

# Aviation Human Factors Industry News

*Volume X. Issue 19, September 21, 2014*



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

Hello all,

To subscribe send an email to: [rhughes@humanfactorsedu.com](mailto:rhughes@humanfactorsedu.com)

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

★Overcoming Temptation

★U.S. airlines accomplish accident-free 2013 despite global difficulties

★Remembering Flight 427: Hopewell disaster “changed aviation history”

★Alaska Airlines agrees to pay \$500,000 over 2010 cockpit fire

★FAA Proposes \$425,000 Civil Penalty Against Gulfstream Aerospace Corp

★Teen who cut Boeing 767 wires to get back at his boss avoids jail term

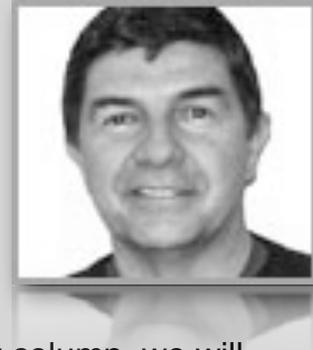
★General Aviation Pilots Group Criticizes NTSB Study on Pilots’ Drug Use

# Overcoming Temptation

**By Dr. Tony Kern, Ed.D**

Chief Executive Officer, Convergent Performance

True professionals rarely need to deviate from technical limits, policy or procedure for mission essential purposes, but there are certain conditions that can lead individuals to breakdowns of discipline. In one short, undisciplined step, these situational factors — known as [violation producing conditions](#) (VPCs) — can lead an individual to nullify all margins of safety for themselves and those around them, while putting the mission at risk. By increasing our awareness of VPCs, we can protect our people against a sudden loss of judgment. In this short column, we will discuss the three of the most common and dangerous VPCs. We begin with unlikely detection — the often false perception that a violation is unlikely to be detected by anyone in authority.



## **Unlikely Detection**

It has been said that true character only comes to light when no one is watching. Yet, there is little doubt that the ability to get away with it because “[no one will ever know](#)” is tempting to even the most disciplined among us. The fallacy of this argument is that the most important person in the equation—you—will always know you took a shortcut. Therein lies the problem.

Here are a couple of things to think about:

If we use detection as a decision criterion, we already know we are doing something wrong, or at least unacceptable in the eyes of others. If we proceed with an action we know others disapprove of, we are at risk of developing an attraction to the forbidden fruit of non-compliance—the feeling that we are somehow superior to others who are rule-bound. This is extremely dangerous ground.

In the long run, [the world has a way of catching up with those of us](#) who think we can evade detection. Either we cut corners until something very bad happens, or we simply fail to reach our potential due to sloppy habits of personal discipline. What happens in Vegas—never really stays there.

## Poor Planning

Lack of adequate planning time or depth resulting in “free styling” during execution.

Thorough planning is one of the most recognizable traits of a high achiever, even though it’s seldom fun or glamorous. It occurs behind the scenes. **There are many reasons people give for not planning:** “I don’t have enough time,” “I don’t really need it,” “It won’t work for me,” “It’s too constraining,” “My work is too unpredictable,” “I’m a creative type,” etc. According to many performance experts<sup>1</sup>, these reasons are merely excuses and rationalizations.

**The real reason people don’t plan is usually one of the following:**

- They don’t understand the value. People get into bad practices because they don’t know any better. Planning improves performance – period.
- They desire immediate gratification. People who want to get their payoff now will find it difficult to escape their practice of poor planning. Planning pays off later – procrastination does so now.
- They don’t know how. Planning is a learned skill; there are good ways to do it, and there are bad ways to do it. Learn how to do it right and make it a permanent life skill.
- They haven’t eliminated obstacles to effective planning. Other conflicts may be blocking or undoing the effectiveness of your planning efforts.

The best way to escape the practice of poor planning is to make the time, learn how to plan effectively, and to do it consistently until it becomes a habit.

## Leadership Gap

Leaders who personally practice or are known to condone procedural non-compliance.

Leadership must be ethical at all levels of an organization—but it seldom is. Any organization that has a leader who practices non-compliance **will eventually foster a subculture of non-compliance**. This evildoer does not necessarily have to be the top dog, but can be anyone in a position of authority who is known by subordinates, peers, and supervisors to be less than fully compliant in their day-to-day activities.

**Here are a few things to consider about ethical leadership’s role in compliance:**

- You cannot be one thing and demand another from your people. The old adage of “do what I say and not what I do” never works for long.
- It is important for leaders at all levels to communicate how they successfully deal with the temptations to deviate in their own daily affairs.

- The recent rash of ethical failures in global business has demonstrated that crime doesn't pay (unless you qualify for a government bailout) and eventually an organization that is non-compliant at the top is prone to failure.

Compliance is more than supervision and quality assurance—it is leading by example.

### Poor Role Models

Violations and compromised standards within an organization can often be traced to a single individual who “gets away with it” and therefore encourages others to copy their example.

Role modeling is the strongest form of informal leadership. Yet, it cuts both ways. In our 21st century Western society, we often find ourselves admiring those who brand themselves as rule busting mavericks. Innovation is good, but following those who try to make a name for themselves by flaunting the law, policy or procedural norms is a fool's errand. We get nowhere fast. The only thing dumber than being a groupie for a rule breaker is to lead others into the same trap by being the poor role model they choose to follow.

Here are some guidelines for staying aware of this tendency:

- Be aware of the tendency to follow charismatic non-compliers. They seem to be everywhere these days. Remember, charisma often cloaks incompetence.
- Be aware of your actions in private and in public and act as if someone you care about and who admires you might be watching at all times.
- Identify your problem areas and work on them in public. Go out of your way to recognize an error you made in front of someone else.
- Be an inspiration. Whether you're a parent, pilot, doctor, teacher, coach, athlete, artist, or anything else, do what you do best – and do it well each time. People you have never met and never will meet are watching you perform. It is up to you to meet their expectations and show them the right way through example.
- If you are a bad role model, eventually it will hurt those around you. Turn your life around, and you will be turning around more than one life.<sup>2</sup>

1. For an excellent overview of poor planning as a “worst practice,” log onto Time Thoughts at [www.timethoughts.com](http://www.timethoughts.com)

2. [www.wikihow.com/Be-a-Good-Role-Model](http://www.wikihow.com/Be-a-Good-Role-Model)

## U.S. airlines accomplish accident-free 2013 despite global difficulties

U.S.-registered commercial passenger aircraft accomplished one of their safest years in history in 2013, **despite** the high number of air travel fatalities around the world.

Just-released data from the National Transportation Safety Board show that not a single person died in North American air crashes last year, **despite carriers carrying a record 744 million people**. The crash of Asiana Airlines Flight 214 at San Francisco International Airport isn't counted in these statistics because the company is a foreign carrier, even though the crash did occur on U.S. soil. Three people died in the crash of the Boeing 777, which happened on July 6, 2013.



This is the **fourth year the U.S.** airline industry has been without fatalities.

Even injuries were at a long-time low, with not a single “serious” injury aboard a U.S. registered commercial aircraft in 2013, the first time that’s happened in 19 years.

Despite the safe year domestically, this has been a difficult time for international air travel.

In the first seven months of 2014, 701 people lost their lives in airline accidents around the world, a five-year record.

Boeing’s 777 was in two of those accidents, Malaysia Airlines flight 370 over Ukraine, and Flight 17 over the Indian Ocean, but in neither case was the Boeing plane found at fault

[http://www.nts.gov/data/aviation\\_stats.html](http://www.nts.gov/data/aviation_stats.html)

## Remembering Flight 427: Hopewell disaster “changed aviation history”

A Boeing 737 takes off or lands somewhere every two seconds. The best-selling jetliner in history is a workhorse, used for about one of every three commercial flights worldwide.

But a crash two decades ago in Western Pennsylvania confounded investigators for years and made the narrow-body jet the most feared airplane in the world for a time. “The 737 is a much safer plane today [because of Flight 427](#), and the crash started a movement that changed

the way survivors of crash victims are treated,” said Tom Haueter, a former director of aviation safety at the National Transportation Safety Board who led the Flight 427 crash investigation. “It changed aviation history.”

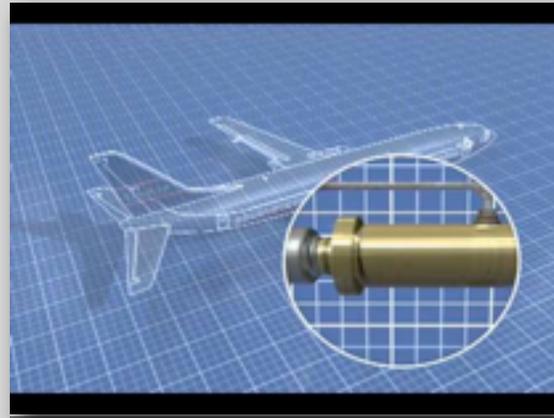
NTSB investigators identified [a glitch with the 737's rudder control system](#) after a 4½-year probe into the Sept. 8, 1994, crash of USAir Flight 427. Just after 7 p.m. that day, the flight from Chicago inexplicably plunged about 6,000 feet in 21 seconds on approach to Pittsburgh and crashed into a wooded hillside in Hopewell, Beaver County, at 300 mph. All 132 aboard died, more than 80 of whom were from Pennsylvania.

Ultimately, a problem with the 737's rudder was to blame. Investigators determined the hulking plane's rudder servo valve — about the size of a soda can — [reversed and jammed](#).

“There were a lot of passengers who wouldn't get on a 737, and investigators were greatly concerned that another crash would occur before we figured out the problem,” Haueter said.

The lengthy crash investigation came to include the 1991 fatal crash of United Airlines Flight 585 near Colorado Springs and a near-disaster involving Eastwind Airlines Flight 517 approaching Richmond.

Boeing spent about \$1 billion redesigning the rudder system and retrofitting about 4,000 jets. It and USAir paid millions more to family members of crash victims.



## The crash

The deadly plunge of Flight 427 six miles from Pittsburgh International Airport scarred many who witnessed it, from shoppers at the busy Green Garden Plaza off what is now Interstate 376 to children playing at a nearby soccer complex.

“I noticed the plane because it was abnormally low, so low that you could distinguish things on it that you'd normally never see, even though we were so close to the airport,” said Jason Moka, now 30, who was playing at the soccer complex.

“It went belly-up and then nose-dived behind the tree line. I remember hearing a loud sound and the ground shaking, and then a huge mushroom cloud came up,” said Moka, a sales manager at a BMW dealership who lives in Mars. “I didn't understand the full scope of what happened back then. I was 10. Being older now, it affects me differently. I think about all the families that were devastated.”

Beaver County Sheriff George David, then an Aliquippa police officer, was working on his 67-acre farmstead in Hopewell when he heard a plane scream past, then an explosion. The plane went down near the edge of his property. Debris filled his hay fields.

“I came up right away, and what I witnessed was not a good thing. It was stuff that no one should see, and it impacts me to this day,” said David, who routinely directs visitors to the crash site that has a memorial stone in a clearing. He expects he will direct visitors there for years to come.

The only people he turns away: “I've had some ghost seekers come up the lane. I tell them we don't want none of that here.”

## The fix

Haueter said solving the mystery of the crash was tough.

“We never found a broken piece that we could hold up and say, ‘Here's the problem.’”

### There were other complicating factors.

Boeing, a partner in the investigation, argued the plane was not to blame and had an impressive safety record, Haueter said.

Aviation technology was far less advanced. Today's jets can record up to 500 parameters, or sets of data, that chronicle aspects of a flight's performance almost moment-by-moment. Flight 427 investigators had about two dozen parameters to work with, including basics such as altitude, flight speed and the position of flight controls.

“We didn't have rudder position (monitored). If we had that back then, we probably would have solved the investigation in a year or a year and a half,” Haueter said.

Instead, it took a near-crash in Virginia in 1996 to help crack the case. It bore similarities to the fatal crashes of Flights 427 and 585. In the latter cases, a wind disturbance prompted pilots to press a rudder pedal one direction, but the rudder inexplicably flapped the opposite way.

Heavy wind off the Rocky Mountains rocked Flight 585; wake turbulence from a larger jet a few miles ahead jolted Flight 427.

“Suddenly, all the pieces fit. This problem was so new and so different that the pilots didn't have time to figure it out in time. We investigated it for years. The pilots had seconds,” Haueter said.

Boeing agreed in 2000 [to change flight crew and maintenance procedures](#) and the rudder control design, said Miles Kotay, a Boeing safety spokesman. The company provided so-called rudder retrofit kits to airlines with 737s, sending out the last ones in March 2010, Kotay said.

“The rudder-system enhancement made an airplane with an excellent safety record even safer by making that system reliably redundant,” Kotay wrote in an email.

## **Alaska Airlines agrees to pay \$500,000 over 2010 cockpit fire**

Alaska Airlines has agreed to pay \$500,000 in civil penalty claims after an electrical fire ignited in a Boeing 737-400 cockpit in 2010 while it was parked at a gate in Anchorage, the Justice Department said on Friday.



The Federal Aviation Administration's probe into the incident found the fire was caused by [chafed wiring from an improperly positioned metal clamp](#) that attaches an air hose to an overhead panel, U.S. Attorney Jenny A. Durkan said in a statement. The U.S. carrier, owned by Alaska Air Group, told the FAA after its own investigation in April 2010 that aircraft maintenance task cards had "directed" maintenance provider AAR Corporation to remove the cockpit panel during maintenance in July and August 2008.

But it failed to include a maintenance manual warning of the possibility of an electrical fire if the clamp was not positioned properly, Durkan said.

"Alaska Airlines has an uncompromising commitment to safety and compliance," said Alaska Airlines spokeswoman Halley Knigge. "We put the safety of our passengers, our employees and our aircraft above all else."

Following the event, Alaska maintenance technicians inspected all 737-400 aircraft to ensure precise placement of the clamp and inspected the surrounding area for signs of wire chafing, Knigge said.

The FAA wrote in a 2011 letter to the carrier that it had violated regulations by flying the aircraft involved in the 2010 incident and nine other planes with incorrect or improperly placed parts, and had assessed a \$590,000 civil penalty against the airline.

The case was referred to the U.S. Attorney's office in the Western District of Washington, which reached the settlement agreement through discussions with Alaska Airlines.

Alaska has disputed that AAR or its other maintenance providers reinstalled or repositioned the clamp on its Boeing 737-400 aircraft, including the aircraft involved in the January 18, 2010 incident.

Under the settlement, Alaska denies all legal responsibility.

## **FAA Proposes \$425,000 Civil Penalty Against Gulfstream Aerospace Corp.**

The U.S. Department of Transportation's Federal Aviation Administration (FAA) is proposing a \$425,000 civil penalty against Gulfstream Aerospace Corp., for failing to comply with Federal Aviation Regulations (FAR) [related to training aircraft mechanics](#).

An FAA inspection determined that some mechanics did not complete required training within time limits established in its FAA-approved training manual, and [they missed numerous training deadlines](#). Additionally, after reviewing employee training records, FAA inspectors could not determine whether some of the employees completed training, or whether the records were inaccurate. The FAA also alleges that Gulfstream [allowed mechanics to maintain aircraft](#) when they had not completed required training.



FAA inspections in November 2009 and March 2010 initially identified the training discrepancies. During a June 2010 follow-up inspection, the FAA determined that Gulfstream's corrective actions [were insufficient](#) to address systemic training and record keeping issues.

"Training is a critical component of a safe aviation system," said FAA Administrator Michael Huerta. "Operators must ensure that mechanics [meet all](#) FAA training requirements before working on complex jet aircraft."

The FAA alleges that the violations compromised safety since mechanics maintained aircraft without receiving required recurrent training.

Gulfstream Aerospace Corp. has 30 days from the receipt of the FAA's Civil Penalty letter to respond to the agency.

## [Teen who cut Boeing 767 wires to get back at his boss avoids jail term](#)

Judge decides that former trainee who lashed out in revenge had shown remorse

***A teenager who cut wires in an airliner's communications system to take revenge on his "rude" boss avoided a jail term yesterday after a judge decided the young man was remorseful.***

District Court Judge Frankie Yiu Fun-che told former trainee flight mechanic Tang Wing-hon, 19, [he could have gone to jail for three years](#) as he had endangered people's lives.

"If this had not been discovered, it's hard to imagine what kind of irreversible consequences it could have brought to the crew members, passengers and other flights," the judge said.

Tang had admitted recklessly damaging property in a way that endangered people's safety. The court heard the damage would have impaired the Boeing 767's ability to use autopilot and satellite communications.



Tang was an intern at flight maintenance company Haeco when he cut the wires [to take revenge on his supervisor](#) for telling him off and swearing at him. The damage was repaired at a cost of \$86,892 before the plane took off on a flight to Hawaii.

Defense lawyer Joseph Lam Siu-wah yesterday said that Tang was truly regretful and asked the court to impose a training centre term instead of jail.

## General Aviation Pilots Group Criticizes NTSB Study on Pilots' Drug Use

The group representing general aviation pilots is criticizing the National Transportation Safety Board's new study of pilots' drug use.

"There are just far too many gaps and unknowns in this [NTSB] study for us to be able to draw any meaningful conclusions about aviation safety," said Mark Baker, president of the Aircraft Owners and Pilots Association (AOPA). "Overall the number of general aviation accidents has declined significantly over the past decade, and continuing that trend should be our focus." The NTSB study, based on Federal Aviation Administration toxicology tests on 6,677 fatally injured pilots, said the risk of pilot impairment ["is increasing due to the growing use of potentially impairing drugs."](#)



It also found that the most common potentially impairing drug the pilots had used was an antihistamine used in allergy and cold medicines.

Baker said pilots do need information about how to determine their fitness to fly, and that AOPA (Twitter @AOPA) is ["working with medical experts and others](#) in the aviation community to give them better educational and decision making tools."

AOPA agrees with the NTSB recommendation that the FAA should inform pilots about what potentially impairing drugs they shouldn't use before they fly.

Most of the pilots in the NTSB study were general aviation pilots who do not need to undergo the mandatory drug and alcohol testing that commercial airline pilots do.

FAA Administrator Michael Huerta announced in July that he'd developed a proposed rule to reform the medical certification process for general aviation pilots whose aircraft carries up to five passengers. That proposed rule is now being reviewed by Transportation Secretary Anthony Foxx.

In July NTSB Acting Chairman Christopher Har voiced doubts about ending the FAA medical certification requirement.

Hart told a hearing of the House Government Oversight Committee's Subcommittee on Government Operations, "We're very concerned about pilots flying without adequate medical standards."

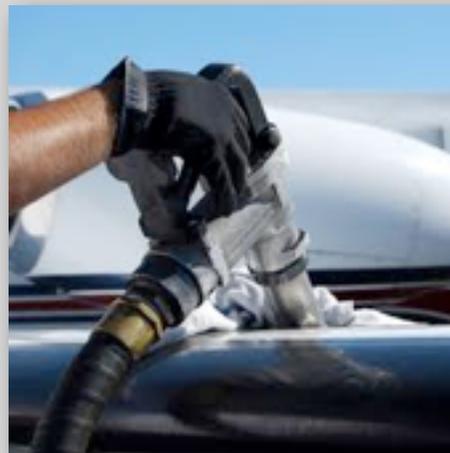
<http://blogs.rollcall.com/the-container/with-drug-use-increasing-ntsb-probes-effects-on-aviation-accidents/>

<http://blogs.rollcall.com/the-container/medical-certification-for-pilots-ntsb-concerned-about-bill/?dcz=>

## **NTSB preliminary report pinpoints wrong fuel as possible cause of deadly Las Cruces plane crash**

A preliminary report into the deadly Las Cruces plane crash that killed three El Pasoans and a Las Cruces resident indicates **the error may have been made in the fuel used.**

A post-accident review of refueling records and interviews with line service technicians showed that the airplane had been **mistakenly fueled** with 40 gallons of Jet A fuel instead of the required 100LL aviation gasoline. The National Transportation and Safety Board updated their report Monday into last month's deadly crash. Officials wrote the Cessna Airplane Company 421C, multi-engine airplane, N51RX ambulance flight arrived at the Las Cruces International Airport around 6:34 p.m. Wednesday, Aug. 27 to pick up a patient for flight to Phoenix.



The pilot, identified as Freddy Martinez, 29, was still seated in the cockpit when he gave the line service technician a verbal order for 40 gallons of fuel, according to the NTSB. Their report indicates the unidentified technician drove the fuel truck to the front of the airplane and refueled the airplane, putting 20 gallons in each wing. The NTSB reports Martinez then assisted the technician with replacing both fuel caps.

Both are said to have then gone into an office where [Martinez signed the machine printed fuel ticket.](#)

Shortly after departing from the airport, one of three crewmembers onboard called a medical dispatcher on a satellite telephone to say they were returning to the airport because of a problem.

The NTSB reports the crewmember reported smoke was coming from the plane's right engine. A witness driving westbound on the Interstate reported the airplane was westbound and about 200 feet above ground level when he saw smoke coming from the right engine.

Several witnesses reported seeing the impact or hearing the sound of impact before seeing smoke and flames.

Calls to 911 obtained by KFOX14 describe what people saw. One caller said, "It's on the south side of the highway, and it burst into flames when it hit the ground."

Another caller told the operator, "The flames are really high."

Fredrick Green, 59, was the cancer patient from Las Cruces who was being transported to Phoenix. The pilot was identified as Freddy Martinez, 29; flight paramedic Taurean Summers, 28; and Monica Chavez, 36. All four were killed.

Investigators who arrived at the scene on the day following the accident reported detecting the smell of jet fuel, according to the report.

Tom Latson, an investigator with the NTSB who is in charge of documenting the wreckage of a recent crash told KFOX14 it would be some time before they could determine the exact cause for the crash.

"It's going to take quite a long time, at least two days on scene and likely several follow-up examinations of things like the engine, propellers or electronic components I recover from that."

As this is a preliminary report, information is subject to change, and may contain errors, according to the NTSB. Any errors in this report will be corrected when the final report has been completed.

## **Baggage Handler Killed In Accident At Detroit Metro Airport**

A contract worker for American Airlines has died following an accident at Detroit Metropolitan Airport.

The accident happened Friday morning September 5, at the North Terminal gate D-32 as a flight was preparing to leave for Dallas. According to an American Airlines spokesman, [the worker was hurt while loading luggage onto the plane with a belt loader](#). Prospect Airport Services later said, in a statement, that the man was taken to a local hospital where he was pronounced dead



It wasn't immediately clear how exactly the worker was injured. An investigation by Airport Police is underway. His name has not been released.

The accident happened before passengers boarded the plane. The flight was delayed for about 30 minutes.

"Words cannot express how incredibly saddened we are by today's tragedy which resulted in the loss of a dedicated Prospect team member. We have never experienced such a devastating loss in our nearly 50 years of providing aviation support services. Our thoughts and prayers are with his family, friends and co-workers during this extremely difficult time," said Prospect's president, Vicki Strobel.

Grief counseling services have been made available to co-workers and family members.

## **Avoiding Loss of Control**

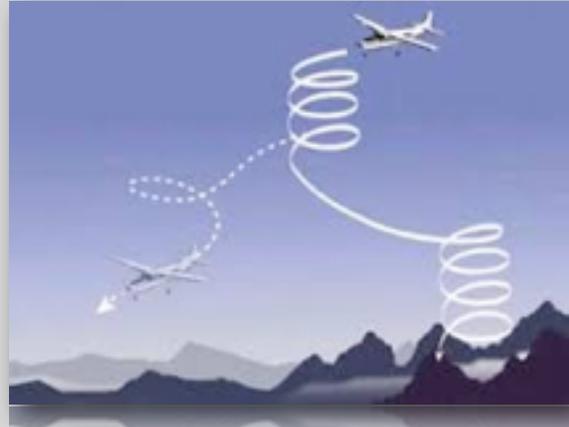
Public Resource Center

The following material has been made available by [SAFE](#) and others free of charge as a public service to the aviation community ([read the Terms of Use](#)).

The General Aviation Joint Steering Committee (GAJSC) conducted a detailed analysis of fatal general aviation accidents for the period 2001–2010.

Loss of control was identified as the predominant accident category; consequently, loss of control has become a special emphasis area for the FAA.

Simply stated, loss of control (LOC) refers to airplane accidents that result from situations in which the pilot should have maintained, or regained aircraft control, but did not. LOC is subdivided into two types: loss of control-in flight (LOC-I) and loss of control-ground (LOC-G). The following links should expand and improve your understanding of the loss of control issue:



[Maintaining Aircraft Control](#) – Becoming a safe, competent pilot requires proficiency in myriad physical and mental abilities. Regardless of a pilot's certification level, constant practice and refinement are needed to maintain those hard earned skills. This paper, co-authored by SAFE members and LOC Subject Matter Experts Randy Brooks, Jeff Edwards, Janeen Kochan, Paul Ransbury, and Rich Stowell, introduces pilots to key LOC terminology and concepts.

[Avoiding Loss of Control](#) – Online course by the FAA Safety Team

[Maintaining Aircraft Control \(and How to Avoid Loss of Control\)](#) – Webinar by EAA/IAC

[FAA Safety Briefing](#) – March/April 2012 issue dedicated to LOC awareness & prevention

[Guidelines for Pilots Seeking All-Attitude Training](#) – Document by Rich Stowell

[GAJSC Fatal Accident Data Set, 2001–2010](#) – Puts the magnitude of LOC-I into perspective

[The Way We Teach Stalls, Spins and Recoveries](#) – .ppt by Doug Stewart

[Upset Prevention & Recovery Training Association](#) – For more information

## Deadly Failure?

The video explains a scenario where a simple piece of equipment fails in your airplane in low IMC. As you'll see, it can quickly lead to a life-or-death situation.

Test yourself, then watch as the video reviews some helpful tips should you ever encounter a similar malfunction.



Click below to watch the video...

<http://www.pilotworkshop.com/video/failure>

## Human Factors Considerations in the Design and Evaluation of Flight Deck Displays and Controls:

Field of view, symbols, alerts, fonts, colors – **all of these factors** make a difference to a pilot looking at information provided on flight deck displays. A new FAA report titled "Human Factors Considerations in the Design and Evaluation of Flight Deck Displays and Controls" is intended to serve as a single comprehensive source **for all human factors regulatory and guidance material** related to flight deck displays and controls. This report was prepared by the Aviation Human Factors Division of the Safety Management and Human Factors Technical Center at the John A. Volpe National Transportation Systems Center.



It was completed with funding from the Federal Aviation Administration (FAA) Human Factors Research and Engineering Division (ANG-C1) in support of the Aircraft Certification Service Avionics Systems Branch (AIR-130) and the Technical Programs and Continued Airworthiness Branch (AIR-120). The FAA authors, Dr. Michelle Yeh and Colleen Donovan, worked closely in collaboration with human factors specialists within the US DOT Volpe Center. Originally released in November 2013, the document is attracting interest both domestically and internationally, and [it is one of the most downloaded reports on the Volpe website](#).

The document is intended to be used by FAA flight test pilots, engineers, and [human factors specialists](#) who work in the field doing "hands-on" evaluations of avionics. It is intended to raise the level of awareness about human factors to facilitate identification and resolution of [human factors issues](#). This general guidance document is also intended to serve as a single comprehensive reference for all human factors regulatory and guidance material related to flight deck displays and controls. It will facilitate identification and resolution of human factors issues with these systems. The document is not intended to replace FAA regulatory and guidance material specific to the type of aircraft. Current FAA regulatory and guidance material takes precedence over the material here.

<http://www.volpe.dot.gov/>

## **Technical Report: Index of International Publications in Aerospace Medicine (Antuñano, M.J., Wade, K.)**

**Abstract:** The 5th edition of the Index of International Publications in Aerospace Medicine is a comprehensive listing of international publications in clinical aerospace medicine, operational aerospace medicine, aerospace physiology, environmental medicine/physiology, diving medicine/physiology, [aerospace human factors](#), as well as other topics directly or indirectly related to aerospace medicine. The Index is divided into six major sections: I) Open Publications in General Aerospace Medicine; II)

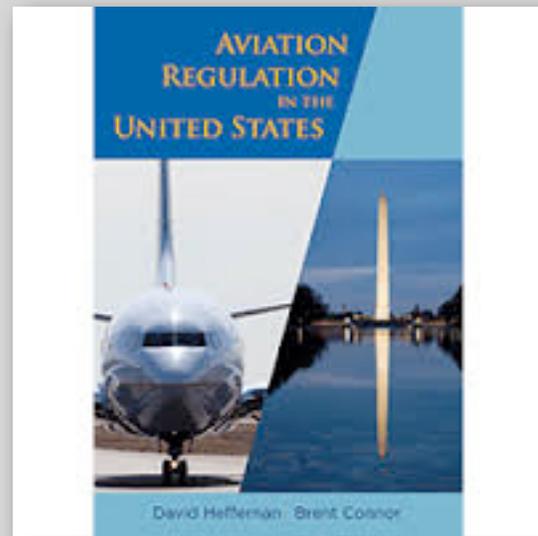


Government Publications in General Aerospace Medicine; III) Publications in Other Topics Related to Aerospace Medicine and [Aerospace Human Factors](#); IV) Proceedings from Scientific Meetings in Medicine and Psychology; V) Journals, Newsletters, and Bulletins in Aerospace Medicine and Aerospace Human Factors; and VI) On-line Databases Containing Bibliographic, Regulatory, and Safety Information in Aerospace Medicine and Related Disciplines.

For a copy of this publication, please visit: [http://www.faa.gov/data\\_research/research/med\\_humanfacs/oamtechreports/2010s/media/201407.pdf](http://www.faa.gov/data_research/research/med_humanfacs/oamtechreports/2010s/media/201407.pdf)

## **Aviation Regulation in the United States**

David Heffernan, a member of the Aviation Practice Group at Cozen O'Connor, co-edited the recently published American Bar Association (ABA) book "[Aviation Regulation in the United States](#)." The desktop reference is now the most up-to-date and accessible reference on U.S. aviation regulation. It clearly explains, with citations, rules and requirements [governing every aspect of the aviation industry](#), including airports, airlines, private aircraft, air navigation, labor-management relations, aircraft transactions, environmental impact, accident investigation, marketing and distribution, airline mergers and alliances, and aviation safety and security. Heffernan also co-authored the book's chapter on airline alliances and antitrust immunity. Heffernan is editor-in-chief of *The Air & Space Lawyer*, the quarterly publication of the ABA's Forum on Air & Space Law.



For more information visit [www.cozen.com](http://www.cozen.com) or [www.americanbar.org](http://www.americanbar.org).

## Battling with sleep deprivation

A new study has looked at a common, but often overlooked, reason behind sleep deprivation. The results showed that people fail to get a good night's rest simply **because they keep putting off going to bed**, a phenomenon the researchers dubbed bedtime procrastination.

The researchers were particularly interested in the psychological profile behind bedtime procrastination. Why do people not have an early night when they know it is good for them? The

researchers from Utrecht University have studied the link between procrastination and sleep deprivation before. In a recently published study they interviewed 200 volunteers on procrastination, self-discipline and general lifestyle. They found that people **who lacked self-control in general** also tended to put off going to bed at the time they had planned. The result did not come as a total surprise as **self-discipline** has emerged as an **important factor** in many other health-related studies in the past. People with low self-regulation skills are more likely to succumb to the temptation of slouching on the sofa instead of going for a jog or find a piece of chocolate cake impossible to resist despite their decision to eat healthily.

The new study repeats the earlier research but with a much larger number of participants, with more than 2,000 volunteers between the ages of 16 and 93 interviewed. Besides filling in a questionnaire, the participants kept a sleep diary. None of them was diagnosed with a sleep disorder or had a job involving shift work.

The results again highlighted the **link between self-discipline and sleep deprivation**. People who reported getting the least sleep simply kept putting off going to bed until they failed to get sufficient rest. These people **also found it difficult** to stick to their decisions in other areas of their day-to-day lives.

The study could not decisively prove whether lack of self-discipline was the cause or consequence of insufficient rest as sleep deprivation may also lead to difficulties in self-regulation.

The study was published in the Journal of Health Psychology.



## TED Talks - Ideas Worth Spreading

### Fly With The Jetman

Strapped to a jet-powered wing, Yves Rossy is the Jetman — flying free, his body as the rudder, above the Swiss Alps and the Grand Canyon. After a powerful short film shows how it works, Rossy takes the TEDGlobal stage to share the experience and thrill of flying.



[http://www.ted.com/talks/yves\\_rossy\\_fly\\_with\\_the\\_jetman](http://www.ted.com/talks/yves_rossy_fly_with_the_jetman)