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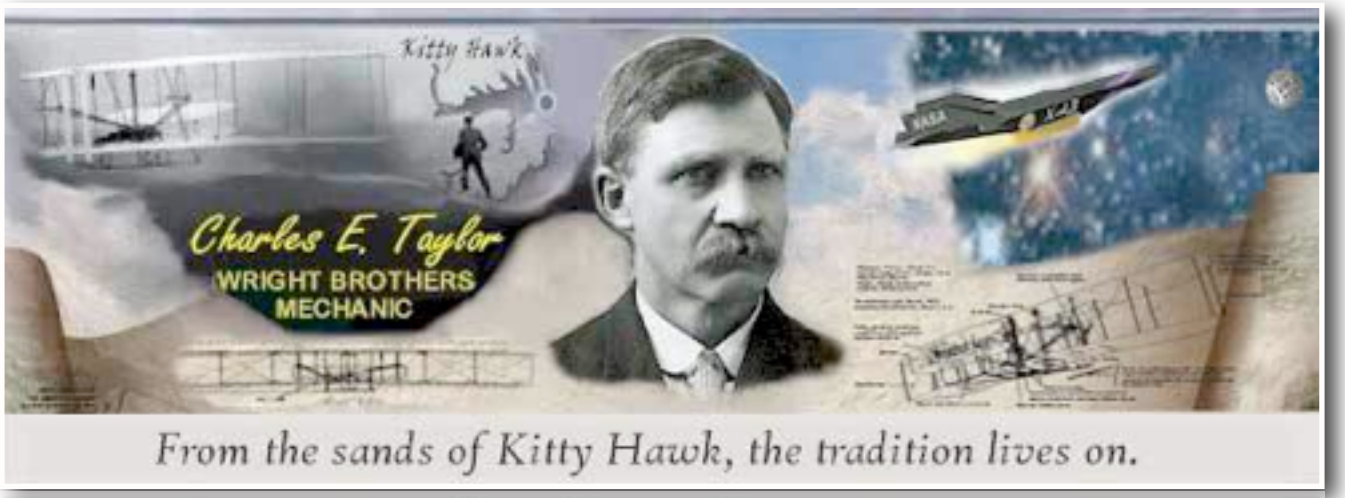

Hello all,

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

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★Human factor named most likely reason for Boeing-737 crash

★Dutch watchdog warns of stall risk in planes on autopilot using airport landing systems

★Stunning footage shows an Airbus A380 fully evacuated in 90 seconds

★Call-sign confusion leads to near miss between two Boeing 737s at Oslo Airport, Norway

★Imperfect repairs in Russia caused MiG-31 aircraft to crash near Karaganda: Kazakhstan Military Prosecutor

★Leading A Shipmate Astray

★And Much More

ICAO's Annex 19 – Safety Management

The value of safety in the aviation community has manifested itself in the form of a new annex published by ICAO. Annex 19, Safety Management became effective on November 14, 2013, some 30 years after Annex 18 was issued.

With air traffic projected to double in the next 15 years, safety risks must be addressed proactively to ensure that this significant capacity expansion is carefully managed and supported through strategic regulatory and infrastructure developments.Annex 19 reinforces the role played by States in managing aviation safety, stressing the concept of overall safety performance in all domains in coordination with service providers.

The first Edition consolidated the existing and overarching SARPS, previously contained in six different Annexes, into a single Annex:

- Annex 1 – Personnel licensing
- Annex 6 – Operation of aircraft
- Annex 8 – Airworthiness of Aircraft
- Annex 11 – Air Traffic Services
- Annex 13 – Aircraft Accident and Incident Investigation
- Annex 14 – Aerodromes

Contents of the new annex include the following:

- State safety management responsibilities
- Safety management system (SMS)
- Safety data collection, analysis and exchange
- State safety oversight system
- Framework for a safety management system (SMS)
- Framework for a State safety program (SSP)
- Legal guidance for the protection of information from safety data collection and processing systems

As can be discerned from the contents, the Annex caters to Civil Aviation Authorities and Service Providers, working together with the same thought, under the same safety culture, in the same cause.

http://www.icao.int/safety/SafetyManagement/Pages/Annex-19,-1st-Edition---Executive-summary.aspx

Human factor named most likely reason for Boeing-737 crash

Just three days after 50 people died in the crash of a Boeing 737 in Russia, a government panel said the pilots climbed too steeply after their first missed landing attempt, then lowered the nose to try to gain speed, but they overcompensated and sent the airplane into a near-vertical dive. The Interstate Aviation Committee said there were no problems with the airplane or any of its systems, according to The Associated Press. The report was based on an analysis of the flight data recorder. The cockpit voice recorder's tape has not been found, the AP said, although the box itself was recovered.An official from Tartarstan Airlines said in a news conference on Tuesday that the two pilots had undergone all the required instruction, and their total time was 1,900 and 2,500 hours. Neither of the pilots had any known prior experience with executing a second landing attempt in the 737, the official said. The airplane, which was 23 years old, had undergone regularly scheduled maintenance last week, just two days before the crash. The FDR showed the airplane's engines and other systems all were working fine up to the moment of impact, according to the AP. The report also said the climb and subsequent dive lasted about one minute, and the aircraft hit the ground at about 280 mph, according to the AP.

Dutch watchdog warns of stall risk in planes on autopilot using airport landing systems

A Dutch safety watchdog issued a warning recently about a potential risk when planes using autopilot and an airport's automated landing system approach a runway at too steep an angle.

The Dutch Safety Board said that airport Instrument Landing Systems can give planes flying on autopilot inaccurate information.

The board said that's what happened during a May 31 incident at Eindhoven Airport in the Netherlands this year during which a plane narrowly avoided stalling just before landing.The board's warning, sent to aviation officials around the world, says that if a plane approaches a runway at greater than a three-degree angle, the airport system could tell the autopilot to raise the plane's nose, increasing risk of a stall.

An antenna type called "M-array" was a common factor in three incidents the board analyzed — in Eindhoven and similar situations at Amsterdam's Schiphol Airport in 2011 and at Charles de Gaulle Airport in Paris last year.

"The M-array ILS antenna type is used around the world," the board said in its warning. It did not mention any manufacturers of such antennas.

The three incidents mentioned by the safety board and a test it carried out involved aircraft from four different manufacturers.

The board said that pilots should be aware of "the dangers accompanying flying in the area above the three-degree glide path during the approach" to landing.

"This is a pilot awareness issue and it is fixable," said John Cox, an aviation safety consultant and former US Airways pilot. "I would call it a moderately big deal. It is something that needs to be out there and pilots need to be aware of it."

The Dutch board said a wrong signal was sometimes present at a six-degree angle of decent and always at a nine-degree descent.

"It is very unusual to be that far off the glide slope," Cox said.

The Dutch agency appealed to other operators to contact it if they believed a similar incident had happened on one of their flights.

Stunning footage shows an Airbus A380 fully evacuated in 90 seconds

When the cabin crew gives its safety demonstration at the start of a flight, do you ever ask yourself 'What would I really do if this thing went down?'

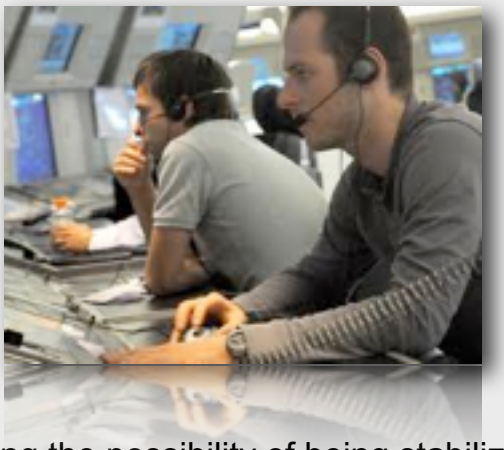
Judging by how agonizingly slow some people are at boarding the plane, you must wonder how quickly they could vamoose in a real-life emergency.

Well, under the US Federal Aviation Administration's and the European Aviation Safety Agency's regulations, any aircraft with a capacity of 45 people or more must be able to empty in less than a minute and a half, Quartz reports.For an Airbus A380, that means all 853 passengers and 20 cabin crew need to hightail it down those inflatable slides in fewer than 90 seconds.

Watch it happen in this incredible video.

http://www.youtube.com/watch?feature=player_embedded&v=XIaovi1JWyY

Call-sign confusion leads to near miss between two Boeing 737s at Oslo Airport, Norway



On 31 October 2012, an aircraft proximity situation occurred between two Boeing 737-800 passenger aircraft from Norwegian Air Shuttle during a simultaneous missed approach (NAX741) and departure (NAX740) at Oslo Airport.

Flight NAX 741 (LN-DYC) was arriving from Trondheim Airport, Norway with a strong tailwind on final approach. The investigators believe that the flight crew on NAX741 had unrealistic expectations regarding the possibility of being stabilized no later than at 1000 ft Above Field Elevation.

The decision to initiate a missed approach procedure was taken at a late stage and was unexpected by the final controller and tower controller.
NAX741 then came into conflict with the simultaneous departure of Flight NAX740 (LN-NOM) bound for Trondheim.

Visibility conditions were such that the tower controller could not maintain visual separation between the two aircraft. Both were climbing, one after the other. The tower air traffic controller instructed NAX741 to divert west. A mix-up of call signs occurred and led to NAX740 executing the clearance given to NAX741. The minimum horizontal distance between the aircraft was approximately 0.2 NM (370 m) whereas the vertical separation was 500 ft (152 m). AIBN concluded that the situation contained a real danger of collision, but further escalation was prevented because the flight crews and tower controller showed good situational awareness.

The AIBN considers established and practiced procedures to be conductive to recognizing situations and averting them before they become critical. Data from the Cockpit Voice Recorder (CVR) was not secured in this incident. CVR data is important to understand the sequence of events, and the AIBN therefore sees it as unfortunate when CVR data is not secured.

Imperfect repairs in Russia caused MiG-31 aircraft to crash near Karaganda: Kazakhstan Military Prosecutor

Kazakhstan Military Prosecutor blames Russia for the crash of MiG-31 military aircraft in Karaganda oblast, Tengrinews reports.

The imperfect repairs done in Russia were the cause of the MiG-31 aircraft crash, representative of the Chief Military Prosecutor's Office Zhenis Temekov said at the briefing earlier this week.
"We have done a wide range of investigative activities and forensic inquiries,

including the tests done by the Russian R&D Center for Exploitation and Maintenance of Aviation Equipment (Aircraft Maintenance and Repair Center), in the course of the investigation. Based on the Russian experts' conclusion, the crash was caused by disconnection of the flight control actuator because of inadvertent unscrewing of the nut that held its in place. According to the statement of the commission that investigated the accident, this technical problem occurred because of a procedures violation during repairs of the aircraft at the 514 Aircraft-Repairing Plant in Rzhev, Russia," Zhenis Temekov said.

According to him, the overhaul was made in the beginning of this year. "At the moment we thinking about filing a lawsuit to a Russian court for the further investigation," he added.

The MiG-31 military airplane of the Military Department No. 50185 of the Defense Ministry crashed during a training flight in Karaganda Oblast in central Kazakhstan at 10:41 p.m. on April 23, 2013. The crew ejected themselves from the plane before the crash. Commander pilot Colonel Marat Yedigeev died and aeronavigator Major Ruslan Galimzyanov was hospitalized with injuries. The accident was reportedly caused by a technical failure.

Colonel Marat Yedigeev was awarded postmortem with Aibyn (bravery) Medal of the 1st Degree for his courage and determination while on military duty.

A criminal case was initiated by the Kazakhstan military prosecutors in relation to the crash on the Article 392 of Kazakhstan Criminal Code (violation of rules for flights or preparation to flights).

Leading A Shipmate Astray

A true story from the aircraft carrier deck

Recently, a shipmate of mine (I'll call him "Nugget"), who does not work on the flight-deck but was working towards finishing his EAWS qual, asked if I could help him observe a turnover-inspection walk-through. Having just completed my own qual, I knew just where to send Nugget: the line shack. I thought nothing of it until the next day when he returned to my shop with the following story.

He had taken my advice, visited the line shack and found a PC to escort him to the flight deck. The line crew suited him up in their "best" gear: a float coat, a cranial, and a pair of the sweatiest leather gloves they could find. After a quick once-over, he was led up to the deck, in the middle of flight schedule, at night.

Our jets are well-maintained and there were no problems during the turnover inspection. However, as maintainers were finishing up their work, Nugget was blown off the jet and onto the non-skid. He bumped his head, got some bruises and scratched his knee. But he didn't end his time on the flight deck. Instead, he continued to observe topside operations.

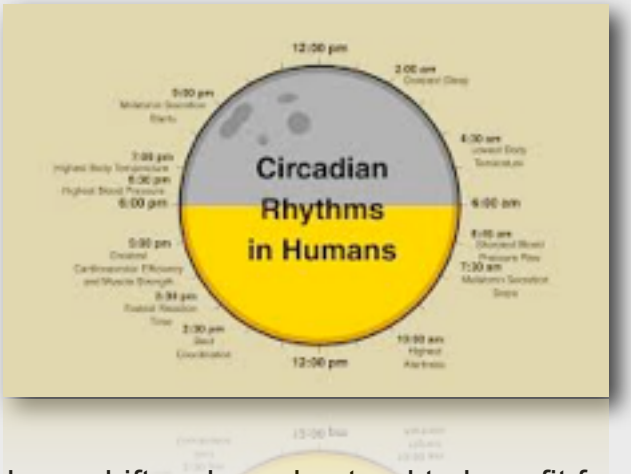
After the inspection, the flight-deck crew had to move the jet from the bow of the boat to the stern; Nugget found out how big of a place the flight deck isn't. By this time, the flight schedule had come to a close and the deck was a mass of moving jets and tractors. The PC who had been in charge of Nugget now was busy riding brakes and left him standing on the deck. Nugget wasn't given much direction other than "follow the jet and stay out of the way."

Lucky for Nugget, an alert deck chief caught him before he further harmed himself. According to the chief, Nugget wasn't wearing flight-deck appropriate pants, his cranial wasn't secured, and he had FOD in his pockets. Nugget had caught the chief's eye because he had almost run out in front of a tractor that was pulling another jet. This was the second of Nugget's safety snafus. The third would come later in the evening when he tripped over the No. 3 wire and was escorted off the flight deck with a nice cut on his shin.

Rates who work on the flight deck are familiar with its layout: They know where to be and when to be there, and they know what to do in the event of an emergency. Nugget didn't know any of this. "Stick with me" (or, "follow the jet and stay out of the way") isn't a safety brief—it's a mishap in the making.

Do Your Shiftworkers Know About Circadian Rhythms?

If you were to give all your shiftworkers a one-question test — “What are circadian rhythms, and how do they affect you?” — how many would pass?



This admittedly odd thought struck after a recent visit to a large manufacturing plant. In conversations with shiftworkers, I was surprised at how few people had ever even heard of circadian rhythms.Although there’s no need for everyone to be an expert in physiology, shiftworkers do stand to benefit from having a basic understanding of how circadian rhythms influence sleep, mood and alertness.

Click here to read the full article

FAA to Ground Obese Pilots Until Examined for OSA, Pilots Fight for Rulemaking

Pilots with a body mass index greater than 40 and a neck circumference of 17 inches or more will soon have to be tested for obstructive sleep apnea (OSA) before being allowed to fly, according to a bulletin issued by Federal Air Surgeon Fred Tilton, MD. "Untreated OSA is a disqualifying condition for airmen and air traffic control specialists (ATCSs), and it is a concern for the other modes of the Department of Transportation," Tildon says in the bulletin. "Dr Nick Lomangino has been working on this policy for quite a while, and I think he has developed an outstanding product....The next step will be to require AMEs [Aviation Medical Examiners] to calculate the BMI for every examinee (both airman and ATCS [Air Traffic Controller]) by using a formula that is located in the examination techniques section of the AME Guide....

Airman applicants with a BMI of 40 or more will have to be evaluated by a physician who is a board certified sleep specialist, and anyone who is diagnosed with OSA will have to be treated before they can be medically certificated."

Once the FAA has handled examinees with BMIs over 40, it plans to expand the testing pool to those with lower BMIs "until we have identified and assured treatment for every airman with OSA," the bulletin says.The Aircraft Owners and Pilots Association (AOPA) quickly denounced this decision via a letter to the FAA administrator and is garnering some support in Congress, as, on November 21, a group of House General Aviation Caucus members introduced legislation to require the FAA to go through the rulemaking process before implementing policy changes related to sleep disorders. “We believe this policy inappropriately bypasses the rulemaking process; overlooks potentially more effective and efficient solutions; provides no clear safety benefit; and imposes unjustified costs on the user community,” AOPA President Mark Baker wrote.

Baker's letter asserts there are "more affordable and less intrusive options" for addressing sleep disorders, including a provision in the AOPA/EAA Third-Class Medical Petition that would require pilots to participate in a recurring educational course that would teach them how to better self-assess their medical fitness to fly. The letter also warns that sleep apnea testing for the 124,973 airmen identified as obese by the FAA in 2011 could cost as much as $374 million. Affected pilots would also have to apply for a special issuance medical certificate at a time when the FAA already has a backlog of 55,000 cases.

The issue is reminiscent of the argument for and against mandated OSA testing in the trucking industry. In that situation, Congress passed a bill requiring the formal rule-making process be followed and forbids the issuing of any informal guidance on this subject.

http://www.sleepreviewmag.com/all-news/18723-trucking-along-implications-of-the-sleep-apnea-bill-being-signed-into-law

http://www.faa.gov/other_visit/aviation_industry/designees_delegations/designee_types/ame/fasmb/media/201304_editorial.pdf

U.S. Highway Deaths Increased in 2012

The National Highway Traffic Safety Administration confirmed Nov. 14 that U.S. highway deaths rose by 4 percent in 2012 from the previous year, as the agency released the 2012 Fatality Analysis Reporting System (FARS) data. The increase to 33,561 deaths in 2012 -- 1,082 more fatalities than in 2011 -- and most of them involved motorcyclists and pedestrians. Deaths for both of those categories increased for the third consecutive year in 2012."While the newly released data announced today marks the first increase since 2005, highway deaths over the past five years continue to remain at historic lows. Fatalities in 2011 were at the lowest level since 1949 and even with this slight increase in 2012, we are still at our lowest since 1950. Early estimates on crash fatalities for the first half of 2013 indicate a decrease in deaths compared to the same timeframe in 2012," according to NHTSA's news release.

"Highway deaths claim more than 30,000 lives each year and while we've made substantial progress over the past 50 years, it's clear that we have much more work to do," said U.S. Transportation Secretary Anthony Foxx. "As we look to the future, we must focus our efforts to tackle persistent and emerging issues that threaten the safety of motorists, cyclists, and pedestrians across the nation."

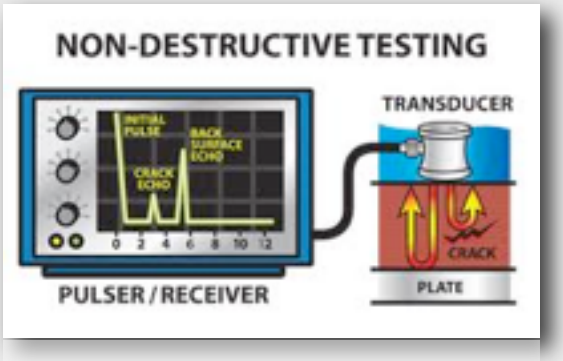
Key 2012 statistics include:

- Fatalities among pedestrians increased 6.4 percent from 2011. The data showed the large majority of pedestrian deaths occurred in urban areas, at non-intersections, at night, and many involved alcohol.
- Motorcyclist fatalities increased 7.1 percent year over year. NHTSA reported 10 times as many riders died not wearing a helmet in states without a universal helmet law than in states with those laws.
- Large-truck occupant fatalities also rose for the third consecutive year, by 8.9 percent from 2011.
- Deaths in crashes involving drunk drivers rose 4.6 percent to 10,322 in 2012, and most of those crashes involved drivers with a blood alcohol concentration of .15 or higher.

"Nighttime seat belt use continues to be a challenge. In nighttime crashes in 2012, almost two-thirds of the people that died were unrestrained," according to NHTSA's release.

Only 13 states and Washington, D.C., saw their overall traffic fatalities decline year over year, while 18 states and Washington, D.C., saw their drunk driving deaths decline.

MSU grant to help create sensors to detect aircraft cracks



Michigan State University and the Boeing Company have been awarded a contract worth up to $4 million from the U.S. Air Force to develop new designs of sensors that will better detect cracks in the second- and third-layers in airframe structures.

Lalita Udpa, professor of electrical and computer engineering in MSU's College of Engineering, leads the effort to create a next generation of sensors that will identify aircraft structure that has been weakened by subsurface cracks and corrosion."Airplanes are made of multiple layers of aluminum that are held together by thousands of fasteners," she said. "Cracks can develop at the fastener sites in areas of high stress.

"Our job is to develop and apply simulation models for the design of a sensor that can reliably detect cracks that are deep into the third layers in the presence of other complex edges and magnetic materials."

Udpa said MSU was the Air Force Research Laboratory's first choice as a research partner to work with Boeing.

"We'll spend about 18 months designing and testing new sensor concepts and designs in the laboratory. Boeing will then build a portable system integrated with an on-aircraft scanner and validate their performance in the field," she said. "During this phase, MSU will use the feedback from Boeing to further fine-tune the design."

Electromagnetic sensor systems that incorporate magnetoresistive, or MR, detectors have been shown to have better capabilities than conventional current sensors for detecting cracks in thick and/or complex metallic airframes.

Udpa said the MR sensors will enable inspections of critical areas of an aircraft, minimizing the need for disassembly of the structure, thus decreasing the maintenance burden to ensure aircraft are structurally sound.

“The sensor packaging will need to be durable and reliable enough for daily on-aircraft inspection processes,” she said.

Udpa is an expert in nondestructive evaluation, or NDE, and has worked in the field for more than 20 years. NDE is similar to biomedical imaging, where X-rays and other methods are used for non-invasively visualizing the interior of organs.

“There aren’t many universities in the country with a long history of NDE experience,” she said. “Michigan State is among the few.”

Air Safety Institute offers downloadable presentations

Chances are, you’ve participated in one of the Air Safety Institute’s free safety education programs—either online or at an in-person seminar. With more than 1 million contacts into the pilot community each year, the Air Safety Institute has tremendous reach.

Now, the institute has launched a new way to bring its free safety education content to anyone interested in sharing general aviation safety information at local community events. Just visit the newly launched Web page to select the program or programs you want, download them, and you’re all set for your next flying club or fly-in safety meeting, or ground school event at your FBO and flight school. All we ask is that you let us know, after your meeting, how many people were in attendance.

These programs are among those available:

- “What Went Wrong” seminar: This PowerPoint presentation was a popular nationwide Air Safety Institute seminar series. Starting at the scene of the accident and working backward from there, the audience participates by acting as the accident investigator to determine what went wrong and why.

- No Greater Burden video: In this documentary-style video, Russ Jeter shares the story of his personal tragedy. Find out what led to his aircraft accident that claimed the life of his son, and learn what every pilots needs to know to avoid a similar situation.
- Accident Case Studies examine general aviation accidents by re-creating them using actual ATC-pilot communication, radar weather images, and Microsoft Flight Simulator. Lessons learned are outlined and serve as a great conversation starter at your safety meeting or ground school. From VFR into IMC to weather datalink delays, case studies offer in-depth analysis of accidents and their causes.
- Real Pilot Stories are the tales of incidents and accidents, told in the pilot's own voice in the hopes that other pilots will learn from their experiences. From an underwater escape to a VFR-only pilot trapped on top of a cloud layer, these stories are sure to open dialogue and encourage participants to share their own personal stories.
- Ask ATC videos: In collaboration with the National Air Traffic Controllers Association (NATCA), this series of videos is an opportunity to listen to frequently asked questions answered by actual air traffic controllers.

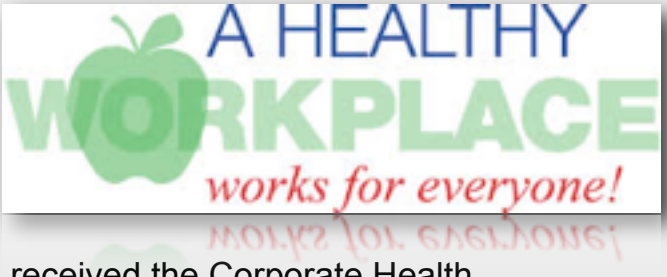
New content will be added quarterly, so if you don't see the program you want, be sure to check back often.

Many Air Safety Institute products are eligible for FAA Wings credit and AOPA Accident Forgiveness. In addition, you may download certificates of completion from your Air Safety Institute Transcript.

The Air Safety Institute is a division of the nonprofit AOPA Foundation. Funding for Air Safety Institute safety programs comes from the generosity of pilots like you.

http://www.aopa.org/Webforms/ASI-Downloads.aspx

New Study Suggests Promoting a Healthy Workplace Fosters Financial Success



The College of Occupational and Environmental Medicine reported that companies with strong health and safety programs report a better return from investors. The study, which was published in the September issue of the Journal of Environmental Medicine, suggests that companies who received the Corporate Health Achievement Award (CHAA) from ACOEM have more success in the stock market.The award is given to companies who are considered "the healthiest and safest companies in America" and who take strong measures to reduce risk in the working environment. The study tracked CHAA recipients from the mid-1990s to 2012 and found that they all outperformed the Standard and Poor's 500 (S&P 500), a stock market index. COEM believes that this demonstrates that companies who promote a healthy and safe work environment will have good business results all around, from a healthier workforce, to lower healthcare costs, to better stock performance.

The article in COEM points out that the study was rather small and no concrete connection between better safety practices and higher stock performance can be made yet. More comprehensive research needs to be done before a strong relationship can be made.

The CHAA award was developed in 1996 and 29 companies have received it so far, including Johnson & Johnson, Cianbro, Marathon Oil Corporation, Union Pacific Railroad and more.

For more information, visit: http://www.acoem.org/CultureofHealth.aspx

http://www.chaa.org/prioraward.htm

The ROI of Safety at DuPont - Part I

Success in the oil and gas industry is usually quantified in terms of revenue, profit, stock value, and productivity gains, with much less attention paid to the influence of organizational culture on performance, growth, and business sustainability. But increasingly, businesses are re-examining the importance of organizational culture and its impact on performance. An organization's culture encompasses everything it does and everything it produces.Safety Excellence for Business Excellence

A foundational component of our corporate culture at DuPont is the strong, pervasive safety culture that has taken root over the company's long history. It influences everything we do and every decision we make and has had a significant impact on our longevity and business success. At the heart of our safety culture is an ethical imperative that calls for all companies to do their utmost to keep their employees and partners safe. In a business as perilous as the oil and gas industry, nothing else, including profit margins and competitive advantage, trumps this value for human safety and well-being. But while this belief, thankfully, has an increasingly broad acceptance across industries and around the world, what is often overlooked is its influence on the organization beyond safety performance -- how it affects the bottom line. Based on our internal experience, as well as what we have seen in other organizations, good safety fosters good business in many ways.

Often discussions around the business benefits of safety focus on cost avoidance. Organizations know that every workplace safety incident incurs both direct costs (e.g., the cost of medical treatment) and indirect costs (e.g., loss of morale, damage to equipment, and loss of work time). For some organizations, the cost of these incidents, including the reputational damage they inflict, is motivation enough for improving safety performance. Whatever the reason, as performance improves and a strong safety culture takes root, organizations achieve broader business excellence in addition to safety excellence by creating principles and structures that can be applied to other areas of the organization.

The Road to Zero

In driving our own safety imperative and in helping other companies transform their safety performance, we have learned that ambiguity around the end goal corrodes the belief and commitment of management and employees alike. The goal should always be "zero" -- zero incidents, injuries, or illnesses.

While this target may seem like a difficult, if not impossible, achievement, we and other companies have seen that as performance improves and the intervals between safety incidents increase, celebrations of zero become more frequent and lend credibility and momentum to the drive to succeed. Focusing on zero incidents builds momentum in a way that lesser goals that allow for some injuries do not; lesser goals fail to strike an emotional chord with the workforce and get lost in the myriad of other metrics surrounding the modern organization.

Culture and Safety Performance

The DuPont Bradley Curve describes four stages of safety culture development as depicted above, with progressively more mature and higher performing cultures from left to right. Broadly, these cultural stages reflect a transition from a reactive approach to safety (and to incidents) to a more proactive, preventative approach. At an individual level, we see a transition from an extrinsically motivated approach to safety ("I follow the rules because I have to") to a more intrinsic motivation ("I follow the rules because I choose to"). Safety becomes a personal value and the practice of a safe workplace a source of organizational pride.

The second important step was to try to quantify and validate the relationship between culture and performance. Over several years, hundreds of clients and several hundred thousand employee responses, DuPont has collected perception survey results that help to assess the state of culture in the client organization. These surveys have been conducted in multiple industries and regions and at all levels of the workforce, from management to shop floor. From this data, DuPont has created an index of Relative Culture Strength (RCS) to measure the safety culture of an organization.

Using the performance data from the organizations surveyed, we have been able to demonstrate a strong correlation with actual safety performance, supporting the premise that a strong safety culture is a prerequisite for sustained high performance.

Arriving at an Interdependent safety culture goes far beyond reducing the number of injuries in the field; it requires organizations to examine their safety model from three perspectives:

1. Leadership. What does management do to lead employees to safety excellence?

2. Structure. What are the organizational structures that enable the pursuit of safety excellence?

3. Processes and actions. What actions does the organization take on a regular basis to increase safety performance?

Felt Leadership

The greatest challenge to creating a safety culture is instilling felt leadership, which means that company leaders, including executive leadership, demonstrate they are incontrovertibly committed to safety. They do not waver, no matter the business conditions, and they are clear that whenever a decision involves a choice -- between safety and productivity, for example -- safety comes first.

The primary requirements of felt leadership are visible engagement and two-way dialogue. This demands, for example, that company leaders, including the highest-level executives, regularly interact with employees by performing safety observations, having conversations with employees about safety, leading safety meetings, and taking active roles in other safety-promoting activities. At DuPont, for example, the chief executive officer is also the chief safety officer and continually reaffirms, inside and outside the company, that safety is a core value and the goal is zero. The goal, per the DuPont Bradley Curve, is to foster a level of intrinsic motivation and operational discipline where people choose to follow the rules and where leaders enforce the rules fairly and consistently.

Elements required to support leadership include:

- Clear and meaningful policies and principles that confirm the priority of safety and provide a clear basis for decisions;
- Safety goals and objectives that are a prominent part of standard operating procedures; and,
- High performance standards that apply to all safety matters and are obvious and known to all employees.

New Release

Since its first flight on 15 December 2009, the Boeing 787 “Dreamliner” has been the most sophisticated airliner in the world. It uses many advanced new technologies to offer unprecedented levels of performance with minimal impact on the environment. Flying the Boeing 787 gives a pilot's eye view of what it is like to fly this remarkable machine. It takes the reader on a trip from Tokyo to Los Angeles as the flight crew sees it, from pre-flight planning, through all the phases of the flight to shut-down at the parking stand many thousands of miles from the departure point. Lavishly illustrated with specially taken photographs of the B787's controls and instruments, this book will be of interest not just to commercial pilots, but to all aviation enthusiasts: it gives an insight into a world normally hidden from the flying public, at the technical and operational cutting edge of commercial flying.

Inspiration

Today, it's time to go for it. Nothing held back. Hell-bent for Leather!