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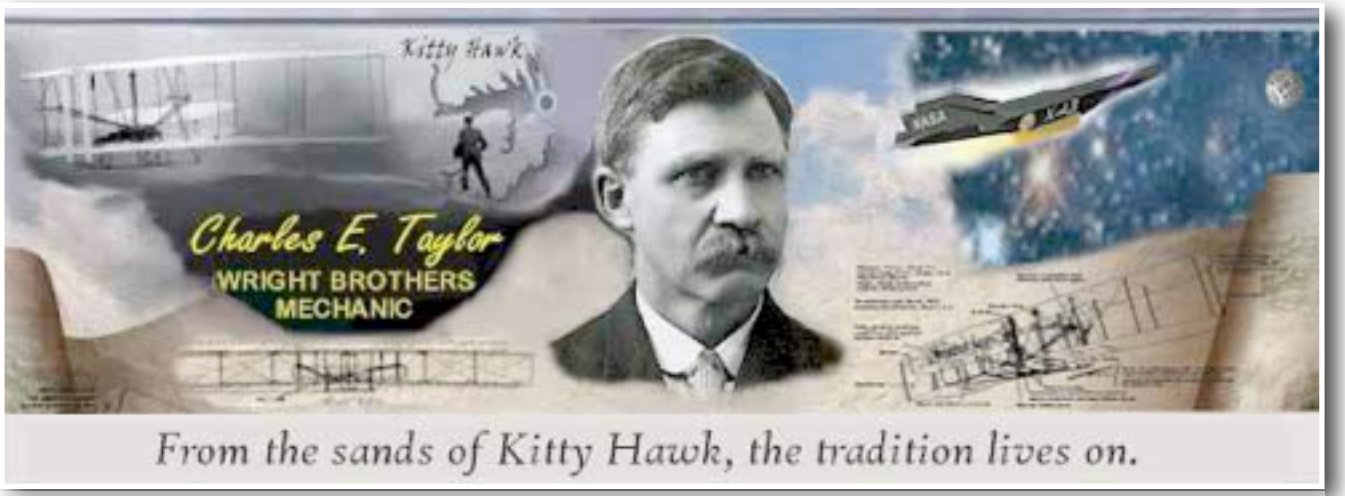


Hello all,
To subscribe send an email to: rhughes@humanfactorsedu.com
In this weeks edition of *Aviation Human Factors Industry News* you will read the following stories:

The Magic of Mentoring

After earning a new airman certificate, attesting to your freshly-acquired pilot or mechanic qualifications, you might be faced with the question – What do I do now? That's where a mentor comes into play. An aviation mentor can help you continue your aviation learning odyssey safely and more effectively through experience transfer, i.e., sharing events and outcomes that can help you learn faster while making fewer mistakes along the way. For more on the benefits of a mentor, check out the article "What Do I Do Now?!" on page 20 of the July/August 2011 issue of FAA Safety Briefing.

http://www.faa.gov/news/safety_briefing/2011/media/JulAug2011.pdfProduced by the FAA Safety Briefing editors

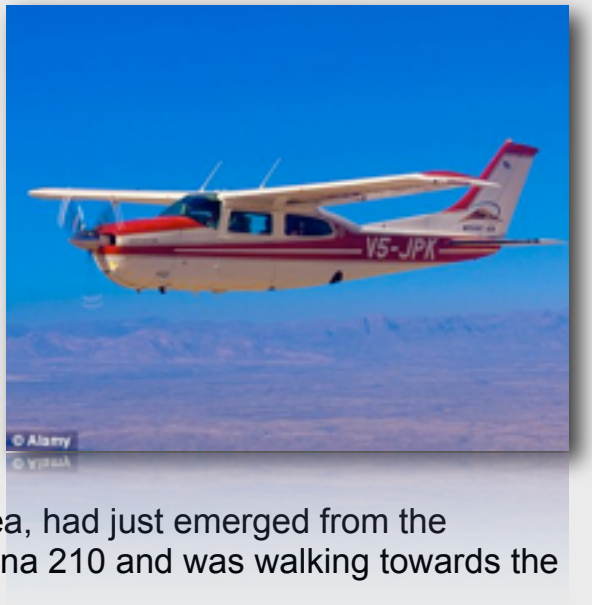
Wichita aircraft worker dies following accident

A longtime Wichita aircraft worker has died from injuries he suffered in an accident on the job. Officials of Spirit Aerosystems say Jerry Milligan was injured Thursday afternoon when he and other workers were moving a fuselage panel. Milligan died Saturday at a Wichita hospital. Spirit issued a statement saying it's investigating details of the accident and cooperating with outside investigators.

Milligan was a 24-year employee of the plant. Spirit AeroSystems was formed in 2005 when Boeing spun off its commercial aircraft operations in Wichita and Oklahoma.

Woman dies of horrific injuries after walking into light aeroplane propeller

Gruesome: The woman walked into the spinning propeller blades of a Cessna 210, like the one pictured.



A woman was killed when she walked in to the propeller of a small plane she had just got out of.

The 40-year-old victim died of her injuries on the airstrip in Humboldt, near Saskatoon, Canada, after walking into the blades while trying to take a photograph.

The woman, who is from the Annaheim area, had just emerged from the passenger side of the single-engined Cessna 210 and was walking towards the front of the plane.

The light aircraft was had just landed and was stationary, but the propeller was still spinning when she walked into it, police said.

They believe she had been trying to take a photograph before the blades struck her.

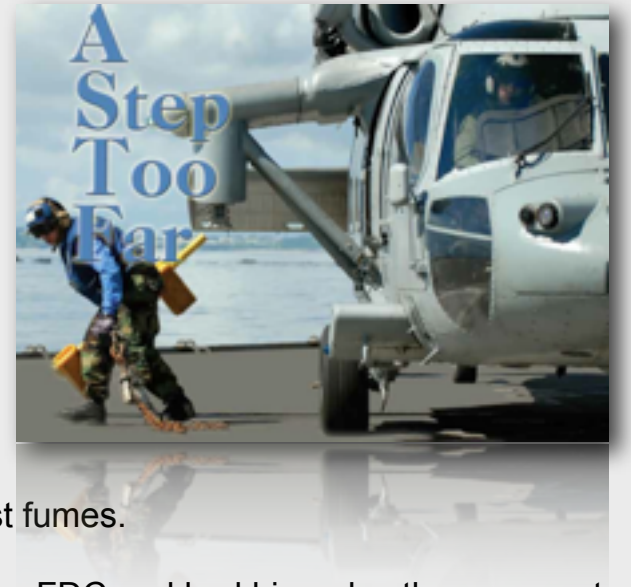
Transport Canada is investigating the tragic incident. Police have withheld the victim's name at the request of her family.

A Step Too Far

It was a normal day for HS-14 aboard USS George Washington (CVN-73); we had just finished work on one of our squadron's helicopters. After the pilots started engines and engaged the rotors, another trainee and I asked for permission to enter the rotor arc. The LSE got the pilot's attention and waved us in toward the helicopter.

While we waited for the hand signal to pull chocks and chains, I noticed someone outside the rotor arc pointing at the tail section of the aircraft. I looked back to see what they were pointing at—the lower footstep had not been stowed in the correct position. I pointed back toward the tail, and the LSE gave me a nod.

I carefully walked back along the frame of the helicopter, keeping my body low to the ground, and secured the footstep.



After the helicopter departed, a QAR approached me and told me I had violated a major safety rule. With the rotors engaged, personnel inside the rotor arc are not permitted to go aft of the transition section because of the potential hazards associated with the spinning tail rotor and engine-exhaust fumes.

In retrospect, I should have alerted the FDC and had him relay the concern to the pilots so they could disengage the rotors. This only would have added another five minutes to preflight. Delaying an event by five minutes or being cut in half by the tail rotor, which is worse? After asking the LSE why he gave me permission to stow the step with rotors engaged, we both came to the conclusion that it was a case of miscommunication. Go figure.

'Macho attitudes' a danger for pilots

The peak air safety body is frustrated that too many pilots are still dying from aircraft accidents. Some industry insiders blame a 'macho' culture and lack of training.

The safety of Australian pilots is being compromised because of "macho attitudes" and license costs deterring some pilots from getting extra training, experts say.

Julian Walsh from the Australian Transport Safety Bureau says the high cost of an optional bad weather license – called an Instrument Flight Rules (IFR) rating - can put private pilots off from getting potentially life-saving training.

"Instrument flying does take a lot of skill and it's not the sort of thing you can sort of pick and do from time to time," he said.

"As well as holding a license you need to practice it and it requires recurrent training and checking. So the maintenance of an IFR license can be quite onerous as well."

Having the IFR license means a pilot is able to fly a plane solely through flight instruments when weather conditions reduce visibility. Such training is required for a commercial license, which is needed to work as a commercial pilot in Australia.

"For some reason, pilot training tends not to get the HECS (Higher Education Contributions Scheme) and the benefits from the government," said Peter Forsyth, Chairman of Safeskies Australia, a not-for-profit that runs aviation safety conferences.

"It's a disincentive for people to go through the traditional training schemes which are expensive."

Flying schools in Australia are quoting up to $22,000 for a basic private pilot license with a Visual Flight Rating (VFR), which allows pilots to fly only when the weather is good and visibility is clear. However the additional IFR training can cost as much as $17,000.

Statistics from the ATSB show 3558 general aviation aircrafts were involved in accidents or fatalities last year compared to 2,381 aircrafts in 2001. More than half of the total fatal accidents came from private operations.

Even with bad weather training, industry experts said poor decision-making and a well-known attitude called 'get-there-itis' are still putting pilots at risk.

Get-there-itis refers to pilots continuing on during a flight when the weather is worsening.

"In some cases there's an additional pressure on a commercial pilot flying a charter flight because people are paying for them to fly them to a place," said Mr Forsyth.

"In some cases it could be that an individual has a macho attitude to everything and a macho attitude to flying."

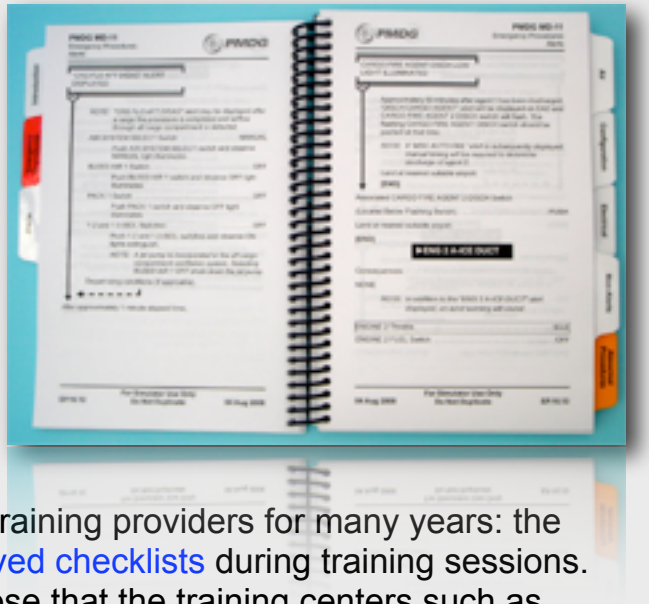
Pilot and former plane instructor David Connell said students learn about get-there-itis during training, but more decision-making training needs to be done.

"There's no formal training day in the VFR syllabus, specifically during practical flight to identify it," said Mr Connell.

The Civil Aviation Safety Authority, who police the skies and produce the training syllabuses for pilots declined to comment.

A Senate inquiry in June recommended a review be conducted into general aviation and cadet pilot training, and HECS HELP fee support.

Checklist conundrum offers no easy answers



One lesson to be learned from the July 31, 2008, crash of a Hawker 800 in Owatonna, Minn., according to the NTSB, is that trying to initiate a go-around late in the landing roll might not be a good idea. But one factor that the NTSB highlighted in its conclusions about that accident points out a more significant issue, "lack of checklist discipline throughout the descent and approach phases of the flight." In highlighting checklist discipline, the NTSB identified a subtle issue that has frustrated operators and training providers for many years: the FAA's requirement that pilots use approved checklists during training sessions. The checklists that are approved are those that the training centers such as FlightSafety International, SimuFlite and SimCom have had approved under their 14CFR Part 142 training certificates. The FAA allows operators to modify checklists to fit their particular operation, but operators cannot use their own modified checklists during training. The result is that pilots training at third-party training companies must use approved checklists rather than their own, which could create a safety issue. "We're normalizing deviance," said David Bjellos, corporate pilot and president of Daedalus Aviation Services, during a presentation at the NBAA/Flight Safety Foundation Corporate Aviation Safety Seminar in April.

Checklist Consistency in Training

The NTSB is concerned about this deviance, too, and one of its recommendations to the FAA after the Owatonna accident specifically addressed the issue: "Require principal operations inspectors of Part 135 and 91 Subpart K [fractional] operators to ensure that pilots use the same checklists in operations that they used during training for normal, abnormal and emergency conditions."

It would be easier if everyone involved–airlines, charter operators, Part 91 operators and so on–would simply use the original equipment manufacturers' (OEMs') checklist and leave it at that. But as Bjellos pointed out, OEM checklists aren't always ideal for a particular operation. Airlines modify checklists to fit their way of operating. And some checklist items might not apply and need to be removed, while others need to be added due to aircraft modifications or changes in procedures.

Part 91 operators can create their own checklists without formal FAA approval, while commercial operators and fractional operators must have their checklists approved or accepted by the FAA. But because training companies' hands are tied by Part 142, there arises the problem of one checklist being used during training and another during normal flight operations.

To train at a Part 142 training center with a non-OEM checklist, a customer would have to obtain a letter of no objection (LONO) from the FAA. In a response to a query from Bjellos, the FAA noted, "When using a curriculum in a Part 142 training center, non-certified [Part 91] operators must follow and complete FAA procedures required to replace the center's approved checklist with the operator's checklist. Operators must also ensure the center's personnel are trained on differences."

Neither FlightSafety nor SimuFlite responded to AIN's questions about the issue of LONOs and customized checklists. A SimCom spokesperson told AIN that it hasn't "had an opportunity to work with a customer through this process," which seems to indicate that operators and pilots are simply going along with the use of OEM checklists during training. "We would gladly provide assistance and guidance to our customers through this regulatory process," the spokesperson stated.

With regard to the use of custom checklists during training, SimCom added, "Checklist modifications that enhance the overall safety of an operator/flight department are a positive for our industry. However, since aircraft certification is based on the manufacturer's flight data, limitations and procedures, approval for checklist variations needs to come from either the people who build it or the people who approve it." SimCom does have Part 135 customers that use modified and FAA-approved checklists during training.

While it is hard to quantify the benefits of training with the checklists used during flight operations, there is one example of checklist integration that has been part of a dramatic improvement in safety. When the FAA issued a special FAR for mandatory training in the Mitsubishi MU-2 in February 2008, it also required that all pilots use the Mitsubishi factory checklist or an FAA-accepted checklist. Since the SFAR was issued (some training under the SFAR requirements began before the rule became final in February 2009), the number of MU-2 accidents has dropped significantly.

In a response to the NTSB recommendation for consistent checklist use during training and normal operations, the FAA sent this, dated June 10, 2011: “From J. Randolph Babbitt, Administrator: The FAA agrees that the same checklists used in operations should also be used during training. We will review existing policy guidance on outsourced training provided to inspectors and training center program managers to determine if additional guidance or a change in policy is necessary. I will keep the Board informed of the FAA’s progress on this safety recommendation, and I will provide an update by July 2012.”

More emergency training urged for pilots

FAA panel seeks improvement in flying skills, better hiring

Commercial pilots need to improve their flying skills, especially during

unexpected "upsets" that can turn flights into disasters, and airlines should make sure their hiring and training practices produce the best pilots possible. Those are the conclusions of a panel of industry experts charged by Congress with reviewing pilot training in the wake of the February 2009 crash of Continental Connection Flight 3407 in Clarence, which claimed 50 lives.

"The U.S. air carrier industry faces significant near-term challenges," said the Federal Aviation Administration's Air Carrier Safety and Pilot Training Aviation Rulemaking Committee. "As it addresses these challenges, the industry must ensure continued progress in enhancing flight safety and pilot training."

The report, dated July 31 and obtained by The Buffalo News even though it has not been officially released, outlines a series of 24 pilot-training "best practices" that should be adopted industrywide.

Some of those best practices, such as requiring simulator training on sudden emergency "upsets," would be required under revised pilot-training rules suggested by the FAA in May.

The report also echoes many of the conclusions of "Who's Flying Your Airplane," a 2009 Buffalo News series about pilot-training deficiencies.

For example, the report stresses the need for pilots to have strong manual flying skills, even though commercial planes mostly fly on autopilot.

"In the case of automation not being available or utilized, the successful outcome of the flight depends on the proficiency of the pilot manually manipulating the flight controls," the report said.

It's especially important that pilots know how to use the controls when things go wrong on a flight, the authors added.

On Flight 3407, federal investigators found that the pilots responded incorrectly when the plane slowed into an aerodynamic stall, thereby losing control and crashing the plane.

Recent plane crashes have proved that more simulator training is necessary to prepare pilots for the worst things that can happen during flight, from bad weather to mechanical problems, the report concluded.

"The pilot should not experience the full dynamics of a deflated tire on landing for the first time with passengers onboard," the report said. "Pilots should perfect these tasks under conditions as realistically simulated as possible while under the effect of the stress that will accompany them."

While pilots are trained now under uniform but outdated FAA rules, industry experts have long said there is wide variation in training at different airlines. Many longtime pilots suspect there is a gap between the comprehensive continuing training at major airlines and that at regional airlines such as Colgan Air, which operated Flight 3407 for Continental.

To address that concern, the authors of the report -- many of them experienced pilots -- stressed that airlines need to adopt best practices such as:

- Ensuring that their air crews are trained in "crew resource management" -- working together in the most efficient way -- as well as threat and error management.
- Implementing leadership and command training.
- Developing uniform standards for flight instructors and safety and training directors.
- Putting new pilots in the cockpit first as observers in the spare seat before they are allowed behind the controls.

Meanwhile, airlines can improve their hiring practices, the panel said.

"Several U.S. air carriers have excellent structured hiring practices that have been improved over time and have demonstrated their value by consistently identifying the best candidates," the report said, suggesting that other airlines do the same.

Hiring appeared to be an issue at Colgan. Capt. Marvin Renslow, the pilot of Flight 3407, failed several test flights but was hired anyway.

The report comes as the FAA works toward finalizing its new pilot-training rules, which some in the aviation industry have resisted, fearing the additional costs associated with more simulator training and other new requirements.

But Sen. Charles E. Schumer, D-N.Y., said the panel's findings should carry a lot of weight at the FAA.

"The FAA must take these recommendations to heart and use them to implement tough safety standards that will truly raise the bar for aviation safety and create a uniform standard throughout the airline industry," said Schumer.

FAA proposes $155,000 in civil penalties against American Eagle Airlines

The Federal Aviation Administration (FAA) is proposing $155,000 in civil penalties against American Eagle Airlines of Fort Worth, Texas for allegedly operating eight flights with incorrect weight and balance data, and for using improper maintenance procedures when repairing a jet engine and then operating the aircraft when it was not in compliance with FAA regulations.

FAA inspectors observed 12 American Eagle flights arriving at Dallas/Fort Worth International Airport, Dec. 28-29, 2010. In eight instances, loading documents for checked luggage did not match observations made by the inspector.

American Eagle's FAA-approved weight and balance program calls for the use of an automated Electronic Weight and Balance System (EWBS) to make sure aircraft are operated with correct weight and balance information. However, accurate data must be entered for the EWBS to function properly.

Operators may not exceed an aircraft's weight limit when loading the plane and the weight must be distributed so that the aircraft remains in balance during the flight.

The FAA alleges American Eagle entered inaccurate data in the EWBS, then operated the aircraft with incorrect weight and balance information. The proposed civil penalty is $80,000.

The FAA also alleges American Eagle used improper procedures to repair an engine on one of its Embraer 135 regional jets, and that a mechanic signed off as "complete" on work he had not performed. As a result, American Eagle operated the aircraft on 34 flights between Sept.11 and Sept. 17, 2010, when it was not in compliance with regulations. The proposed civil penalty is $75,000.
American Eagle has 30 days from the receipt of the FAA's enforcement letters to respond to the agency.

SAFETY LEADERSHIP

Check the Conference Board of Canada's web site and you'll find the following principles of leadership in safety:

Safety Leadership Credo

1. I subscribe to the principle that health and safety of my employees, contractors, visitors, and our surrounding community are an integral part of our business strategies, processes and performance measures. I strive to provide leadership for ongoing health and safety improvements, internal capacity for my team to eliminate, minimize or control hazards in our workplace.
2. I agree to provide an environment that enables all employees to participate and work collaboratively in developing, promoting and improving health and safety at work.
3. I aim to extend health and safety efforts beyond the workplace, recognizing and supporting related initiatives within the community and our families.

4. I commit to lead and participate mindfully within my organization's health and safety framework, improving health and safety strategies, programming and performance.

Pretty solid principles, don't you think?