents that kill about 475 people – pilots, and the family members and friends traveling with them. Most of these crashes involve a similar set of circumstances, conditions and decision-making that leads to fatal outcomes. In March, the NTSB issued five safety alerts bulletins to highlight these areas and provide strategies and resources to better identify and reduce risks for those in the GA community.

The NTSB has created a short video (3-5 min.) on each of the five Safety Alerts topics. The videos feature NTSB investigators sharing their perspectives as both GA pilots and aviation safety professionals on how both pilots and mechanics can more effectively manage the risks associated with GA flying.

The Video Safety Alerts address risk management and decision-making, maintenance issues for pilots and mechanics, flight in reduced-visibility conditions, and low-altitude stalls.

The first of the videos, “Is Your Aircraft Talking to You? Listen!” (4:54) is available now on YouTube.

The four remaining Video Safety Alerts will be released throughout the month of July.

The print versions of the five Safety Alerts are also available online.

Helicopter Safety Guidelines Released

Helicopter pilots looking for guidelines for situations not covered by checklists, procedures or operating manuals can now get help from a new set of standards called the Helicopter Pilots Model Code of Conduct. The document was designed to help pilots interpret ambiguous regulations and to provide criteria for how to operate their helicopters while minimizing the risk of flying.

The HMCC covers a wide variety of helicopter operations, from primary instruction to commercial flight operations. Seven sections make up the HMCC including general responsibilities, training and proficiency, security and the use of technology.
"It is nice to see such a clear, complete and concise standard for helicopter pilots that goes beyond the minimums," said Lindsay Cunningham, manager of aviation safety at Eurocopter USA.

Like the Aviators Model Code of Conduct, the HMCC is not owned by any organization and it was designed by safety-minded volunteers with a strong connection to the industry. A permanent editorial board (PEB) oversees the content of the document and provides updates as necessary. The PEB is comprised of leaders from several type club organizations, the Air Force Academy, US Airways, the Aircraft Electronics Association and the Aviation Institute of Maintenance, to name a few.

The Model Code of Conduct guidelines are not meant to be strictly adhered to, but can be modified by each operator to fit their needs.

http://www.secureav.com/HMCC-Listings-Page.html

Inspiration

"Some of our struggles involve making decisions, while others are a result of the decisions we have made. Some of our struggles result from choices others make that affect our lives. We cannot always control everything that happens to us in this life, but we can control how we respond. Many struggles come as problems and pressures that sometimes cause pain. Others come as temptations, trials, and tribulations."

— L. Lionel Kendrick