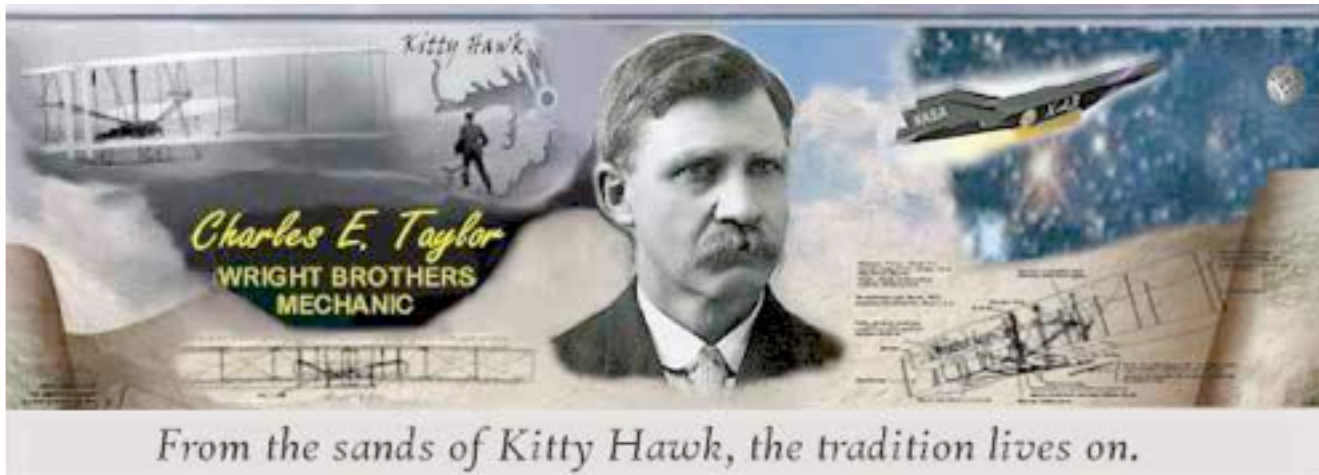


Aviation Human Factors Industry News

Volume V. Issue 06, March 20, 2009



Hello all,

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

- ★Report Says Mechanics Missing in Human Factors Efforts
- ★easyjet plunged 10,000ft on test flight
- ★Post Maintenance Test Flight Crash
- ★Bad altimeter a factor in Netherlands plane crash
- ★French Concorde Crash Manslaughter Trial To Begin In Feb 2010
- ★Southwest overhauls ATOS during fallout from missed inspections
- ★RECENTLY RELEASED ACCIDENT REPORTS

- ★Runway Safety Tip
- ★FAA: Serious Runway Incursions Decline
- ★Cessna mechanic charged with selling stolen airplane parts on eBay
- ★FAA to airline pilots: Turn cell phones off
- ★NTSB Reiterates Its Commitment to Ridding Fatigue in Transportation During Sleep Awareness Week
- ★ASRS CALLBACK
- ★The Kind of Book a Hero Reads
- ★Building a Safety Culture
- ★And Much More!

Report Says Mechanics Missing in Human Factors Efforts

Maintenance and Modifications in a report titled “**An Overview of Human in Aviation Maintenance**,” the Australian Transport Safety Bureau (ATSB) concludes, “The errors of maintenance technicians are the **visible manifestation** of problems with roots deep in the organization. Yet until recently, maintenance personnel were overlooked by the human factors profession.



Most significantly, **maintenance errors** can have grave implications for flight safety. The report goes on to note that at the end of the work day, pilots and controllers are finished, but mechanics “know that the work they performed will be relied on by crew and passengers **for months or years into the future**.

On more than one occasion, maintenance personnel have taken their own lives following aircraft accidents caused by maintenance error. Comparing mechanics to doctors, the report notes, “Opening up a healthy patient at regular intervals to check that organs are functioning normally would not be an appropriate strategy in healthcare, yet **preventive maintenance** in aviation often requires us to disassemble and inspect normally functioning systems, with the **attendant risk of error**.

easyjet plunged 10,000ft on test flight

The UK Air Accidents Investigation Branch (AAIB) is examining an incident, an easyjet 737-800 nosedived 10,000 ft during a test flight over Norwich, UK, on January 12. The maneuver was **caused by wrongly adjusted elevator balance tabs**, following a **misunderstanding** between the maintenance personnel and flight crew when the aircraft was delivered for a lease return check to the MRO in Southend in December.



Then the pilot reported that the amount of pitch trim necessary to maintain level flight manually was unusually high and just within limits. The **misunderstanding led to the elevator balance tabs being adjusted into the wrong direction**, making the situation worse and bringing the aircraft out of trim. The **mistake** did not become apparent until the pilots disengaged the automatic flight systems and hydraulic power to the flight controls at FL150 (15,000ft) during the test flight in January. The aircraft then pitched down and, at one point, reached a rate of descent of 21,000 ft/min, 30 degree nose down attitude, and indicated airspeed of 440kts. The captain managed to recover the aircraft at 5,600ft, where the hydraulic system was switched on again.

Post Maintenance Test Flight Crash

A pilot and mechanic reportedly conducting a test flight **after making** to a 1966 Mooney M20E perished earlier this month, when the aircraft came down near the Rio Linda Airport near Sacramento, CA.

Witnesses say the aircraft crashed shortly after taking off for what was described as a **post-maintenance test flight**. The plane impacted on a dirt race track north of the runway, underneath the final approach path to runway 17 at the airport.

"It was smoking really bad, like it was on fire or something and I thought it was going to land," a witness informed a reporter. "It was crazy. I can't explain it. It scared me. My house is like five minutes away."

The pilot owned the accident aircraft and his passenger was a mechanic at the airport, whose identity had not been released as of Saturday evening. Both occupants were declared dead at the scene.



Bad altimeter a factor in Netherlands plane crash

Investigators said a **faulty altimeter** played an important role in a Turkish Airlines crash that killed 9 people in the Netherlands.

The Dutch Safety Authority said the plane was being landed on automatic pilot and the problem with the altimeter, a device that measures altitude, led to a **loss of airspeed** before the crash.

The Boeing 737-800 carrying 135 passengers and crew went down in a muddy field one kilometer (less than a mile) short of the runway at Amsterdam's Schiphol Airport shortly before it was due to land on Feb. 25.

Chief investigator Pieter van Vollenhoven said the airplane had **twice before experienced problems with its altimeter**. Boeing has been instructed to warn clients of the problem, he said.

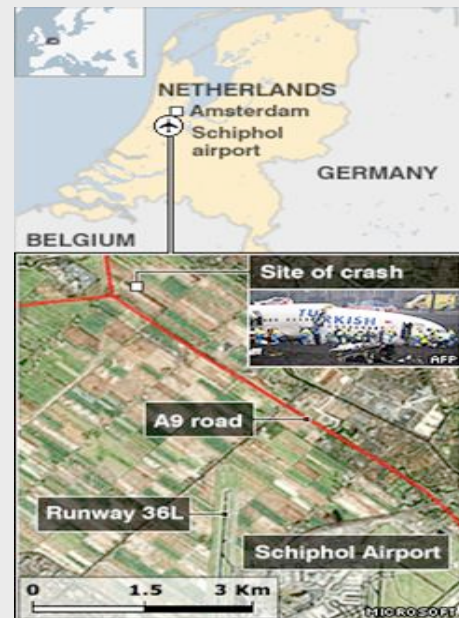
At 1950 feet (around 700 meters) "the airplane's left radio altimeter suddenly registered a change in altitude" of negative 8 feet (about 2 meters). "It didn't only register it, but passed it on to the automatic steering system," Van Vollenhoven said.

Van Vollenhoven said it was not unusual to land a plane on autopilot.

According to conversation recorded between the plane's captain, first officer and an extra first officer on the flight, **the pilots noticed the faulty altimeter but didn't consider it a problem and didn't react**, Van Vollenhoven said.

Fuel to the engines was reduced and the plane lost speed, decelerating until, at a height of 450 feet (150 meters) the plane was about to stall, and warning systems alerted the pilots.

"From the "black box" (data recorders) it appears that then the pilots immediately gave gas, full gas, however it was too late to recover," Van Vollenhoven said.



He said that the pilots had been unable to see the runway at the time the plane began its descent due to weather conditions — cloudy with a light rain.

The plane fell into a freshly plowed field, striking the ground tail first and breaking into three pieces.

Those killed in the crash included five Turks and four Americans.

Turkish Airlines said the dead included the pilots. The American dead included three Boeing employees on a business trip unrelated to the flight.

French Concorde Crash Manslaughter Trial To Begin In Feb 2010

The trial of U.S. airline Continental Airlines Inc. (CAL) and two of its for **manslaughter** over the crash of a Concorde airliner in 2000 will start in February next year, prosecutors said Monday.

A former French civil aviation official and two senior members of the Concorde program will be tried on the same charge before a criminal court in Pontoise, outside Paris.

The New York-bound Concorde crashed in a ball of fire shortly after takeoff from Paris Charles de Gaulle airport on July 25, 2000, killing all 109 people on board and four workers on the ground.

The trial of Continental Airlines and the five defendants will open Feb. 2, 2010, the Pontoise prosecutor said.

A French accident inquiry concluded in December 2004 the disaster was **partly caused by a strip of metal that fell on the runway** from a Continental Airlines DC-10 plane that took off just before the supersonic airliner. The Concorde ran over the super-hard titanium strip, which shredded one of its tires, causing a blowout and sending debris flying into an engine and a fuel tank.



Continental Airlines is charged over a **failure to properly maintain the aircraft** along with two U.S. employees: a mechanic who allegedly fitted the **non-standard strip**, and airline chief of maintenance. The former Concorde officials and French aviation boss are also accused of **failing to detect and set right faults** on the supersonic aircraft.

Both men are accused of **ignoring warning signs from prior incidents** on the Concorde, which suffered 67 tire blowouts or wheel damage during its 27 years of service, piercing the fuel tanks in seven cases.

Finally a director of technical services at the civil aviation authority DGAC from 1970 to 1994, is accused of **overlooking a fault** on Concorde's distinctive delta-shaped wings, which held its fuel tanks.

Southwest overhauls ATOS during fallout from missed inspections

Southwest has undertaken significant changes to the FAA-mandated **Blue System (ATOS)** as part of the fallout from a \$10.2 million fine levied against the carrier in 2008 for missed aircraft inspections.

Roughly a year after FAA issued the penalty the agency and Southwest finally settled the payment on 9 March. The fine was cut to \$7.5 million after FAA considered certain Southwest assertions that "certain facts and circumstances alleged" might not constitute violation of Federal Aviation Regulations (FARs), and Southwest's current and remedial efforts to cure deficiencies.

The highly-publicized violation was Southwest's operation of 46 Boeing 737s on 59,791 flights after the carrier **missed fuselage inspections** required under an airworthiness directive (AD) issued in September 2004.

FAA in its agreement with Southwest outlined significant safety and compliance initiatives undertaken by the carrier since the lapsed inspections. Among those initiatives was the hiring of consultant JDA

Letter of Compliance
Part 21 - Rev. 8/2004

FAA/SPR	Requirement	Revised Reference	Response/Status/Comments	#	2
21-100	The Administrator shall, in each inspection, determine whether the applicant is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).	21-100	4019.101-101 is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
Subject M - DESIGNATED ALTERATION STATION AUTHORIZATION PROCEDURES					
21.439 Eligibility					
21-439	21.439-1 (a) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (a)	21-439-1 (a) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (b) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (b)	21-439-1 (b) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (c) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (c)	21-439-1 (c) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (d) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (d)	21-439-1 (d) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (e) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (e)	21-439-1 (e) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (f) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (f)	21-439-1 (f) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (g) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (g)	21-439-1 (g) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (h) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (h)	21-439-1 (h) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (i) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (i)	21-439-1 (i) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-439	21.439-1 (j) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-439-1 (j)	21-439-1 (j) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21.441 Procedure manual					
21-441	21.441-1 (a) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-441-1 (a)	21-441-1 (a) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
21-441	21.441-1 (b) The applicant shall be a person who is a citizen of the United States or a resident of the United States.	21-441-1 (b)	21-441-1 (b) is in compliance with the requirements of Part 21 (Subpart A), (Subpart B), (Subpart C), and (Subpart D).		
Page 1 of 1					

Aviation Technology and Solutions to assess the carrier's regulatory compliance and ATOS conformance.

DOT's Office of Inspector General (OIG) was tasked to perform several audits of FAA oversight after the Southwest incident, with one examination focusing solely on ATOS.

"Our work at SWA [Southwest] and other carriers **found weaknesses in FAA's national program for risk-based oversight, ATOS,**" says OIG. "At SWA, **multiple missed ATOS inspections** allowed AD compliance issues in SWA's maintenance program to go undetected for several years."

System-wide problems with ATOS were identified by OIG as far back as 2002 when it found "inconsistent inspection methods across FAA field offices for various carriers". OIG cited **FAA inspector confusion** over how to conduct ATOS inspections and access risks.

After bringing in a consultant FAA says the Southwest project "involves the rewrite of the entire Maintenance Procedures Manual to ensure compliance with FARs as well as ATOS".

In addition to the manual overhaul FAA says Southwest **added three new chapters** covering AD management, the continuing analysis and surveillance system (CASS) and maintenance inspection programs.

FAA highlights the complete rewrite of the Southwest manuals to add **industry best practices and compliance** with ATOS "exceeds the requirements of the FARs and should promote safety and regulatory compliance".

OIG has not yet released its ATOS audit.

RECENTLY RELEASED ACCIDENT REPORTS

02-FEB-2008 - Loss of control on takeoff, BN-2A Islander, at Anguilla-Wallblake Airport (AXA) -AAIB-ACCID.

FINAL : AAIB Bulletin: 2/200

Summary:

The aileron gust lock **was not removed prior to flight**, resulting in loss of



control after takeoff. Distracted by efforts to accommodate a non-revenue passenger on this cargo flight, the pilot did not complete a pre-flight check or check the full and free motion of the flight controls before takeoff.

[Download report:](#)

http://www.aaib.gov.uk/sites/aaib/cms_resources/Pilatus%20Britten%20Norman%20BN2A%2026%20Islander,%20VP-AAG%2002-09.pdf

Runway Safety Tip

When operating on an airport surface and **unsure of your position or taxi-route**, always confirm with ATC. Ground control will provide **"progressive" taxi instructions** upon request for pilots/technicians/ move teams who may be unfamiliar with the airport. Reports from pilots to the Aviation Safety Reporting System (ASRS) show that errors commonly occur after the flight crew senses something is wrong, but presses on, thinking things will soon make sense - but a runway incursion is about to happen. **Ask first!**



More information about Runway Safety can be found at http://www.faa.gov/airports_airtraffic/airports/runway_safety/.

FAA: Serious Runway Incursions Decline

FAA reported that the number of serious runway incursions — Categories A and B — **dropped by more than 63 percent** from fiscal year 2000 through fiscal year 2008.

In the first quarter of fiscal year 2009, **there were no serious runway incursions**, the agency said, noting that this is an all-time low for a three-month period.



All categories of runway incursions were down slightly for the first quarter of fiscal year 2009 compared with the same period in fiscal year 2008 — 224 in 2009 compared with 226 in 2008.

http://www.aviationnews.net/?do=headline&news_ID=163621

Cessna mechanic charged with selling stolen airplane parts on eBay

A Cessna Aircraft mechanic has been charged in federal court with **selling stolen aircraft parts**.



Diego Alejandro Paz Teran, a 31-year-old Wichitan, is accused of stealing parts from Cessna and selling them on eBay. Teran is an airframe and power plant mechanic at Cessna.

The federal investigation began in November after an employee of a Rockwell Collins Co. distributor saw a Collins AHC-3000 Attitude Reference computer offered for sale on eBay for \$9,000, authorities said.

Knowing that the part was worth more than \$45,000, the distributor contacted the seller and asked for serial numbers. Cessna tracked the serial numbers to a part that was removed from an XLS Plus aircraft that was being painted.

Investigators **found other stolen aircraft parts** being sold on the same eBay account and followed records on the account to Teran at his Wichita home, authorities said.

If convicted, Teran faces a maximum penalty of **10 years in federal prison and a fine of up to \$250,000**.

FAA to airline pilots: Turn cell phones off

The US FAA has issued an alert to airlines following an inspector's report a first officer's cell phone **began ringing at a critical phase of a takeoff** recently, an incident the agency says was "a potentially serious hazard".

According to the FAA air safety inspector who was riding along on an unnamed airline's flight from the jump seat, just prior to reaching V1, the speed after which pilots generally are committed to taking off rather than aborting on the runway, a rather loud "warbling" sound was "detected" by both crewmembers.

"It was later determined that the sound came from the first officer's cellular phone, which had been **left in the ON position**," the Safety Alerts For Operators (SAFO) note reads.

"As a result the ring tone caused **a distraction** between the crewmembers during the takeoff phase and could have led the to crew to initiate an unnecessary rejected takeoff," the letter continues.

Once on the ground, the crew revealed that their airline's general operations manual (GOM) **did not address procedures** prohibiting the crew, unlike the passengers, from having their cell phones on while at their "duty stations".

The GOM would appear to contradict federal regulations and FAA advisory circulars, which state that a cell phone **"will not be authorized for use while the aircraft is being taxied for departure after leaving the gate"**. Further, one AC recommends that cell phones be turned off "and properly stowed to prepare the aircraft for takeoff as per the operator's procedures".

The FAA in the SAFO is recommending that the director of operations for airlines and air taxi operators "perform a review of their respective GOM to determine if appropriate procedures are in place to remind crewmembers to turn off their cellular phones in preparation for departure".

The agency says **jump seat rider checklists** should also state the prohibition.



NTSB Reiterates Its Commitment to Ridding Fatigue in Transportation During Sleep Awareness Week



The National Transportation Safety Board, in recognition of National Sleep Week, reiterates its commitment to **eliminating human fatigue** in the transportation industry.

The Safety Board has long been concerned about the effect of human fatigue in transportation and the **consequences of fatigue** on those who perform critical functions in all modes of transportation. "Fatigue in transportation presents unnecessary risks to the traveling public," said NTSB Board Member Deborah Hersman. "Fatigue can impair a person behind the wheel or at the helm much like alcohol or other drugs. We must ensure that as much as possible is being done to protect our transportation system from the **insidious effect of human fatigue**," Hersman said.

The Safety Board continues to **advocate setting work hour limits** based on fatigue research, circadian rhythms, and sleep rest requirements that will reduce unnecessary risk to the traveling public.

Last year, the NTSB recommended that the FAA develop guidance, based on empirical and scientific evidence, for operators to establish fatigue management systems, including information about the content and implementation of these systems. Furthermore, the Board also made a recommendation to develop and use a methodology that will continually assess the effectiveness of **fatigue management systems** implemented by operators, including their ability to improve sleep and alertness, mitigate performance errors, and prevent incidents and accidents.

Since 1972, the NTSB has issued over **100 fatigue related recommendations in all modes of transportation**. Human fatigue and hours-of-service are issues that have been on the NTSB's Most Wanted List of safety improvements the Board believes will have the greatest impact on transportation safety. However, the Board voted to remove fatigue in the railroad industry from the Most Wanted List last year after the passage of

the Railroad Safety Improvement Act of 2008, which addressed railroad hours-of-service limits and established fatigue management requirements. Human Fatigue in the aviation, marine, and pipeline industries remain on the Federal Most Wanted List.



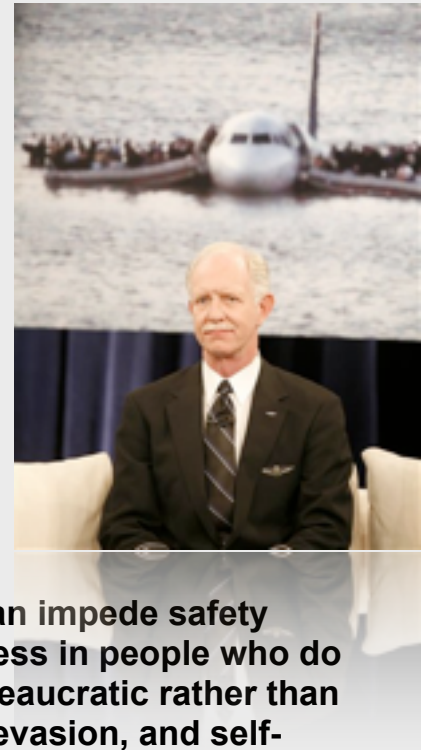
An alert passenger observed a problem and literally “**drew a picture**” for an MD80’s flight crew and company mechanics, averting a potentially serious inflight incident.

* On completion of flight, a passenger seated on the left side of the aircraft asked to speak with us on the jet bridge. The passenger presented us with a drawing of the left wing and stated he saw missing or detached rivets and a loose wing panel just forward of the flight spoilers. We presented the diagram to maintenance. **Aircraft mechanics confirmed** rivets were missing/pulled through and a wing panel was loose. The aircraft was taken out of service. This panel would not be seen during a normal pre-flight inspection. While on the ground it looked normal. Only in flight did it lift away from the wing structure. Our thanks to the alert passenger who **communicated the problem clearly to crew and mechanics**...Without his sharp eye and clear description of the problem, we would have continued to fly this aircraft....

The Kind of Book a Hero Reads

Captain Sullenburger, who so successfully landed an Airbus A320 in the Hudson river, left behind a library copy of Sidney Dekker's '**Just Culture**' on the sinking plane.

A **just culture** protects people's honest mistakes from being seen as culpable. But what is an honest mistake, or rather, when is a mistake no longer honest? It is too simple to assert that there should be consequences for those who 'cross the line'. Lines don't just exist out there, ready to be crossed or obeyed. We-people-construct those lines; and we draw them differently all the time, depending on the language we use to describe the mistake, on hindsight, history, tradition, and a host of other factors. What matters is not where the line goes- but who gets to draw it. If we leave that to chance, or to prosecutors, or fail to tell operators honestly about who may end up drawing the line, then a **just culture** may be very difficult to achieve. The absence of a just culture in an organization, in a country, in an industry, hurts both justice and safety. Responses to incidents and accidents that are seen as unjust can impede safety investigations, promote fear rather than mindfulness in people who do safety-critical work, make organizations more bureaucratic rather than more careful, and cultivate professional secrecy, evasion, and self-protection. A **just culture** is critical for the creation of a **safety culture**. Without reporting of failures and problems, without openness and information sharing, a **safety culture** cannot flourish. Drawing on his experience with practitioners (in nursing, air traffic control and professional aviation) whose errors were turned into crimes, Dekker lays out a new view of **just culture**. This book will help you to create an environment where learning and accountability are fairly and constructively balanced.



<http://www.atc-network.com/NewsItem-29037-The-Kind-of-Book-a-Hero-Reads.aspx>

Building a Safety Culture

A positive **safety culture** is like a million dollar beach house. Just about would like to have one but few know how to go about building one. In recent issues of SafetyXChange, veteran safety officer Hank Roberts explains the essence of the **safety culture**. More significantly, he explains how to secure the organizational and employee commitment that are necessary to establish a positive **safety culture** at your own organizations.



<http://www.safetyxchange.org/financing-safety/safety-culture-part-1-2>

<http://www.safetyxchange.org/financing-safety/safety-culture-part-2-2>

Qantas Flight Grounded After Dog in Cargo Chews Wiring

A Qantas jet was grounded after a dog in the cargo hold escaped from its cage and **snacked on parts** of the aircraft's interior. The animal chewed through **electrical wiring and panels** so tough that they are difficult to cut with a knife.

The first indication of trouble occurred when the Airbus A330 left Auckland bound for Melbourne on Dec. 7, The Courier-Mail reported.

A warning light in the cockpit indicated problems with the auxiliary power unit — a small jet in the tail that supplies electricity for various systems when the aircraft is on the ground.

As the engine had been shut down after take-off there was no risk to the aircraft. But when ground handlers opened the cargo hold in Melbourne they were confronted with an angry, distressed dog.



An inspection revealed that after somehow getting out of its transportation cage the animal **chewed through the wiring loom** to the unit, Qantas reported to the Australian Transport Safety Bureau.

An aviation engineering source said: "The dog ripped out several wires which set off the cockpit warning and then it **had a go** at a number of electrical units in the rear of the plane."

NTSB: Cape Air C402 Suffered Fuel Starvation

Imbalance Noted Between Left, Right Wing Tanks

Preliminary findings in the National Transportation Safety Board's investigation into an incident involving a Cape Air Cessna 402C indicate the aircraft's two piston engines suffered fuel starvation **due to a stuck valve**.

The Cape Cod Times reports Flight 9399 was en route from Key West, FL to Fort Myers when the plane's pilot reported a complete loss of engine power. The pilot glided the aircraft to a safe landing at Naples Municipal Airport, and neither the pilot nor the six passengers onboard were injured.

While the investigation is expected to take several months, NTSB senior investigator Tim Monville said the Board confirmed a **fuel distribution valve** in the left tank was stuck, meaning both engines were drawing fuel from the aircraft's right fuel tank.

Investigators also noted there were 12 gallons of avgas in the right tank... and nearly 46 gallons in the left. "We proved repeatedly that the left tank was not providing fuel to the left engine," he said.

Cape Air personnel told the NTSB they suspect fuel transferred from the right tank overnight. When the **stuck valve was lubricated**, both engines started and the plane made a routine ferry flight to Fort Myers, where the suspect parts were removed for further investigation.



Dan Wolf, CEO of Cape Air, noted the pilot could have bypassed the stuck valve in flight, and continued on to Fort Myers... but when the pilot saw Naples nearby, Wolf says the pilot opted instead to take a cautious route.

"It reflects very well on the training and the experience level of the pilot," Wolf said, adding the pilot did the "smart and prudent thing."

When queried whether he had noticed the fuel imbalance prior to, or during, the flight, the pilot told the NTSB he did notice the lower fuel level on the right side... but believed there was a problem with the fuel gauges.

We suspect the NTSB hasn't had its last word on this one just yet.

FMI: www.capeair.com, www.nts.gov

The Jet Lag Pill

A cure for jet lag may be on the way, says the *Los Angeles Times*. A new study by Boston researchers found that the drug, tasimelteon, enabled who went to bed five hours earlier than usual-mimicking the effect of flying to a different time zone-to fall asleep more quickly and to stay asleep longer. In resetting the body's circadian rhythms to a new time zone, the drug acts like the natural hormone melatonin, to it's not addictive like many prescription sleep aids, "This is a very promising first step," says Dr. Jay Udani. Next he says, field research is needed to "prove that it works for jet lag and shift worker" in real-life situations.



Simple But Complex

Clean living sounds simple, but the devil is in the details. Only one, **avoid tobacco**, is simple and absolute. At the other extreme, dietary advice is rather complex, and the fine print seems to change with every study. But even in an area as complex as nutrition, if you keep track of your overall pattern, you won't have to obsess about every morsel you eat.

[Here are 10 lifestyle guidelines that matter:](#)

1. **Avoid tobacco** in all its forms.
2. **Eat well.** That means eating more healthful foods and fewer harmful foods. **Eat more:** whole grains, fruits, vegetables and legumes, fish, low-or non -fat dairy products, and nuts and seeds. **Eat less:** red meat, whole milk dairy products, skin of poultry, high-sodium (salt) processed foods, sweets, sugary drinks and refined carbohydrates and trans fats.
3. **Exercise regularly**, including 30 min. of moderate exercise nearly every day, exercises for strength two to three times a week, and exercise for flexibility and balance according to need.
4. **Stay lean.** It's the hardest lifestyle change to achieve in our society, but even partial success will help.
5. **If you choose to drink**, limit yourself to one to two drinks a day, counting 5 ounces of wine, 12 ounces of beer, or 1.5 ounces of liquor as one drink.
6. **Reduce stress.** Get enough sleep. Build social ties and community support.
7. Avoid risky behavior, including drug abuse, unsafe sex, dangerous driving, unsafe firearm use, and household hazards.
8. **Reduce exposure to toxins and radiation**, including sunlight and medical x-rays.
9. **Get regular medical check-ups**, screening tests, and immunizations.
10. **Have fun.** Laughter is good medicine. Joy and optimism improve health as well as happiness. And if you make changes 1-9 slowly, steadily and reasonably, you will enjoy your healthful lifestyle.



12 Rules of Successful Safety Meetings, Part 1 of 2

You've prepared and tested your PowerPoint presentation, arranged for and gathered visual aids and props. Your workers know what the topic of discussion will be. You've come to accept your **pre-talk jitters** and recognize them as normal. All in all, you're feeling pretty well prepared for the weekly safety talk. Now you have to swing into action and deliver it. Here are **12 rules** to ensure that your delivery is as effective as your preparation.



Rule #1 Start the meeting on time. If you run late, they start looking at the clock. Such distraction can ruin a carefully prepared presentation.

Rule #2 End the meeting on time. If you promised to keep it brief, keep it brief. If you promised to end by a certain time, end at that time. Understand that your audience wants to get back to work. Their time and patience is limited.

Rule #3 Observe the KISS rule. Keep it straightforward and simple. Zero in on just a few key points and don't bore your audience by reviewing the whole safety manual in a single session. When it comes to safety training sessions, less is more!

Rule #4 Stick to your agenda. Control the meeting and don't let it turn into a social hour or a beef session. You should be flexible enough to respond to concerns expressed during the session but still keep to the topic.

Rule #5 Encourage questions. Remind participants that there's no such thing as a dumb question. Questions enable you to make important points and get a sense of whether your message has gotten through. Repeat questions in your own words to make sure you understood and that everybody in the audience heard the question.

Rule # 6 You don't have to have all the answers. If a question comes up that you can't answer, don't fake it. Promise to look into the matter and report back at the next safety talk. Better yet, direct the question to your audience to see if any of the participants have an answer.

Rule #7 Find ways to involve participants. For example, ask them for examples of hazards and safeguards related to the topic. Another good idea is to have audience members pick a partner with whom they can take turns practicing the safety technique being discussed. Devices like these maintain audience interest and promote retention of the discussion.

Rule #8 Use Humor. This is another way to keep the attention of your listeners and help them remember what's been discussed.

Rule #9 Show interest in your topic. Trust me, you can't keep an audience engaged when the speaker appears bored with the topic. So be as animated as you can without resorting to acting or behavior that is unnatural for you.

Rule #10 Treat your audience with respect. Keep in mind that your participants may include workers who have years of experience on the job. Some of your participants might even have developed the safety procedures you're discussing. Draw on the collective wisdom in the room. Invite them to comment or demonstrate techniques. If the topic is familiar to your audience, treat it as a review. At the same time, guard against complacency. Remind participants that even experienced workers develop unsafe habits.

Rule #11 End your meeting on a positive note. Sum up the key points that are outlined on your copy of the talk along with any further action that you want workers to take to follow up on the safety meeting. Thank the audience for taking the time to participate in the session.

Rule #12 Honor your promises. If you promise to follow up on a safety concern for (or before) an upcoming meeting, make doggone sure that you do. There is no surer way to lose both credibility and respect than making promises you don't keep.

Conclusion

Weekly safety talks are an excellent way to keep in touch with current safety concerns in your workplace. They're also an excellent way of emphasizing any safety accomplishments that have been gained by the group.

FACT CHECK

56,510 is the number in which workers were **exposed to a harmful**, resulting in days away from work in 2006.

Source: National Safety Council, “Injury Facts” 2009.



Picture This!

We've all seen it: the guy who tries to schlep extra-long boards home in the family sedan and thankfully gets pulled over by the cops before decapitating an unsuspecting pedestrian or cyclist. But this picture of a poor subcompact vehicle that was substandard in trying to support an impossibly heavy load of wood and concrete mix takes the cake! The building supply store reportedly made the customer **sign a waiver** before loading the materials. Incredibly, the driver was found crouched behind the rear of the car, attempting to cut twine around the load.

Who knows? This guy's carpentry skills might far outweigh his transportation logistics talents, but a saying comparing one's intelligence to a sack of hammers can't help but come to mind.

