



Aviation Human Factors Industry News September 01, 2008

Vol. IV. Issue 34

Regulators seek \$18,000 penalty for United

The U.S. flight agency is proposing an \$18,000 civil penalty against United Airlines for two maintenance violations it said occurred before a United jet skidded off a runway and ended up in three feet of snow in February.

The Federal Aviation Administration disclosed the fine on last Thursday after The Associated Press asked about violations cited in FAA documents. The



FAA said it notified United of the proposed penalty on Friday.

A Feb. 25 flight with 125 people aboard slid off the runway after landing in Jackson Hole, Wyoming. No one was seriously hurt. The National Transportation Safety Board said in March that the A320 at Jackson Hole and another United A320 that also skidded off a runway had crossed wiring in their main landing gear. It is believed that caused the wheels to lock.

United checked all its A320s and found a third with the wiring problem. That aircraft was not involved in an accident.

FAA documents reviewed by the AP alleged two violations by United:



_ For three weeks leading up to the Jackson Hole incident, United had operated that A320 on 66 flight legs when it "was not airworthy" according to the instructions in an Airbus manual.

_ United failed to identify that wiring for anti-skid devices on the landing gear were swapped.

The FAA found that the wires were swapped when new landing gear was installed on that aircraft in Denver on Feb. 3. The connections were tested and the plane returned to flying the next day.

In a written statement United said it had not yet received a copy of the FAA's letter and that immediately after the incident it took the "corrective steps that were necessary to ensure the A320 anti-skid systems worked properly and shared that information with our partners and employees."

Crash of Itek Air 737-200 on 24 August 2008

The Boeing 737 crashed near the Bishkek airport in Kyrgyzstan last Sunday.

The aircraft was on a scheduled international flight from Bishkek, Kyrgyzstan, to Tehran, Iran. About 10 minutes after takeoff, the crew turned back to the departure airport and also reported some kind of technical problem, crashing short of the runway. There were about 83 passengers and seven crew on the aircraft, including 17 members of Kyrgyzstan's national basketball youth team.



Seven team members reportedly survived. At least 65 of those on board, including five of the seven crew members were killed.

Banned from the European Union

Itek Air had been banned from operating in the EU according to a <u>list published</u> on 24 July 2008.



About the 737

This was the 65th fatal event involving the 737, and the 47th involving the 737-200 series. The first 737-200 series aircraft began commercial operations in 1968, and the last 737-200 was delivered in 1988. The first fatal event for the 737 was a 737-200 crash in 1972. This latest crash was the 19th fatal 737 event since 2000, with 11 of the 19 involving a 737-200.

The last fatal 737-200 event in North America or the European Union was a crash in Colorado Springs, CO in 1991.



You can also use the links below for the podcast:

Audio: MP3 Video: WMV | iPod/MP4 | YouTube | Google Video



Spanair crash probe: Video of failed takeoff doesn't support engine fire theory

Spanish investigators are backing away from blaming an engine fire for last week's Spanair MD-82 crash following emergence of a video of the failed takeoff that shows no signs of fire until after the aircraft, which elevated only a few meters off the ground, crashed back down on the runway.



Initial speculation following the accident that killed 153 passengers and crew centered on a possible engine fire, but investigators are finding little evidence to support that theory and believe there may have been multiple causes, *El Pais* reported. Civil Aviation Director General Manuel Batista told the newspaper that "more than one breakdown" likely caused the accident. "I'm not so sure the engine failed," he said. Even if it did, he explained, an engine failure would "not cause an accident" unless it combined with "other causes."

Despite initial eyewitness accounts that an explosion and fire were spotted as the aircraft ascended, an airport video of the attempted departure and crash reviewed by inspectors revealed that the fire-sparking explosion occurred "several seconds after" the MD-82 hit the runway, El Pais reported, citing sources close the investigation. The video also revealed that the aircraft fell to the right after its slight ascent.

Controversy continued to swirl around the decision of Spanair maintenance technicians to clear the aircraft for takeoff after it returned to the gate owing to a malfunctioning air intake probe. Jose Maria Delgado, president of the airline's mechanics union Assetma, said the technicians who worked on the plane disabled the probe and cleared the aircraft for takeoff. He said the maintenance manual for the MD-82 allows for it to fly for up to 10 days in that condition, adding that the device is more relevant in cold winter weather because its main purpose is to prevent ice from forming on engines. It is not important during the summer and its disablement is "not at all" relevant to the crash investigation, he told the paper.



But investigators reportedly are examining whether the cockpit warning light indicating that there was a problem with the air intake probe could have been indicating a more serious problem. "The pilot detected something" that caused him initially to abort a takeoff attempt, Bautista noted.

Honduran aviation official sought in certification scam

Honduran authorities are searching for the country's civil aviation director, who allegedly issued illegal certifications for pilots and airplane mechanics without testing them, an official said Tuesday.

Prosecutors' spokesman Melvin Duarte said a month long investigation revealed that government aviation director Guillermo Seamann illegally certified 38 pilots and mechanics from Venezuela, and one aviation employee from Peru whose exact occupation was not known.



The applicants allegedly never set foot in Honduras and never passed the required tests for the certifications, which were valid for flying outside Honduras.

Seamann is being sought on the charge of abuse of authority, which carries a maximum sentence of eight years in prison, Duarte said. An arrest warrant was issued for him, and he did not show up at his office on Tuesday.

The government did not release the names of the pilots or the companies they work for. It was unclear whether they lacked sufficient training to pass the tests, or simply found it easier to apply for certification in Honduras.

Seamann also is accused of having granted permits for U.S. charter companies to fly in Honduras without the required legal documents and insurance, Duarte said. He did not identify the companies.

Pilots name Logan 'Airport of the Year'

The Air Line Pilots Association, Int'l (ALPA) selected Boston Logan International Airport (BOS) as the 2008 "Airport of the Year."

Pilots landed on BOS because of the airport's extensive efforts to reduce runway incursions and excursions through enhanced markings and technologies, its new physical improvements that reduce congestion and delays, and its multi-faceted approach to emergency exercises.





"Boston Logan leads the U.S. in several categories when it comes to improved aviation safety for the traveling public," said Capt. Rory Kay, ALPA's executive air safety chairman. "Pilots like it because they can see the improvements that the Massachusetts Port Authority (Massport) has implemented over the years — from better runway signage, markings and new runway status lights to more taxiways, every project makes a difference."

Officials with Massport have actively sought out and addressed airline pilots' concerns with safety plans and initiatives related to airfield improvements, adoption of new technologies, advances in airfield procedures and programs, and enhanced emergency planning.

"Boston has even delivered several initiatives, like the enhanced runway marking and signage project, ahead of schedule and gone above and beyond the FAA regulations to make its airport safer," said Capt. Robert Perkins, ALPA's airport ground environment (AGE) group chairman. "It's clear that their management and workers place a high premium on collaboration with all industry representatives to get the job done."

Perkins presented the pilot-friendly "Airport of the Year" Award during ALPA's Air Safety & Security Forum, held in Washington, D.C.

"Boston Logan is deeply honored to receive this award," said Edward C. Freni, director of aviation for Massport. "This award not only signifies that the airport gets it when it comes to making pilots key players on our safety team, it also represents a strong vote of confidence about the work we do to improve safety."

ALPA's AGE Group selects the Airport of the Year from nominations made by ALPA's Regional Safety chairmen and Airport Liaison representatives, who represent pilots' interests at more than 200 commercial airports in the U.S. and Canada. Nominations range from small regional airports to some of the busiest airports in the world, but all nominees share a common commitment to the highest safety standards.

Founded in 1931, ALPA is the world's largest pilot union representing 55,000 members at 40 airlines in the U.S. and Canada.



USAF Releases Report on Columbus AFB T-38 Accident

Air Force officials have completed their investigation of the April 23 T-38C Talon accident at Columbus Air Force Base, Miss., which resulted in the deaths of two pilots and destroyed the airplane.

Maj. Blair Faulkner, a 43rd Flying Training Squadron instructor pilot, and 2nd Lt. Matthew Emmons, a student pilot assigned to the 50th Flying Training Squadron, were taking off from Columbus AFB when their T-38 began an uncommanded roll to the left.



The crew briefly recovered the aircraft to level flight, but as the aircraft gained airspeed the roll intensified. Unable to regain controlled flight, the crew attempted to eject from the aircraft but were too low and the aircraft was inverted. Both were killed on impact with the ground.

The accident investigation board determined the cause of this mishap to be mechanical failure of the right aileron, which failed in the full down position before takeoff.

There were no other casualties from this mishap and other than the aircraft, there was no property damage.

Brig. Gen. Dean J. Despinoy, the 434th Air Refueling Wing commander at Grissom Air Reserve Base, Ind., headed the accident investigation board.

Air Tour Maintenance

The National Transportation Safety Board's ongoing investigation of an Aerospatiale AS350BA helicopter crash has highlighted a need for improved training and quality control for the inspection and maintenance of helicopter used in air tour operations, the agency believes.





While NTSB has not yet developed a probable cause for the AS350BA accident, some of its findings in this and other similar accidents investigations have spurred it to make a series of recommendations to both the FAA and air tour operators to address potential weaknesses in air tour helicopter maintenance.

These included recommendations that FAA provide direct surveillance of air tour maintenance 'at all locations where a company's maintenance is conducted' and that FAA require all air tour operators, whether flying Part 91 or 135, to implement a system of continuously analyze the performance and effectiveness of their inspection and maintenance programs 'to ensure that all maintenance is performed with the utmost regard to quality and safety.'

NTSB also appealed to FAA to mandate formal, model-specific helicopter maintenance training and to work with independent, industry safety programs, such as the Tour Operators Program of Safety, to help implement quality assurance programs.

The AS350BA lost control and crashed while landing at Princeville Airport in Princeville, Hawaii, on March 8, 2007. The helicopter was destroyed, the pilot and three passengers were killed and three other passengers were seriously injured. Shortly before landing, the pilot alerted the base that the helicopter was having hydraulic problems. Witnesses said that as the helicopter approached the base, it suddenly dipped, became uncontrollable and the main rotor lades stuck the ground. The helicopter tore apart into several pieces.

During its on-site investigation, NTSB investigators found that the left lateral servo had become detached from its clevis mounting bolts. The helicopter's mechanical flight controls system includes a transmission-mounted hydraulic servo system with three main servos. The servos are anchored to the transmission case by clevis bolts. In addition to the detached clevis mounting bolt, the NTSB found a severely worn locking washer and a severely worn tang and lack of torque on the locking nut used to secure the servo to the mounting clevis.

NTSB believes that if the locking washer was not properly installed, the servopiston-to-clevis locking nut could loosen under normal loads. The helicopter's maintenance records indicated that the servo was installed 131 hours before the accident flight. 'If the locking nut had been installed properly, it would not have become loose in such a short period of time,' NTSB said, adding, "It is probable that maintenance personnel did not properly torque the locking nut when the servo was installed."

Another heli-USA Aerospatiale AS350BA experienced a hydraulic failure following a tour of the Grand Canyon in September 2002. NTSB discovered excessive wear in the hydraulic pump caused by insufficient lubrication. The pump had been installed 75 hours before the accident flight.



NTSB: FAA needs faster progress on runway safety

Officials who made safety recommendations after a plane crash that killed 49 people criticized the Federal Aviation Administration on Friday for not implementing two of them fast enough.

In a letter obtained by The Associated Press, National Transportation Safety Board Chairman Mark Rosenker told FAA's acting administrator there has been "unacceptable response" to two suggestions about runway checks.



Comair flight 5191 crashed after trying to take off from the wrong runway at Lexington's airport — a general aviation strip too short for commercial jets. NTSB cited the pilots' failure to notice clues they were on the wrong runway as the primary cause of the accident.

The NTSB recommended numerous changes after the accident, including a new rule requiring pilots to confirm their runway location before takeoff and another that would only allow air traffic controllers to clear a plane for takeoff after it had crossed all runway intersections.

Rosenker's letter said not enough progress had been made on those two recommendations. But FAA spokeswoman Diane Spitaliere said the agency recently approved the regulations Rosenker is seeking and is just waiting for them to be published.

"We're done," Spitaliere said. "It's approved. It's at the Federal Register."

Deborah Hersman, the NTSB board member who investigated the Lexington crash, said in an interview that aviation regulations can take months if not years to change, even after they are published. She said NTSB hasn't received any document indicating improvements are imminent.

"Our position is it's been bottled up in rule-making and just taken too long to get done," Hersman said.



Kevin Fahey, whose son, Thomas, was killed in the crash, said he too had been frustrated by delays.

"There just seem to be too many excuses for not being assertive enough to move these things from recommendations to requirements," Fahey said. "Many of these things go back to aircraft piloting 101."

Rosenker's letter did note progress by the FAA in other areas, including acceptable responses to calls for improved runway markings and research on cockpit technology to help pilots navigate runway systems.

Hersman acknowledged there have been improvements, and that air travel is safer now, just days from the two-year anniversary of the Aug. 27 crash. But she said plenty of work remains.

"We're not going to be satisfied with FAA's efforts until they've implemented all of them," Hersman said. "Certainly the Comair accident is foremost in our minds."

Intrinsically Safe

Aerospace Maintenance & Inspection Task Light

The technician working long hours in a confined and dark space needs a rugged and dependable portable task light that works as long and as hard as he/she does.

Bayco's rechargeable portable lighting products are engineered for the utmost in reliability and dependability while providing maximum personal agility and mobility. Our professional grade lights work every time, all the time.

Extremely versatile

Pinpoint problems with the focused beam of the flashlight
Flood the work area with four bright white LEDs that lasts for hours.



Hazardous Location - Intrinsically Safe

Bayco's intrinsically safe task lights are the only lighting solution when, explosion proof lighting isn't good enough.



Our UL certified intrinsically safe portable hand-held lights feature combined floodlight and flashlight functionality in an integrated package.

Task lighting for a professional working in a hazardous environment takes on a personal meaning because the user's life depends on that light operating safely all the time.

Bayco intrinsically safe products ensure a safe well lit work space.

Aircraft Manufacturing and MRO
At Bayco we believe that Life Depends On Light.

For more information on how Bayco can help improve the task lighting and safety of your business operations. Contact us at 1-800-233-2155 or sales@baycoproducts.com.

Shopping by the Numbers

With 45, 000 products in an average supermarket, confusion lurks in every aisle. How do you pick, say, the most



nutritious fruits or snacks or canned soup? This month, thousands of stores will post numbers by many items as a cheat sheet. Developed by Yale University's Griffin Prevention Research Center, The Overall Nutritional Quality Index (ONQI) scores foods from 1 to 100, based on nutrients, vitamins, sugar, and salt as well as impact on blood pressure and other health concerns. More stores plan to adopt the rankings in 2009.

Here's a sampling of items rated. More scoures are at www.ongi.org



Broccoli = 100 Pasta = 50

Avocado = 89 Bagel = 23

Shrimp = 75 Cheese Puffs = 4

Instant Oatmeal = 61 Popsicle = 1

http://www.griffinhealth.org/Downloads/Quiz(11-14).pdf



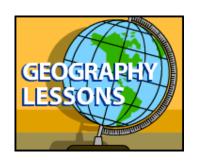


Geography lesson for pilots and travelers

This is fun and educational as well.

http://www.lufthansa-usa.com/useugame2007/html/play.html





The Age of E-Books Arrives For Aviators

Many manuals, regs, training texts and other reference materials now can bought in a convenient e-book format via the online AVweb Bookstore, the company said this week. McGraw-Hill, and the Aircraft Technical Book Company all h

Book Company all have authorized the

bookstore to distribute their publications online.



The texts can be downloaded immediately, avoiding shipping costs and waiting time, and can be read with free Adobe Reader software on a variety of platforms, including Macs, PCs, handheld devices, and the popular Kindle wireless reading device. All of the illustrations and formatting of the printed book are preserved, and the texts are fully searchable. Hyperlinks make it easy to navigate through the text, and electronic storage makes it simple to keep your references handy at home, while traveling, or in the cockpit. And if you're not sure that e-books are right for you, you can try one for free.

You can also find plenty of traditional books, DVDs, magazines, software, and more at the AVweb Bookstore site. The bookstore features over 500 titles from 56 publishers. About 60 percent of the catalog is now available in either printed or e-book format; that number is expected to rise to 90 percent by the end of this year, the company said. For e-book FAQs, click here.

Think Safety

Think First to Avoid a Strain

- > When lifting and moving heavy loads, get help or use mechanical aids.
- > Keep your spine straight when lifting AND when setting down items. Bend your legs, not your waist.





- > Turn your whole body not your waist when handling heavy loads.
- > Never carry or transport a load in a way that blocks your vision.
- > Srore heavy object at heights between your waist and shoulders.

Fact Check

270,890 – Number of back injuries resulting in days away from work in 2006 – accounting for 22 percent of all work-releated injuries.

Source: National Safety Council, "Injury facts," 2008.

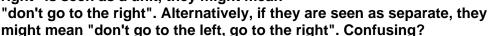


Bad Human Factors Designs

Don't go to the right?

Here is a sign on a dirt road in Cabo San Lucas, Mexico. I have to admit I really wasn't sure what it meant. Did it mean "Don't go to the right" or "Go to the right, not the left"?

If the two symbols "do not" and "to the right" is seen as a unit, they might mean





Design suggestion

If the sign is meant to communicate "don't go to the right", the symbols could be put closer together or on top of each other. If the sign is meant to communicate "don't go to the left, go to the right", the symbols should be moved farther apart or put on separate signs.



Midnight Shift Nugget

The effect of light – tips for the night shift

Light is one of the most powerful external cues that influence our sleep/wake pattern. Every wonder how the brightness and timing of light affects alertness, and how you can use light to your advantage when working the night shift?



Light is measured in lux – the higher the number of lux, the brighter the light it is. For example, on a sunny day you're exposed to about 50,000 lux and that number goes down to 10, 000 lux on an overcast and rainy day. Indoor light that comes from your average incandescent or fluorescent light bulbs may provide only 200 to 5000 lux, depending on how far away you are from the light.

In many workplaces, workers turn down the light levels to under 50 lux to avoid glare on computer screens. While reducing glare may reduce eye strain, the lower levels of light promote drowsiness which is not good in a workplace. Therefore, it is beneficial for people working the night shift to identify and eliminate sources of glare and reflection. By doing so, you can turn up the lights and improve alertness on the job. Remember the brighter the light you are exposed to the more likely you are to be alert.

More Sleep Equals Fewer Mistakes for Hospital Interns

For many of us, college was the last time we "pulled an all nighter." For medical interns, however, staying up all night is as common as finding a television re-run of ER.

Dr. David Andorsky, a resident at Brigham and Women's Hospital, explained, "I go home and collapse and take a nap. For interns, it is a way of life. I am very aware of how much sleep I'm getting."



For a long time it has been accepted as part of the job - until a recent landmark study at Brigham and Women's Hospital, published this October in the New England Journal of Medicine.

The study's objective was to quantify trainees' work and sleep hours and validate The Accreditation Council for Graduate Medical Education (ACGME)'s recent limit on work hours for U.S. medical residents.



When Harvard researchers limited work periods for interns to a maximum of 24 hours and held work weeks to 80 hours, significantly fewer patient medical errors occurred than for interns who worked longer, more traditional shifts and weeks with more work hours.

In a second study of 20 interns, the Harvard researchers found that those working the longer, traditional shifts got less sleep per week than when they worked on a more restricted schedule. When the interns were on the restricted work reschedule (less work, more sleep), they had "less than half of the rate of attentional failures while working on-call nights."

Dr. Andorsky, who participated in the study, acknowledged a big difference working on the modified schedule. "I felt more excited to be there, awake and alert." The studies were conducted among first year interns in intensive and coronary care units where, presumably, intern alertness would be at a premium.

Dr. Charles Czeisler, an author of the study, explained, "The key issue that we looked at is whether it is appropriate or safe to have interns work 30 hours in a row rather than focusing on the total number of hours they worked in a week. We found that the 30 hour shift is the Achilles heal of the medical education system in the United States, having an impact on the patient's safety and medical education.

"The work hour regulations are set at 80 hours a week. It isn't just a matter of cutting work hours and increasing sleep. You need to time the schedules appropriately to allow people to sleep at the correct circadian time without having too much time awake."

Brigham and Women's Hospital in Boston has begun implementing a new policy based on this research that regulates the shifts of first year interns by restricting:

Work to 80 hours or less per week;

Shifts to 24 hours or less! Assignments so that after 18 hours of continuous work interns cannot write orders for patient care activities.

When asked about the experience, Dr. Andorsky said, "It is brave to open up your ICU to scrutiny and errors. The findings apply to all ICUs in the country. Patient safety and resident work hours are critically important. It isn't all about work hours. Doctors need to be awake and informed."

AUDIO SAFETY TALKS!

SAVE FACE; AND YOUR EYES

Your eyes need to be front and center on safety at all times. Unfortunately that sometimes puts them directly in the line of fire from chips, splashes, splinters, burns and more. In this case, the best defense is a good defense: Eye protection defends your peepers against the hazards of your workday. Encourage your workers to wear their eye protection each and every day with this safety talk.

To listen to the talk, click this link





DON'T BE BLIND TO EYE PROTECTION

Blind. It's a simple word, but it has several interpretations: Hunters sit in a blind so that game can't see them. Blind-man's-bluff is a children's game involving a person wearing a blindfold so that they can't see. In Hold 'Em poker, players place a blind bet on cards they can't see. All of these terms involving the use of the word "blind" have something in common: they all refer to someone being unable to see. Invite your workers to discuss what "blind" means to them, and present this safety talk.



Don't Be Blind To Eye Protection

If you've ever had an eye injury, you'll never wonder why there are such strict rules about eye safety and eye protection.

Sometimes it can seem like a lot of trouble to put on safety eyewear each time you walk out on the shop floor.

However, such protective gear can save you from injuries which can lead to blindness. Prompt treatment of eye injuries can reduce the risk of permanent damage.

Your eyes are at risk from many potential hazards during a day at work. Eyes can be injured by particles propelled by machinery, such as chips of metal or wood, or dust.

Burns or toxic effects from chemicals are another serious hazard to your eyes. Corrosive acid or alkali substances, as well as solvents and other products, can cause painful, long-term injuries.

Another eye hazard is the radiation burn. Welding flash is one example. Industrial microwaves and lasers are other types of radiation hazards.

These and other hazards are the reason you need to wear eye protection on the job.

The first step is to choose the right eyewear for the particular danger. Your supervisor will tell you what kind of eye protection to wear, and under what circumstances you must keep it on.

These are examples of safety eyewear:

• Safety glasses. These look similar to ordinary spectacles, but they are made of impact resistant material which can protect you from flying objects. In many instances, you will need to wear safety glasses with side shields.



- Goggles. These are made to protect you from chemical splashes or impact from flying objects which could damage your eyes. Make sure you have the right ones for the job. This kind of eye protection is rated according to the type and degree of protection provided.
- Shaded eyewear. These protect you from radiation burns. Safety glasses with ultraviolet protection may be required for outdoor work. Welders helmets have special shaded eye pieces, and anyone who works near a welding operation must also wear special shaded glasses to protect against radiation burns to the eye.
- Faceshields and head coverings. In some types of work, full protection is required for the head and face, in addition to eye protection.

The best way to protect your eyes is to stay away from the hazards. In your work area, the arrangement of equipment and materials can help achieve this. Machine guards are in place to protect you from debris such as wood or metal chips. Exhaust systems remove harmful particles from the air. Splash guards help you avoid contact with harmful liquids. Screens keep you away from hazards such as light radiation.

You must also be aware of any chemical hazards to your eye safety. Read the label and the MSDS (Material Safety Data Sheet) before using any chemical substance. Follow the directions, and use safety eyewear as instructed.

Learn how to treat an eye injury.

Know where the eyewash station is, and find out how to operate it. You might need to use it while you are temporarily blinded by a chemical splash. Always get prompt first aid treatment for any eye injury. Even if you have used the eyewash station and believe you have corrected the problem, you must seek medical attention for any eye injury.

You are only issued two eyes and they have to last a lifetime. Don't let a careless accident destroy your only chance of vision. Wear your eye protection!



PICTURE THIS!

Speaking of stuff you might not want to see: When you're off to the hardware store, you need to check to make sure you've got everything you need. The mental checklist might, in this case, have gone something like this: "Car keys? Yup.

Wallet? Yup.

Way to get the new fencing home? ... Meeeh, we'll figure something out when we get there."



