

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

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

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Navy Report: Blue Angels Pilot Flew Too Low, Fast

The pilot of the Blue Angels jet that crashed on June 2 in Tennessee was too fast and low when he flew an aerobatic maneuver during practice, the Navy said Thursday. Jeff Kuss, 32, who died in the crash, flew a split S maneuver 300 feet lower than required and had the afterburners on in his F/A 18C Hornet, resulting in a speed that was at least 50 knots too fast,



according to a report by the Navy Times. Officials also reported that the clouds were at 3,000 feet, which was a possible factor in Kuss flying the split S too low. "Clouds at about 3,000 did not impact the solos' ability to fly, but that weather was likely a contributing factor to Capt. Kuss' decision to initiate the 'Split S' maneuver below the normal altitude," the head of Naval Air Forces said in a statement. The required speed for the maneuver is 125 to 135 knots, but Kuss was flying at 184 knots, investigators found. "When you combine that with afterburners, it resulted in rate of descent that he didn't recognize," a Navy spokeswoman told the Times.

Those errors, along with findings that Kuss had forgotten routine tasks such as turning on his transponder and entering his squawk code, also led officials to believe that fatigue was a factor. "Every other squadron in the fleet has the ability to find a substitute pilot to complete the mission or execute an alternative mission," the Navy's statement said. "However, if one of the Blue Angels pilots is not ready, there are no other pilots who can readily cover their position for a show." The Navy will continue to examine safety policies and flight operations, and the split S maneuver has been removed from the Blue Angels' flight routines, the Times reported.

<http://www.avweb.com/avwebflash/news/Blue-Angels-Pilot-Killed-In-Crash-Thunderbirds-Pilot-Ejects-Updated-226333-1.html>

<https://www.navytimes.com/articles/the-mistakes-that-led-to-a-deadly-blue-angels-crash-and-how-the-navy-wants-to-prevent-them>



The Aviation Consulting Group

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Aviation Human Factors Online Course Information brochure

Human Factors training has proven to be an effective countermeasure against human error in the workplace. The Aviation Consulting Group's Aviation Human Factors Initial course creates an in-depth understanding and awareness of the factors that contribute to human error; errors that lead to accidents and incidents that cost billions of dollars' worth of damage and loss of life each year. Most, if not all, of these accidents are preventable! Human Factors training is a highly cost-effective tool that can help minimize human error and reduce accidents and incidents in the workplace.



TACG is a worldwide leading provider of aviation Human Factors training. We have been providing Human Factors training to aviation operators on a worldwide basis since 2000. Our Aviation Human Factors course is cost-effective, flexible, and practical (*we minimize theory and maximize real-world experiences, examples, and case studies*).

And Now We're Making It Available To You—Online!

When it comes to Human Factors training...a soft skills subject...the most effective delivery method is face-to-face with a live facilitator. From Argentina to Zimbabwe, in fact to all points of the world, you can now attend our popular Aviation Human Factors course! All you need is a computer and Internet access!

Our highly experienced facilitators present timely, research-based topics, guide discussions, and interject lots of anecdote (as well as some humor) through a professional, web-based learning platform. A face-to-face class allows greater interaction between attendees through personal experiences, group exercises, activities, and case studies. Additionally, a live facilitator will be able to answer your questions in real-time!

(Continued on page 20)

Passenger planes at Gatwick Airport in near miss 'when air traffic controller forgot to check his radar screen'

An investigation found the planes came within 700ft of each other because an air traffic controller did not scan his radar display

A passenger jet taking off from Gatwick Airport was involved in a near miss with a preceding aircraft, according to an official investigation. The UK Airprox Board (UKAB) investigated the incident on April 25 which involved two Airbus 319s.



It said the second plane was cleared to climb which brought it "into conflict" with the first.

When the air traffic controller responsible for the flight realized what was happening he "issued avoiding action to the pilot", the report stated.

The UKAB found that the near miss was caused by the air traffic controller not scanning his radar display **before clearing the second pilot to climb.**

"He should have seen (the first aircraft) ahead," the report added.

A "standard procedure" of reducing the usual separation time between departing aircraft **to increase frequency** - from two minutes to 45 seconds - was given as a **contributory factor.**

The UKAB added that “poor co-ordination” by air traffic control staff also had an impact.

Separation between the aircraft was reduced to 700ft vertically and around two miles horizontally.

The report found that “safety had been degraded” but the “rate of catch-up between the two aircraft was very low”.

The incident was assessed as having the third most serious degree of risk by the UKAB.

FAA Mulls Pilot Experience Change

The Wall Street Journal is reporting the FAA is considering reducing the number of hours military pilots must have before they can be airline first officers. An industry-labor panel has recommended that military pilots with as little as 500 hours be allowed to slide directly into the right seat of airliners. The current minimum is 750 hours, while non-military pilots must have at least 1,500 hours. The panel didn't make any recommendations to change the current 1,500-hour minimum for airline captains. The group was convened by the FAA to address growing concerns about a shortage of airline pilots. The WSJ got the information from an unnamed source and the report hasn't been officially released. The proposal is bound to revive the debate over just what the initial experience and training requirements for line pilots should be. But since the number of pilots coming from the military has dwindled to less than 25 percent and because most retiring military pilots have more than the current minimums this proposal is unlikely to have much impact. The minimum for all pilots used to be 250 hours but the FAA was ordered by Congress to adopt the current 750-1,500 minimum (depending on background and education) after the 2009 Colgan Air crash in Buffalo.



US Air Force researchers to identify root cause for crack formations in aircraft

Researchers at the US Air Force Research Laboratory (AFRL) are investigating [microscopic crack formations and metal fatigue](#) that hamper aircraft safety.

Metal fatigue, which is due to repeated loading and unloading, changes in air pressure and exposure to altitude, will in turn result in small, microscopic cracks in engine, wing or tail structures.

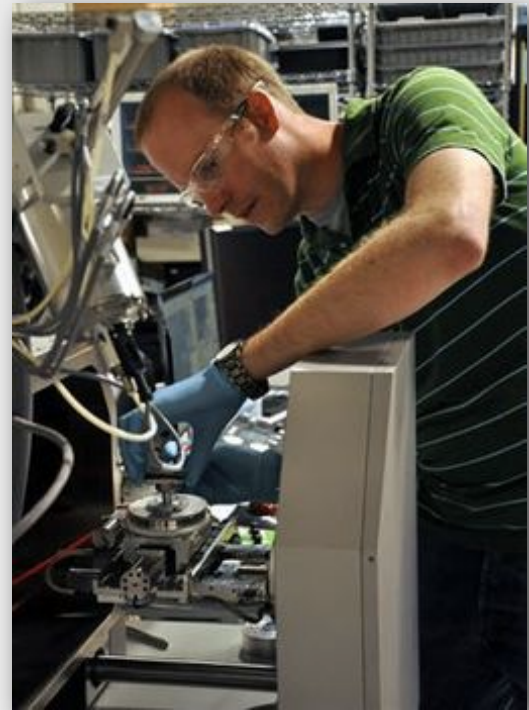
The crack formations tend to affect aviation safety, according to the research team at the metals branch of AFRL's Materials and Manufacturing Directorate. In order to overcome such problems, scientists are studying the earliest stages of crack formation in turbine engine materials.

AFRL metals branch research scientist Dr. Adam Pilchak said: "The Air Force routinely inspects engine components for cracks, [but it is possible to miss microscopically small cracks with current inspection methods](#)."

"We want to be confident that an undetectable crack does not grow to failure before the next inspection."

"Because crack growth rates can vary considerably depending on how a material is processed, it is important to understand the worst-case scenario that leads to the shortest fatigue lifetime."

AFRL researchers are using a scanning electron microscope (SEM) to magnify the surfaces of fractured laboratory samples or components taken from aircraft engine surfaces up to 50,000 times to precisely determine where a crack initiated.



The better understanding of crack initiation sites and the material on which cracks form will help in determining the [root cause of a failure](#), therefore improving safety.

Foreign Object Debris, Small Pieces Matter

by [John Goglia](#)

I recently wrote about the importance of remembering the lessons of ValuJet so we are not doomed to repeat the same mistakes. The lessons involved ensuring that low-cost airlines have adequate infrastructure to support growth, fleet mix and oversight of outsourced maintenance. Specifically,

those lessons center on complex oversight issues of airline operations and management of outside contractors. After all, determining adequate airline infrastructure to oversee growth and expansion, as well as contract maintenance providers, is not an exact science and often [depends on proper auditing](#) to spot indicators before they grow and become big problems. While that article looked at big-picture issues that can affect the safety of flight, sometimes with devastating consequences, this month I got to thinking about how even the [tiniest items](#) can have significant safety implications. Once again, my topic is inspired by my thoughts around the anniversary of a tragic accident that occurred while I was a member of the NTSB. It also coincides with a recent Safety Alert about [minimizing the opportunity for FOD](#) (see *below*). So this month, my focus is on the smaller, more tangible problem of foreign object debris. Not a glamorous aviation subject, for sure. But, as we know, a deadly serious one.



The accident I'm referring to is the July 25, 2000 crash of an Air France Concorde on takeoff from Paris Charles de Gaulle Airport to JFK International in New York. According to the BEA (the French equivalent of the NTSB) accident report, during takeoff and shortly before rotation "the front tyre of the left landing gear [ran over a strip of metal](#), which had fallen from another aircraft, and was damaged. Debris was thrown against the wing structure leading to the rupture of [one of the fuel tanks]. A major fire, fueled by the leak, broke out almost immediately under the left wing." The aircraft took off but was unable to gain height or speed and crashed shortly thereafter into an airport hotel, killing all on board (100 passengers and nine crewmembers) and four people on the ground.

The NTSB was initially an observer on the accident investigation but was subsequently made an accredited representative as issues involving the origin of the aircraft debris—from a U.S. airliner—became prominent. According to the French report, the metal piece fell off a Continental DC-10 because the aircraft had been [improperly maintained](#). Since the aircraft had taken off just five minutes before the Concorde, the debris could not have been reasonably found and cleared in advance, the report concluded. So while spotting and removing this debris before the Concorde began its takeoff roll was unlikely, this accident illustrates how critical the consequences of [even a small piece of debris can be](#).

Although the debris that caused the Concorde crash would have been more difficult to prevent, the NTSB Safety Alert points to a number of recent accidents where the debris that apparently caused the crashes could have been noted and removed in advance. [The NTSB highlights the problem as follows](#):

- *Mechanics, or others who help with aircraft maintenance, might leave items or residual debris behind after performing maintenance tasks that could become foreign object debris (FOD). Examples of FOD include tools, hardware, eyeglasses, keys, portable electronic devices (PEDs), paint chips and metal shavings.*
- *If mechanics and others do not account for every item that they use in or around an aircraft and clean as they go, this FOD can be ingested into the engine or interfere with critical flight systems, leading to an accident.*

ACCIDENT HISTORY

The NTSB cites five accidents it has investigated since 2010 in which FOD was involved. Two separate helicopter accident investigations found evidence of maintenance [rags or towels](#) that had been ingested. In one case material consistent with a towel was found in the inlet guide vanes and in the compressor section. The helicopter engine had been replaced on the day of the crash. In the other, the NTSB found “material consistent with rags used by maintenance personnel during installation of the air inlet barrier system ingested into the engine intake.” A third helicopter accident—an Airbus AS350—involved [a wrench](#) that had been used on the top of the main rotor head. As the aircraft was flown on the test flight after maintenance, the wrench that had apparently been left on the helicopter damaged “one main rotor blade, the tail boom and the lower vertical stabilizer.”

The last two accidents discussed by the NTSB involve airplanes: a Kitfox Series 5 and a True Flight AA-5B. In the former accident, investigators determined that a [hardware clamp and a leather work glove](#) had been left “beneath the boot and the tube seat structure and the control column bearing.” This impinged on the elevator control and resulted in the pilot losing control of the aircraft and crashing into the Atlantic Ocean. The latter accident involved the aircraft engine losing power because [paint chips](#) “obstructed the fuel filter, which led to fuel starvation.” The pilot reported to the NTSB that the aircraft had recently been painted.

It seems clear that proper maintenance practices would have prevented all five of these accidents. And while I agree with the importance of the safety alert to mechanics and other maintenance providers, [I would expand the warning to include anyone working around aircraft or on the airport](#). I have seen vehicles of all kinds—motorized and non-motorized—lose pieces and parts on the ramp, taxiway and even runway areas. The most common debris is [nuts and bolts](#) that have come loose and fallen off. While ramp workers are supposed to be trained to look out for FOD and dispose of it appropriately, and many airports have numerous signs to this effect, I’ve seen far too many ramps where attention to FOD could use improvement. Not too long ago, a baggage handler at London Heathrow [forgot a scanner](#) on an engine cowling. The aircraft took off and the scanner was ingested into the engine, causing approximately \$6 million in damage. Fortunately the pilot was able to land the aircraft safely.

SAFETY ALERT FOR MINIMIZING FOD

The NTSB's Safety Alert lists actions workers can take to minimize the chances of FOD being left behind to do damage:

- *Perform an inventory of tools, personal items and personal protective equipment before working on an aircraft. Take only what is necessary for the specific maintenance task. Consider placing nonessential personal items such as jewelry, coins, keys and PEDs in a secure location instead of keeping them with you during maintenance tasks.*
- *Prepare the workspace on the aircraft by covering engines, pitot static ports, air inlets, and other areas with protective materials to reduce the likelihood of FOD migration (including residual debris, such as paint chips or metal shavings) to critical flight systems.*
- *While working in low-visibility areas (ramp/hangar), ensure that proper lighting is used to check for FOD left behind during maintenance.*
- *Keep hardware and consumables in appropriate containers to prevent them from becoming FOD. Store tools in toolboxes and bags, and organize them so that you can easily recognize if one or more is missing.*
- *Distractions can cause you to forget things during maintenance tasks. Always follow the maintenance manual/task card and use a checklist. If you get distracted, go back three steps when restarting your work.*
- *As you perform the maintenance task, clean as you go to reduce the likelihood of leaving any items. Keep a FOD container next to you during the maintenance task for easy FOD disposal.*

- *Perform a second inventory of tools, any essential personal items, and personal protective equipment (such as safety glasses, gloves and hearing protection) after you have completed the maintenance task to ensure that items have not been left behind. Remove any aircraft protective materials so that they do not become FOD.*
- *Ask another mechanic to visually inspect your work area for any items that may become FOD. A second set of eyes might see something that you missed.*
- *Recognize that human factors such as complacency, fatigue, pressure, stress and a lack of situation awareness can contribute to FOD.*
- *Consider conducting daily FOD walks in areas such as hangars, ramps and runways to identify and remove FOD.*

<https://www.ainonline.com/aviation-news/blogs/torqued-are-we-doomed-repeat-past-mistakes>

http://www.nts.gov/safety/safety-alerts/Documents/SA_054.pdf

My New Website is Airborne and Climbing Out!

Thanks to all who checked out my new website and took the time to send me their comments. It appears that the [new site](#) has been well-received. Your feedback is valuable. I made a few corrections and changed a couple of things thanks to your ideas.



One important change is the addition of a "What's New" block in the top half of the home page. I will keep it updated and it will make it easy to find added content.

Added Content

I continue to post my analysis of aviation accidents. They are found under the accident analysis tab and then categorized by general category. I have posted several more accidents during the past week. I also posted one new article under the Articles/Videos tab.

Facebook - Soloed But Still a Student

I have finally reached 100 "Likes" on Facebook and I am always grateful for more. I am finding my way on FB, but I feel like the C-152 student pilot who just ended up in the left seat of a turboprop. I received several comments from subscribers who did not want any part of Facebook. I can relate to that because that is exactly where I was six months ago. But for a variety of reasons, Facebook is becoming a very important part of the Safety Initiative. One main reason is the extended outreach. People who would not normally be seeking out aviation safety websites have been brought in and have become subscribers. For those of you who view Facebook unfavorably, don't be concerned, I will not be posting anything on Facebook that does not appear on my website. But Facebook is the quickest and easiest way to notify people of newly-posted website material. I would encourage everyone to check out my [Safety Initiative page](#).

Vectors for Safety

The popular Vectors for Safety is still in steady flight. It now appears as a blog and has a slightly different format which allows me to spend more time creating content and less time fiddling with html code. So there will sometimes be more than one edition per month. As new editions appear, previous editions are still available and are automatically archived by month.

Editions prior to August 2016 are archived separately under their own tab. [Click here to see the Sept. 1 edition.](#)

THIS IS HOW LONG IT TAKES BEFORE COFFEE STOPS WORKING

Hate to break it to you, caffeine junkies: Coffee might feel like the Elixir of Life when you're sleep-deprived, but research says that eventually the magic fades, and you really should just hit the sack. A study presented at the 2016 meeting of the Associated Professional Sleep Societies held in Denver found that: The findings further underscore that **"sleep debt is real,"** says Tracy Doty, the research scientist at Walter Reed Army Institute of Research who led the study. "Every night you're not sleeping, you're building up increased sleep debt, and the same amount of caffeine is no longer effective." Earlier studies on the effects of caffeine on performance had typically kept subjects awake all night for multiple nights in a row. But Doty wanted to mimic a workweek, restricting sleep to five hours a night (less than the recommended seven to nine hours a night) for five nights. Doty's team recruited 48 healthy adults who slept 10 hours a night for five nights in the lab to ensure they started at the same baseline level. The following week, the researchers restricted their sleep, flipping the lights on after five hours. Doty's team randomly assigned the participants to receive caffeine or a placebo — chewing gum with or without 200 milligrams of caffeine **(equivalent to two strong cups of coffee)** — twice daily, at 8 a.m. and at noon. From the time they woke up until they went to bed, the participants underwent several rounds of tests that measured their reaction time, mood and sleepiness. "It simulates the workday and even beyond, when you get home and have a million things you have to do," Doty says.



At first, participants who chewed caffeinated gum showed significant improvements in their reaction-time performance, and they felt happier.

But after three nights of restricted sleep, their performance slid back to the levels seen in the placebo group. They were also sleepier and more irritated than those who got the placebo.

Research indicates that sleep debt — the difference between how much sleep you need and how much you get — makes it harder to perform cognitive tasks. Four cups of coffee a day might prevent the decline at first, but as Doty shows, it soon proves no match for sleep debt. “There’s no chemical that can override it,” says Namni Goel, a research associate professor in psychiatry at the University of Pennsylvania’s School of Medicine, who wasn’t involved in the study.

Doty points to the so-called adenosine hypothesis as one possible mechanism. As sleep debt builds up, the thinking goes, so does the neurotransmitter adenosine and/or its receptors in the brain. As adenosine binds to its receptors, drowsiness sets in. At first, caffeine might be able to block those receptors, preventing performance declines. But as sleep debt mounts, caffeine fails to keep up with the buildup of adenosine, its receptors or both.

To be sure, Doty’s study looked at only what happens when people consume a constant dose of caffeine at specific time intervals. While the researchers administered caffeine at 8 a.m. and at noon, let’s be real: “A lot of people would have another cup, maybe two or three,” says Goel, who wonders whether increasing caffeine intake would counteract decreases in performance. Doty says she plans to answer this question in follow-up research.

If you anticipate a sleepless workweek, try clocking in 10 hours of sleep a night for a few days beforehand, which will fill your sleep bank enough for you to power through, Doty says. Basically, “there’s no such thing as a free lunch ... Eventually, you’ll have to sleep.”

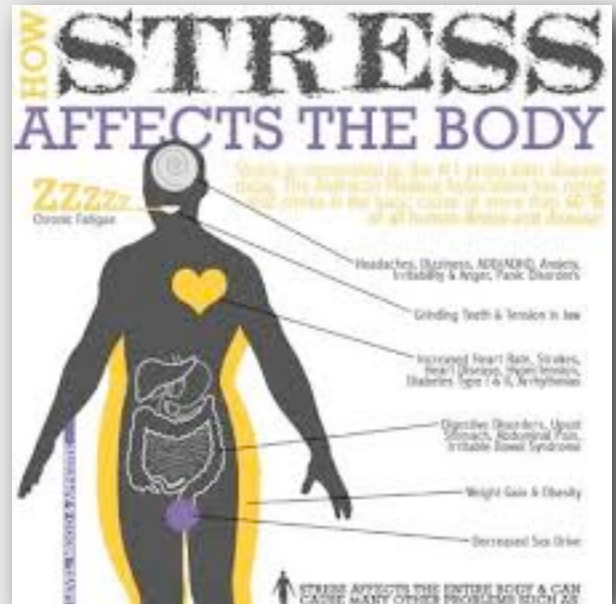
http://www.sleepmeeting.org/docs/default-source/default-document-library/sleep-39-as_final.pdf?sfvrsn=2%20target=

Just As You Feared, Hating Your Job Is Also Wrecking Your Health

New research suggests troubling links between job dissatisfaction and [physical and mental health troubles](#).

You know that saying, "This job may be hazardous to your health?" Those words, according to a recent study, might not solely apply to careers spent around toxic waste or malfunctioning equipment—they could very well describe any career that's leaving you unsatisfied.

Ohio State University (OSU) surveyed workers between 25 and 39 about both their job satisfaction and physical and mental health (building off a study from the '70s), and found that those who expressed lower levels of fulfillment in their career were more likely to also report issues [like depression or sleep difficulty](#).



Maybe that's not too surprising: If you're not happy at work, your emotional well-being is bound to take a hit. But the results suggest that the effects may go further: Those with low satisfaction throughout their careers were also more likely to be diagnosed with [emotional issues](#), the study says, and tend to worry excessively.

Even your physical health can take a toll: Unsatisfied workers were more likely to report back pain, for instance, and also claimed to become ill with greater regularity than respondents who said they were content in their career.

"The higher levels of mental health problems for those with low job satisfaction may be a precursor to future physical problems," Hui Zheng, a sociology professor at OSU and author of the study, said in a statement. "Increased anxiety and depression could lead to cardiovascular or other health problems that won't show up until they are older."

Though there's no way to predict or guarantee how you'll eventually feel about a given job, OSU's study should serve as a wakeup call for job seekers. Take a close look at an employer's workplace culture, whether you're reading reviews on [Kununu](#) or simply observing your surroundings when you come onsite for an interview. Do people seem happy to be working there? It's not a trivial question.

Of course, it also helps to have a short list of fields where workers love what they do. A recent survey conducted by Monster and social media analytics firm Brandwatch included just that, identifying which industries tended to employ people who love their jobs. Travel, education, and media all ranked highly—but location counts, too. According to the survey, workers in low-population states like Idaho, Montana, and North Dakota were more likely to express job satisfaction.

And if you're still worried about your job potentially affecting your mental health, we've got good news: Another study ranked numerous careers by their likeliness to safeguard your brain against Alzheimer's disease. The key element? Working closely with other people: Physicians, lawyers, and speech pathologists were among the highest-ranking roles.

<https://news.osu.edu/news/2016/08/22/lousy-jobs/>
<http://www.bls.gov/nls/>

<https://www.kununu.com/us>

<http://www.monster.com/career-advice/article/love-hate-study>

<http://www.monster.com/career-advice/article/job-prevent-alzheimers-study-0816>

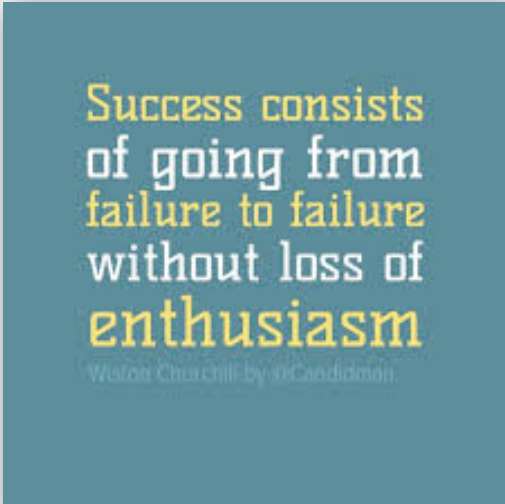
A 3 step system to come out smarter after failure:

#1. Name it. Address the past.

Name the bad decisions and behaviors that led to failure.

- I didn't explore constructive dissent.
- I allowed others to lower my standards.
- I didn't discuss this with mentors, advisors, or a coach.
- I assumed things would go smoothly.
- I put confidence in untested team members.

The most important benefit of failure is humility.



Success consists
of going from
failure to failure
without loss of
enthusiasm

Winston Churchill by @Candidman

#2. Claim it. Own the present.

Own the negative impact of failure on yourself, individuals, teams, customers, and your organization. Complete these sentences:

1. Our team lost momentum because I ...
2. We lost revenue because I ...
3. Our customers were disappointed when I ...
4. I let myself down when I ...

#3. Reframe it. Move toward the future.

Forward-facing reframe:

1. My personal aspirations are (Don't say your aspirations are to stop failing.)
2. Next time I'll
3. Invite input. What suggestions for future success do you have for me?
4. I need to stop _____ , in order to be the manager I aspire to be.
5. I need to _____, in order to be the leader I aspire to be.

Wisdom-gaining reframe:

1. I'm learning that managing requires
2. I'm learning that my team needs
3. I see in myself a
4. I'm thankful for

Failure tips:

1. Don't sweep failure under the carpet. *Failing to benefit from failure doubles defeat.*
2. If your organization shoots its wounded, get the most from failure with someone you trust.
3. Use the 'three steps to come out smarter after failure' with yourself, direct reports, and teams.
4. Spend 30% of your time looking back and 70% of your time looking forward.
5. Address failure from a positive orientation, even when facing negative consequences.

CBS SUNDAY MORNING


UP IN THE AIR is where you'll find fans of one very buoyant sport, refining their skills just ahead of their big annual gathering next month. But it's going to take a lot to top their LAST get-together, as Lee Cowan shows us in our Cover Story:



<http://www.cbsnews.com/news/up-up-and-away/>

Aviation Human Factors Course Information

Title	Aviation Human Factors Initial
Date	December 5-6, 2016 (Monday-Tuesday)
Time	8:00am-5:00pm daily (Eastern USA time zone; same as New York time) Conducted in 2 (two) consecutive days. Each day allows for a 1-hour break at course mid-point. Total instructional time is 16 (sixteen) hours (8 hours per day).
Location	Online
Language	English
Technical Requirements	Click here for technical requirements to join the course
Who Should Attend	This course is beneficial, relevant, and highly applicable to <u>anyone</u> that works in the aviation industry. This includes line personnel as well as all levels of management. Maintenance engineers, pilots, cabin crew, flight instructors, air traffic controllers, airport workers, or anyone else employed in the aviation industry are encouraged to attend this important training.
Learning Outcomes	<ul style="list-style-type: none"> • Understand Human Factors and their implications on the job • Increase awareness of error-provoking conditions at the organizational and local levels • Apply personal error mitigation and reduction strategies
Included	<ul style="list-style-type: none"> • Course Slides (electronic) • Handouts (electronic) • Certificate of Training (with successful course completion)
Main Topics	<ul style="list-style-type: none"> • General/Introduction to Human Factors • Human Error • The Dirty Dozen • Safety Culture/Organizational Factors • Human Performance and Limitations • Communication • Teamwork • Procedures and Information • The Environment • Professionalism and Integrity • Summary of Major Aviation Human Factors Accidents • Various Case Studies/Exercises

Meet Your Facilitator	 <p>Dr. Robert (Bob) Baron TACG President/Chief Consultant Click here for Dr. Baron's full biography</p>
Fees (all fees are in USD)	<ul style="list-style-type: none"> • 1 attendee: \$995.00 • 2 attendees (from same company): \$895.00 per attendee (\$1,790.00 total) • 3 attendees (from same company): \$795.00 per attendee (\$2,385.00 total) <p>--Company flat-fee option (maximum 15 attendees from same company): \$5,995.00 flat-fee (total)</p> <p>To register and pay for this course, or for more information or questions, please send an email to Dr. Bob Baron at tacg@sccoast.net</p>
Cancellation Policy	<p>Customer Cancellations</p> <ul style="list-style-type: none"> • Cancellations received more than 5 days prior to class will be refunded training fee in full. • Cancellations received less than 5 days prior to class, and no-shows, will not be refunded training fee. • Attendee substitutions may be made at any time. • Please note that if you do not cancel, or do not attend, you are <u>not eligible for a refund</u>. • Please ensure before course start that you have the minimum technical requirements for this online course (see Technical Requirements above). TACG is not responsible for attendee technological problems arising from hardware, software, or Internet issues that may occur during the course. <p>Cancellation of Course by TACG</p> <ul style="list-style-type: none"> • TACG reserves the right to cancel, or change, a class at any time, including, but not limited to, lack of participation, classroom, equipment or facilitator availability. • Notification will be provided within 5 days of the class, whenever possible. A full refund or a credit will be offered. • TACG is not liable for any direct, or indirect, consequential or special damages that may be incurred due to a cancellation of a scheduled class, including, but not limited to, lost opportunities, revenues, or other scheduled activities. The customer or student's sole remedy shall be the refund of prepaid course fees.

https://support.citrixonline.com/en_US/Training/help_files/G2T010003

<http://www.tacgworldwide.com/bio.htm>

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