

Aviation Human Factors Industry News

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

Hello all,

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

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Sabrina Woods

Five hallmarks of a good safety culture, and how to implement them in your organization, even if your organization just includes you.

Stop Maintenance Error Leaks Through RVP Steps

Vishwanath Hampanna

This article is written in memory of the late Rohit Virendra Pandey, Maintenance Technician, who lost his life during aircraft maintenance on July 9th, 2019 at Kolkata airport in India. His initials, RVP, have been transformed into steps that will trigger us to remember warnings and cautions during daily aircraft maintenance activities.

Reminder about FAA Safety Promotion Tools

Kylie N. Key

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The Believers, Achievers and Dreamers: People are the Success of LOSA

Levi L. Breeding

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Human Factors Observations from a Korean Aviation Safety Seminar

Dr. Bill Johnson

Observations from the 3rd Asian Aviation Education and Training Symposium in Seoul, Republic of Korea. While the maintenance human factors challenges are similar to the US and rest of the world, South Korea has its unique challenges and solutions that work well.

https://www.faa.gov/about/initiatives/maintenance_hf/fatigue/publications/media/Aviation-Mx-HF-Newsletter-September-2019.pdf

Two Former NTSB Experts Create the “Flight Safety Detectives” Podcast

The new show will dig into all aspects of aviation.

John Goglia and Gregory Feith, two well-known and outspoken aviation safety insiders, this week released episode three of their new podcast the "[Flight Safety Detectives](#)." The show looks in depth at aircraft accidents, aircraft technology and the big business of aviation around the world. The hosts will also provide important "[backstories](#)" to the flying public and the industry, especially those that can't be explained in a typical TV 30-second soundbite.



The pair of safety experts will also discuss the politics and policies behind many issues that can mean life or death in the skies, while informing listeners about industry technologies and improvements that make aviation the safest form of transportation today. A number of episodes are currently available that include discussions about topics like the October 2018 crash of Lion Air Flight 610, the Boeing 737MAX 8 jet, and the second 737MAX 8 jet crash involving Ethiopian Airlines Flight 302 in March 2019.

[Goglia spent nearly a decade](#) as an NTSB Board member and remains the only airframe and powerplant mechanic to ever receive that presidential appointment. His experience in the industry has made him a highly sought-after consultant, expert, speaker and writer.

He is a frequent contributor to Forbes and the author of "Torqued," a monthly column appearing in AINOnline. Goglia is chairman of the Professional Aviation Maintenance Association (PAMA).

Feith is a former NTSB Senior Air Safety Investigator and "Go-Team" captain with more than 40 years of experience under his belt, including more than two decades with the NTSB serving as the Investigator-In-Charge or U.S. Accredited Representative for numerous high-profile aircraft accidents. Some of those were the crash of ValuJet in the Florida Everglades, American Eagle ATR-72 in Roselawn, a Korean Air Boeing 747 in Guam and others.

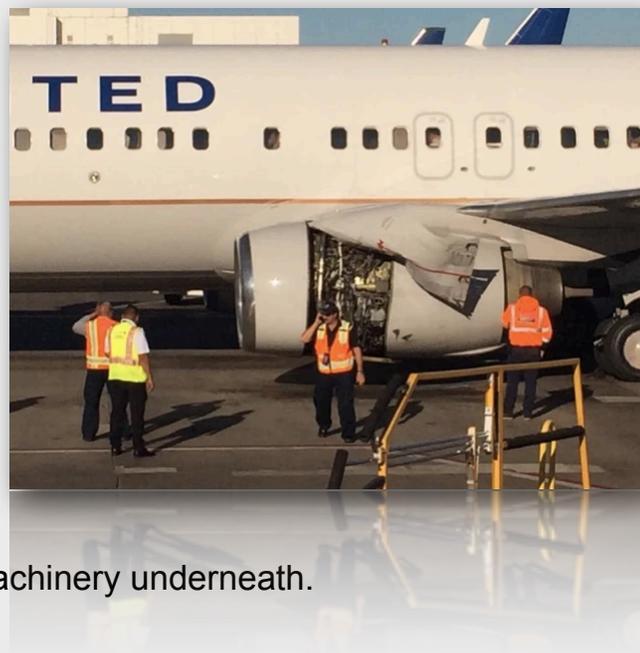
<http://www.flightsafetydetectives.com/>

Exposed Engine Forces United Airlines Flight To Return To Denver International Airport

Another case of fan cowl latches open on takeoff!

Passengers on board a United Airlines flight from Denver to Orlando were surprised when the plane had to turn around and land at Denver International Airport. The plane suffered a mechanical issue in one of its engines Sunday morning.

A passenger on board another plane next to the United Airlines jet shared a picture of the damage. It appears some of the steel covering came off exposing machinery underneath.



It's not clear what caused the [engine cover to peel back](#).

No one was hurt. Passengers deplaned normally and boarded another plane to get to Orlando.

The Four Pillars of Safety Management

Dr. Robert Baron is the President and Chief Consultant of The Aviation Consulting Group

Safety Policy - First SMS Pillar

Safety policy is concerned with the structure and outline of how safe operations will be conducted. Among other things, it involves planning, organizing, compliance with regulations and law, documentation, and emergency preparedness and response. It is at this



level that upper level management must buy-in and continuously support the SMS. Without management buy-in and support, the SMS is bound to fail. Employees are highly influenced by management behavior examples and therefore if employees see management intentionally breaking rules or ignoring policy it is likely the employees will emulate this behavior.

Safety Risk Management- Second SMS Pillar

Possibly the most important component of the SMS, safety risk management is the process by which risks are identified, mitigated, or eliminated before they become a visible (surfaced) accident or incident.

This is a proactive (as well as predictive) approach to error prevention and mitigation, which is a paradigm shift from the strictly reactive approach that has been used in the past.

Risk can be thought of as the consequence of a hazard and is measured in terms of severity and probability. You will develop a Preliminary Hazard Analysis (PHA) that will be used to identify the hazards that exist in your operation. Hazard identification can be accomplished by a variety of methods that include observations, audits, safety surveys, investigations, and research. Other sources can include factual briefings from frontline personnel, subject matter experts, brainstorming, and analysis tools such as event trees, fault trees, FMECA's, and so on. Once the hazards are identified you will then need to analyze the data to determine what type of controls may need to be put in place. Risks that have a high severity and high likelihood rating would be the ones you want to address as a priority. On the other hand, risks that have a low severity rating and a low likelihood of occurrence may be classified as acceptable risks that you can just live with.

Safety Assurance and Internal Evaluation - Third SMS Pillar

The well-known Heinrich Ratio states that, for every fatal accident, there will be three to five nonfatal accidents and 10 to 15 incidents; but there will also be hundreds of unreported occurrences. Unreported occurrences are extremely problematic since no defenses can be employed if nobody knows that these occurrences exist.

There are quite a few subcomponents in this category, one of the most important being error reporting; however, an error reporting system may be one of the most challenging SMS components to implement. Employees may feel that while there are clear advantages to error reporting, at the same time they may also feel that embarrassment and potential personal punitive implications far outweigh the organizational advantages.

Yet, a good and effective safety culture must include an error reporting system. In order to attain this goal you will need to ensure that your organization has a Just Culture. A Just Culture is a culture that acknowledges that well intentioned people still make mistakes and they should not be punished for slips, lapses, mistakes, and other unintentional errors.

However, a line is still drawn where willful violations and purposeful unsafe acts will still be dealt with in some sort of punitive fashion. The bottom line of a Just Culture is trust. Employees must know that they can report errors without retribution.

Safety Promotion - Fourth SMS Pillar

Subcomponents of this category include the development and continuous reinforcement of a healthy safety culture, communication, training, and feedback of lessons learned. The most important point about safety promotion is that there needs to be an ongoing, palpable presence to the SMS. This requires, among other things, open communication between management and employees, feedback offered on a regular basis, and appropriate employee training on the SMS.

<https://www.tacgworldwide.com>

FAA complains to ICAO of weakening skills of "manual" aircraft piloting

Pilots give all control to complex automated systems that are designed to prevent errors and help, **but NOT to replace the crew.**

The United States Federal Aviation Administration, FAA, demanded that International Civil Aviation Organization, ICAO, address the problem of **weakening skills of "manual" aircraft piloting** - pilots forgot how to fly aircraft in unusual, crisis conditions and are simply not ready for emergency situations.

It turns out that in world aviation, figuratively speaking, there is a general problem - pilots give all control to complex automated systems that are designed >

to prevent errors and help, but NOT to replace the crew.

Moreover, some experts note that "most airline pilots rely on autopilot from take-off to the moment of landing, minimizing manual control of the aircraft."



And most importantly, the reason for this is not so much the laziness or incompetence of the pilots, but the requirement of the airlines, summed-up in "less people, less trouble."

"When automation ceases to work properly, pilots who do not have sufficient manual control experience and proper training may be hesitant or not have enough skills to take control of the aircraft," the FAA report to ICAO said.

Safety experts have long warned of a deterioration in manual piloting skills, and some experts have noted that most line pilots rely on autopilot from taking off the aircraft until landing, minimizing manual control of the aircraft.

Criminal Charges Brought Against Aeroflot SJ100 Crash Pilot

Russia's Federal Investigative Committee has brought charges against the pilot who crashed an Aeroflot SJ100 last earlier this year. The emergency landing, which ruptured a fuel tank upon landing, killed 41 passengers and injured several more.

What happened?

As reported by Simple Flying back in June, Aeroflot flight 1492 on May 5th was en route from Moscow to Murmansk when it encountered a storm. The aircraft was struck by lightning and the captain decided to return the aircraft back to Moscow for inspection.



At first, it was believed that the aircraft was on fire upon its approach to land, but later reports discovered that [the fire was caused by a bumpy landing](#). When the aircraft touched down, nose gear first, the G-force was measured to be the equivalent of 2.55g, causing a bounce to a height of around two meters. The proceeding landing back onto the runway opened the fuel lines and caused a myriad of sparks.

The resulting inferno consumed the rear of the plane and forced all passengers and crew to quickly escape. Unfortunately, 41 passengers were not so lucky and were killed in the incident. What is the latest with the investigation?

Deeper investigations have discovered that [the pilots chose to ignore several warnings](#) and what at first looks like a horrible accident was actually caused by [human error](#). It is believed that the pilot of the aircraft had [never actually flown](#) it in Direct Mode, and was not equipped to deal with the situation when the autopilot was offline due to the lightning strike.

“To my knowledge, the commander of the aircraft Denis Evdokimov who has flown over 1,400 hours on SSJ-100 had never landed in Direct Mode (fully manually). They were landing normally, with a glide path but they pushed the nose down and increased the speed before landing. It was lucky that the front gear didn’t break. If that happened, the consequences would have been even worse.” – Aviation expert and former designer at Sukhoi Design Bureau, Vadim Lukashevich is reported to have told the Mail

According to the report, it was found that the pilot in charge was in error of:

- Choosing to fly when there was a storm in the area, or not changing course to avoid it. Other aircraft in the area requested permission to avoid the storms.
- Ignoring wind shear warnings when making the approach.
- Ignoring advice to go around.
- Not having the experience to operate the aircraft landing manually and flying it outside of the airport and aircraft limits.

Thus the Russian investigators [have found plenty of evidence](#) to charge the pilot in command of the flight with the deaths of those unfortunately killed. According to Flight Global, the pilot is ‘being charged with a crime relating to breaches of air transport safety rules which, [as a result of negligence](#), resulted in two or more fatalities.’ Sentencing will take place once the entire investigation is finished.

<https://simpleflying.com/aeroflot-sj100-preliminary-report/>

<https://simpleflying.com/aeroflot-crash-cause/>

<https://simpleflying.com/aeroflot-sj100-preliminary-report/>

<https://www.dailymail.co.uk/news/article-7035773/Horrifying-new-video-catastrophic-Russian-plane-crash-shows-jet-bouncing-runway.html>

<https://www.flightglobal.com/news/articles/aeroflot-superjet-captain-charged-over-fatal-landing-461241/>

Japanese sailor killed by propeller while working on aircraft engine

A P-3C Orion flies somewhere over Japan in this undated photo from the Japan Maritime Self-Defense Force.

CAMP FOSTER, Okinawa - A Japan Maritime Self-Defense Force sailor was killed at a base in Kagoshima prefecture this week **while working on an aircraft engine.**

The unnamed sailor - described as a chief petty officer in his 40s - was pronounced dead by a naval doctor at 2:43 p.m. Monday at Kanoya Air Base, a JMSDF spokesman told Stars and Stripes on Tuesday. It is customary in Japan for some government officials to speak on condition of anonymity.



The sailor was working with several others in a hangar **to detach the engine** from a P-3C Orion when it fell. He was struck by its propeller.

The cause of the incident is unknown at this time, the spokesman said. The JMSDF has launched an investigation.

"My sincere condolences to the sailor's family, losing [him] to such an unfortunate accident," First Maintenance Squadron commander Capt. Hirotaka Ootsuka said in a written statement provided to Stars and Stripes. "May the sailor rest in peace. **We shall not have this accident again and we will come up with a plan.**"

The P-3C is a long-range, antisubmarine patrol aircraft that's been in operation since the 1960s, according to the U.S. Navy.

'Accident waiting to happen': After death, airport workers want safety improvements

Employees at Charlotte Douglas International Airport have asked the city for safety improvements in the same concourse where a worker was killed last month.

Donielle Prophete, vice president for CWA Local 3645, which represents 1,700 Piedmont Airlines agents, asked City Council on Monday for airport lighting and other safety upgrades [after the nighttime death of 24-year-old employee Kendrick Hudson last month.](#)

Prophete said visibility is especially poor near gates E30-38. ["It's so bad around those gates that the agents call it 'Death Valley,'" she said.](#)

"We don't know if lighting contributed to Kendrick's death or not, but we want to be proactive in our own safety when working on E Concourse because we feel it's an accident waiting to happen."

Hudson was transporting baggage on an airport vehicle called a tug near E Concourse, police have said, when he made a hard turn to avoid a piece of luggage and the vehicle rolled over and pinned him.

State and federal officials are investigating the death.

Officials in Charlotte are expanding an existing airport lighting analysis at the request of American Airlines, the city's aviation director said. Brent Cagle said the study, which already includes the C and D concourses, will also now include parts of E.

Piedmont Airlines is a subsidiary of American.



Prophete also said temperatures in that concourse's jet bridges and the airport's new \$11 million baggage transfer area have been [dangerously high, causing several employees to seek treatment for heat exhaustion and dehydration](#). There are not enough electrical outlets for more fans, she said, and using an extension cord would violate workplace safety laws.

Mayor Vi Lyles said it is often difficult to determine what is the city's responsibility as the airport's owner, and what falls to airlines.

"I certainly think this is something we ought to take up with the airlines," she said.

Cagle, the aviation director, said the city was aware of and already working on some of Prophete's concerns and would look into the new issues.

[Only a small percentage of accidents on the ground at airports are reported](#), said David Williams, a professor at Emory-Riddle Aeronautical University specializing in occupational safety. Companies are required to report accidents involving amputation, loss of an eye, injury requiring hospitalization or death.

Baggage tugs have a high center of gravity and can be prone to flipping on sharp turns, Williams told the Observer in an August interview. It worries Williams that the luggage Hudson turned to avoid wasn't more visible.

"What I don't understand is how do you not see a bag until you're almost on it," Williams told the Observer in August. "... There's nothing on the ground out there."

Williams said Tuesday that safety concerns should have been addressed before any injuries occurred.

"The time to do the study was prior to the accident," William said. "... I think it was simply an issue that was overlooked. Ultimately, as in many cases in aviation, we have to spill blood before we start looking at things with a critical eye."

Hudson was the first employee to die at the Charlotte airport in more than a decade. The last death was in 2006 at Wilson Air Center, the airport's fixed-based operator, airport spokeswoman Lee Davis said.

Wilson Air Center provides fueling, catering and aircraft maintenance services for private and corporate planes and travelers.

[Baggage tug accidents have proven deadly at other airports](#). A baggage tug operator in Atlanta with Delta Air Lines was killed in 2010 after the employee was ejected from the vehicle.

The U.S. Department of Labor's Occupational Safety and Health Administration cited Delta for violating a federal requirement for employers to protect employees,

in this case, by providing seat belts, according to OSHA.

American Airlines spokeswoman Crystal Byrd previously told the Observer all American Airlines and affiliate airlines baggage tugs have seat belts.

Cagle, the aviation director, also confirmed Monday that airport employees will no longer be able to use tobacco on site beginning in November.

The announcement came after another airport employee spoke at Monday's council meeting to complain about smoking near the baggage claim area.

Passengers will still be able to smoke in designated areas, Cagle said, because the airport was exempt in the county's ordinance banning tobacco use on public property.

County health officials will provide tobacco cessation resources to employees, Cagle

<https://www.charlotteobserver.com/news/local/article233780512.html>

[A Cessna 206 pilot who taxied off to fly with his oil dipstick lying on the ramp had a line crew member to thank for not getting too far away before the oversight was discovered.](#)

Doing line work can help launch an aviation career [and sometimes catch a pilot's preflight oversight](#)

Heroics aren't always part of a line tech's job, but you can learn a lot about aircraft—and pilots—when preheating, towing, fueling, marshaling, and securing aircraft as a member of the line staff at your local airport. [I'd encourage any student pilot to take the opportunity, if one should arise.](#)

You may not think of being captain of your fixed-base operation's fuel truck as a professional networking opportunity, but you never know. Along with providing good line service, which pilots appreciate and remember, may come invitations to ride along or even catch some left-seat time in one of the local dream machines.



Line work sometimes puts discount flight training within reach or provides some quality time haunting the company mechanics as they perform maintenance on local aircraft. A couple years from now, you may recognize the flight instructor who is giving you your first flight review as the line person who chocked your wheels and congratulated you on your first solo long ago.

[Perhaps you will be a CFI by then, too.](#) Long after a former line tech drove a tug and pumped gas at our local airport, he still inquires after certain aircraft as if they were old friends, and he lamented the loss of one particular trainer along with the rest of us when news reached him via Facebook of the hard landing that ended its career. That ex-lineman, now a major airline captain, hasn't forgotten how his first aviation job on the line helped launch a flourishing career.

As for occasional heroics: The scenario involving the Cessna 206 pilot and an oil dipstick was described in a report to the Aviation Safety Reporting System. The reason it never became an engine-failure report after the pilot spilled some oil while adding it to the aircraft [and forgot to reinstall the dipstick during the cleanup, was an eagle-eyed line staffer.](#)

“A few minutes after contacting departure they said a lineman found the dipstick on the ramp,” the pilot wrote. The pilot was cleared to return and landed normally, noting in the report that in the future a good idea would be to [“keep a rag handy” and put the dipstick someplace it wouldn't be forgotten because of a distraction.](#)

Advanced Preflight After Maintenance



Advanced Preflight After Maintenance

As the final authority for your aircraft's fitness for flight, it is important you know how to properly preflight your aircraft after maintenance. [For tips](#) on how to conduct an advanced preflight after maintenance, check out our latest FlySafe fact sheet here:

http://www.faa.gov/news/safety_briefing/2019/media/SE_Topic_19-09.pdf

Closing the gap between human factors and technology as aviation automation increases

New technologies, digitalization and artificial intelligence (AI) are considered a reliable source for more capacity and efficiency. However, confidence in technology alone is unlikely to bring many improvements to fruition [without taking human factors and ergonomics \(HF/E\) into consideration](#) – which is exactly the gap that EUROCONTROL, ENAIRE and DFS sought to tackle at the Biennial System Thinking and HF Conference.

The three-day event in Madrid brought together over 140 experts from across the aviation industry to focus on the [importance of human factors and ergonomics](#) in system design focusing on automation.

*“Safety is the number 1 priority, and **human factors a key driver in support of robust daily operations**. Our professionals are our greatest asset and a crucial element of the system when guaranteeing operations: they need to be cherished and protected. In this sense, we need to understand and facilitate the impact of automation on their daily work.*



“The increasing automation in aviation and especially in Air Traffic Control is changing the interaction between man and machine. Innovation in technology is increasing at an enormous pace and automation is constantly evolving. Changes in the use of new technologies as well as influences of technology on our behavior can be observed in everyday life.

*“We all would probably agree that air traffic management will remain **a human-centered industry for some years to come**. People at the sharp end remain in control and are making safety and business-critical decisions. Technology can support these decisions and in the near future will develop from a solely information delivery system towards a decision support system for the operator.”*

Ángel Luis Arias
CEO ENAIRE
Key deliverable

The main output of the conference is a [White Paper on Human Factors Integration in ATM System Design](#) co-authored by EUROCONTROL and DFS under a grant from EUROCONTROL and developed by Andre Perott and Nils Tavares Schader under the lead of DFS’s Joerg Leonhardt and EUROCONTROL’s Tony Licu, the co-chairs of EUROCONTROL Safety Human Performance Sub-Group.

This is an important step forward for ATM, as Iacopo Prissinotti, EUROCONTROL Director Network Management, underlines.

*“The gap between the disciplines of human factors and systems engineering with new technology **is widening because of rapid and steady technological development and progress**.*

We need to work together to close this gap in order to form a team from human and technology, where working methods are better coordinated and interconnected. For this, it is necessary to deal with the technical development as well as with models of cognition.”

Iacopo Prissinotti

DIRECTOR NETWORK MANAGEMENT EUROCONTROL

The joint White Paper proposes a set of basic principles to help better integration of Human Factors/ Ergonomics (HF/E) in system design. [These include:](#)

1. Build joint design teams and do not treat HF/E as a mandatory add-on
2. Make a coherent user-centered-design rationale for your HF/E product
3. Strive for a short, iterative user-centered design process
4. Derive objective HF/E criteria instead of relying on user opinions
5. Evaluate as early as possible with the help of prototypes
6. Select appropriate conditions for evaluation: Evaluate day-to-day operations as well as critical situations
7. Support the problem-solving process during implementation by facilitating trade-offs
8. Do a proper problem-setting in the first place whenever possible to understand your actual problem and the underlying mechanisms and needs
9. Be ready to participate in strategic decisions and introduce a purpose-orientated view of technology

DFS's Joerg Leonhardt and EUROCONTROL's Tony Licu, the co-chairs of EUROCONTROL's Safety Human Performance Sub-Group, noted that the White Paper is an urgently needed milestone that will improve user acceptance and ensure that the benefits of automation and technology are effectively realized.

Read the full white paper to learn more

<https://www.eurocontrol.int/publication/human-factors-integration-atm-system-design>

Safety board: Boeing should reconsider pilots' response time

Federal safety officials say Boeing should consider [how cockpit confusion can slow the response of pilots](#) who are dealing with the kind of problem that likely caused two airliners to crash in the past year.

They suggest that Boeing underestimated the time it takes — [measured in precious seconds](#) — for

pilots to diagnose and react when they are being bombarded by multiple, cascading warning alerts. The National Transportation Safety Board issued several recommendations Thursday after taking part in investigations into two crashes of Boeing 737 Max jets that killed 346 people.

It will be up to investigators in Indonesia and Ethiopia to determine what caused the accidents in those countries. Preliminary reports have pointed to an anti-stall system that kicked in based on faulty sensor readings and pushed the noses of the planes down.

Boeing officials have said the pilots didn't follow known procedures for stopping a sudden nose-down pitch or, in the case of the Ethiopian crash, followed the procedures only briefly.

The safety board said Boeing assumed that pilots flying the Max would respond to an automated nose-down push by taking ["immediate and appropriate"](#) steps. Federal regulations allow manufacturers to make such assumptions, and Boeing even used test pilots in flight simulators to check its assumptions.



Boeing presented highly trained test pilots only with a single alert indicating a condition known as [runaway stabilizer trim](#), which can be triggered by the MCAS anti-stall system, safety board officials said. They said Boeing failed to consider that an underlying problem like sensor failures — which triggered MCAS in both Max crashes — would set off several alarms.

In the Lion Air and Ethiopian Airlines crashes, they said, the pilots' control columns would have shaken to warn of an impending stall, they would have gotten several visual and sound alerts about things like altitude and speed.

["That's the actual scenario that never got evaluated in the simulator,"](#) said Dana Schulze, the board's director of aviation safety.

Schulze said years of research have shown that when multiple alarms compete for the attention of pilots, it can lead to a situation in which ["pilots will not respond as perhaps you might have intended."](#)

The safety board will recommend that the Federal Aviation Administration, which certified the Max to fly in 2017, evaluate the effect that all possible cockpit alerts might have on pilot response. The board also recommended that FAA require Boeing to include changes in cockpit design or pilot training to help pilots follow proper procedures when responding to the Max's automated control systems.

Schulze told reporters that the board wants FAA to take those steps before it lets the Max fly again, although the board did not put a timetable in its formal recommendations.

The safety board recommended that FAA examine whether other aircraft besides the Max might have been approved without considering how [multiple alarms could distract pilots](#). They also said FAA should encourage other regulators in Canada, Europe and elsewhere to do the same thing.

In a statement Thursday, the FAA said it will review the NTSB's recommendations as it continues to evaluate changes that will be made to the Max.

"The FAA is committed to a [philosophy of continuous improvement](#)," the statement said.

Boeing issued a short statement saying it would work with FAA in reviewing the recommendations.

The Max has been grounded worldwide since March, shortly after the second crash. Boeing is nearing completion of changes that will make MCAS less powerful and tie it to a second sensor measuring the plane's pitch instead of just one sensor.

Boeing expects that airlines will be able to fly the plane later this year, although many analysts think early 2020 is more likely.

The 10 Worst Distractions For Pilots

1) Traffic You Hear, But Can't See

There's nothing more unnerving than a traffic report close to your position. Your eyes instantly move outside the cockpit, scanning the sky for visual contact. While scanning outside is important, so is flying the airplane. Don't make an uncomfortable situation even worse by forgetting to manage flight parameters.

2) "Bad" Passengers

Loud kids, passengers talking nonstop over the intercom, and seemingly endless questions are typical when flying people around in a small GA airplane. Remember the "isolate" switch is there for a reason!



Colin, however, is a good passenger. Bringing water for your pilots is never a bad thing!

3) Back Seat Pilots

Pilots can be terrible passengers sometimes... [Click here](#) to find out why.

4) Unfamiliar Aircraft

Can't find a switch? Don't know how to follow the checklist flow? What's that speed limitation?

None of these are questions that are good to be answering in the air. Before you hop into an unfamiliar airplane, make sure you've done some chair flying.

5) Unfamiliar Airspace

We didn't get our pilot's certificates to fly circles over our house all day long. Inevitably, you'll fly into unfamiliar and busy airspace somewhere in the country. Know the regulations, airspace dimensions, and procedures before you take off. [Click Here](#) to check out an airspace training course we developed to help you out.

6) Non-Essential Electronics

Limit the use of personal electronics as much as possible. If it's not flight-critical, ask yourself, "is this something that can wait until I'm on the ground?" Most likely, the answer is **yes**. If you're flying Part 91 with mounted cameras, have them set and filming before the engine starts. Don't touch them until you're on the ground.

7) Unnecessary Radio Congestion

There's nothing worse than a radio hog. It's distracting for other pilots that might be in a critical phase of flight or need to make an announcement. Avoid unnecessary radio conversations, or switch to a discreet frequency... Give 123.45 a try!

8) Cluttered Avionics

De-clutter your avionics so only relevant information is shown. Too much clutter could result in you missing something important.

9) Foreign Object Debris

FOD, or Foreign Object Debris, is distracting and dangerous. Quite a few accidents have been caused by loose items in the cockpit getting jammed into flight controls.

10) Open Doors And Windows

As you accelerate down the runway, you notice the loud rush of air entering the cabin. Somewhere, a door or window is open. If you weren't able to abort the takeoff or can't shut it in-flight, circle and land to fix the problem. Could an open baggage door take down an airplane? In this accident, it's most likely the primary cause.

<http://www.boldmethod.com/learn-to-fly/human-factors/pilots-can-make-terrible-passengers/>

<http://www.boldmethod.com/blog/2014/02/fod-cockpit/>

<http://www.boldmethod.com/learn-to-fly/performance/how-could-an-open-door-cause-a-fatal-accident/>

Where the Rubber Meets the Road

Distracted driving is risky business for employers.

Distracted driving is dangerous, so it should come as no surprise to employers that distracted driving *has been an area of emphasis* for the Occupational Safety and Health Administration (OSHA) in recent years. Indeed, motor-vehicle collisions now account for

more worker fatalities than any other cause – including machine guarding and lock-out tag-out violations. As a result, OSHA has taken the position that distracted driving is a recognized hazard under the OSH Act's General Duty Clause.



Penalties for willful violations of the General Duty Clause can range up to \$132,598 per occurrence. The National Highway Traffic Safety Administration (NHTSA) defines distracted driving as anything that diverts the driver's attention away from the primary focus of operating the motor vehicle. Distracted driving is the cause of approximately one-quarter of all motor-vehicle crashes. Not surprisingly, texting and talking on hand-held and hands-free mobile devices while driving are common sources of distraction. Alarming, one study from researchers at the University of Utah concluded motorists distracted by a cellular device were as impaired as drunk drivers.

Employers Need Effective Distracted-Driving Policies

To prevent workplace injuries and deaths and to minimize potential legal liability, employers must draft effective distracted-driving policies. These policies will necessarily need to address the use of technology and mobile devices while driving. At a minimum, effective distracted-driving policies **should set forth the following:**

- A prohibition against driving under the influence of alcohol or drugs;
- Mandatory use of seatbelts by drivers and passengers;
- A prohibition on eating and drinking while driving;
- A prohibition on emailing, texting and using social media while driving; and
- A prohibition on the use of hand-held devices while driving

It should be noted that the National Safety Council considers hands-free devices to be just as distracting as hand-held devices while driving. As such, employers may wish to consider whether to allow their employees to use hands-free devices or modes of communication while driving. Some employers have adopted the policy that no phone calls or text messages should occur while a vehicle is in motion. Instead, all calls should be taken or returned when the vehicle is parked in a safe location.

Enforcing Distracted-Driving Policies is Also Critical

Written policies mean nothing if they are not effectively implemented and consistently enforced. Employers should train all employees on their distracted-driving policies, as well as the consequences for an employee's failure to follow the policies. Employers should have employees sign a written form that acknowledges the employee received the distracted-driving policy and was trained on the employer's expectations regarding the policy. Periodic refresher trainings are helpful in ensuring compliance. Employers should re-train on the policy any time they become aware of employee non-compliance.

Employees should be disciplined for failing to follow the distracted-driving policy. Discovering non-compliance or violations may be difficult because employees often drive alone and away from the employer's principal place of business. Some employers combat this problem by implementing controls that lock mobile devices from receiving or making calls or sending texts while the vehicle is in motion. Other employers have implemented GPS-tracking devices and in-vehicle cameras to encourage employee compliance with distracted-driving policies.

Regardless of the methods used to discover violations, employers must consistently audit the workplace for violations of the policy and must consistently mete out discipline for policy infractions. Failure to do so may place employees at risk for a motor-vehicle accident and the employer at risk for OSHA citations.

Conclusion

In today's technological age, employers must be diligent in drafting, reviewing, and enforcing their distracted-driving and mobile-device policies to prevent workplace accidents and injuries. A failure to do so may result in OSHA citations and significant costs. Indeed, OSHA estimates that motor-vehicle collisions cost employers \$60 billion annually in medical care, legal expenses, property loss, and lost productivity. Employers with effective distracted-driving policies may mitigate the risk of litigation and OSHA citations while also ensuring a safe and effective workplace for their employees.

https://www.osha.gov/Publications/motor_vehicle_guide.html

<https://www.sadd.org/initiatives/traffic-safety/distracted-driving>

<https://www.livescience.com/872-cell-phones-drivers-bad-drunks.html>

<https://www.nsc.org/road-safety/tools-resources/infographics/hands-free-is-not-risk-free>

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