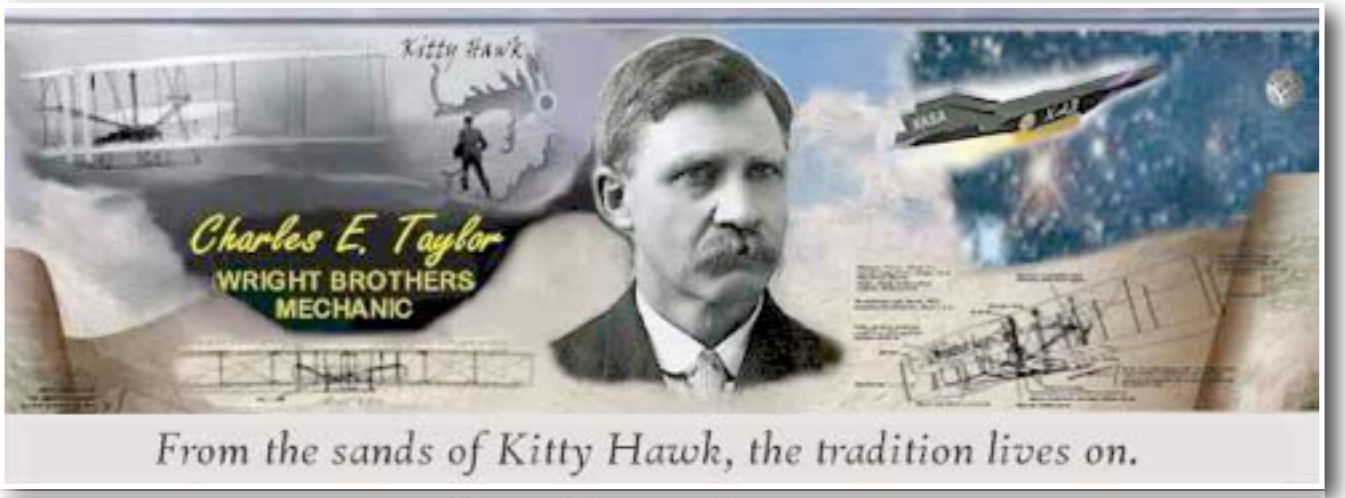
Aviation Human Factors Industry News

Volume XI. Issue 13, June 28, 2015



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:

Doctoral student studying CFI complacency

Victoria Dunbar, a Ph.D. candidate at Florida Institute of Technology's doctoral program in Aviation Sciences, is investigating the factors that could contribute to CFIs becoming complacent. She hopes to identify prevention strategies that could be developed into standards, which could then lead to a reduced risk of CFI complacency and an overall improvement in GA safety.

She is asking CFIs to complete an online survey, which would take 10 to 15 minutes. The study is targeting those who have a current CFI certificate, regardless if they are currently working as a CFI or not.

You can access the online survey here.

Safety Management System (SMS) Survey

As part of a study conducted for the FAA, the Department of Doctoral Studies at Embry-Riddle Aeronautical University is requesting assistance from aviation safety professionals engaged in safety management systems (SMS).

If you are actively engaged, we are requesting your completion of a survey at **https://www.surveymonkey.com/r/H5K39KZ** , expected to take approximately 10-15 minutes. It will be of great assistance in helping us refine a technique for effectively evaluating SMS. All responses will remain anonymous.

Video: New accident case study released

The Aircraft Owners and Pilots Association's (AOPA) Air Safety Institute has released "Final Approach," the latest in a series of accident case studies.

This episode explores the dangers of flying in low instrument conditions with a dwindling fuel supply.

The January 2013 accident involved a Piper Arrow that struck trees while attempting to make a dead-stick emergency landing at Dover Air Force Base in Delaware.As in many accidents, a chain of circumstances led to the fatal flight's final moments, and the case study makes it clear that a safe outcome may have resulted with different decisions.

"We provide these case studies to help pilots recognize when the accident chain is beginning to build and how to take action to break that chain," said George Perry, senior vice president of the Air Safety Institute. "Final Approach shows how a failure to adapt to diminishing weather and failing to change plans to mitigate that risk can lead to an unfortunate result. Sometimes just stopping enroute and checking the weather and refueling is enough to keep you out of trouble."

"Final Approach" reveals how a seemingly possible instrument flight ran into trouble when an expected improvement in the weather failed to occur. It also examines the pilot's interaction with air traffic controllers and decisions that extended his flight and eventually depleted what should have been an ample fuel reserve.

https://www.youtube.com/watch?v=HCM9S5RSDQw

http://www.aopa.org/Pilot-Resources/Air-Safety-Institute.aspx

Embry-Riddle Offers Short Courses in Aviation Safety, Accident Investigation, Management and Unmanned Aircraft Systems

As part of Embry-Riddle's commitment to continuing professional education and lifelong learning, the university is hosting a variety of aviation-focused short courses and seminars taught by aviation industry subject-matter experts from Embry-Riddle's Daytona Beach, Fla., and Prescott, Ariz., campuses and the Worldwide Campus.These industry-focused courses are designed for aviation professionals involved in the operation, management and supervision of aerospace organizations. The staff at Embry-Riddle Professional Programs can also create specialized programs to offer on-site, customized education and training in a variety of aviation, safety and investigation subjects.

For registration and more information on the following courses, go to www.proed.erau.edu.

Prison for Ex-Carson Helicopters Execs

Two former Carson Helicopters executives have been sentenced to U.S. prison after convictions for their role in the fatal 2008 crash of a firefighting S-61N. Steven Metheny, Carson's VP in Grants Pass, Ore. at the time, was sentenced to 12.5 years. Levi Phillips, then Carson's director of maintenance, received a 25-month sentence.

The Carson-modified Sikorsky helicopter crashed Aug. 5, 2008 on takeoff from a 6,000-foot helispot near Weaverville, Calif. while fighting the Iron Complex fire. The pilot-in-command, an inspector pilot and seven firefighters were killed. The co-pilot and three other firefighters were severely injured.Investigators determined that aircraft performance charts in the company submission that won the U.S. Forest Service contract had been falsified. Metheny and Phillips had pled guilty in 2014 and 2013, respectively, to charges of conspiracy to commit mail and wire fraud. Metheny also pled guilty to making false statements in defrauding the Forest Service.

MISCONNECTIONS

A Maintenance Inspector's report reiterates the need for careful review and inspection in any maintenance procedure, but especially when manpower issues, workload, and time pressure are added to the process.

■ I was the Inspector on the shift and two other Mechanics and I were finishing up the rigging and final checks after a scheduled engine change on a DHC-8 aircraft…. On top of this we had a spare [aircraft] being worked, which suddenly had to go out. The Lead was busy with other duties on the engine change, so I was also working on closing out the package and making sure all the paperwork was correct on the spare. When it came time to close the cowlings, I helped lift the lower cowl while the Mechanics secured it and hooked up the connectors, hoses, and jumpers. We "ops checked" the deice light and bypass door function. I inspected the lower cowling deck and internal area of the intake for FOD and cleanliness and we closed the cowling.

We found out the next day that the deice supply hose was connected to the oil cooler drain valve, which can be done since they are adjacent to each other and look similar.

The intake deice boot and one boot on the wing were found to be inoperative on the first flight of the day. The event occurred simply because we were in a hurry to get the engine change done, get the aircraft ready for an evaluation flight for another maintenance issue, and trying also to get the spare aircraft finished up to go out.

Slow down and take the time to review what you have just done even when you are rushed by time constraints, lack of manpower, and a heavy workload.

"I Feel the Need… the Need for (Reducing) Speed"

When ATC instructions conflict with the PIC's responsibilities and cannot be complied with, this must be communicated to ATC.

Having been assigned what they considered to be an unrealistic speed to intercept the localizer, this CRJ200 Flight Crew initiated a speed reduction. According to the Aeronautical Information Manual (AIM) Sect. 5-5-9, Speed Adjustments: "Pilots should comply with speed adjustments from ATC unless the minimum or maximum safe airspeed for any particular operation is greater or less than the requested airspeed. In such cases advise ATC." Maverick and Goose of Top Gun would agree.

■ We were assigned 250 knots or better. We maintained 290 knots until descending below 10,000 feet at which time we maintained 250 knots. ATC turned us to a heading of 090 which was going to set us up for about a 15 NM final on the ILS. While on the base leg of the approach, we began slowing to 180 knots in order to begin configuring for landing. ATC questioned what speed we were flying. I reported 180 knots and the Controller informed us that we should not have slowed without telling him. I questioned if we had an assigned speed, to which he responded that we were expected to maintain 250 knots until told to slow.

Being turned on base for a 15 NM final, it is necessary to begin slowing down in order to configure the airplane and be stable by 1,000 feet. I did not even consider that the Approach Controller would still want us at 250 knots as we approached the turn onto the localizer in IMC. Technically, ATC was correct. However, expecting a CRJ200 to be at 250 knots while intercepting a localizer in IMC on a 15 NM final is not a realistic expectation and would have likely resulted in a go around.

Alaska Air flight attendants sue Boeing, claim injury from engine fumes

Four Alaska Airlines flight attendants are suing Boeing, claiming that toxic air from an engine leaked into their plane and made them seriously ill on a 2013 flight.A lawyer for the four said Tuesday that Boeing has known for decades about the potential danger of drawing warm air off jet engines to heat airplane cabins.

Boeing Co. declined to comment on the lawsuit, which was filed in an Illinois state court in Chicago.

Similar allegations have been raised before. In 2011, Boeing settled a case brought by an American Airlines flight attendant; terms were sealed.

In April, a British coroner reported that samples from a British Airways pilot who died in 2012 were "consistent with exposure" to toxic fumes in cabin air. The airline said research shows that the level of dangerous fumes in planes isn't high enough to pose a health risk.

So-called bleed air is used to heat the cabins on most commercial planes, although Boeing's newest aircraft, the 787 or Dreamliner, uses a different system.

The Federal Aviation Administration says studies have shown cabin air is as good as air in offices and homes, but a spokeswoman said the agency is concerned that contaminants can get in if equipment fails. Airlines are required to report incidents involving fumes, and FAA says from 1990 to 2010 there were about 900 of those. U.S. airlines operate about 9 million flights a year, according to government figures.

Boeing has repeatedly said that independent, industry and government researchers have found that cabin air meets health and safety standards.

But lawyers for the flight attendants suing Boeing say that company documents suggest Boeing knew of the risk that bleed air could contain dangerous byproducts of burning engine oil. They said that a Boeing engineer tried but failed to draw management's attention to the issue, concluding in a 2007 email: "Bottom line is I think we are looking for a tombstone before anyone with any horsepower is going to take interest."

The women were working for Alaska Airlines when they say that all four became sick and two passed out during a Boston-to-San Diego flight. The one-year-old Boeing 737 jet made an emergency landing in Chicago, and all four were taken to hospitals, according to the lawsuit.

Even weeks later, "I knew something was seriously wrong with me. I just was not the same person," one of the flight attendants, Vanessa Woods, said on conference call with reporters Tuesday. She said she suffered from fatigue, tremors, memory loss and concentration problems and was unable to return to work.

Lawyers for the women said they weren't aware of any passengers who got sick. They attributed that to the women having been on the plane longer, before passengers began boarding, and that the air might have been more toxic higher in the cabin where standing flight attendants would breathe it.

Wrong POH, fuel exhaustion bring down Pipistrel

The airline transport pilot, 64, who had logged more than 24,000 hours, volunteered to deliver the Pipistrel Alpha trainer from an airport in Indiana to a maintenance facility. He made the arrangements for the flight, including preflight planning.

A commercial pilot, 22, who had logged 388 hours, chose to ride along to gain flight experience and familiarity with the plane.

At the time of the accident, the ATP did not possess a valid medical certificate, as his last application had been denied. The commercial pilot did not know this at the time of the accident. Although the ATP was acting in the capacity of the pilot-in-command, because his medical certificate had been denied, he was not qualified to serve in this role.

After stopping to refuel, the airplane took off on the last leg of the cross-country flight that night. The airplane was not equipped or certified for night flight. The commercial pilot reported that, about 10 minutes from their destination, the fuel gauge was reading “close to empty.”About five minutes later, the engine lost power, at which time the ATP took control of the airplane.

The pilots attempted to deploy the ballistic parachute just before the forced landing, however, due to the low altitude, it did not fully deploy. The airplane came down hard near Pampa, Texas, and the high surface winds dragged the airplane across rough and uneven terrain before it became entangled in a barbed wire fence. The ATP was killed, and the commercial pilot seriously injured. No fuel was found in the fuel pump or tank.

Investigators determined that the fuel capacity information in the Pilot’s Operating Handbook (POH) provided to the pilots and on the placard created by the ATP, which was based on the POH, was inaccurate. Although the manufacturer reported that it provided the correct POH to the owner when the airplane was delivered, the owner had the incorrect POH, and the investigation determined that several other owners of this airplane model had received the wrong POH upon delivery of their aircraft.

The POH indicated that the airplane had 15 gallons total fuel capacity and 14.5 gallons usable fuel capacity. However, the accident airplane's actual total fuel capacity was 13.2 gallons and the usable fuel capacity was 12.7 gallons. The calculated fuel requirement for the accident leg of the flight would have been at least 13.2 gallons of fuel, so the engine stopped producing power due to fuel exhaustion.

Even if the fuel capacity information had been accurate, visual flight rules night flights require a 45-minute fuel reserve, and that would not have been met on the accident leg. The ATP did not properly calculate the flight's fuel requirements. Further, he failed to adequately monitor the in-flight fuel consumption and recognize that the airplane was low on fuel.

In addition, the plane was not equipped to fly at night nor was it approved for night flight, yet the pilot planned the flight legs so that the airplane would be flying at night.

The NTSB determined the probable cause of the accident as the loss of engine power due to fuel exhaustion as a result of the manufacturer providing the incorrect Pilot's Operating Handbook to the owner, which prevented the pilot from accurately calculating the fuel requirements before the flight. Contributing to the accident were the pilot's inadequate preflight planning and poor decision-making.

NTSB Identification: CEN13FA338

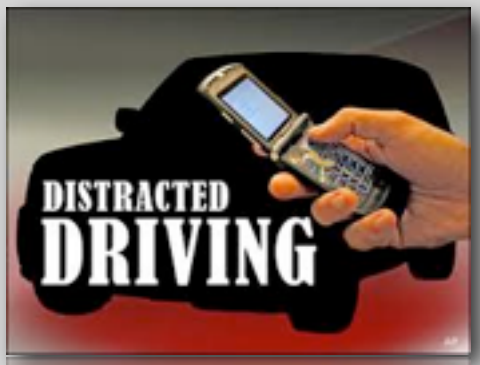
This June 2015 accident report is provided by the National Transportation Safety Board. Published as an educational tool, it is intended to help pilots learn from the misfortunes of others.

Before you hit the road: Hit the "Off" Switch

In 2013, over 3,000 people were killed in motor vehicle crashes involving distracted drivers, and 424,000 were injured. According to the annual survey conducted by the National Highway and Traffic Safety Administration (NHTSA), at any given moment across America, approximately 660,000 drivers are using cell phones or manipulating electronic devices while driving; a number that has held steady since 2010.

Experts say that drivers make more than 200 decisions during every mile they travel. Emphasize to employees that they can't make safe decisions if their minds and eyes are not completely focused on the road when they drive. When your drivers are "on," everything else should be "off."

It's Not Just the Phone



Although cell phone use, including texting, is the distraction most often in the news, it is far from the only dangerous behavior drivers can engage in behind the wheel. According to the NHTSA, distracted driving is "any activity that could divert a person's attention away from the primary task of driving," like eating and drinking, talking to passengers, grooming, reading or looking at maps, using a navigation system, and adjusting in-car entertainment systems.So, what can employers do to prevent their employees from engaging in these dangerous behaviors behind the wheel? The NHTSA recommends implementing a distracted driving policy that emphasizes the importance of distraction-free driving, and it makes it clear that employees are not expected to respond to phone calls, e-mails, or text messages while behind the wheel. Make sure they know: It's OK to hit the "off" switch.

Keeping in Touch

Some workers may not be completely comfortable with a no-contact policy while they're on the road, especially if they're on the road a lot. For employees who travel frequently for business, suggest the following strategies to stay focused and connected:

- When traveling, stop to check voicemail, e-mail, and text messages at regular intervals.
- Set up an automatic reply on your cell phone that informs those who attempt to contact you while you're behind the wheel that you're driving and will return their call or message as soon as you can.
- Place your cell phone and other devices that may be distracting out of reach of the driver's seat.
- Assign a distinct ringtone to important business contacts. If you hear that ringtone when you're driving, find a safe place to pull over and return the call.
- Block out times you expect to be on the road in your calendar so that coworkers are less likely to attempt to contact you while you're driving.

Workers who are able to hit the “off” switch on devices while they’re driving will be safer drivers.

TSB Disappointed by Aviation Recommendation Responses (Canada)

After reassessing responses to 29 aviation recommendations issued since 1990, Canada's Transportation Safety Board (TSB) faulted Transport Canada for its slow response on many of the recommendations. "We continue to see the same causes and contributing factors year after year," the TSB said. "Causes and contributing factors that directly relate to outstanding TSB recommendations."

Of the 29 recommendations, the status of only three has changed to "fully." Four have remained "unsatisfactory," while another eight were downgraded to "unsatisfactory" due to the "slow pace of action on the part of TC and inadequate information received from TC," the TSB said. One remains "unable to assess" since the board received no new information from TC; eight are "satisfactory intent" and five recommendations are judged as "satisfactory in part." Another 40 older recommendations remain outstanding and will be reassessed once updated information is received from TC.

"The delay in reducing risk in the aviation industry is a troubling recurring theme, and the Board continues to press hard for improvement in the uptake of its recommendations," the TSB said.

Updated AC Provides Distance Learning Details for AMT Schools

On June 5, 2015, the FAA published Advisory Circular (AC) 147-3B which provides guidance to assist persons in obtaining and maintaining FAA certification through an Aviation Maintenance Technician School (AMTS). New content in the AC will provide part 147 AMTS applicants and currently certificated AMTSs with information on Distance Learning (aka, computer-based training) program requirements and Operations Specifications informational guidance for industry.

For more information, you can access the AC here at www.faa.gov/documentLibrary/media/Advisory_Circular/AC_147-3B.pdf. Appendix 11 contains the specifics on the Distance Learning program.

Creating a Culture of Safety: More Than a Kitschy Catchphrase

You've probably seen it before: a well-meaning cartoon safety poster hanging in your company warehouse about ladder safety; complete with a catchy slogan like, "while on a ladder, never step back to admire your work."
Reminders like these are good for a chuckle, but are they actually effective?

All too often, organizations espouse the value of safety by pasting the walls with posters like these, making safety one of the organization's core values while meeting only the minimum requirements for safety awareness, training and protective equipment.

Unfortunately, the critical importance of safety is seldom taken seriously unless there's a serious accident in the workplace.

3 Misconceptions About Safety Culture

The term safety culture, coined in 1988, has become a very common concept in the world of safety, and for good reason.

As evidenced by the many significant accidents and incidents over the years, even though organizations may *say* safety is important, the underlying culture of the organization puts safety down on the list of priorities. A company may even have the systems in place to track safety and to meet regulations imposed on them, but safety isn't what is truly valued at the end of the day or what drives day-to-day behavior in the field.

There are a number of recent incidents around the world that leave me wondering: if organizations are talking about safety culture all the time, why aren't we able to drive safety values and thinking into their DNA?

Why aren't more organizations able to embrace safety culture in a meaningful and sustainable way? Here are 3 misconceptions that are keeping organizations from truly embracing safety into their culture:

1. Although many people use the term "safety culture", the current methods for assessing and transforming culture tend to fall very heavily on the safety side and less so on the culture side.

In order to truly drive safety as a value in ways that change behavior at all levels in an organization, it's time for the field to acknowledge a critical need to bring safety and culture into more of a balance in the assessment and transformation of organizations.

2. The way in which we intervene to drive safety performance needs to be turned on its head. Addressing the symptoms without addressing the root causes of unsafe behavior doesn't create sustainable improvement.

This is not to suggest that this shift in approach is not happening. One example of a cultural evolution is the Aviation Safety Action Program (ASAP), developed for use in the aviation industry by the Federal Aviation Administration.

Integrating a completely new system into the DNA of airlines made it possible for companies to identify risks before they result in accidents, thereby giving them the ability to proactively address potential hazards.

This process also fundamentally changed the way in which safety is viewed in organizations. Rather than being something that people hide away for fear of punishment, employees are rewarded (not be punished) for voluntarily disclosing near misses and breaches of safety before they come to light in some other way.

3. The term "culture of safety" creates the impression that safety is the only positive outcome of understanding and shaping a culture.

Contrarily, research shows that organizations that create clarity and alignment about what they stand for, what they value, and how people work together, not only achieve better safety performance but they also tend to pull ahead of their competitors in metrics such as sales growth, market share, employee satisfaction, customer satisfaction and operational performance.

At the end of the day, creating a culture of safety is not about catchy slogans, posters, or PSA's. It must become a part of your organization's DNA.

If you truly want to create a culture that values safety as a key aspect of success, you must begin to tip the scales and find the balance between safety and culture. Only then will you be able to move meaningful, sustainable change around the importance of safety in your organization.

Read more at http://www.business2community.com/strategy/creating-a-culture-of-safety-more-than-a-kitschy-catchphrase-01253174#ew0zuAK86rmwHOLj.99

http://en.wikipedia.org/wiki/Safety_culture

https://www.faa.gov/about/initiatives/atos/air_carrier/asap/

https://www.acoem.org/CultureofHealth.aspx

Safety Engineers Foundation Awards $300,000 Grant to Study Workplace Fatigue

The American Society of Safety Engineers (ASSE) Foundation awarded a three-year $300,000 grant to a University of Buffalo researcher who proposes the development of a sensor-based, real-time assessment system that will enable safety practitioners to better monitor workplace fatigue.

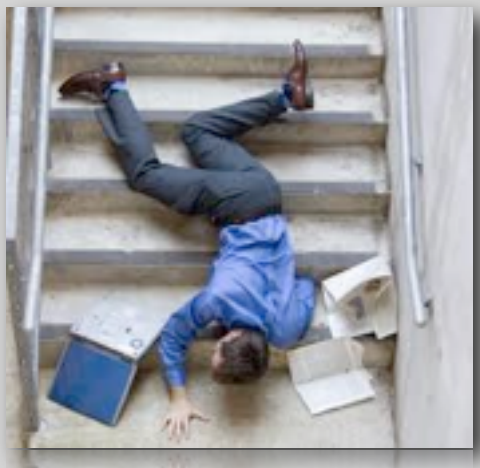
Working with the Foundation Research Committee, ASSE Foundation Trustees selected Lora Cavuoto's "Advancing Safety Surveillance using Individualized Sensor Technology," for its widespread applicability and potential to help solve a business problem for a broad range of industries. Studies have shown that fatigue is about four times more likely to contribute to workplace impairment than drugs or alcohol, says ASSE Foundation chair Alexi Carli.

Cavuoto's proposal takes an innovative approach, combining the technology of FitBits and the big data analytics of Pandora radio to identify and quantify the moment when fatigue sets in for each individual worker. "Current methods do not account for many personal factors," Cavuoto says in a release. "Our approach will result in one objective number. Once a worker hits his 'too tired' number, he will know it and can use one of our proven interventions."The grant represents the largest dollar amount given for a research project by the ASSE Foundation. The primary goal of this research program is to support the development of knowledge and innovative methods, systems and other appropriate interventions for advancing safety and health in the workplace. The secondary goal is to help develop and grow research talent in the safety and health field.

"Fatigue is an area that needs further investigation within business, particularly given the multi-shift and alternate work environments of today," says Foundation trustee James Merendino. "The true value of this research is less in the wearable technology and more in the ability to recognize and quantify the onset of fatigue and provide interventions."

"We are proud to make this significant step, inquiring after new knowledge and investing in the future of our profession, and we look forward to sharing the impact with you as the results come in," Carli says. "Not only will this research add to the knowledge base of our field, it will help create a business case for how to manage fatigue. Our goal is to connect our members to best practices."

Most Distracted Walking Injuries Occur at Home



A National Safety Council report with some surprising stats says distracted walking injuries are increasing.

According to a report from the National Safety Council, 52 percent of distracted walking incidents involving cell phones happen at home. The report tracks a number of trends regarding distracted walking, saying 68 percent of those injured are women and 54 percent are people under the age of 40.The increase in distracted walking injuries is so clear that it was included in the annual NSC report Injury Facts for the first time. This report quells the myth that most distracted walking injuries occur adjacent to roadways.

"Whether we are in the car or on foot, it is important to be aware of our surroundings, even if they are familiar," said Deborah A.P. Hersman, president and CEO of the National Safety Council. "More than half of all unintentional injuries each year happen at home, so don't take your safety for granted. No call, text, or update is worth an injury."

The study also found that 21 percent of those injured by distracted walking were 71 and older and that talking on the phone accounted for 62 percent of injuries.

Canadian pilot enters Guinness Book of World Records

George Neal, a career de Havilland Aircraft of Canada test pilot and amateur aircraft builder, enters the Guinness Book of World Records as the oldest active, licensed pilot on Earth, at 96 years and 194 days as of his qualifying flight June 2, 2015.

Joining de Havilland on a permanent basis in 1947, Neal participated in the certification of many aircraft types, including commanding the first flights of the DHC-3 Otter, CS2F 'Tracker', DHC-4 Caribou, as well as being a member of test pilot team on DHC–1 Chipmunk, DHC-2 Beaver, DHC-6 Twin Otter, DHC-5 Buffalo, DASH 7 and DASH 8. In total, Neal has logged more than 15,000 hours on 150 aircraft types.Neal flies his own Chipmunk (CF-JAG) from Brampton airport on the outskirts of Toronto. In this aircraft he has logged 250 hours aloft since 1992. This Chipmunk was initially part of the RCAF training fleet. Designed in Canada, and produced there as well as under license in the UK and Portugal, 1283 were built between 1946 and 1956.

Neal also built a First World War Sopwith Pup fighter aircraft from original plans and drawings, and flew it to Rockcliffe Airport (CYRO) in Ottawa, home of the Canada Aviation & Space Museum where he was chief test pilot for many years. He also restored a Second War Hawker Hind biplane fighter; both aircraft are now part of the museum's permanent collection. He was inducted into Canada's Aviation Hall of Fame in 1995.

Flying has been a part of me for most of my life," he said, "and I believe it has kept me able to doing what I like best. And I plan to continue to fly my Chipmunk for a long time yet."

New Program Gives FAA a Retaliation-Free Reporting Environment

A new program has been created to help FAA employees feel "comfortable coming forward with safety concerns," according to U.S. Transportation Secretary Anthony Foxx.

The Safety Review Process (SRP), an 18-month pilot program initiated on June 25 by the FAA and the National Air Traffic Controllers Association (NATCA), is open to all bargaining-unit employees, and allows FAA members working in the Aircraft Certification Service (AIR) to elevate safety concerns without fear of retaliation. Under the SRP, an employee can file a confidential, online report to raise a safety issue or mention an event. An oversight board composed of and NATCA representatives will review the report and determine whether or not to take action. Afterwards, the originating employee will be given a final report, and a separate resolution report (without any identifying information) will be posted for all AIR employees to view.

Hanks Picked To Play Sully

Reports out of Hollywood say Tom Hanks has been picked to play Capt. Chesley Sullenberger in the movie adaptation of the Miracle on the Hudson pilot's autobiography. Variety reports late last week that Hanks is in final negotiations to play the lead in a movie that will be directed by Clint Eastwood. Hanks has a long list of hit film roles, including as Commander Jim Lovell in Apollo 13. The working title is apparently Miracle on the Hudson and there has been no word on who play First Office Jeff Skiles. Sullenberger wrote that autobiography called Highest Duty: My Search for what Really Matters immediately after the Jan. 15, 2009 ditching. It traces his childhood and early career as a military pilot and the lessons learned about life than and through his career as an airline pilot.

TED: Ideas Worth Spreading

Just Joy!

"Anything that is worth pursuing is going to require us to suffer, just a little bit," says surf photographer Chris Burkard, as he explains his obsession with the coldest, choppiest, most isolated beaches on earth. With jaw-dropping photos and stories of places few humans have ever seen — much less surfed — he draws us into his "personal crusade against the mundane."

https://www.ted.com/talks/chris_burkard_the_joy_of_surfing_in_ice_cold_water#t-70702