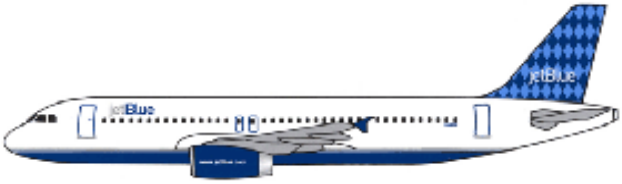
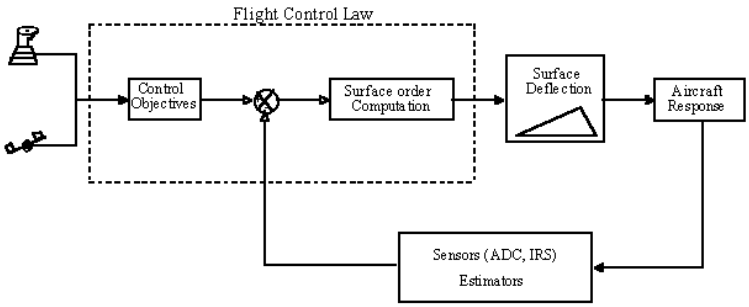


# Aviation Human Factors Industry News

## December 08, 2008

**Vol. IV. Issue 48**

## Misconfigured A330 flight computers led to severe hard landing: EASA




**Incorrect configuration of flight-control computers, leading to a severe hard landing by an Airbus A330, has prompted a warning to operators to pay greater attention to installation of critical components.**

**Neither the identity of the carrier involved in the landing, which occurred in September, nor the location has been disclosed. The specific A330 variant is also unclear.**

**But the aircraft struck the ground hard after its elevators failed to respond to a pitch-up sidestick command from the pilot, who was attempting to flare the aircraft before touchdown. Instead of deflecting upwards, the elevators remained at their neutral position for several seconds.**

**In a bulletin on the event, the European Aviation Safety Agency says that the subsequent impact was "severe" and required replacement of the A330's main landing-gear.**

**Investigators discovered that while two primary flight-control computers - of the same standard and part number - were fitted in the first and third computer installation positions, designated FCPC1 and FCPC3, the computer in the second position differed in both respects.**

**This particular configuration led the second flight-control computer to transmit erroneous signals to the elevator servos, and EASA states that "force-fighting" resulted within the elevator actuation system.**

**Airbus says that this particular configuration of flight-control computers is "not authorized" by any of its service documents for the type.**

**EASA has warned operators to ensure that parts are mixed only in accordance with established guidelines from the airframer.**

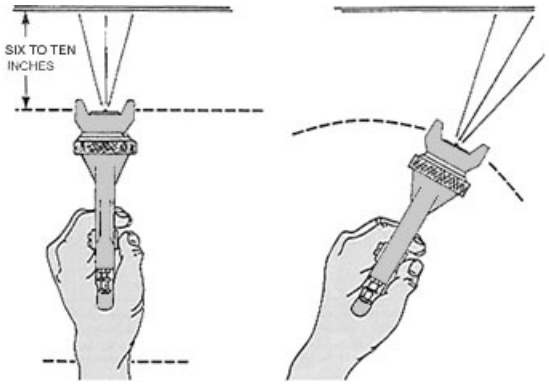
**"To prevent an uncertified configuration that may result in unexpected operation of the aircraft systems owners and operators should adhere to the interchangeability and mixability rules given in Airbus type certificate holder documentation," it states.**

**EASA highlights a similar occurrence, in 2004, during which an Airbus A340's ground spoilers partly extended during power-up, when they normally would have remained fully stowed.**

**Inquiries discovered that the aircraft's three primary flight computers had been installed in a similar unauthorized mixed configuration.**

## Investigators Look At Recent Paint Job In ANZ Accident

### A320 Had Just Been Repainted For Redelivery To Carrier




**Aviation accident investigators are talking a close look at whether the recent repaint of an Air New Zealand Airbus A320 contributed to a fatal crash last week that claimed the seven people onboard.**

**As ANN reported, the A320 was nearing the end of a maintenance checkout flight November 27, when it suddenly plunged into the Mediterranean Sea while on approach to Perpignan, France. The plane was slated to be returned to owner Air New Zealand after coming off lease to Germany's XL Airways.**

**The Australian newspaper reports a firm in Perpignan had recently painted the aircraft in the ANZ livery. Media reports indicate the accident flight was the plane's first since it was repainted... raising the possibility a static port or other sensor area may have been painted over, or was still masked off.**

**Contrary to that theory is the knowledge the airliner apparently flew without incident two hours before it crashed into the sea.**

**Investigators hope the plane's cockpit voice recorder will shed some light on the flight's last moments. Crews recovered the CVR this weekend, and it appears to be in good condition. Crews have also located the flight data recorder, and hoped to recover that vital equipment early this week.**

## NTSB: Wake Turbulence From 767 Likely Caused Mexican Lear Crash

### CVR Records Pilots' Last Statements

**U.S. and Mexican investigators speculate the downing of a Learjet 45 in Mexico City on November 4 was caused by the combination of wake turbulence from a landing airliner and the pilots' unfamiliarity with the aircraft.**

**The plane's cockpit data recorder, analyzed by the National Transportation Safety Board in Washington, DC, revealed the pilots' last words – "Diosito" (My little God) – in their struggle to regain control of the aircraft as it encountered severe wake turbulence.**

**Theories of sabotage have been all but ruled out in the deaths of all nine persons on board, including Mexico's Interior Minister, Juan Camilo Mouriño, and José Luis Santiago Vasconcelos, well known for his fight against drug cartels.**

**Pilot Martín Oliva, 39, and co-pilot Alvaro Sánchez, 58, have been defended by their families as responsible, serious professionals, the Dallas Morning News reported.**

**But at a news conference, Mexico's Communications and Transportation Minister Luis Telléz said, "The investigation revealed apparent deficiencies in the training and certification process of both [pilots]," and alleged the pilots failed to follow ATC instructions.**

**As the Learjet approached Mexico City, it was sequenced behind a Boeing 767-300 and given instructions to reduce airspeed in order to maintain proper spacing behind the airliner, Telléz said. But the pilots took over a minute to comply with the speed reduction, putting their plane just 4 nm behind the much larger 767.**

**Investigators said that wake turbulence from the 767 caused the Learjet to crash within 30 seconds, evidenced by the plane's Cockpit Voice Recorder:**

**Pilot: "That one's got some turbulence."**
**Co-pilot: "Hey man."**
**Pilot: "Hey [expletive]."**
**Later:**
**Pilot: "Alvaro, what do we do, Alvaro?"**
**Co-pilot: "Hand it over to me, hand it over to me, hand it over to me."**
**Pilot: "It's yours Alvaro."**
**Pilot: "[expletive]"**
**Pilot: "No, Alvaro."**
**Co-pilot: "Diosito."**

## Judge who coined famous phrase to get aviation safety award

**The judge who coined one of the most famous phrases in aviation legal history is to get a posthumous award for his contribution to aviation safety.**

**Justice Peter Mahon accused Air New Zealand of an "orchestrated litany of lies" in his finding on the cause of the crash of the DC10 aircraft on Mt Erebus on November 29, 1979, which killed all 257 passengers and crew.**

**In his report released in 1981 he said DC10 pilot Jim Collins was not told of a last-minute change to the flight path co-ordinates, and neither he, First Officer Greg Cassin, nor the flight engineers, made any error which contributed to the disaster during a sight-seeing flight.**

**Air NZ challenged Justice Mahon's accusation of a "predetermined plan of deception" and the Court of Appeal overturned the finding, saying the judge had exceeded his terms of reference.**

**Justice Mahon resigned, and died in 1986 but his comments echoed around the world.**

**Now the New Zealand Airline Pilots Association (ALPA) said it would posthumously present Justice Mahon with the Jim Collins Memorial Award for exceptional contributions to air safety.**

**"It is for his sterling work, in forever changing the general approach used in transport accidents investigations world wide," said ALPA executive director Rick Mirkin.**

He said Justice Mahon's family would be at an international conference of airline pilots in Auckland next year to be presented with the award.

Mr. Mirkin said ALPA would also launch a website which would be the "definitive source of information in the world on the whole Erebus accident and the aftermath and the air accident investigation process that ensued, that was so instructive for so many people around the world.

"The intention is to present the facts and let people draw their own conclusions. It is not going to be a blame and shame operation," he said.

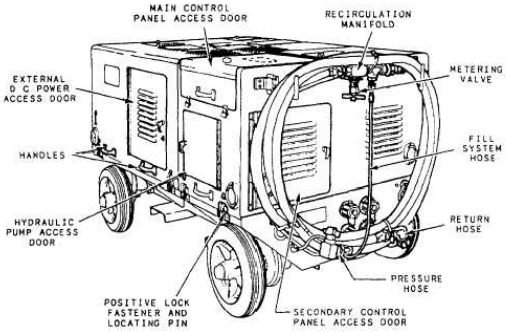
The 1979 crash could have claimed the life of one of New Zealand's most famous sons.

Everest conqueror, Sir Edmund Hillary, was to be a commentator on the DC10, but could not go and his close friend Peter Mulgrew stepped in at the last minute.

Mr. Mulgrew's widow June and Sir Edmund later married.

Sir Ed, who died earlier this year, lost his first wife and daughter in a plane crash in Nepal in 1975.

## Don't Take Chances With Hydraulics




The power of fluid is amazing. But take it for granted and hydraulic power can maim you for life or kill you.

Hydraulic power is a form of stored energy. When it is under control, it works well. But when released unexpectedly, it can do great harm. Many injuries and deaths involving hydraulic power occur because workers are poorly trained and ill informed about the hazards.

A piece of equipment may be standing silent and motionless, but that doesn't mean it's safe. Stored energy can cause unexpected movement. The best way to prevent release of hazardous energy is with a lockout/tagout procedure before undertaking service or maintenance tasks. Maintenance workers are often the victims of injuries involving hydraulic equipment. That's why specific training is required.

A hydraulic line can break and spray flammable liquid, resulting in fires and explosions. If a line fails or is disconnected, the loss of fluid pressure can cause machine components to collapse, resulting in possible injuries or death if a worker is underneath the machine.

When someone uses a hand to check for a pinhole leak in a hydraulic line, the pressurized fluid can be injected under the skin. This injury can eventually lead to a hand amputation because of infection.

The fluid used in hydraulic power tools must be an approved fire-resistant fluid and must retain its operating characteristics at the most extreme temperatures. The manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters and other fittings must not be exceeded.

All jacks – lever and ratchet jacks, screw jacks and hydraulic jacks – must have a device that stops them from jacking up too high. Also, the manufacturer's load limit must be permanently marked in a prominent place on the jack and should not be exceeded. A jack should never be used to support a lifted load. Once the load has been lifted, it must immediately be blocked up. Hydraulic jacks exposed to freezing temperatures must be filled with an adequate antifreeze liquid.

Report any problems you observe, such as leaks. And remember to lock out hydraulic power before adjusting any equipment.

Never take a chance with hydraulic pressure because you may never get a second chance to do it right.

## AUDIO SAFETY TALKS!

### IMMOBILIZE WITH THE PROPER LOCKOUT PROCEDURE


It's not certain why you'd want to risk life and limb by not instituting or following the proper lockout/tagout (LOTO) procedures. Which procedure is that? Well, it's the one that restrains hazardous energy and immobilizes dangerous equipment. There can be no other. So after you present this talk to your workers, ask them whether they can think of hazards that might not be contained under the current system. And remember, this is a great time for a year-end review of your LOTO procedures, and all other safety measures.

- To listen to the talk, click this link

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# CALLBACK ASRS

From NASA's Aviation Safety Reporting System

## The "Dirty Dozen" in ASRS Maintenance Reporting

## "Lack of Communication"

**A common "dirty dozen" factor played a role in an incident involving a B757-200 emergency slide pack installation:**

**Lack of Communication: Failure to verify tasks**

- **Myself and another technician were given the task to replace the left wing overwing emergency slide pack. We accomplished the task and signed the proper documents and logbook. When the aircraft went into a heavy maintenance check, it was discovered that the slide deployment lanyard was not connected to the attach point, rendering the slide pack useless. Myself and the other technician are new to the station and only worked together a few times. I believe there was miscommunication between ourselves in carrying out the Maintenance Manual steps in the installation of the slide. Also working in a dark environment (nighttime) we didn't detect the error. Double-checking the work performed is also required in aircraft maintenance.**

## Why I love my job: Mark Layne: Line mechanic/Delta Air Lines, Atlanta


**What I do: Replacing burned-out light bulbs and fixing flat tires sounds like something the neighborhood garage could take care of. But Mark Layne also checks landing gear and autopilots.**

**Layne, 43, is a line mechanic with Delta Air Lines' TechOps Department. They are the folks who keep the planes flying from the hangar at Hartsfield-Jackson International Airport under the "Fly Delta Jets" sign.**

**"I work on 'live' flights," Layne said, meaning that he is on call to make quick repairs while the plane sits at the gate between landing and takeoff. "We get the plane out safely and in an on-time manner. We see something different out there every day, from high tech to the mundane," he said. "I'm Scotty [from 'Star Trek'] one day and Schneider [the building super on 'One Day at a Time'] the next."**

**Layne is part of a team of more than a dozen mechanics who tend to planes coming into the 32 gates on A Concourse. If a plane needs attention —- for anything from a warning light on the instrument panel to a dead bulb in a passenger reading light —- the pilot will call ahead to alert the ground crew.**

**Some days are busier than others, Layne said, adding that "if there are no calls, we'll do a walk around," looking at tires, brakes and other parts of the plane. They follow a checklist that's part of Delta's overall maintenance program. "If we find anything, we'll fix it right then."**

**If it's something that can't be fixed quickly and safely, Layne has the authority, along with the maintenance tower and his supervisors, to hold the plane for more extensive repairs. "It's not a decision taken lightly," he said. "It's my signature in the log" for aircraft maintenance.**

**Major repairs, such as replacing an engine, are done in the hangar, he said, and all the line mechanics are trained to work on every part of the plane. "We're all equal," he said. "Everyone does everything… . We're all expected to carry the load."**

**Problems crop up more often in the summer because of the heat, he said, but "there's never any pressure on line mechanics to rush a flight. Safety is our first concern, on-time is second."**

**Layne said he and his crew take care of more than just airplanes. Sometimes, they'll get a call from the concourse about a passenger who needs help. "You get pretty good at stroller fixing, too," he said.**

**> What got me interested in this: "I was a line mechanic in the Marines," Layne said. "It was a natural progression to Delta."**

**Before the military, he said: "I was that kind of kid who tore apart toys and put them back together. I like to fix things."**

**> Best part of my job: "The people," he said. "They are the best group of people on the line I've ever been with, especially when the pressure is on."**

**He compared the work in the hour or so that the plane is on the ground to a NASCAR pit crew when it has to make brake repairs, for example.**

**> Most challenging part: "When it's push-back time [before takeoff] and you have to make the right decision," Layne said. "Everybody is watching you."**

**The nastiest maintenance call, he said, is a stopped-up lavatory. "That's the call nobody likes."**

**> What people don't know about my job: "We're licensed by the FAA [Federal Aviation Administration] on the airframe and the power plant," he said.**

**Also, he said, "We get to taxi the aircraft from the gate to the hangar."**

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**> What keeps me going: "The people I work with," Layne said. "I look forward to seeing them every day. And I know my job is never going to be boring or routine."**

**> Preparation needed for this job: "You need to be cool under pressure and have self-awareness —- knowing what's going on around you," because working on the tarmac can be hazardous if a person isn't careful, Layne said.**

**He also said it helps to have a sense of humor, especially when dealing with a troublesome lavatory or changing the brakes in 95-degree heat.**

**While a college degree is not necessary, graduation from an FAA-certified aviation school or applicable experience, such as work in the military, is. "To get a license, you have to take a test," Layne said.**

**An FAA license is valid as long as the mechanic uses it, and continuing education is required. "Training is nonstop," he said. Mechanics are constantly going to school or taking classes online.**

**In addition, there are schools for different aircraft. When the Delta and Northwest Airlines merger is completed, Delta mechanics will get training from the aircraft manufacturer on planes that are new to the fleet.**

**Mechanics also are expected to be aware of airworthiness directives on potential problems with planes and FAA rules. Mechanics are required to take yearly tests to show they are in compliance.**

**Layne was a Marine for four years and graduated from Colorado Aero Tech. He began work with Delta about 18 years ago.**

## Mr. Distracted Meets Ms. Dimples

**In the early seventies I had an incident at a flight school I was part timing at as a CFI. It was a beautiful day, I had a student set up for a morning flight. We were going to review Stall Recognition and Recovery along with Unusual Attitudes. To set the stage, I was waiting in the line shack for the student. Having a cup of coffee and in serious conversation with the female receptionist. My student arrives, we discuss the mission. I send him off to preflight the aircraft (A 1968 C-150) which he is familiar with. I continue my conversation with miss dimples. Talk about a distraction. My student returns and declares the pre-flight completed with full oil and fuel. We walk out to the flight line, I double check the oil and the fuel caps…….Off we go to the practice area and 5000 feet. I am putting the student through the gambit. The student's performance is good. Life is good…….. Recovering from a Departure Stall, I looked down to the R/H wheel, which I had looked at a few times in clearing the area……..This time a very Bright and Shinny Orange Jack Pad catches my eye…….WOW !!!!!! I take the controls and make straight and level. There on the R/H gear leg is the jack pad the mechanic used to change the tire.**

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**As the old C-150 with the flat gear legs, these jack pads just slip on. It's about 3 lbs worth of metal, no telling what it may have done coming off the gear strut crashing to earth.**

**Unfortunately, as pilot in command I won the idiot of the year award. This scenario could have caused great harm to someone on the ground. The mechanic forgot to remove the jack pad. The student missed it……..I, the CFI did not bother to back up the students pre-flight. Talk about shades of the Twilight Zone. A sequence of failures. Distractions……Complacency….. are killers for you or someone else. The lesson learned, assume nothing…….keep focused on your mission. I remember this incident as it was yesterday and still use it to show how dropping your guard for what ever reason can be a Human Factor to an Incident/accident.**

## Hand safety... how to arrange your toolbox

**It might make somebody snicker... and make them think about keeping their hands safe.**

**I, personally, have my toolbox arranged into what I believe are the most logical divisions.....i.e., how you become injured using them:**

**Primary pounders...things you mash yourself with. Usually associated with some type of impact. While there are many multi-tasking tools that fit this category, it is customarily used for heavy things with handles. If it makes you hop up and down while cradling your hand in your crotch...it goes here. I had a movie once that presented the history of the hammer for shop kids. Yup. It started with a large rock and then to the rock with a stick tied to it.**

**Abrasion devices: Those that will remove skin in indistinct shreds. Thing like files, cheesegrater bondo tools and burr grinders and wire wheels for your drill, orbital sanders, etc.**

**Pokey things. Things that will leave only small surface damage, but creates a leakage area under the skin. Screwdrivers, round files, awls, etc.**

**Pinchy things. Tools that leave blood blisters or bruises when they slip. Vice grips, pliers, clamps, etc. Include the bad crescent jaw wrenches in this on since they aren't really efficient at mashing you thumb. Any pry type tool that you can use your finger as the fulcrum while prying also fits here.**

**Slicers or clean hole putter-inners. razor blades, wood chisels (unless they are dull and then they go in the "pokey" drawer), utility knives, planes, drill bits, wood drills, gouges.**

**Thing that get real hot or can electrocute you: Torch, soldering iron, the old disc grinder, drill, powerplaner, (fill in the blank) with the short, the cord.**

**Unclassified damaging things.** **If it can serve multi purpose (grind skin off AND burn you) it all goes in the bottom drawer...next to the masking tape (bandage material).**

**From Mark "All airplanes bite fools "borrowed from a message to an Aeronca newsgroup > Plain Carl wrote:> > Actually the Crescent wrenches of various sizes belong in the universal > > tool category, and are not just limited to the use as impact devices. > > The hole in the handle makes a great tubing bender. Gets just the > > correct amount of kink in the tube without fully restricting the flow of > > fluids within. Next to the Ford Stilson wrench, they are unsurpassed as > > a nut rounding off device. One can totally destroy the seal on a gallon > > paint can with the upper jaw of the Crescent. The handle it a little > > weak as a pry bar, but if used properly it can draw blood on the > > knuckles of the user.**

## New Air France Hangar at Paris-CDG Welcomes the Airline's First Airbus A380


**On Saturday 22 November 2008, the new H6 hangar at Paris-Charles de Gaulle welcomed the first Airbus A380 from Toulouse. This new hangar has been specifically designed for maintenance of Airbus A380 aircraft in the Air France fleet.**

**On the evening before Air France ground staff took over this Airbus super-jumbo, piloted by an Air France crew, as soon as it landed in Paris-Charles de Gaulle. After a series of tests at the airport carried out at terminal S3, the aircraft was handed over to teams from Air France Industries, in charge of aircraft maintenance.**

**For the first time the Airbus A380 was towed inside Air France's new H6 hangar where compatibility tests were carried out. Mobile docks, maneuverable structures that enable mechanics to reach the aircraft and proceed with maintenance, were set up around the aircraft.**

**Tests on the maintenance equipment, positioned around the wings, the body, the upper deck and the horizontal tail fin all gave satisfactory results.**

**Tests on noise and luminosity levels were also carried out simultaneously with WIFI tests between the aircraft and the IT network in the hangar.**

**Lastly, an Airbus A321 was parked next to the Airbus A380 to check compatibility of the dedicated maintenance equipment for the aircraft.**

**The Air France H6 hangar covers a total area of 25,800 sq.m of which 12,500 sq.m specifically designed for aircraft maintenance large enough to hold an Airbus A380 as well as two medium-haul aircraft at the same time.**

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**90 meters long, 110 meters wide and 40 meters high, the hangar took 24 months to build and involved 455,000 hours of work.**

**In keeping with its commitment to the environment, Air France built the hangar according to High Environmental methods, which at term will enable the airline to obtain ISO 14001 certification for this new industrial unit.**

## Just Culture Victories

**As we count our blessings this year, we'd like to give thanks to a few of those organizations that have endured the sometimes difficult journey to a safer, more effective corporate culture. Starting in 2006, a group of North Carolina hospitals, with the support of the North Carolina Board of Nursing and the North Carolina Hospital Association, launched their own journey across turbulent seas. That story has been documented in a video, "The North Carolina Just Culture Journey." I urge you to watch the video (click here) and share it with friends. We should all give thanks to these hospitals and the North Carolina Board of Nursing for their inspiring work.**

**Warmest Regards,**

**David Marx, JD**
**Chief Executive Officer**
**Outcome Engineering, LLC**
**Curators of the Just Culture Community**
**972.618.3600**

## ASF Offers Online Course On Weather

**Pilots who have some extra time over the holiday weekend might want to spend 45 minutes to improve their understanding of the weather and enhance their safety. The latest free course in the online Weather Wise series offered by AOPA's Air Safety Foundation addresses icing and precipitation, two of the worst weather-related dangers pilots face. "An alarming number of pilots become accident statistics because too many of them underestimate the dangers of precipitation and icing," said Bruce Landsberg, executive director of the ASF. "This course will remind them how to recognize the hazards... develop a strategy for avoidance, and react appropriately if and when they encounter unexpected conditions."**

**You must create an account to log on and take the course, but it's free and available to all pilots, not just AOPA members. Those who pass the quiz at the end can qualify for the FAA Wings proficiency program.**

**And if you don't get to it this weekend, no problem; it will remain online indefinitely. Other courses available at ASF include programs on decision-making, navigating, using GPS, aerodynamics, aircraft systems, weather, and more.**

## CCAF puts airframe, powerplant courses online

**Aircraft maintenance technicians participating in the Air Force Airframe and Powerplant Certification Program are now able to complete the three Air Force A&P Mechanic Specialized Courses through Air University Online. The courses are part of the program requirements, after which graduates are eligible to test for the Federal Aviation Administration A&P certification.**

**"These courses were developed to fulfill the formal education requirement of the Joint Service Aviation Maintenance Technician Certification Council A&P Program," said Chief Master Sgt. William**

**Wade, Air Force Aircraft Maintenance career field manager andJSAMTCC chair.**

**The courses are designed to bridge the gap between military and civilian aircraft maintenance training and education, and prepare military technicians for the FAA A&P certification exams. The courses are available to technicians serving in all branches of the military.**

**"The courses are an important element of the Air Force A&P Certification Program," said J.R. Breeding, chief of Certification Programs and JSAMTCC co-chair.**

**The voluntary program, offered by the Community College of the Air Force, provides certification opportunity for technicians that traditionally do not meet FAA eligibility per Title 14, CFR Part 65.77. It also helps technicians obtain FAA certification by providing training and experience in a broad range of aircraft maintenance practices and skills.**

**Converting the paper-based courses to Air University Online was a coordinated effort between the Air Force Institute for Advanced Distributed Learning, the 362nd Training Squadron at Sheppard Air Force Base and CCAF.**

**The goal was to reduce the amount of time technicians spend to complete each course while maintaining course learning objectives.**

**The Air University Online courses feature a series of units and unit review exercises, or progress exams, that eliminate the traditional proctored end-of-course examination administered at the Base Education Flight.**

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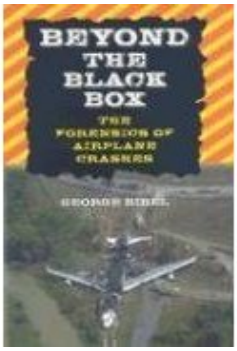
**"Because the technician is tested throughout the entire course, there is no need for an EOC exam … which the technicians requested," he said.**

**"Previously, technicians made several trips to their base education flight to enroll, order the [end of course] exam, and take the EOC for all three courses. Now that the courses are online, technicians can complete the entire course process from their home or work computer without visiting the education flight," said Tech. Sgt. Brian Nelson, Certifications Flight NCOIC.**

**To learn more about the Air Force A&P Certification Program, visit www.au.af.mil/au/ccaf/certifications.asp.**

**To learn more about the Air University Online A&P Specialized Courses and to enroll, visit at https://au.csd.disa.mil.**

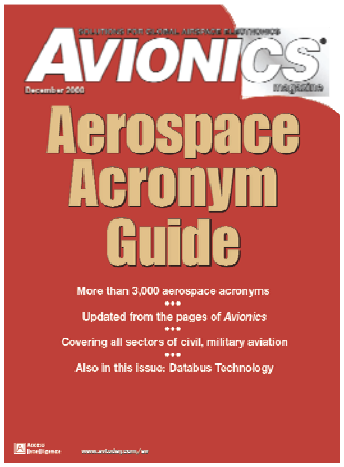
## Beyond the Black Box: The Forensics of Airplane Crashes




**The black box is orange -- and there are actually two of them. They house the cockpit voice recorder and the flight data recorder, instruments vital to airplane crash analyses.**

**But accident investigators cannot rely on the black boxes alone. Beginning with the 1931 Fokker F-10A crash that killed legendary football coach Knute Rockne, this fascinating book provides a behind-the-scenes look at plane wreck investigations. Professor George Bibel shows how forensic experts, scientists, and engineers analyze factors like impact, debris, loading, fire patterns, metallurgy, fracture, crash testing, and human tolerances to determine why planes fall from the sky -- and how the information gleaned from accident reconstruction is incorporated into aircraft design and operation to keep commercial aviation as safe as possible.**

## The December issue features:




- **Aerospace Acronym Guide: Updated with the latest terms, this guide has more than 3,000 civil and military acronyms.**
- **Databus Technology: Higher speeds and throughput, greater versatility required of today's avionics databus applications.**
- **Masters No More: Forecast International's analysts say "warning signs are appearing" that seem to indicate an aviation downturn is on the way.**

# Blue Tuna

## Training & Documenting in the World of Aerospace

### Stress as a Part of Life

**Stress is a part of everyday life. Tension and stress go hand in hand. Creative tension helps one to move forward and make progress. A bit of stress may be helpful at times. However if you find your self looking like the mad cat below you may want to slow down and take a deep breath.**

**Stress raises our blood pressure and drives sleep away. Excessive stress is trouble. Here are some safety nets for those involved in the everyday work of our industry.**

1. **Be aware of how stress can impact your work.**
2. **Stop and look rationally at your problem.**
3. **Determine a rational course of action and follow it.**
4. **Take time off or at least take a short break.**
5. **Discuss it with someone.**
6. **Exercise your body.**

**Remember Joe Namath? He is known for brashly telling the media that he guaranteed that his team would upset Don Shula's NFL Baltimore Colts in the third NFL-AFL Championship Game in 1969, and then delivering on his promise. Now there is self-induced stress. Later after winning the championship, he said, "all the married guys on the club had to thank their wives for putting up with all the stress and strain all season. I had to thank all the single broads in New York."**

**Are you trying to grapple with regulatory compliance for training your Repair Station employees? Visit the Blue Tuna 4 Easy Steps to Train. Here you will find out just how easy training can be.**

**Sincerely,**
**Terry Tolleson**
**Blue Tuna Docs**
**Work 214-681-4300**
**Cell 214-354-4254**
**Best Contact: http://www.bluetunadocs.com/**

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## Wheels Up Landing At Pensacola

**For an aviation photo buff, there's nothing like being in the right place at the right time and having the presence of mind to start shooting. Tom Callahan, of Pensacola, Fla., was shooting photos of the Blue Angels Homecoming practice day a couple of weeks ago when he noticed an FJ-4B Sea Fury on final approach without something important. Callahan said the owner and pilot of the beautiful Navy version of the F-86 Sabre forgot to lower the gear. The aircraft is repairable and work began the next day.**

## Lufthansa's restored Starliner to be airborne in 2011

**Lufthansa Technik is hoping to restore its Lockheed L-1649 Starliner to airworthy condition by 2011, after opening a new hangar in which the work will be performed.**
**The maintenance hangar at Maine's Auburn-Lewiston Airport, opened on 20 November, will enable repair work to be conducted on the aircraft, N7316C, one of three - plus 13 engines - acquired by historic preservation specialist Deutsche Lufthansa Berlin-Stiftung.**

**Lufthansa Technik says the aircraft's primary structure will undergo "a kind of D-check" in the hangar, a thorough examination for evidence of corrosion and fatigue. Wiring and cables will be replaced and the cockpit will be fitted with necessary instrumentation.**
**The L-1649's characteristic tail section has been removed and transported to the company's Tulsa-based division BizJet to be renovated.**
**Other components - including its four engines, flaps and fairings - have already been detached from the aircraft as part of the strip-down. The powerful Curtiss-Wright engines are undergoing separate restoration.**
**"Together with the core team of Lufthansa Technik, 12 qualified mechanics are working on the aircraft," says the company, pointing out that it will be transformed back from cargo to passenger configuration. "The cabin will be restored to its former historic splendour."Forty-four L-1649s were manufactured and Lufthansa operated four in long-haul service between 1958 and 1966.**

# Boeing Engineer Wins New Millennium Paper Airplane Contest

**Czech Artist Klara Hobza Reprises 1967 Competition**

**The New Millennium Paper Airplane Contest and corresponding book by Klara Hobza is a multifaceted interactive artwork inspired by the 1967 International Paper Airplane Competition. The historic contest took place at the Great Hall in what is now the New York Hall of Science, and has become legendary among many paper airplane enthusiasts.**

**Built by Wallace K. Harrison to display rockets in the 1964 World's Fair, the Great Hall is a secular cathedral of concrete and colored glass; for Hobza's one-day event last Saturday, this unique location harbored aircraft of a different scale.**

**Sponsored by the Public Art Fund, the competition was open to the public. Participants were invited to fly their planes in any and all of the judging categories, including distance flown; duration aloft; beauty; spectacular failure; a children's division; and a surprise category -- the longest distance flown by a plane designed on the spot.**

**Rules for the contest were simple: Airplanes may be folded from letter-size paper, up to 8.5" x 11", or smaller; larger sizes are not allowed. The paper should be an average office paper (20-24 lb weight). Cutting and minor gluing of your airplane is permitted; stapling is not.**

**Rowin Andruscavage, a systems engineer who works for Boeing in Virginia, placed first in the distance category with a plane of his own design. "It's a way of applying the stuff I learned in college," said Andruscavage.**

**Howard Fink of the Upper West Side took top honors in the duration aloft category, using a modified version of a plane featured in "The Great International Paper Airplane Book." Inspired by the 1967 competition, Fink started flying paper planes in high school, the New York Times said.**

**Peter Genovese of Flushing, Queens, a former aircraft mechanic who brought a Boy Scout Troop to the contest, won the surprise category. "It was very entertaining for the kids, but it was more entertaining for me. I had a better time than many of the Boy Scouts."**

**After the contest, notable planes and the stories behind their design will be collected in a commemorative book by the artist, The New Millennium Paper Airplane Book, to be published by the Public Art Fund in the spring of 2009. The book will consist of airplane designs that can be torn out, folded, and flown, as well as stories by their creators.**

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**Klara Hobza's previous works have focused on the human desire to communicate and explain, often exploring obscure information systems. "To me, paper airplanes are the pure, innocent aspect of an innate thing that is universal about humans, which is inventiveness and playfulness," Hobza said.**

**"This surpassed our expectations," said Rochelle Steiner, director of the Public Art Fund. "That's the heart of it as art, bringing together people in this performance activity. This work of art couldn't exist without everybody here."**

**Since 1977, the Public Art Fund has worked with over 500 emerging and established artists to produce innovative temporary exhibitions of contemporary art throughout New York City. By bringing artworks outside the traditional context of museums and galleries, Public Art Fund provides a unique platform for an unparalleled public encounter with the art of our time.**

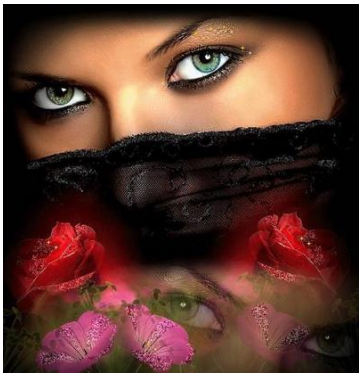
**FMI: www.publicartfund.org**

t h e g r a t i t u d e c a m p a i g n

thank you.

**www.gratitudecampaign.org/shortmovie.php**

# Safeguarding your sight



**Although aging puts people at greater risk for serious eye disease and other eye problems, loss of sight need not go hand in hand with growing older. Practical, preventive measures can help protect against devastating impairment. An estimated 40% to 50% of all blindness can be avoided or treated, mainly through regular visits to a vision specialist.**

**Regular eye exams are the cornerstone of visual health as people age. Individuals who have a family history of eye disease or other risk factors should have more frequent exams. Don't wait until your vision deteriorates to have an eye exam. One eye can often compensate for the other while an eye condition progresses. Frequently, only an exam can detect eye disease in its earliest stages.**

**You can take other steps on your own. First, if you smoke, stop. Smoking increases the risk of several eye disorders, including age-related macular degeneration. Next, take a look at your diet. Maintaining a nutritious diet, with lots of fruits and vegetables and minimal saturated fats and hydrogenated oils, promotes sound health and may boost your resistance to eye disease. Wearing sunglasses and hats is important for people of any age. Taking the time to learn about the aging eye and recognizing risks and symptoms can alert you to the warning signs of vision problems.**

**Although eyestrain, spending many hours in front of a television or computer screen, or working in poor light do not cause harmful medical conditions, they can tire the eyes and, ultimately, their owner (see below). The eyes are priceless and deserve to be treated with care and respect — and that is as true for the adult of 80 as it is for the teenager of 18.**

## 5 common eye myths dispelled

1. **Myth: Doing eye exercises will delay the need for glasses.**

   **Fact: Eye exercises will not improve or preserve vision or reduce the need for glasses. Your vision depends on many factors, including the shape of your eye and the health of the eye tissues, none of which can be significantly altered with eye exercises.**
2. **Myth: Reading in dim light will worsen your vision.**

   **Fact: Although dim lighting will not adversely affect your eyesight, it will tire your eyes out more quickly. The best way to position a reading light is to have it shine directly onto the page, not over your shoulder. A desk lamp with an opaque shade pointing directly at the reading material is the best possible arrangement. A light that shines over your shoulder will cause a glare, making it more difficult to see the reading material.**
3. **Myth: Eating carrots is good for the eyes.**

**Fact:** There is some truth in this one. Carrots, which contain vitamin A, are one of several vegetables that are good for the eyes. But fresh fruits and dark green leafy vegetables, which contain more antioxidant vitamins such as C and E, are even better. Antioxidant vitamins may help protect the eyes against cataract and age-related macular degeneration. But eating any vegetables or supplements containing these vitamins or substances will not prevent or correct basic vision problems such as nearsightedness or farsightedness.

4. **Myth: It's best not to wear glasses all the time. Taking a break from glasses or contact lenses allows your eyes to rest.**

   **Fact:** If you need glasses for distance or reading, use them. Attempting to read without reading glasses will simply strain your eyes and tire them out. Using your glasses won't worsen your vision or lead to any eye disease.
5. **Myth: Staring at a computer screen all day is bad for the eyes.**

   **Fact:** Although using a computer will not harm your eyes, staring at a computer screen all day will contribute to eyestrain or tired eyes. Adjust lighting so that it does not create a glare or harsh reflection on the screen. Also, when you're working on a computer or doing other close work such as reading or needlepoint, it's a good idea to rest your eyes briefly every hour or so to lessen eye fatigue. Finally, people who stare at a computer screen for long periods tend not to blink as often as usual, which can cause the eyes to feel dry and uncomfortable. Make a conscious effort to blink regularly so that the eyes stay well lubricated and do not dry out.

## ** *Get your copy of* The Aging Eye: Preventing and treating eye disease


***The Aging Eye*** **report describes the four common eye diseases that pose the greatest threats to vision after age 40: cataract, glaucoma, age-related macular degeneration, and diabetic retinopathy. This report will help you determine your risk of developing these disorders, describe their symptoms, and discuss diagnosis and treatment. You'll also learn to recognize and address other common eye problems.** Click here to read more or buy online.

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# Picture This!

**So you think you have some workplace hazards, eh?**

**Consider that you might have to do an occasional job at the well-known Florida theme park and nature conservatory known as the "Alligator Capital of the World."**

**In this case, on the rear elevation of the main building, the workers had to fit a metal canopy to a steel framework.**

**The two guys on the ladders stood on the bank and pushed the ladders into the mud at the bottom of the pool. Then proceeded to fix the covering to the edge of the building."**