

# Aviation Human Factors Industry News

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

Hello all,

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## Inattention led to plane's door opening in flight - report

A plane's cargo door opened shortly after takeoff from Auckland because crew **were distracted and procedures were not followed**, an investigation has found.

A Transport Accident Investigation Commission (TAIC) report, released today, said the lessons from the April 9, 2010, incident were relevant to all pilots and they needed to ensure **all checklists and safety procedures** were followed. The incident happened on a scheduled flight from Auckland to Whangarei. The plane, a Beechcraft 1900D, was operated by Eagle Airways and there were 10 and two pilots aboard.



Shortly after takeoff, the rear door of the plane opened and the crew returned to the airport and landed safely. There were no injuries and only minor damage to the aircraft.

The report said the aircraft was being operated with a "permitted inoperative warning system that provided an indication to the crew when the cargo door was unlocked".

"An engineer had cleared the airplane to operate, provided a crew member visually checked that the door was closed and locked before each departure."

The report said that as the aircraft was prepared for departure, the baggage loader closed the cargo door **but did not fully rotate the handle to lock the door**.

"The first officer **was distracted during the final pre-flight inspection** of the airplane and did not positively check the condition of the door."

"The captain and first officer did not adequately confirm that the cargo door had been visually checked and confirmed locked before departure."

The report said that as the aircraft was taxied, the door handle vibrated loose, allowing the door to open during the take-off.

However, the report said that as a result of the safety actions taken by the operator, the Commission did not need to make any recommendations.

The report reminded all crew that cargo doors and other openings on an aircraft must be securely latched and checked before flights and there was a need to **strictly follow and complete checklists**.

The report also said if there was an interruption of a checklist, the checklist should be started from either the beginning or the last confirmed item completed.

## Spinning the Head

Working around aircraft is dangerous, and I was reminded of that fact right before the morning's shift-change. I was at the tail end of a seven-month deployment with less than 45 days to go before my squadron left Al Taqaddum (usually referred to as "TQ"), Iraq.



It had been a quiet night with no calls for casualty evacuation (CASEVAC), for which I was on 60-minute standby. **It was my first night back on nights.** The shop had been on a two-week rotation: two weeks on days and two weeks on nights. As anyone who's ever shifted from days to nights knows, that first night back is always the hardest. Maintenance Control called down to the flight line and passed on that another aircraft was needed for the morning launch.

Before I could go back to my rack for some much-needed rest, I had to pre-flight one more bird.

A handful of plane captains and I pre-flighted aircraft 13. I was on the aft pylon of the CH-46E, inspecting the aft-upper flight controls.

The blades were folded up, so we had to unfold them. When the ground crew rotated the head to remove the blade ropes, **I still had my hand** on the bottom ring of the aft swash-plate.

I heard the ground crew call out "**Spinning the head!**" Then I felt my right thumb being pulled in between the upper and bottom rings of the aft swash-plate. The head rotated a third of the way around before I could get my hand free. I was sure that my thumb was gone. After freeing my hand from the swash plate, I saw that the skin—from the joint to the nail—had been removed; the bone was exposed completely. A fellow plane captain helped me off of the aircraft and I was rushed to TQ surgical where doctors determined that I also had severed my extensor tendon. Fortunately, the surgeon was able to reattach the tendon to the bone.

However, as a result of my injury, I lost 60 percent of the motion of my thumb and 40 percent of the strength: a permanent partial-disability. I guess I'm lucky that I still have a thumb and not a stub. [Now, if this can happen to me, it can happen to anyone.](#) I was a CH-46E flight-line mechanic, CDI, plane captain and an aerial gunner-observer. It was also my third deployment with the same squadron doing the same mission. Also, my squadron had an excellent safety record. I thought I was pretty much [mishap-immune](#).

Several factors played a part in my mishap. The biggest contributor was [rushed maintenance at the end of a 14-hour shift](#). There also was a [breakdown in communication](#) between the ground crew and the plane captains on the aircraft (that'd be me). Plus, towards the end of our deployment, [complacency had set in](#), and that's why it is so important to [slow down and focus](#) on the task at hand, especially towards the end of a deployment. Just because Maintenance Control says to "Hurry up and get it done!" [does not mean safety and SOPs go out the window](#). I have an impressive scar on my right thumb as a constant reminder.

## **FAA Team Maintenance Safety Tip**

June 2011

### **Training/Recurrent Training**

Although you may have been working in the aviation industry for a number of years, perhaps for the same company and on familiar equipment, situations may arise where changes have occurred to company procedures, modifications have been made to equipment and/or systems, and/or there have been additions to the fleet with similar equipment.

Often we [rely on our past knowledge and experience, unblemished record, or peer pressure, and continue on "business as usual."](#) Instead, maybe we should say "I don't know," stop, and get help or get training.

This may be a good time to take a moment and evaluate if you meet the training requirements needed to accomplish the task at hand. In fact, any time you start a new task ask yourself that question.

[Don't let ego or peer pressure get in the way of safety!](#)



## FAA reiterates measures to prevent runway incursions

The FAA have released Safety Alert for Operators 04/2011 reiterating measures to prevent runway incursions. The FAA listed in particular recommendations to flight crew:



### Planning:

- Review the meaning of airport signage, markings, and lighting.
- Review airfield NOTAMS and current ATIS for any taxiway closures, runway closures, construction activity, or other airfield specific risks.
- Review the current airport diagrams, and planned taxi route, including Hot Spots.
- Be aware that hold short lines may be located as far as 400 feet from runway edge.
- Before initial taxi out, or before landing, brief a plan to include location of hold short lines.
- Plan to complete as many checklist items as possible at the gate before initial taxi.

### Situational Awareness:

- All pilots display the current airport diagram for immediate reference during taxi.
- Cross reference the heading indicator to assure turns are being made in the correct direction and you are following the assigned taxi route.
- Exercise increased awareness when taxiing between parallel runways.
- Wait until you have exited the runway and you are sure of your taxi clearance prior to beginning an after-landing checklist, or non-essential communications.

### Written Taxi Instructions:

- Write down the taxi clearance or enter it into the FMC "scratch pad."
- Clarify complex, or lengthy taxi instructions, or request "progressive taxi".

### Crew Resource Management (CRM):

- Use CRM to control crew workload, and reduce distractions.
- Keep other crewmembers in the loop by announcing when going "heads down" and also reporting "back up, are there any changes?"
- Approaching a clearance limit, verbalize the hold short clearance limit.
- Prior to crossing any hold short line visually check to ensure there is no conflicting traffic on the runway. Verbalize "clear right, clear left"

### Communication:

- Adhere to proper radio terminology guidelines set forth in the aeronautical Information Manual.
- Be alert to similar aircraft call signs operating on the field.
- STOP aircraft on the taxiway and request ATC clarification if there is confusion regarding aircraft position or ATC taxi clearance.
- If you have been holding in position on the runway for more than 90 seconds, or upon seeing a potential conflict, contact the Tower.
- When assigned a departure at an intersection, state "intersection departure" during the clearance read back.

### Taxi:

- Maintain appropriate taxi speed.
- Avoid transferring aircraft control at unsafe speeds or in turns.
- Have a heightened situational awareness of hold short line location when using high speed taxiways or during shorter taxi distances.

### Exterior Lighting:

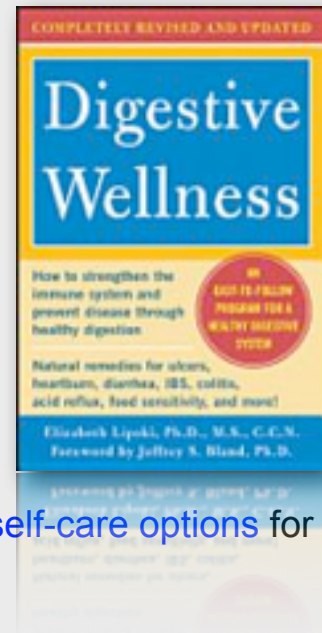
- Taxi with taxi light on when moving, off when stopped.
- Turn on all exterior lights when crossing any runway.
- If cleared to "Line Up and Wait", turn on all exterior lights except landing lights.
- When "Cleared for take-off", turn on all exterior lights, including landing lights
- If you see an aircraft in take-off position on a runway with landing lights ON, that aircraft has most likely received its take-off clearance and will be departing immediately.

## Night Shift Nugget

### Digestive Wellness

Digestive ailments are one of the [most common health problems](#) among shiftworkers. One of the main reasons shiftworkers get gastrointestinal problems is that [it's hard for the body to digest food at night](#). While learning what foods to eat and avoid on the night shift is a good first step to your digestive system, it never hurts to learn about the subject.

In *Digestive Wellness*, Dr. Elizabeth Lipski explains how your digestive system works and what can happen when it doesn't. Along the way, she examines digestive problems and reveals the newest advances in testing and diagnosis as well as [self-care options](#) for more than thirty conditions.



## The Importance Of Character

In a recent *Scientific American* article entitled [“How The Illusion of Being Observed Can Make You A Better Person.”](#) we learn that cues that we are being watched have an impact on our social behavior: we tend to be on our best behavior, the research shows, [when we feel that we are being observed](#). But, contrary to what the article states, this is far from making us a better person. What makes us a better person is a question of [character—it's our moral or ethical strength](#). This is independent of societal surveillance. Character is, indeed, [who we are when no one is looking](#).



Nowhere is this more crucial than for those who hold leadership positions. Years ago, I read a line in a book which said: “When in doubt, act like the Chairman would.” This inspiring phrase runs the risk of eliciting some skepticism when we ponder the deficit of character of leaders in companies such as Enron, WorldCom and Adelphia Communications, to name a few. [Leadership is a privilege](#) and with it, come certain obligations, one of which is that leaders need to instill trust in people that they will do the right things, regardless of whether or not they are being watched.

In [Leadership From The Inside Out](#), the late Kevin Cashman makes a powerful distinction between character, the essence of who we are, and persona, the external personality we have created to cope with our everyday life. A leader who leads through character is guided by [authenticity](#), while the one who leads from persona is guided by image.

The former has trust and compassion as foremost guiding principles, while the latter is concerned about fear and self-interest. The leader who leads through character is focused on creating value and contribution rather than winning at all costs. Such a leader values openness and inclusion, shunning control and exclusion, the hallmarks of the leader who is driven by image.

[Here are a few tips to inspire you in your leadership journey:](#)

### 1. Make values actionable

Living your values every day is an important aspect of character in action. Companies go through considerable expense having consultants craft value statements that, unfortunately, end up being nothing more than motherhood statements hanging on the wall in the reception lobby.

Prevent this from happening by making values actionable. “We value open communication” is vague and left to interpretation. Consider what happens if you clarify this by adding: “There are no sacred cows in this team.”

### 2. Be known as a promise-keeper

In [The Leadership Challenge](#), authors James Kouzes and Barry Posner consider [“Model the Way”](#) through personal example and dedicated execution, as a foundational practice for admirable leaders. One way to put this into action is to keep your promises, to do what you say you will do. No matter how small the promise is, no matter who the promise is made to, strive to keep your word. While events may well prevent us from honoring commitments we made, don’t let a commitment slip by without getting back to people to let them know why you can’t fulfill your promise. Resolve to handle your word as precious currency and watch how your value rises in everyone’s eyes.



### 3. Don't take shortcuts in quality

As Henry Ford put it: [“Quality means doing it right when no one is looking.”](#) Do you preach to your team that quality is an important value, yet when there is a crisis, you find yourself telling people to take shortcuts at the expense of quality in order to get the order out the door? Every time you do this, it erodes your authenticity in the eyes of your constituents. Eventually, when you speak about quality, they will discount it as lip service.

### 4. Be consistent in your dealings with others

Do you treat some people in your organization or team better than you treat others? For example, do you unwittingly complain about a member of your team to other team members? While we can easily slip into such behavior, especially when we are tired and frustrated by the day's events, consider that this chips away at your integrity as a leader.

### 5. Audit your decisions

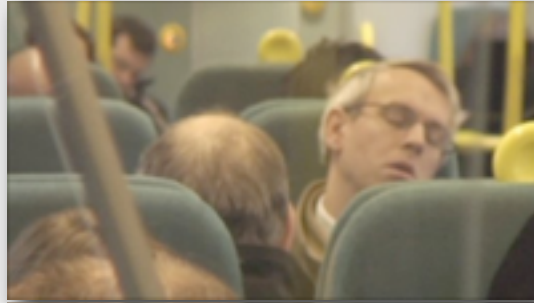
At the end of every week, get in the habit of going over each decision you made. Did your focus on the bottom line cause you to forget the impact on some people? Did your biases affect the objectivity of your actions? Are you proud? Do your actions reflect positively on you as a person of character? What could you have done better? Every action we take, no matter how small, has our character stamp on it.

According to Biology Letters' [“Cues of being watched enhance cooperation in a real-world setting.”](#) one of the reasons we are more civilized when we know we are being watched is due to concerns about [our reputation](#). Reputation is the quality or character that other people attribute to us; it's the surface layer. It's our carefully crafted profile on Facebook; it's the multitude of recommendations that are posted on our LinkedIn profile.

Character, on the other hand, is what is deep inside us; it's who we are on a daily basis, when things go well and when things go wrong. It's who we are in the boardroom as well as in our living room. We have reason to be proud when both reputation and character are a mirror image of each other. Abraham Lincoln put it this way: [“Character is like a tree and reputation like its shadow. The shadow is what we think of it; the tree is the real thing.”](#)

## Commuting: The ultimate home wrecker?

Commuting has been blamed for back problems, stress, and obesity, not to mention mindless drive-time radio. Now we can [add divorce](#) to that list. A Swedish study says couples are 40 percent more likely to split up if one partner has a daily commute of longer than 45 minutes each way. Commuting may seem like “a positive thing because it means you don’t have to uproot your family” when you land a new job, study author Erika Sandow, a social geographer at Umea University, tells the Swedish *Local*.



“But it can also be a [strain on your relationship](#).” About one in six Americans has a round-trip daily commute of 90 minutes, and 3.5 million people have to travel that long just one way - twice as many as did 20 years ago. Commuting often results in a higher salary and better job opportunities, but experts say there are many ways living far from work puts [pressure on a marriage](#). Since long-distance commuters are most often men, for example, their female partners tend to take on a disproportionate share of housekeeping duties - a common source of discord.



# Just Culture

JUNE 2011  
SUMMER COURSE SERIES

## Links

[Just Culture Public Course](#)

[Event Investigation Course](#)

[Just Culture Certification Training](#)



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## Just Culture Public Course

July 19 – 20, 2011

The two-day Just Culture Public Course is the entry point for introducing you to Just Culture concepts and to begin your organization's Just Culture journey. It will introduce the five essential elements of a Just Culture, the Just Culture Algorithm™, the role of Event Investigation, Managerial Coaching and Mentoring, and much more. Each attendee will receive Outcome Engineering's online training tools. The cost of the course is \$795 per participant and a \$100 per person discount is offered when three or more individuals attend from the same organization. The course will be held at the Dallas/Plano Marriott Hotel at Legacy Town Center.

## Event Investigation Course

July 21 – 22, 2011

The Event Investigation Course was created specifically to help you respond to adverse events in the workplace. The training material is presented in an interactive, hands-on environment allowing participants to ask questions and work through real world examples in a group setting. This 1½ day course will help you better understand how both system design and behavioral choices affect our outcomes. Participants will leave this course better prepared to lead their organizations using a methodology that supports a Just Culture. The cost of the course is \$795 per participant and a \$100 per person discount is offered when three or more individuals attend from the same organization. The course will be held at the Dallas/Plano Marriott Hotel at Legacy Town Center.

## Just Culture Certification Training

June 27 – July 1, 2011

The Just Culture Certification Training is designed for those who have had previous Just Culture experience. A sustainable Just Culture transformation requires internal expertise and leadership. Please join us as we provide our capstone course on the Just Culture Algorithm™. As the primary tool to ensure justice and accountability, the Just Culture Algorithm is a critical element in consistently producing better outcomes. Regulators, managers, and supervisors alike will find enlightenment in acquiring the knowledge this course provides. The cost of the course is \$4,000 per participant. The course will be held at the Westin Stonebriar Hotel in Frisco (Dallas area), Texas.