Aviation Human Factors Industry News

Volume XI. Issue 22, November 15, 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:

FAA Aviation MX Human Factors Vol 3, Issue 3

Aviation MX
HUMAN FACTORS
QUARTERLY

SEPTEMBER 2015
Vol 3, Issue 3

A Human Factors Program Health Check List

William B. Johnson and Michelle Bryant

About the Authors: *Dr. William Johnson is the FAA Chief Scientific and Technical Advisor for Human Factors in Aircraft Maintenance Systems. His comments are based on nearly 50 years of combined experience as a pilot, mechanic, airline engineering and MRO consultant, professor, and FAA scientific executive.*

Dr. Michelle Bryant is a research psychologist working in the Flight Deck Human Factors Research Laboratory. She recently completed her Ph.D. at North Carolina State University, where she studied individual differences in human performance with a specific emphasis on stress and workload. Since joining the FAA she has become a member of the maintenance human factors team exploring issues related to fatigue, fatigue risk management, and the endless pursuit to understand and mitigate the issues surrounding "Failure to follow technical instructions." She currently lives with her husband and daughter and their two dogs in Oklahoma City where they enjoy the theater, festivals, and outdoor adventures.

INSIDE THIS ISSUE:

Drs. Bill Johnson and Michelle Bryant offer checklist ideas to assess the health of your human factors programs. Their ideas are mostly products from the past decade of publications and products from the FAA-funded projects at the Civil Aerospace Medical Institute (CAMI). A shorter version of this paper is published in the July 2015 Aviation Maintenance Technology (AMT) Magazine. For this check-up, there is no time wasted in waiting rooms and you don't have to complete health insurance forms. You are the doctor!

Why a Check-Up? Why a Checklist?

Writing this article we wondered while preparing if we were "plowing old ground." To quote the famous Yogi Berra, "It's like *déjà* vu, all over again." Johnson's list from his 2001 "Human Factors Programs: Fact or Fantasy?" offers guidance on how to conduct an internal review of a Human Factors program. Borrowing from Shakespeare's *Hamlet*, he asked "Is not this something more than fantasy?" Fast forward fifteen years and human factors programs are not fantasy.

Today "human factors" is a household word/phrase in maintenance organizations and schools. Maintenance human factors content has evolved from early fundamental psychology class (that some called psychobabble) into human-centered and action-oriented discussions of hazards, threats, errors, and the ways to manage them. Voluntary reporting, like the Aviation Safety Action Program (ASAP), has

(continued on page 2)

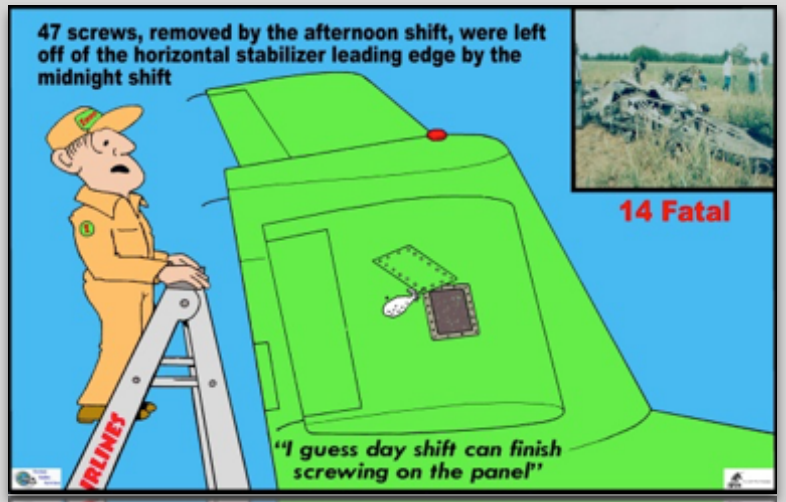
Written by maintenance human factors professionals dedicated to identifying and optimizing the factors that affect human performance in maintenance and inspection. Past newsletters @ humanfactorsinfo.com

https://www.faa.gov/about/initiatives/maintenance_hf/fatigue/publications/

Lack of Communication

Submitted by Gordon Dupont
With permission from *D.O.M. Director of Maintenance* magazine.

Lack of Communication *is one of the big four of the Dirty Dozen. The other three will be along in time if you decide to keep reading these articles. It is hard to tell if anyone is reading them as there is a lack of communication from the readership. (i.e. You the reader, to me the writer who hopes that someone out there finds these articles useful)*

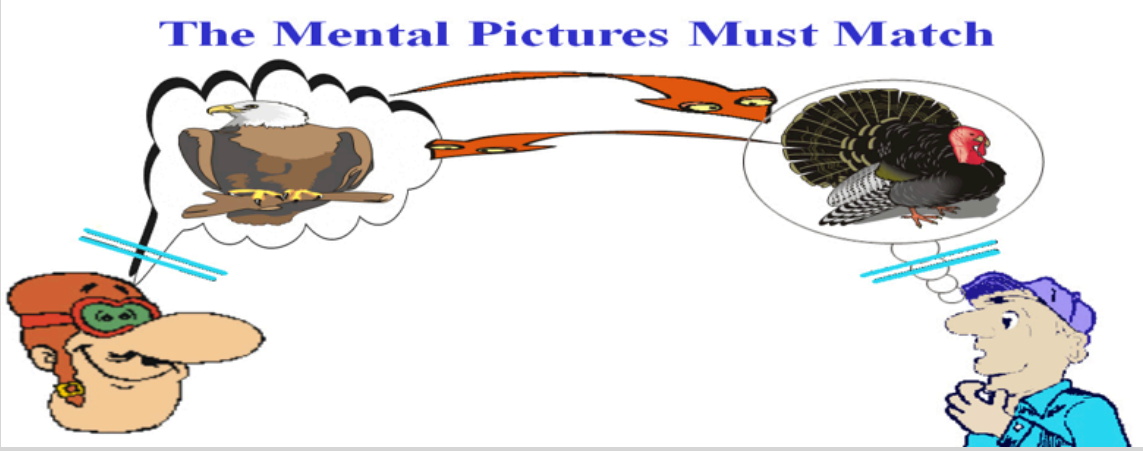


Are we, maintenance personnel, good communicators? The above paragraph sort of gives you a hint but the results of a confidential aviation Safety reporting program administered by the Canadian Transportation Safety Board says it all. Out of 232 received Safety concerns, the complaining pilots sent in over half at 120. Passengers even sent in 15 while maintenance was the very lowest of all with FIVE. Remember the last article where Giselle said that when things aren't right, pilots bitch while mechanics sulk. Face it, there is a lot of room for improvement.

We will concentrate on verbal communication in this session and save written for a later date. Lack of communication, verbal or written, is simply a failure to ensure that the "Mental Pictures" match. For example, I have a mental picture of what I hope to convey to you. If you have the same mental picture at the end of our conversation then good communication has occurred and there has been a complete exchange of information. Sadly, this very often does not occur. They say that communication is only about 30% efficient even though our expectation is that because we have spoken it will be 100%. One can only wish.

A study done by Albert Mehrabian on how a message is transmitted and received in average conversation revealed that 55% of the message was transmitted by body language; 38% by tone of voice and an unbelievable 7% verbally. I have a problem with 7% seeing as we are technically oriented and professionals. Verbal has to be more than 7%. Still, if we keep in mind that it is not near as effective at communicating the message as we believe, more effective communication is possible.

Let's look at a model of a pilot and an AMT having a conversation.



One of the reasons the Mental Picture is not matching can be due to what are called **filters.** The filters are represented by the double lines and they prevent the full message from getting through. These filters can be, class distinctive, (I am the boss and you are a lowly employee) ethnic, religious or even one's mood for the day. An extreme example of an ethnic filter involved one of my uncles who had fought in the Pacific theater against the Japanese. As a young lad I can remember him talking about "Jap Crap" for anything built in Japan and he would not ride in a Japanese built car. If a traffic control person of Eskimo decent, who looked like he might be Japanese, was to stop my uncle in his American built car and tell him to hold his speed to under 20 mph for the next ½ mile, my Uncle would do at least 40 mph even if it destroyed his American built car.

If you want to see filters, listen to a conversation between a teenager and a parent about coming home on time. They exist between boss and employee, husband and wife, Democrat and Republican and all too often, between pilots and maintenance. Hopefully they are very thin but one has to be aware of them as they act to prevent the message from being accepted and are more common than one thinks, because we all have them to some degree.

So what's the secret to good communication?

Someone once said: "You have two ears, two eyes and one mouth. Use them in that order and that proportion.

Steven Covey put it another way: "Seek first to understand, then to be understood."

In other words; we should listen more and talk less.

Let's start with some Don'ts.

Don't Debate. Have you ever tried to converse with someone who automatically contradicts what you are saying? It's frustrating and debating is a form of a filter that prevents the complete message from getting through. It almost ensures that the mental pictures are not going to match. Listen closely before forming an opinion or counter-argument as Steven Covey suggests.

1. Don't Detour. To detour is to change the subject being discussed. A lot of politicians do this at election time. Many women are also very good at this. Work on keeping the conversation on the topic being discussed.

2. Don't Preplan. The problem with preplanning is you are working on a response instead of listening to what is being said. The solution is to refer once again back to Steven Covey's advice.

3. Don't Tune Out. We men seem to have been born with the "tune out gene" and that can get us into a lot of trouble. There are five levels of listening with the last being the one to aim for.

1) Ignoring. This is useful when children are playing and you are watching a game on TV. Should the noise stop for any reason; that is your cue to investigate why?

2) Pretending. Often used when the spouse is talking and you are thinking about the game. This is very dangerous as you might later find out that you agreed to visit the in-laws, when that was the last thing on your mind. Reread Steven Covey once more.

3) Selective Listening. Hearing only certain words almost guarantees that the mental pictures won't match. Again: seek first to understand.

4) Attentive Listening. Now there is a good chance that the mental pictures will match, but it takes effort, as the mind has a tendency to want to slip back to one of the first three. Part of the reason for this is; we can speak up to about 125 words per minute but understand up to 600 words per minute. An idle mind will fill the gap.

5) Empathic Listening. The highest level of listening that occurs when you are able to sense the emotions the speaker is feeling. These feelings may not even relate to the words being spoken. For example: you ask a fellow employee, "how's it going?" and they reply "ok". You sense right away that it's not ok and find out that the person's spouse has been diagnosed with cancer. Some people are very good at this; my mentor Gisele being one such person.

Now for some very important Dos

1. Stephen Covey's **listen more and speak less** is an excellent start. Most of us are in too much of a rush to get our point of view across to hear what the other person has to say.

2. T.H.I.N.K before you speak and ask yourself the following questions.

T - Is it **True**? Is what you are about to say really completely True? If not sure, don't say it.

H - Is it **Helpful**? Hurtful words, once spoken cannot be retracted and build filters to further communication, while helpful words help break down filters and improve communication.

I - Is it **Insightful**? Is what you are about to say going to help in the other persons understanding? If you are not sure, take the time to reword it until it is.

N - Is it **Necessary**? If it's not, then why say it?

K – Is it **Kind**? This is important if we are to reduce the filters that exist today. An unkind word can develop a lasting filter that may have major repercussions at a later date.

THINK what the world would be like if only everyone would THINK before speaking and ensure that the answer is yes to each of the questions.

3. Ask questions. They may say they understand and you may think that they do, but it is your responsibility to be sure that the Mental Pictures Match.

4. Paraphrase. By repeating what the message is you are showing that you understand. For example: always repeat a phone number or email address as one's brain can easily reverse two numbers or letters while you write them down. At least my old brain does and the number of numbers you would have to dial before getting the correct one can be in the millions.

5. Make eye contact. The eyes carry a lot of the body language. For example: If you ask a child if they broke the vase on the floor and they look at the floor and refuse to look you in the eye while saying "no"; you can be quite sure that you are looking at the guilty party.

6. Use positive body language. Body language carries the majority of the message, so work to ensure that it is conveying the message you want.

7. Remember the filters, yours and theirs. We all have them so lets work on making them as few and thin as possible.

8. Do whatever it takes to **ensure that the "Mental Pictures Match."**

There is a lot of information that, if used, will go a long way to reduce human errors due to Lack of Communication.

NTSB: Fuel line mechanism disconnected on Dynamic jet

The National Transportation Safety Board says a fuel line component was disconnected before a Dynamic jetliner caught recently.

The Dynamic jet that caught on fire had been in dry storage for 29 months, until September Federal investigators have discovered a critical fuel line mechanism was disconnected on the Dynamic International Airways jetliner that caught fire Thursday at Fort Laudedale-Hollywood International Airport.
In its accident update released Tuesday, the National Transportation Safety Board also said the twin-engine Boeing 767 had been in dry storage for almost two and half years until Dynamic started leasing it in September.

The jet was then flown about 240 hours before it erupted into flames on Thursday, investigator Tim LeBaron said. Both those factors hint that maintenance problems likely played a role.

Dynamic International Airways Flight 405 was supposed to fly to Caracas, Venezuela. As the jetliner was taxiing for takeoff, a plane behind it noticed fuel leaking from the left wing. Fire broke out shortly after, prompting passengers to flee from the aircraft on emergency chutes.

"Of the 90 passengers and 11 crewmembers onboard the airplane, one was seriously injured and 21 sustained minor injuries as a result of the emergency evacuation," LeBaron wrote in the update.

Other details in the NTSB update:

* An initial review of the plane's onboard logbook showed no maintenance had been performed - prior to the accident - on the wing area where the "fuel line coupling assembly" was found disconnected. That assembly, located just above the engine, has been retained for further examination.

* There was no evidence the left engine exploded and caused the fire;

*The fire didn't penetrate into the passenger cabin, but burned the lower portion of the left wing, the left engine and the left side of the fuselage;

Fuel leak suspected but not confirmed in jetliner fire

* The flight data recorder and cockpit voice recorder - or black boxes - are being reviewed at the NTSB's laboratory in Washington, D.C.;

* Dynamic International Airways will inspect the remainder of its planes to ensure "fuel line coupling assemblies," are properly installed.

* NTSB investigators have interviewed the two flight crew members and nine cabin crew members; what they said was not immediately revealed.

Steve Marks, a Miami attorney who specializes in aviation accidents, said placing the aircraft in dry storage for 29 months potentially played a role in the fuel line coupling assembly becoming disconnected.

"Typically planes are stored in Arizona or New Mexico, where the dry climate prevents them from having decay," he said. "But whenever an aircraft is sitting for so long, there's a risk that parts can get brittle."

Marks added that after planes are taken out of storage, they should receive a thorough maintenance inspection. The NTSB has yet to say whether that was done.

WATCH exclusive documentary: Diverted: TWA 514

You may have never heard about the crash of TWA Flight 514 some 40 years ago in Northern Virginia. But in truth, what came of this air disaster proved to be a critical turning point in aviation safety history. And now ABC7 News brings you the full story of this catastrophic and historic event in "Diverted: TWA 514", a wjla.com web exclusive.

A scarred ridge line cuts a haunting path through the Blue Ridge Mountains of Northern Virginia. Nearby a humble roadside memorial, untouched for years, is all that reminds passer's by of the horror witnessed here 41 years ago.

"This is one of the most completely destroyed aircraft wreckage I encountered in my 44 years of crash investigating," says former National Transportation Safety Board investigator Dick Rodriguez.

In 1974 TWA Flight 514 slammed into Mount Weather along Loudoun County's rugged western border after being diverted from Reagan National Airport to Dulles International Airport due to foul weather.

"Of course there were plenty bodies but there were no survivors," says former Loudoun County Fire Marshal Oliver Dube.

All 92 people aboard died. Alice Kunz's mother and father were among the victims. "The mountain jumped up and hit the plane was my only hope of any kind of explanation," says Kunz, who now lives in Indiana.

The NTSB ruled the crash occurred because the plane descended too low too soon due to a series of catastrophic human errors and miscommunication between the pilots and air traffic control.

"You felt this was too soon. How could this be happening? And I thought how close they were to the airport. They were almost home," says Ann Burke, whose dear friend US Army Brigadier General Roscoe Cartwright perished in the accident.

On that fateful day there was plenty of blame to go around. National Transportation Safety Board members split in their final ruling. The majority blamed the crew. The minority said the air traffic controller should also shoulder some of the blame. The NTSB also said there were a number of contributing factors to the crash, including the FAA's unwillingness to make certain safety related changes the agency had been aware of for years. The NTSBA was deeply worried that without significant safety improvements within the industry more mistakes would be made and more planes would crash.

Among the sweeping NTSB recommendations accepted by the industry: changing confusing airport approach charts, clearing up contradictory terminology pilots and air traffic controllers used to communicate to each other and insisting that ground proximity warning systems go on all commercial aircraft within a year.

"It wasn't long after this ground proximity warning systems were mandated in airliners. And that's a very important technology. I would put it up with a jet engine or airborne weather radar as one of the most important pieces of technology we have on an airplane to keep us safe, " says commercial airline pilot George Cornwell who flies in and out of Dulles often.

For nearly 3 years ABC7 News has been digging into this disaster to understand the full ramifications of this crash then and now. Rodriguez says, "In total context the safety of the public was enhanced perhaps 100 fold. It was very a significant accident."

In this short documentary you'll see stunning crash site photographs never shared with the public until now. You'll hear powerful stories from victim's family members. "It was devastating. It was really hard. I was losing my mother," says George Speese, who lost two relatives in the crash.

And you'll gain a deeper understanding of just how much safer we are while flying in the skies due to those who sacrificed so much on a remote hillside atop Mount Weather.

Cornwell says, "Any time I'm in mountainous terrain or I read about safety reports I know that they're with me when I'm flying today with myself, my crew and my passengers."

This documentary is dedicated to the 92 people killed in the crash of TWA Flight 514. We would also like to recognize Oliver Dube. After the crash of Flight 514 Dube worked tirelessly for years to transform and modernize fire and emergency services in Loudoun County. Mr. Dube passed away in 2014 at the age of 84, several months after we interviewed him for this story.

http://wjla.com/news/local/diverted-twa-514

http://libraryonline.erau.edu/online-full-text/ntsb/aircraft-accident-reports/AAR75-16.pdf

HUMAN FACTORS

Human Factors Ground School Course Now Online

My popular Human Factors Ground School is now an online course. I have delivered that program many times via live on-site and webinar presentations. It consists of three lessons and a 20 question quiz. The program is valid for all three Wings credits at the basic level upon completion. This is a fee-based course to help support my safety initiative. For a limited time, my subscribers can enroll for half price.

New Human Factors Blog

I have begun a new blog for my consulting company's website. It is called "The Being Better Blog" and relates to human factors. The blog is based on a program that we offer simply called, "Being Better."

While not specifically designed to target aviation, it looks at how us meager humans can be better at everything we do. And since being better at what we do should result in making fewer errors, we might just become better pilots.

Click here for more info or to enroll.

Click here to check out the blog.

Please visit my website, genebenson.com for more safety information including free online courses, many are valid for FAA Wings credit.

US Airways leaves in triumph on key measure

Its last flight capped a stellar run for safety

In two little-known events, its pilots might have saved hundreds of lives

The airline didn't score well in customer service, but more than made up for that on safety

In mid-October, US Airways ceased to exist as an independent entity. Many passengers will doubtless say "good riddance," for they voted the carrier a two-star rating from J. D. Power and ranked it below average on almost every dimension. But US Airways deserves a much fonder farewell than that.I study aviation safety, and paid particular attention to the airline in the early 1990s, when it experienced a series of accidents culminating in a 1994 Boeing 737 crash near Pittsburgh that killed 132 people. Had US Airways suffered a temporary spasm of bad luck, or was the problem more systematic? We now know that bad luck was the main culprit.

The 737 crash (which killed more passengers than the others in the series combined) was caused by a subtle defect in the rudder controls, which could have struck any airline that operated the plane. Moreover, US Airways experts were instrumental in uncovering the defect before it could cause further tragedies.

Since 1994, US Airways has achieved a safety record that was not only flawless but magnificent. Probably the most inspiring aviation event in the 21st century – if not the most inspiring event of any kind – was the miracle on the Hudson, in which a crippled US Airways plane landed in the water and all aboard were saved. It was no surprise that both President Bush and President-elect Obama rushed to call Captain Sullenberger with congratulations.

But two other recent events involving the airline were also extraordinary although less well-publicized. On a foggy night in Providence in 1999, US Airways Flight 2998 was cleared for takeoff. However, the pilots had been monitoring ground transmissions, and sensed that a Boeing 757 that had just landed was unsure of its position. To the obvious annoyance of the air traffic controller, the pilots "politely but pointedly" (in the words of a subsequent award) refused to take off until sure that the 757 had reached its gate. It later emerged that, when Flight 2998 was cleared for takeoff, the Boeing 757 was standing directly ahead of it on the runway. Through prudence and decisiveness, the pilots had avoided a horrific collision.

In 2005 in Boston, US Airways Flight 1170 and an Airbus 330 headed for Europe were simultaneously cleared for takeoff on criss-crossing runways, putting them on course for an imminent collision. The US Airways pilots saw what was wrong and, reacting instantly, kept the plane's nose on the ground so that it passed barely below the Airbus, which had just lifted off. The 381 people on the two planes thus avoided a catastrophe.

US Airways is not the only large airline that avoided passenger deaths over the last two decades. But I know of no other carrier that prevented three potential disasters through spectacular displays of professional skill. On passenger safety – the most important dimension of all – one can readily argue that US Airways amassed the most distinguished record of all the world's airlines in recent years.

But what of the many complaints about customer service on US Airways? Here what people do might be far more revealing than what they say.

On many key routes, US Airways achieves higher market shares than jetBlue and Southwest, the top-rated carriers for customer service.

US Airways was neither flashy nor ostentatiously elegant; it was always frumpy and unassuming. But in its last decades it was a terrific airline, which enhanced the reputation of American aviation and brought a billion passengers to their destinations without a single call to the next of kin. It is worth remembering with admiration and gratitude.

Dick Rutan: "Misty"

What does it take to be a warrior? World record holder, Dick Rutan, shares his journey from a childhood ride in a Piper Cub to the moment he would discover whether he was to pilot of a Super Sabre F-100.

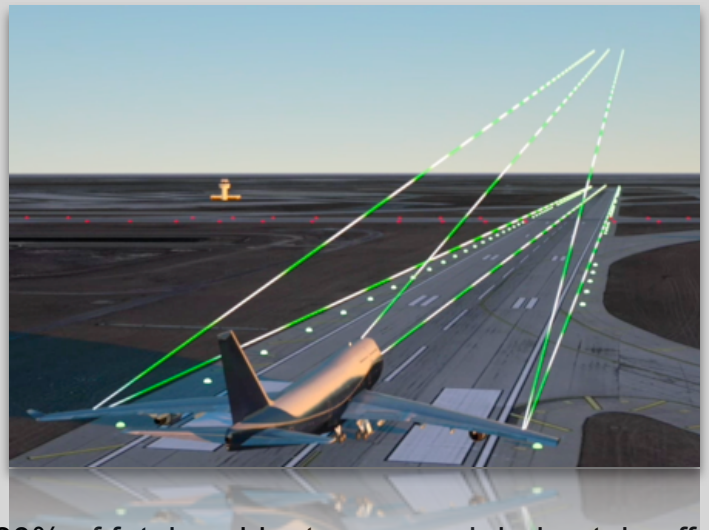
Dick Rutan set the record for flying his self-designed aircraft–The Voyager– around the world without refueling or landing, on December 14, 1986. This event was a landmark moment in aviation history as it marked one of the last real aviation "records" to be broken. However, the courage required for such a feat was minted long before during Dick's service as a Vietnam combat pilot and as a young boy growing up in California during the 1940's. The "OGTA: MISTY" episodes focuses on these two crucial aspects of Dick's life.Aviation Artist, Historian and OGTA Host John Mollison conducted the exclusive interview. "Dick is a real American adventure story," explains Mollison. "He was inspired by the WW2 generation to serve his country and become self-sufficient. He did just that and in turn, has become an inspiration to the next generation of Americans.

OGTA is "A fresh look at history, culture and life" and produced by South Dakota video producer, Rick Lingberg. OGTA highlights the service and life-wisdom of combat aviators and features the artwork of John Mollison.

http://www.oldguysandtheirairplanes.com/

Ground-breaking aircraft crash avoidance system enhances runway safety

Introducing Aerial, Landing, & Takeoff Aircraft Crash Avoidance System (ALTACAS)



ALTACAS TECHNOLOGY today announced the latest patented innovation in aircraft crash avoidance technology primarily designed to target and provide an effective, practical solution to enhance runway safety during takeoffs and landings, while preventing collisions during climbs, mid-flights, and descents.

Latest data from www.planecrashinfo.com shows 20% of fatal accidents occurred during takeoffs and initial climb, while 46% occurred during initial approach, final approach, and landing. The majority caused by human errors. The present day use of drones may increase these alarming statistics. For example, on March 22, 2014, US Airways Flight 4650 nearly collided with a drone while landing at the Tallahassee Regional Airport.Takeoffs and landings account for 66 percent of fatal air accidents, but current air traffic control systems are designed mainly to monitor aircraft that are in mid-flight. To help fill this gap, ALTACAS Technology has developed its Aerial, Landing, & Takeoff Aircraft Crash Avoidance System (ALTACAS). Designed to be retrofitted to current aircraft and as a supplement to existing next-generation air traffic control and crash avoidance systems, it uses lasers and microprocessors to monitor runways and flight paths during takeoffs and landings.

ALTACAS is an automated system designed to allow inbound and outbound aircraft to independently monitor runways and approach/landing airways for safer taxiing, takeoffs, and landings by providing more information and situational awareness.

The system also acts an anti-collision system during flight. It works by tracking other aircraft and potential hazards in the air and on the ground, and calculates if they're on a collision course. If so, it provides the pilot, the other aircraft, and ground control with visual and audible warnings.

Designed to act independently or in concert with other ALTACAS units installed in other aircraft and on airfields, its most visible component is a Multidirectional Radar And Housing (MRAH) that mounts on the wings or fuselage and consists of a rotating, hemispherical, aerodynamic housing containing Light Detection and Ranging (LIDAR) sensors and receivers. Supplemented by conventional radar, the LIDAR uses invisible pulsed laser beams to scan for and track potential hazards to a range of several miles.

The second part of the system is the Control And Processing Unit (CAPU), which is made up of a central processor and the cockpit controls and display. This connects to the Remote Processing Unit (RPU) installed in the airfield's traffic control system. Also on the airfield is the ground sensors or Sensor Activated Lighting Apparatus (SALA). These keep track of taxiing aircraft and turn the field landing lights from blue to red to warn if the runway is unavailable to an approaching aircraft, if there's another aircraft in a runway intersection, or if a maintenance vehicle is where it shouldn't be.

In operation, the pilot feeds flight information into the ALTACAS system, such as takeoff weight, airspeed, and wind speed. The system then scans the runway ahead and above the aircraft. If it detects another aircraft on the ground or in the air, or some other potential hazard, such as a ground vehicle or a UAV, it uses the flight data along with GPS tracking to calculate whether it's on a collision course. If the answer is positive, it then sounds an audible warning and sends a cockpit warning message that notes the urgency of the hazard. Meanwhile, it sends similar warnings to the other aircraft and ground control and opens up three-way radio communications to resolve the problem.

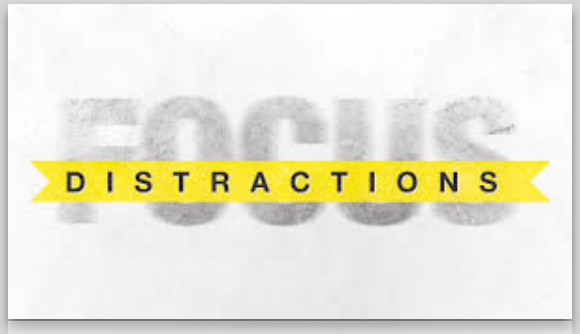
After takeoff, the system continues to monitor the takeoff corridor for approaching aircraft, then makes 360-degree scans in mid-flight to supplement the other crash avoidance systems. During landings, it continues to monitor through touchdown and taxiing.

ALTACAS Technology says that the technology can also be adapted for ships and trains and is available for licensing or sales.

https://youtu.be/vcH8mPTxQA8

Distracted ag pilot crashes

The Air Tractor 402B pilot reported that he was reading a map in an effort to identify the correct field to spray while maneuvering at low altitude in dark night conditions near Wellton, Ariz.



While maneuvering in a turn he didn't realize the airplane was descending and it subsequently collided with terrain. The wings and fuselage were substantially damaged.The NTSB determined the probable cause as the pilot's distracted attention and failure to maintain sufficient altitude to clear terrain while maneuvering in dark night conditions.

NTSB Identification: WPR14CA003

This October 2013 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.

FLIGHT CREW TRAINING

Eye-Opening Information About Sleep

A hot topic in business aviation is how to balance a day of flying with the need for much-needed rest. Mayo Clinic aerospace medicine team physician, Dr. Steven Altchuler, has recommendations to help flight crews adjust to work hours that often extend beyond 9 a.m. to 5 p.m.:

"Ideally you want to set your watch, and you want your body to live on that watch time wherever the sun happens to be at any point in time."

... Listen to the complete NBAA *Flight Plan* podcast.

Google: Drone Deliveries In Two Years

Even as the FAA struggles to formulate drone regulations, Internet giant Google says it will begin delivering packages by drone sometime in 2017. David Vos, who leads Project Wing for Google's parent, Alphabet, said the company is in discussions with the FAA to set up an air traffic control system for drones that would use cellular and Internet technology to deconflict drone traffic at altitudes below 500 feet, according to a report this week by Reuters. "Our goal is to have commercial business up and running in 2017," Vos said at the ATCA Conference in Washington on Monday. Alphabet is moving quickly, having announced Project Wing only in 2014 with videos of flight research taking place in Australia. In the U.S., Project Wing has partnered with NASA for further flight trials.

Vos claims with the FAA's recent announcement requiring drone registration, a system to separate small drones from other aircraft could be functioning within 12 months. This system would use wireless and Internet technology, including cellphone apps, to identify drones and keep them clear of other aircraft in controlled airspace. Google, Vos said, would like to see Class G airspace carved out for drones, which would allow unmanned flight over populated areas while avoiding aircraft flying in that airspace, especially helicopters.

FAA Safety Team | Safer Skies Through Education

New FAA Safety Briefing: Good N.I.G.H.T.
Notice Number: NOTC6285

The November/December 2015 "Good Night" issue of FAA Safety Briefing focuses on general aviation night operations. Articles in this issue address the importance of having both the right physical and mental preparation for flying at night, as well as how technology can help.

In this issue, we used the word NIGHT as a mnemonic checklist for all of the content in this night-themed issue. Feature articles include:

N = Nightlights – Using “Pilot Nightlights” to Find Your Way in the Dark (p 12),

I = Illusions – Nighttime Perils of Perception (p 16),

G = Gadgets – Glowing Gadgets and Gizmos (p. 20)

H = Human Factors – How Night Can Be Hazardous to Your Flying Health (p 24)

T = Terrain Avoidance – What Does it Take to Use NVGs? (p 28)

The link to the online edition is: http://www.faa.gov/news/safety_briefing/. Also, be sure to follow us on Twitter - @FAASafetyBrief.

FAA Safety Briefing is the safety policy voice for the non-commercial general aviation community. The magazine's objective is to improve safety by:

- making the community aware of FAA resources
- helping readers understand safety and regulatory issues, and
- encouraging continued training

Human Factors Expert Recognized with FSF- Airbus Safety Award

Miami Beach, Florida - Flight Safety Foundation announced today that the FSF-Airbus Human Factors in Aviation Safety Award was presented to Tony Kern, CEO of Convergent Performance, for his work on, and dedication to, minimizing human error in the cockpit, his numerous books on pilot performance, and his guide to professionalism for individuals and corporations. The award was presented during the Foundation's 68th annual International Air Safety Summit.

Kern is an award-winning author, lecturer and consultant, and is a leading authority on human performance in time-constrained, error-intolerant environments.
He served in the U.S. Air Force as a command pilot and flight examiner in the B-1B bomber, in a variety of senior staff and leadership roles, and as chairman of the U.S. Air Force Human Factors Steering Group.

"Dr. Kern defined what it takes to be a professional airman and provided a detailed analysis of the critical safety role played by always following rules and procedures," stated Craig Hoskins, Vice President, Safety, Security and Technical Affairs Airbus Americas, Inc. "His understanding and ability to develop procedures to minimize human error in aviation has made aviation that much safer for all of us."

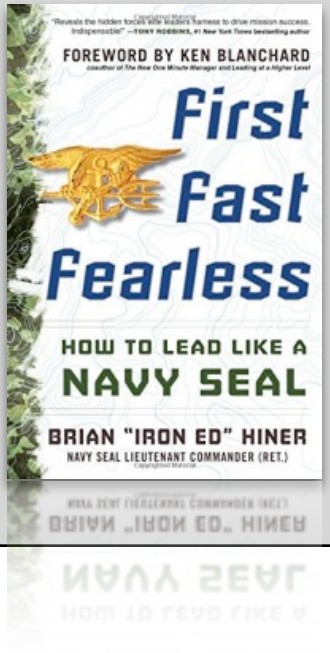
The Flight Safety Foundation-Airbus Human Factors in Aviation Safety Award was established in 1999 to recognize "outstanding achievement in human factors contributions to aviation safety." The award was instituted to encourage human factors research that would help reduce human error - one of the most common elements in aviation accidents.

"Someone whose life's work has been and continues to be dedicated to addressing human factors in aviation should be recognized for that dedication, and Tony Stern is well-deserving of this award," stated Jon Beatty, FSF president and CEO.

BOOK

Ed Hiner was a Navy SEAL for 20 years who was twice awarded the Bronze Star. He leads the Hiner Group as a coach and consultant specializing in leadership, team building, mental toughness, resiliency and personal conflict resolution.

His book, "First, Fast, Fearless: How to Lead Like a Navy SEAL," was published in September 2015 by McGraw-Hill Educatio



TED: Ideas Worth Sharing

In our louder and louder world, says sound expert Julian Treasure, "We are losing our listening." In this short, fascinating talk, Treasure shares five ways to re-tune your ears for conscious listening — to other people and the world around you.

http://www.ted.com/talks/julian_treasure_5_ways_to_listen_better