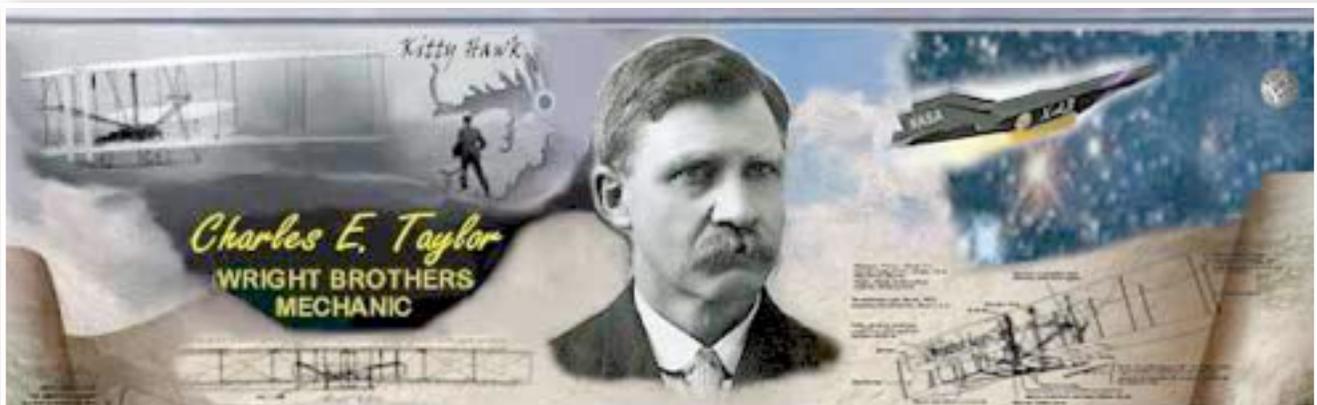


Aviation Human Factors Industry News

Volume X. Issue 20, October 05, 2014



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

Hello all,

To subscribe send an email to: rhughes@humanfactorsedu.com

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

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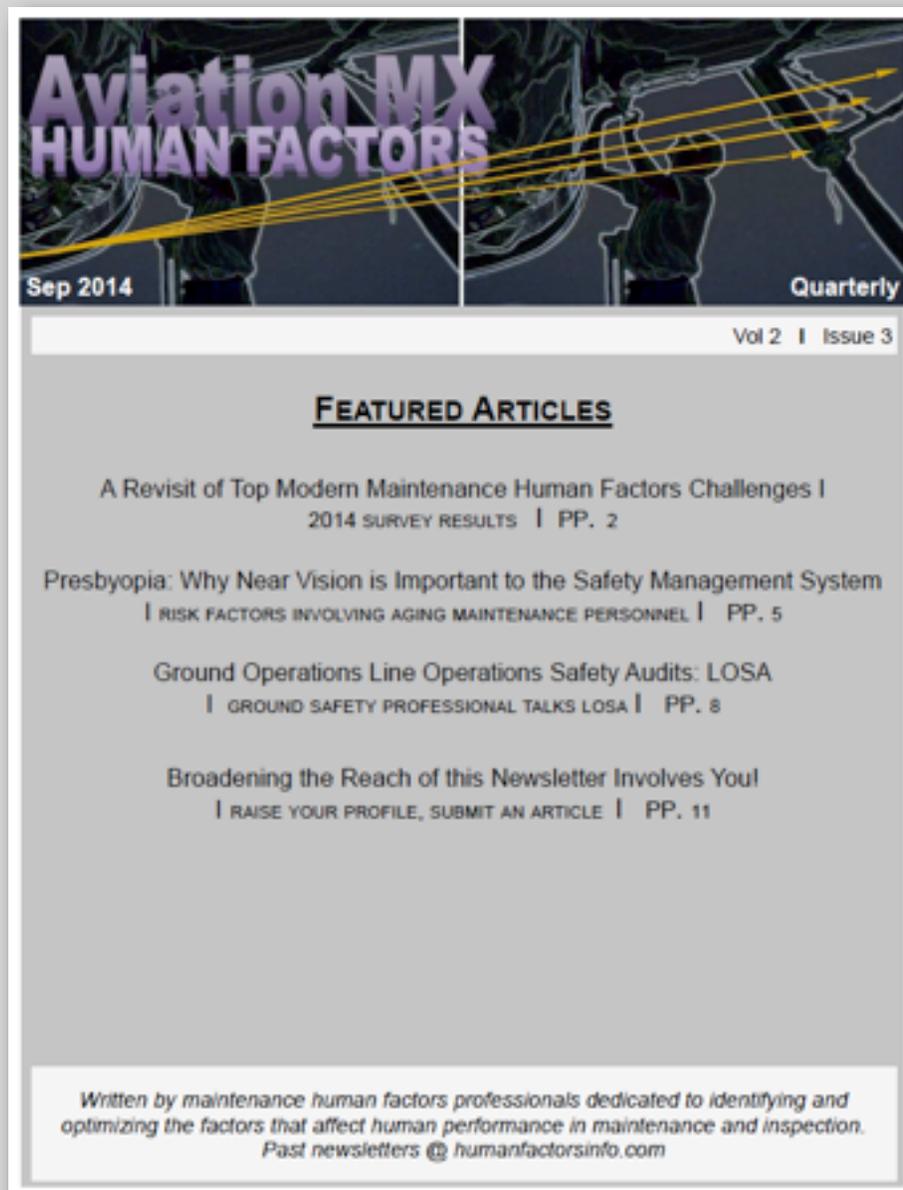
★ **A320 tweak to prevent computer 'forgetting' sharklets**

★ **FAA: Dozens of Alaska aircraft mechanics must retake exams**

★ **And Much More**

FAA's Aviation MX Human Factors Newsletter

Written by maintenance human factors professionals dedicated to identifying and optimizing the factors that affect human performance in maintenance and inspection.



The newsletter is available on our website @ http://www.faa.gov/about/initiatives/maintenance_hf/fatigue/publications/

NTSB report on Birmingham UPS cargo jet crash shows probable cause of crash

A report obtained by WHNT News 19 from the National Transportation Safety Board (NTSB) shows more information on a UPS cargo jet crash that happened in August 2013.

A UPS plane crashed less than a mile away from the Birmingham Shuttlesworth International Airport on August 14, 2013. The two-member flight crew died in the crash of the Airbus cargo plane.

The NTSB report states [the probable cause of the crash was due to](#) the flight crew's "continuation of an unstabilized approach and their failure to monitor the aircraft's altitude during the approach, which led to an inadvertent descent below the minimum approach altitude and subsequently into terrain."

[The report listed the following factors as contributing to the crash:](#)

- The flight crew's failure to properly configure and verify the flight management computer for the profile approach,
- The captain's failure to communicate his intentions to the first officer once it became apparent the vertical profile was not captured,
- The flight crew's expectation that they would break out of the clouds at 1,000 feet above ground level due to incomplete weather information
- The first officer's failure to make the required minimums callouts,
- The captain's performance deficiencies likely due to factors including, but not limited to, fatigue, distraction, or confusion, consistent with performance deficiencies exhibited during training,
- The first officer's fatigue due to acute sleep loss resulting from her ineffective off-duty time management and circadian factors.



Helicopter safety warnings ignored before London crash

Heliport operators told CAA helicopters would be forced too close to new skyscraper in cloudy weather

Warnings of a threat to the safety of helicopters flying above central London **were ignored** ahead of a crash last year in which two people died, according to a new report.

Pilot Pete Barnes, 50 was killed along with Matthew Wood, a pedestrian, when an Agusta 109 helicopter crashed into a crane at St George's Wharf, Vauxhall, amid **heavy fog** in January 2013. But an official report into the disaster, to be published this week, reveals that concerns were raised with the Civil Aviation Authority in 2009 about how the development would affect flight paths.



According to a copy of the Air Accident Investigation Branch report, leaked to The Telegraph, the message **“does not appear to have led to further discussion or action”**.

Following the accident NATS, the air traffic controller, ruled that helicopters should no longer be instructed to fly on the south bank at low altitude to avoid coming too close to buildings.

“Any pilot routing along the south bank of the river and passing within 500ft vertically of the top of the crane, or the building once the crane is removed, would be in breach” of the rules, the AAIB said in its report.

It noted that pilots and not air traffic controllers are responsible for obstacle clearance, but added: **“Controllers should not issue clearances which imply permission to breach regulations.**

“It is possible that **they did so inadvertently** during the period between the construction of this building and implementation of the amended air traffic procedures introduced by NATS after the accident.

“During this period, traffic instructed to route along the south bank of the River Thames, while also restricted to altitudes below 1,300ft, would have had to break [the 500ft rule] in order to comply with this instruction.”

An experienced helicopter pilot told The Telegraph the large number of skyscrapers in central London **have made it dangerous to fly** over parts of central London at low altitude.

“On a normal day it is not a problem, you stay above a certain height and you are clear,” he said. “As soon as the weather drops, you start to have problems because to keep to the 500ft rule you start having to snake around the river, moving across from one side to the other and back again.

“With the building at St George’s Wharf and the building across the river, it is now virtually impossible to fly within the limits.”

Captain Barnes, one of the most experienced pilots in the country, had been flying from Redhill to collect Richard Caring, the millionaire boss of the Ivy restaurant, at Elstree airport in Hertfordshire.

Despite being urged by his client twice not to fly due to poor visibility, Cpt Barnes told him by text message: “I’m coming anyway will land in a field if I have to.”

Unable to land at Elstree, he turned back for Redhill but received another message from Mr Caring telling him London Heliport in Battersea was open, and requested permission to land.

Traveling at low altitude on an established flight path along the River Thames, and unable to remain clear of cloud, Capt Barnes made a right turn towards The Tower at St George’s Wharf, one of Europe’s tallest skyscrapers.

The report claimed it was most likely obscured by the weather, and the pilot **could have been distracted by changing radio frequencies** as he approached the site.

The helicopter struck the crane’s jib, detaching its rotor blades, after flying within 105ft of the skyscraper. Capt Barnes died as it crashed 700ft to the ground, also killing Mr Wood, 30, and injuring a dozen more people.

The report added that the skyscraper **was not listed** as an obstacle in the helicopter’s navigation system, and that Capt. Barnes **had not logged onto** an online database containing updated flight information for pilots for the past three years.

It also noted that **there is no effective system** for ensuring all potential obstacles for pilots are registered, and the crane had only been added to databases "by coincidence" after being spotted by an off-duty member of staff at the Defense Geographic Centre.

The AAIB made a number of recommendations to improve the assessment of obstacles before planning permission is granted, and the reporting of potential hazards to pilots.

Spokesmen for the Civil Aviation Authority and the Department for Transport declined to comment before the publication of the report on Tuesday.

Pilot Survives In-Flight Prop Loss

Says Eagle Scout Training Help Him Through Post-Accident Ordeal

A 65-year-old pilot from the San Francisco Bay area found himself in one of those situations that no pilot wants to experience; the prop had come off his airplane. Tim Cassel told television station KNTV that the prop separated from the airplane at about 13,000 feet over the Sierra Nevada mountains. He eventually put the Piper PA-28 down in a remote canyon in Sequoia National Park. He suffered broken ribs, a broken ankle, and facial fractures from the accident, but he was alive and able to get himself out of the aircraft.

Cassel said he put his [Eagle Scout training to work to help him survive](#). As night fell and temperatures dropped, he wrapped himself in the airplane's cockpit cover to stay warm and activated an emergency locator beacon. He was found by park rangers about 18 hours after the plane went down.

Cassel has been flying about seven years, according to the report. When asked if he plans to fly again, his response was an enthusiastic ["you bet."](#)



Air Canada grapples with 'explicit' material in cockpit

Airline memos order staff to stop leaving "explicit, illicit" material in aircraft

CBC News has obtained an internal Air Canada bulletin warning flight crews they [could be fired or face criminal charges](#) for placing "inappropriate material" in the flight deck, also called the cockpit. It was sent last year, four months after a similar reminder to stop hiding "suggestive images in Company aircraft" appears to have been ignored.



“I am disappointed to have to raise this issue once again but unfortunately we have some people that have yet to understand the message,” writes Rod Graham, Air Canada’s chief pilot and director of fleet operations and training.

The warnings come six years after a female pilot says she started finding pornography displayed, glued and tucked in a variety of areas in the cockpit on Air Canada’s Embraer fleet of planes.

Air Canada investigated her complaint and found “[evidence of racial or ethnic prejudice as well as sexual materials in the work place,](#)” according to documents obtained by CBC News through an Access to Information request.

The pilot provided Transport Canada inspectors with photos and video of the sexually explicit, and at times violent, images she says she found.

“Someone has drawn a knife in the back of the girl on the right hand side,” she writes in one email.

“The fact that porn is still present and... very much on the minds of the individuals that fly the EMJ [Embraer planes], should ring alarm bells for your department as much as it does for me,” she writes in an email dated Aug. 3, 2013.

‘Things can go wrong’

The head of the association that represents civil service pilots says offensive material has no place in the flight deck.

“You have to pay attention to what you’re doing in an aircraft at all times. And [reading inappropriate material is a complete distraction,](#) and things can go wrong,” says Daniel Slunder, president of the Canadian Federal Pilots Association.

“Pilots are stuffing paper material inside compartments where electrical wiring is and that this is a hazard not to mention that this is a form of workplace violence,” writes Mary Pollock, an aviation health and safety occupational officer.

CBC News asked Air Canada if it had identified who was placing inappropriate material in the flight deck, but did not receive a response to this particular question.

“The material in question consisted almost entirely of inappropriate business cards and was confined mainly to one aircraft type and route, our Embraer E-90s operating to Las Vegas,” writes Air Canada spokesperson Peter Fitzpatrick in an email to CBC News. The airline says it [wasted no time](#) when it learned of the problem, taking corrective action through pilot training.

However, Air Canada did say that more explicit material was found as recently as February of this year.

Transport Canada told CBC News that its investigation found that Air Canada did not violate aviation safety, and that Transport Canada is not responsible for “regulating reading material in the flight deck.”

However, notes in a Transport Canada log dated Aug. 19, 2013 show an inspector with the regulatory agency tried to get Air Canada to take the problem more seriously.

[Transport Canada report on Air Canada complaint \(PDF KB\)](#)

[Transport Canada report on Air Canada complaint \(Text KB\)](#)

Only 9 of 28 air mishap probes completed since 2012

The country’s (India) air mishap probing agency has completed probes in only nine of the 28 cases sent to them for investigation since 2012. The Air Accident Investigation Bureau’s (AAIB) **dismal record**, since its inception in 2011, came to light after the Directorate General of Civil Aviation (DGCA) asked it to probe the recent mid-air scare, where pilots of a Mumbai-Brussels Jet Airways flight slept, causing the plane to plunge 5,000 feet in Turkish airspace. The DGCA move was meant **to send a strong message** to airlines that they would face harsh punishment for air safety violations. However, data on AAIB’s performance paints a sorry picture of the agency’s investigation record. Prabhat Kumar, chief of DGCA, and Asok Kumar, who heads the AAIB, did not respond to HT’s calls and queries about the statistics sent over SMS. One of the mishaps AAIB is probing is the March 12, 2012, incident, when an Air India plane from Ahmedabad banged its tail on the Mumbai runway, causing serious damage to the aircraft, putting the lives of 121 fliers at risk. Independent air safety experts called it an ‘open and shut’ case, **blaming the new woman commander’s poor training record for the mishap**. “A ‘tailstrike’ of an Airbus A319 is unheard of because of the short length of the aircraft,” said a senior Airbus commander, requesting anonymity.



However, AAIB’s records show the ‘investigation in still on’. AAIB’s counterparts in other countries complete probes in less than a month, sometimes even in a couple of weeks.

On May 31, a Gulfstream aircraft veered off the runway before hitting the navigational aids and catching fire at the Hanscom Field Airport at Bedford, US. The National Transport Safety Board (NTSB), the US special task force that probes transport accidents across rail, road, air and water transport, published a detailed report on its website [in less than two weeks](#).

The report contained all details – the crew’s last call outs before the incident, the pilots’ flying record, the aircraft’s maintenance history, etc. India’s air safety ranking has plunged to new a low this year. On January 31, the Federal Aviation Administration (FAA), the US aviation regulator, reduced the ranking to Category 2, putting India alongside Ghana, Curacao, Serbia and Bangladesh. Aviation minnows such as Malta, Fiji, Guatemala, Suriname, Samoa and even Pakistan have Category I rating.

Aviation experts said the reason why India and India based airlines are involved in many mishaps is the country’s aviation safety investigators [underreport such incidents](#). For instance, on March 10, 2012, Civil Aviation Safety Advisory Council (CASAC), a government appointed independent watchdog created after the May 2010 Air India Express crash at Mangalore, reported a hard landing (rapid or steep descent made with thud) made by a flight from Jaipur to Chandigarh. Despite producing details on how the unsafe touchdown caused severe damage to the plane’s nose wheel, the DGCA ignored the note and recorded the case as a [‘minor incident’](#).

“According to Annex 13 of the Chapter on accident investigations issued by the International Civil Aviation Organization (UN appointed aviation watchdog), the objective of accident investigation is to prevent another one. Unfortunately, India [covers up all mishaps as incidents](#) and that is why so many occur,” said Mohan Ranganathan, former member of CASAC. Experts said the real problem was the formation of the AAIB. Unlike the US, where the NTSB works without any interference from the FAA, its safety regulator, the AAIB comprises of the same DGCA officials who already [have too much to do owing to massive staff shortage](#).

One of the principal reasons behind the recent downgrade of India’s international safety rankings by the FAA was acute shortage of staff in the DGCA. What’s worse, a majority of these officials are facing inquiries. According to civil aviation ministry records, at least 19 DGCA officials, including those of joint director general ranks, are facing [vigilance probes](#). The vigilance department has recommended ‘major penalty’ in all the 19 cases, but most of them are pending. In some cases, the officials facing inquiry have retired, showed the data available with HT.

Read: [DGCA lens on Jet Airways, pilots suspended](#)

<http://www.hindustantimes.com/india-news/jet-airways-plane-plunges-5-000-feet-as-pilots-fall-asleep-probe-begins/article1-1251955.aspx>

ACT A300's gear collapse traced to undetected fatigue

French investigators have determined that fatigue cracking in the undercarriage of an ACT Airlines Airbus A300B4 freighter caused the left main landing-gear to collapse after touchdown in Afghanistan.

The aircraft (TC-ACB) had been arriving at Bagram after a cargo service from Bahrain on 1 March 2010. Its crew had already been alerted to a possible problem during the visual approach to runway 21 because cockpit indications showed the left main gear was not locked, and an absence of pressure in the green hydraulic system.

The A300 carried out two passes of the airport in order for air traffic controllers to observe the state of the undercarriage. It appeared normal but the pilots opted for a minimum-speed approach at 160kt.

About 18s after touchdown, during braking, the left gear collapsed, says French investigation authority BEA. The A300 departed the runway and came to rest 2,000m beyond the threshold. All five crew evacuated without injury.

BEA says the articulating arm, located at the top of the main gear leg, fractured as a result of fatigue cracking – adding that this fracture “probably” occurred as the gear retracted after take-off, when forces on the component were maximal.

The left gear subsequently deployed under gravity when the undercarriage was extended for landing, leading to a hydraulic leak.

BEA’s inquiry determined [that some maintenance tasks on the gear, during its last overhaul at Turkish Technic, were “not completed in the prescribed manner”, but points out that the process layout of the maintenance manual could lead to “misunderstanding” or “omissions” when preparing job cards.](#) Pitting and corrosion in the landing-gear assembly went undetected.



Turkish Technic and landing-gear manufacturer Messier-Bugatti-Dowty subsequently undertook a review of procedures, with Messier and Airbus emphasizing the need [to apply corrosion protection promptly](#) to parts awaiting plating treatment.

A320 tweak to prevent computer 'forgetting' sharklets

Operators of Airbus A320s with sharklet wing-tips are being instructed to modify the aircraft to prevent the possibility that flight computers could forget the sharklets are fitted.

Airbus has been delivering A320s with sharklets since the end of 2012 and the wing-tips will be a standard feature on the new A320neo.

But during analysis of the A320neo design, Airbus determined that the flight computers could conceivably experience a [“loss of sharklet identification”](#), says the European Aviation Safety Agency. EASA says that components used to activate the load-alleviation function are connected to flight computers using a common ground point.

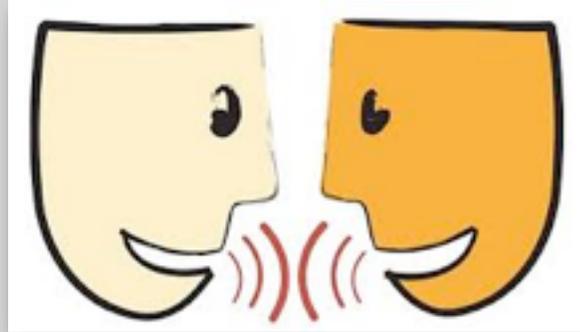
As a result, it says, the ground point segregation is “no longer effective” and carries the possibility of single-point failure. The aircraft would revert to behaving as if fitted with wing-tip fences, which preceded the introduction of sharklets.

While Airbus has already introduced a change which restores the segregation, EASA is instructing operators of aircraft delivered without the modification to amend the sharklet ground connection within two years.



FAA: Dozens of Alaska aircraft mechanics must retake exams

According to a formal notice issued last month by the Federal Aviation Administration, all individuals holding mechanic certificates with airframe or powerplant ratings (or both) who were tested by Designated Mechanic Examiner (DME) Marty James Simmons of Anchorage must be re-examined.



Simmons' DME designee status was terminated after investigators conducted interviews with "numerous" airframe and powerplant mechanics who received testing from him. The interviews presented compelling evidence raising doubts as to the adequacy of the testing, according to the agency. FAA investigators determined there was ["reasonable basis to question whether airmen who received a certificate from Marty Simmons possess the qualifications to hold their certificates."](#)

There were 151 total mechanics affected by the termination of Simmons' DME designation -- approximately 60 of them in Alaska.

All mechanics who received a certificate from Simmons must retake the oral exams from FAA employees at FAA facilities. Airframe and Powerplant certificate holders will be re-examined for competency of both certificates at the same time. The FAA is not permitting these re-examinations to be taken with another DME.

The FAA has mailed letters to all mechanics who must retake the oral exams, however any mechanic who believes they might be affected and has not received a letter should contact Brian Richmond at the Anchorage Flight Standards District Office.

The re-examination notification had a mandatory date of 10 days to contact the FAA and schedule a re-examination; failure to do so result in initiation of a suspension notification. Retesting must occur by September 1, 2015.

All aircraft the affected mechanics have worked on previously are not affected by this re-examination process. Only if the affected mechanics fail to respond to the letters or subsequently fail their re-examination will they suffer a certificate action that affects their ability to perform work on aircraft.

University Launches Study on Pilot Preparedness

Saint Louis University has announced that it has entered into a research partnership with the Professional Aviation Board of Certification (PABC) and Professional Testing, Inc.

The goal of this research is to evaluate a proposed concept for using enhanced knowledge testing to ensure that [pre-employment pilot training](#) effectively prepares future pilots for entry into this critically important profession, both in the United States and worldwide. The knowledge and skills required of airline pilots today are vastly different from those required 10 to 20 years ago. [The technology and operating conditions, along with the labor market, have changed dramatically.](#) This combination poses an increased potential global safety risk that must be addressed.

To meet that challenge, SLU is now working with PABC and Professional Testing to develop a prototype of the proposed concept to evaluate the process for creating entry level knowledge standards and testing and the effectiveness of the resulting examinations as a way [to identify "gaps" in a pilot's preparedness.](#)

Under this concept, any gaps found would then be rectified through specialized remedial training in those areas before the pilot begins employer-provided qualification training for service as a professional pilot. While this prototype will only address a limited set of subject areas, the standards and testing can be scaled up to address the full spectrum of pre-employment knowledge and competencies if the study finds the concept to be effective.

Cathay Pacific Airways hosted the inaugural research design meeting in Hong Kong on August 13-15, 2014. Internationally respected experts representing employers, aviation educators, insurers manufacturers, pilots and regulators participated in the event. The group identified a number of characteristics that this kind of knowledge testing system will need if it is to be of maximum benefit to public safety, regulatory authorities and the industry. Examples of such characteristics include the following:

Initial New Hire Pilots (the subjects of this study) should:

- Possess Airline Transport Pilot-level knowledge, regardless of the licenses they hold.



- Understand generic principles that have broad applicability across the industry.
- Be able to apply their theoretical knowledge, not just recall facts.

The testing system should:

- Be current, comprehensive, fair, effective, secure and sustainable.
- Be based on a stakeholder-defined Airline Transport Pilot-level Job Task Analysis
- Be accredited by the International Standards Organization (ISO).
- Accurately identify a pilot's strengths and weaknesses across various subject areas.
- Be administered in English.

Captain Peter J. Wolfe, PABC's Executive Director, commented on the research.

"If this study validates the concept, it can lead to a major paradigm shift in professional pilot knowledge testing and provide much needed support for the Multi-crew Pilot License (MPL) developed by the International Civil Aviation Organization (ICAO) International Air Transport Association (IATA) and the International Federation of Airline Pilots Association (IFALPA).

"This research is just another example of the aviation community's ongoing self-improvement effort and firm commitment to always provide our passengers with safest mode of transportation available worldwide," Wolfe added.

Manoj Patankar, Ph.D., Executive Director of the Center for Aviation Safety Research (CASR) at Saint Louis University and Principal Investigator of this project, thanked the Federal Aviation Administration for supporting the project and applauded the pioneering leadership of all the subject matter experts engaged in co-designing the study.

"This project will [set the stage for the next level of enhancements](#) to aviation safety, pilot training, professionalism, and mobility among the professional pilot workforce around the world," Patankar noted.

Turkish Airlines will host the next meeting in this study series on November 4-6, 2014 in Istanbul, Turkey, to develop the Job Task Analysis (JTA) on which the prototype standards and testing will be based. Subject matter experts interested in participating in this meeting can contact Capt. Wolfe at pjwolfe@pabc.aero.

Parties seeking additional information may also meet with Dr. Patankar at the Asia Pacific Airline Training Symposium in Bangkok, September 23-24, 2014 or Capt. Wolfe at the Royal Aeronautical Society's International Pilot Training Consortium meeting in London, September 23-25, 2014.

For more information about this research project, please contact Dr. Patankar at Patankar@slu.edu.

Results of this study will be made available on the CASR's website at <http://parks.slu.edu/research/centers-labs-facilities/CASR/>.

MythBusters: Airlines Are Boarding Their Planes All Wrong!

Ever feel like boarding the plane is taking much longer than it should?

If so, you aren't alone. The guys at MythBusters have thought about it so much that they devoted a whole segment of their popular Discovery Channel show to the topic. In an empty hangar, MythBusters built an airplane interior with 173 seats and staffed the mock aircraft with actual cabin crew to facilitate boarding. The show then tried a variety of boarding methods to determine which procedure is the quickest. Each method of boarding was also evaluated by passengers, with points given or taken away based on their impression of the boarding technique.

The show found that the **familiar back-to-front boarding method is, by far, the slowest method**, with a time of 24.29 minutes. On the other hand, boarding with no assigned seats and no assigned order proved to be the quickest way to go, at 14.07 minutes.

However, according to the passengers, this free-for-all style was the least pleasant boarding method.

In the end, the team found the methods using the so-called **"WILMA" method** — in which window passengers are boarded first, followed by middle-seat flyers and finally travelers sitting in aisle seats — to be the most effective.



FLIGHT	TIME	SATISFACTION SCORE
BACK TO FRONT	24:29	19
RANDOM WITH SEATS	17:15	12
WILMA STRAIGHT	14:55	102
WILMA BLOCK	15:07	105
RANDOM NO SEATS	14:07	-5
REVERSE PYRAMID	15:10	113

The best combination of speed and consumer enjoyment came from the "reverse pyramid" method, which notched a time of 15.10 minutes and a satisfaction score of 113. This approach boards the aircraft from the back to the front and from the window seats in.

<http://video.businessinsider.com/ec6ebb66-fc4b-4dc3-add0-3fc211973f70.webm>
http://www.discovery.com/tv-shows/mythbusters?_ga=1.125285583.439626658.1411572746

4 qualities of great mentors:

#1. Humility:

The guide isn't the star of the show.

Fight the urge toward self-importance. Feeling that you know more or have the answer for someone else translates into closed ears, opened mouths, and arrogant hearts.

Knowledge puffs up.

Successful mentors aren't superior to anyone. Humility is the first quality to look for in a mentor. Arrogant mentors mold proteges into their own image. Humble mentors bring practical value while lighting the path of self-discovery.

Humility levels relationships.

Mentors and mentees experience mutual learning. One mentor asked, "How do you manage your calendar?" Our discussion helped me clarify and elevate the law of protection. Frankly, my calendaring practice may not work well for others, but his question put me on the path of self-discovery and clarity.

#2. Not Helping:

Helping too much hinders. Open-hearted mentors may help too much.

Those who struggle grow.

The best help is helping others help themselves. Hand-holding promotes helplessness and fear.

Dependence in proteges reflects neediness in mentors.

#3. Truth with compassion:

Sledgehammers take less finesse than scalpels.

Mentors offer truthful feedback with compassion.

Truth without compassion creates barriers that hinder relationships.

You lose when others feel they need to protect themselves from your “honesty.”
Don’t trash open hearts.

Questioning and exploration often work better than statements.

#4. Courageous candor:

Compassion isn’t an excuse for dishonesty.

Fuel for courageous candor:

1. Commit to another’s highest good. (They must believe and feel it.)
2. Participate in their journey Don’t stand aloof.
3. Accept mentees for who they are.
4. Focus more on maximizing strengths than fixing weaknesses.
5. Find paths forward that suit mentees, be flexible.
6. Clarify goals and purpose. A powerful “why” softens the blow of tough truths.
7. Know yourself. Mild mentors may need more candor, bold less.

<http://bit.ly/1CVt0w8>

4 Food Mistakes Ruining Your Good Night's Sleep

If you're feeling more tired than usual these days, you can blame the sun. Long summer days can interfere with sleep patterns because our natural circadian rhythms tell us to rise with the sun and rest in the evening. Sleep deprivation is nothing new to us, though, according to the Centers for disease Control [40 percent of the American workforce is sleep deprived](#), getting fewer than six hours of sleep a night.

Our cultural lack of sufficient sleep does more than just keep Starbucks in business; it may be contributing to our ever-growing waistline. According to a study out of Harvard Medical School, sleep deprivation increases your risk for obesity.

I spoke with Lauren Hale, Ph.D., associate professor of preventive medicine in the public health program at Stony Brook University and board member of the National Sleep Foundation, about why sleep and obesity are so closely linked, and what we can do to create a healthier sleep habits... and not pack on sun-induced poundage.

Hormonal Hijinks

According to Dr. Hale, a lack of sleep takes a toll on our hunger hormones. Ghrelin, the hormone responsible for appetite stimulation in the body, is increased in times of insufficient sleep, while leptin, the hormone responsible for satiety, decreases. Your insatiable appetite may be a sign that it's time to schedule shuteye.

Fight hormones with hormones. Melatonin, the hormone responsible for regulating your sleep cycle is produced when the sun goes down. Since our days are no longer dictated solely by the status of the sun, Dr. Hale suggests dimming the lights in your home in the evening, and turning off lights in rooms you aren't using to help stimulate the pineal gland (which produces melatonin), and prepare your body for bed.

Snack Time

If you're awake, you're more likely to snack, which is yet another reason to call it a night. Dr. Hale suggests taking a two-hour eating hiatus before bed. Fat and protein rich foods take more digestive energy, which can keep your body from relaxing into slumber. Make the last meal of your day a small, carbohydrate-based meal, and give yourself ample time to digest before hitting the hay.

The Power of Choice

Not only are you hungrier when you're tired, you're less likely to make positive food choices. A recent study found that sleep deprived adolescents were more likely to choose high calorie/low nutrient foods than healthier alternatives.

If you've noticed the insomnia pounds piling on, skip the drive-thru and hit the stationary store. Keeping a journal to track eating and exercise habits has been shown to promote weight loss and healthy-weight maintenance.

Careful with Caffeine

Your morning latte may be the only thing differentiating you from an extra on *The Walking Dead*, but make sure you keep your caffeine fix limited to the AM hours. Caffeine can stay in your system for up to five hours. If you're craving a hot beverage before bed, opt for a naturally caffeine-free cup of herbal tea.

<http://www.hsph.harvard.edu/obesity-prevention-source/obesity-causes/sleep-and-obesity/>

<http://www.ncbi.nlm.nih.gov/pubmed/18239586>

TED Talks - Ideas Worth Spreading

Louie Schwartzberg: Nature. Beauty. Gratitude. - OMG!

Nature's beauty can be easily missed — but not through Louie Schwartzberg's lens. His stunning time-lapse photography, accompanied by powerful words from Benedictine monk Brother David Steindl-Rast, serves as a meditation on being grateful for every day.



http://www.ted.com/talks/louie_schwartzberg_nature_beauty_gratitude