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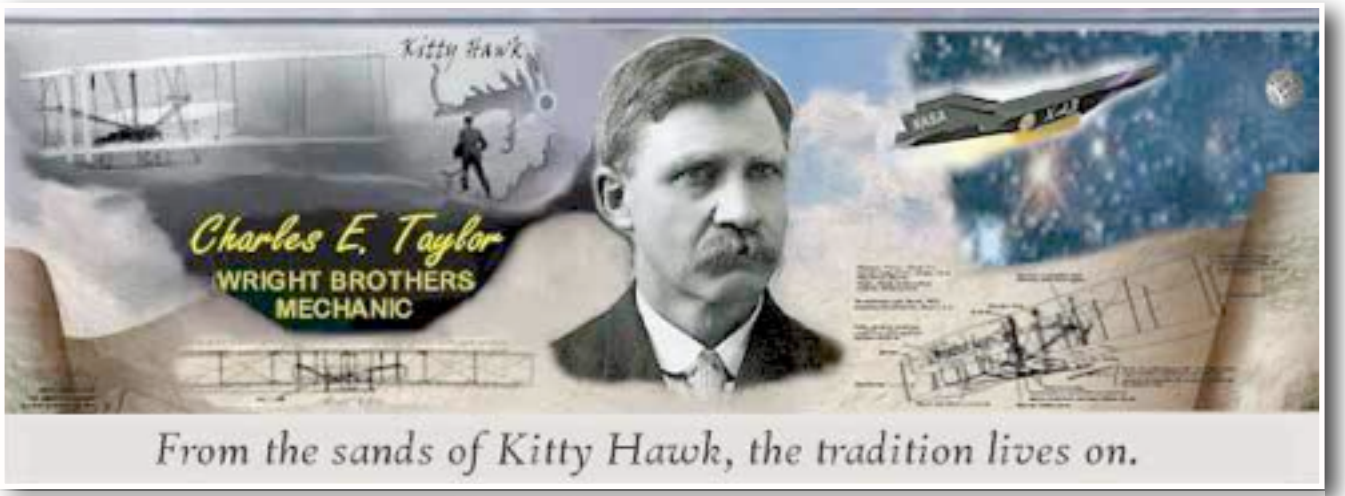

Hello all,

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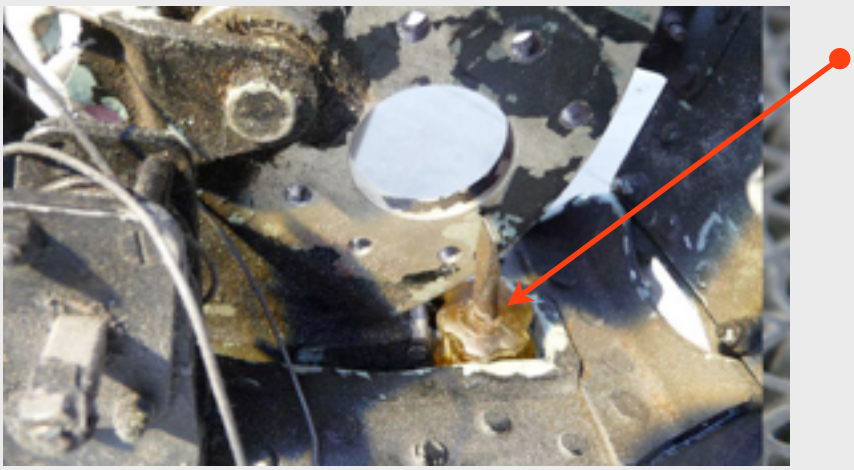
In this weeks edition of *Aviation Human Factors Industry News* you will read the following stories:

Screwdriver caused fatal NZ plane crash - report

FATAL INCIDENT: A re-enactment of the screwdriver's positioning before the crash.



A loose screwdriver that became jammed in the side of a plane as it was doing aerobatics over Feilding caused a crash that killed a Palmerston North doctor and his friend.A Civil Aviation Authority report into the crash - which claimed the lives of plane owner and pilot Ralph Saxe, 51, and his friend Brett Ireland, 50 - was released today, almost a year to the day after the 2012 crash at 10.45am on January 23.

The report, written by safety investigator Alan Moselen, found the crash was the result of design flaws in the plane that led to a screwdriver getting stuck in the elevator controls of the plane during a "slow roll" maneuver.

As Saxe, a member of Warbirds, entered a steep dive immediately following the slow roll he was unable to get the elevation needed to prevent the plane from slamming into the ground in Timona Park, Feilding.

The forces were so strong that the aircraft nose, engine and wings "created deep ground scars then virtually disintegrated".

The crash was not survivable.

In investigating the crash the CAA found a "stubby" type screwdriver 15 metres from the main impact site, which the report says could have been sitting in the fuselage of the plane for a long period of time.

It is not the first time rogue objects have become jammed in Yak 52 aircraft elevator controls.

In Essex in 2004 a UK pilot managed to recover from a aerobatic maneuver after a cellphone left in the aircraft two months earlier had penetrated a safety barrier and lodged itself in the elevator.

Saxe's Yak 52 did not have a safety barrier installed.

In March 2012, as a result of the crash, the CAA issued a mandate for Yak 52 owners to fit a barrier.

They also called on all Yak 52 operators worldwide to check for loose objects in the fuselage before flying.

Embraer 190 overran after pilots ignored flap-fault procedure (Ecuador)

Ecuadorian investigators have determined that the crew of a TAME Embraer 190 did not follow correct procedures for flap failure before landing at Quito and overrunning the runway on September 17, 2011.
As the aircraft descended towards runway 35, after arriving from Loja, its centralized monitoring system alerted the crew to a flap and slat problem.

Ecuador's Junta Investigadora de Accidentes says the pilots attempted five times to reset the flaps, but that the slats would not deploy and the flaps would only move to position 2.

The crew, however, decided to continue the approach with the high-lift surfaces in these positions, "without carrying out" the appropriate Embraer procedure in the quick-reference handbook, says the JIA.

JIA analysis calculated the aircraft's reference speed for this configuration at 149kt, and put the actual landing distance at 1,950m. The 3,120m runway was wet with average braking action.

But the aircraft was still traveling at 164kt while 50ft above the ground, and 80m before the threshold. Although the pilots had intended to land close to the threshold, to provide maximum distance for stopping, the aircraft floated and did not make runway contact until 880m beyond.

After touchdown the aircraft travelled for 70m before the spoilers deployed, another 330m before the thrust-reversers activated, and a further 380m before braking started. Full braking was not applied until 2,300m past the threshold.

The aircraft, which was transporting 97 passengers and six crew, failed to stop in the available distance.

After overrunning, the 190 crashed through six instrument landing system antenna structures before striking a perimeter wall and coming to rest 300m from the runway end.

It suffered severe damage, mainly to its undercarriage and the underside of its fuselage, as well as to the leading edges of its wings.

Investigators discovered that maintenance records for the aircraft showed 53 occurrences of slat-flap failure messages in the two months preceding the 17 September 2011 accident.

The inquiry questioned whether corrective measures were being properly applied and has recommended that the operator puts more robust analytical processes in place.

But it primarily attributes the accident to the crew's failure to follow the correct procedures for dealing with the flap problem. The JIA adds that the crew "did not respect" sterile cockpit requirements and that this was detrimental to their concentration.

Manufactured Defective Part Caused F-15 Breakup, Pentagon Finds

Boeing Co. agreed to provide $1 million in replacement parts for its F-15 fighters in a confidential settlement over a jet that broke apart in midair in 2007, according to the Pentagon’s inspector general.

A joint investigation for the inspector general and the Air Force found that Boeing provided “defective” or “nonconforming” parts.

The agreement reached almost five years after the accident was disclosed in a passage in the inspector general’s semi-annual report to Congress last month. The Air Force Office of Special Investigations and Pentagon Defense Criminal Investigative Service conducted the probe.“Nonconforming products not only disrupt readiness and waste economic resources but also threaten the safety of military and government personnel,” the inspector general report said in a section on “Product Substitution” that summarized the Boeing case.The pilot in the Nov. 2, 2007, accident, a member of the Missouri Air National Guard, dislocated a shoulder and injured an arm while ejecting after the front section of the jet snapped from the rest of the fuselage.

The joint investigation “disclosed that the Boeing Co. provided defective or nonconforming parts to the Air Force for the F-15,” according to the report to Congress.

The $1 million settlement “doesn’t go nearly far enough towards holding Boeing accountable for the defective parts,” Ben Freeman, a defense investigator for the Project on Government Oversight, an independent watchdog group in Washington, said in a statement. “One million dollars is just a fraction of the cost of the F-15 that crashed.”

A longeron -- a thin strip of material to which the aircraft’s skin is fastened -- failed, causing the “in-flight break-up” during a basic flight-training mission, according to the report.

All 441 of the F-15 fighter interceptors were grounded after the jet breakup, and 182 were found to have major structural components that didn’t meet original manufacturing specifications, service officials told reporters in a January 2008 press conference.

Most of the F-15s grounded were cleared to return to flight by February 2008 after undergoing additional inspections as the investigation was begun.

“The cause of the accident was determined to be failure of the upper-right longeron,” according to the inspector general’s summary of the investigation.

The contract specification required the longeron to be 0.10 inches thick, according to the report.

“The investigation revealed that the Boeing-supplied longerons varied in thickness from 0.039 to 0.073,” the inspector general said.

FAA SAFO Encourages Pilots To Manually Fly Their Airplanes

Raises Concerns About Erosion Of Skills Due To Autopilot Use

A recent FAA analysis of flight operations data (including normal flight operations, incidents, and accidents) has identified an increase in manual handling errors. The FAA believes maintaining and improving the knowledge and skills for manual flight operations is necessary for safe flight operations, and issued a Safety Alert for Operators (SAFO) encouraging operators to promote manual flight operations when appropriate.According to the SAFO, modern aircraft are commonly operated using autoflight systems (e.g., autopilot or autothrottle/autothrust). "Unfortunately, continuous use of those systems does not reinforce a pilot's knowledge and skills in manual flight operations. Autoflight systems are useful tools for pilots and have improved safety and workload management, and thus enabled more precise operations. However, continuous use of autoflight systems could lead to degradation of the pilot's ability to quickly recover the aircraft from an undesired state."

Operators are encouraged to take an integrated approach by incorporating emphasis of manual flight operations into both line operations and training (initial/upgrade and recurrent). Operational policies should be developed or reviewed to ensure there are appropriate opportunities for pilots to exercise manual flying skills, such as in non-RVSM airspace and during low workload conditions. In addition, policies should be developed or reviewed to ensure that pilots understand when to use the automated systems, such as during high workload conditions or airspace procedures that require use of autopilot for precise operations. Augmented crew operations may also limit the ability of some pilots to obtain practice in manual flight operations. Airline operational policies should ensure that all pilots have the appropriate opportunities to exercise the aforementioned knowledge and skills in flight operations.

The FAA recommends that Directors of Operations, Program Managers, Directors of Training, Training Center Managers, Check Pilots, Training Pilots, and flightcrews should be familiar with the content of this SAFO. They should work together to ensure that the content of this SAFO is incorporated into operational policy, provided to pilots during ground training, and reinforced in flight training and proficiency checks.

FAA statement on efforts to improve airline safety

"Safety is our mission. Our goal is to remain vigilant to maintain our excellent safety record. We already have achieved an 83 percent reduction in the risk for commercial aviation in the United States over 10 years, and we will continue our efforts to further reduce the risk by 50 percent by 2025. Passengers expect excellence from the aviation industry, 24 hours a day, seven days a week, 365 days a year.
"The nation's impressive safety record is a direct result of an unwavering commitment by government and industry to work together to monitor data and identify trends to prevent accidents. More than 90 percent of air carrier operations use voluntary reporting programs and this has led to significant training, operational and maintenance program improvements. New technology and regulations including safety management systems and NextGen initiatives also have contributed to this safety record."

Twelve Operational Pitfalls for Helicopter Pilots

Pilots, particularly those with considerable experience, try to complete a flight as planned, please passengers, meet schedules and generally demonstrate the "right stuff." This basic drive can have an adverse effect on safety and can impose an unrealistic assessment of piloting skills under stressful situations.

Even worse, repetitive patterns of behavior based on unrealistic assessments can produce piloting practices that are dangerous, often illegal, and will ultimately lead to mishaps. Here are 12 of these possibly dangerous tendencies or behavior patterns:

Responding to Peer Pressure - This is poor decision-making based upon emotional responses to peers rather than evaluating a situation objectively.

Mental Expectancy - The inability to recognize and cope with changes in a situation different from those anticipated or planned. Visual illusions and similar aural sounds occurring at the "wrong" time often lead to such miscues.

Get-There-Itis - This "disease", common among pilots, clouds the vision and impairs judgment by causing a fixation on the original goal or destination combined with a total disregard for any alternative courses of action.

Duck-Under Syndrome - The tendency to "sneak a peek" by descending below minimums during an approach. Based on a belief that there is always a built in "fudge" factor that can be used or on an unwillingness to admit defeat and shoot a missed approach.

Scud Running - Pushing the capabilities of the pilot and the aircraft to the limits by trying to maintain visual contact with the terrain while trying to avoid physical contact with it.

Continuing Visual Flight Rules into Instrument Conditions - The all-too-often result of the above mentioned practice of scud running when this becomes the only alternative to flying into the ground. It is even more dangerous if the pilot is not instrument qualified or is unwilling to believe what the gauges are indicating.

Getting Behind the Aircraft -- Allowing events or the situation to control your actions rather than the other way around. This is characterized by a constant state of surprise at what happens next.

Loss of Positional/Situational Awareness - Another case of "getting behind the aircraft" which results in not knowing where you are, and an inability to recognize deteriorating circumstances and/or the misjudgment of the rate of deterioration.

Operating Without Adequate Fuel Reserves - Ignoring minimum fuel reserve requirements under either Visual Flight Rules or Instrument Flight Rules. This is generally the result of overconfidence, a lack of flight planning, or deliberately ignoring the regulations.

Descent Below the Minimum En Route Altitude - The duck-under syndrome (mentioned earlier) manifesting itself during the en route portion of an Instrument Flight Rules operation.

Flying Outside the Envelope - Unjustified reliance on the (usually mistaken) belief that the aircraft's high performance capabilities meet the demands imposed by the pilot's (usually overestimated) high performance flying skills.

Neglect of Flight Planning, Preflight Inspections, Checklists, Etc. - Unjustified reliance on the pilot's (usually overestimated) short- and long-term memory of regular flying skills, of repetitive and familiar routes, etc.

All experienced pilots have fallen prey to, or have been tempted by, one or more of these 12 dangerous tendencies at some time in their flying careers. Hopefully, they are natural mistakes that can be easily recognized for what they are and quickly avoided.

The International Helicopter Safety Team (IHST) promotes safety and works to reduce accidents. The organization was formed in 2005 to lead a government and industry cooperative effort to address factors that were affecting an unacceptable helicopter accident rate. The group's mission is to reduce the international civil helicopter accident rate by 80 percent by 2016.

More information about the IHST, its reports, its safety tools, and presentations from its 2011 safety symposium can be obtained at its web site at www.IHST.org

Virgin Galactic first flight expected in 2013

The first passenger flight of Virgin Galactic is expected by the end of 2013.

The craft, which is being designed to take passengers 100 km to the very edge of space, will take Richard Branson and his two children on its maiden voyage at some point within the year.

The exact timeline for the first trip is yet to be finalized as is a lot of the other fine detail regarding the Virgin Galactic procedures, not least because of the fledgling nature of the commercial space (or, more accurately "edge of space") tourism industry.

The area with the most potential for causing delays in the flights is, understandably, the safety of passengers and crew during voyages.

"The Federal Aviation Administration is not certifying that the vehicle is safe, said Virgin Galactic CEO, George Whitesides, in an article appearing in IEEE. "We'll be operating in a somewhat unique regulatory regime based on informed consent. The operator informs the customer [about the risks], and the customer makes the decision."

New film promotes oceanic safety

A film to promote safe operations in Shanwick Oceanic Airspace has been produced by NATS, the UK's leading provider of air traffic services.

The film, entitled Trackwise, has been produced to help educate airlines, flight crew and operators on the potential issues, risks and solutions when flying within oceanic airspace. Copies have now been delivered to operators, agencies and regulatory bodies for use at educational safety and training days.The airspace over the North East Atlantic is known as the Shanwick Oceanic Control Area. It covers approximately 633,600 square miles and on its busiest days handles more than 1,400 flights over a 24-hour period.

Controlling oceanic traffic is a unique skill given that aircraft cannot be directly guided by radar. Instead NATS Shanwick Oceanic air traffic controllers rely on pilots following cleared routes, flight levels and speeds to maintain separation distances while reporting their position via High Frequency radio voice reports or automatically via Automated Data Surveillance (ADS) position reports through the aircraft's Flight Management System.

Gavin Dixon, the film's producer and Oceanic Local Area Supervisor based at NATS' Prestwick Centre, said: "Safety is always our top priority so we wanted to improve the understanding and awareness of oceanic operations within the aviation community and to contribute towards further improving aircraft safety. We are delighted that the film has been so well received."

Copies of Trackwise have been requested by a range of operator and regulatory groups, including the Federal Aviation Administration (FAA) in the United States.

See the film on NATS' YouTube channel (1:12:41)

STRAIGHTEN UP AND FLY RIGHT, FLYING WITH QUALITY ASSURANCE

The following information was released by the Navy:

By Mass Communication Specialist 2nd Class Charlotte Oliver, USS John C. Stennis Public Affairs

USS JOHN C. STENNIS, At Sea (NNS) -- As jets roar off the flight deck of the Nimitz-class aircraft carrier USS John C. Stennis (CVN 74), carrying out missions to protect the freedoms of Americans, the pilots show no fear because they are confident the Sailors meticulously maintain their jets. That maintenance is done under the watchful eyes of the Sailors from Quality Assurance (QA) division. Their mission is to prevent the occurrence of defects in aviation maintenance, and to ensure that all the programs under the Naval Aviation Maintenance Program (NAMP) Standard Operating Procedures are adhered to correctly and safely.

"We have to audit every work center to make sure every program is being followed, from training how to perform the maintenance on these planes correctly," said Aviation Structural Mechanic (Equipment) 2nd Class Ayokunnu Aremu, from Daly City, Calif.

Quality assurance representatives (QARs) are subject matter experts from every aviation rating. To become a QAR, Sailors must first attend and pass Quality Assurance Administration School. After attending this school, the QARs complete Personnel Qualification Standards and Job Qualification Requirements for all other aviation ratings in the maintenance department, ready to perform QA functions for the squadron.

"We're the top guns, so-to-speak; the top 5 percent of our squadron," said Aviation Electronic's Technician 1st Class Christopher Quinday, from Fresno, Calif. "It's a lot of hard work to get to this point."

QARs conduct audits of the work centers and are in charge of qualifying work center collateral duty inspectors. To become an inspector, a Sailor must be recommended in the QA field, pass an in-rate exam, a NAMP test, and a corrosion test.

To help Sailors maintain the aircraft, an Interactive Electronic Technical Manual is used to guide them through both maintenance and troubleshooting. These heavy-duty laptops have condensed thousands of pages of Maintenance Requirement Cards and technical drawings into one computer system.

The QAR's presence is seen all around the ship. They can be spotted everywhere from the hangar bay to the flight deck conducting spot checks on aircraft maintenance and ensuring safety programs are being followed.

"Aviation maintenance is a lot more controlled than the surface fleet because there's a lot more scrutiny. There is no room for error," said Senior Chief Aviation Electrician's Mate Daniel Castillo, from Avon Lake, Ohio. "When the plane is airborne there's one, or two, or more people's lives depending on that aircraft to help them succeed in their mission and get them home safely."

The Sailors of QA work day and night training Sailors, conducting inspections, and preparing the next Sailor to be a part of the QA team. The knowledge and training the QARs provide improves the efficiency of the squadron and decreases the down time of the aircraft.

For more news from USS John C. Stennis (CVN 74), visit www.navy.mil/local/cvn74/ .

Human Factors Challenges - Part 3

From the FAA

Dr. William Johnson has spent more than 30 years as senior executive and scientist for engineering companies specializing in technical training and human factors before joining the FAA in 2004. He is also an aviation maintenance technician and has been a pilot for more than 45 years.

6. Establish HF as a priority

There is a wide range of attitudes about human factors programs for maintenance. There are CEOs and managing directors of large and small maintenance organizations that can deliver a speech that promotes the importance of corporate attention to human factors. The same is true about regulators from all ranks. Some deliver heartfelt messages as if they were the instructors of a human factors course. When leadership has the knowledge and commitment it is reflected throughout the organization. That is true for any size company, fixing any size aircraft.Recently, an international safety consultant commented that, initially, the quality of human factors programs, in the United States, went down after repair stations began following the EASA HF training requirements. He said that he saw many organizations were driven only by the need to check off the regulatory requirement rather than to find value in the HF program. Organizations are now realizing that human factors programs are an important piece of a safety management system.

There is an across-the-board effort to raise the priority of HF programs. The programs must be applied/practical and based on identified company deficiencies and examples. HF practitioners must demonstrate the safety and business case of the programs. The HF programs must become an integral part of the SMS.

7. Professionalism

Workers must be internally as well as externally motivated to “do the right thing.” That includes attitudes and behaviors on topics like: uncompromised compliance with company procedures and technical documentation; understanding and adherence to fitness for duty requirements with particular regard for fatigue issues; sensitivity to culture and the importance of workplace communication among diverse ages and nationalities; and other nontechnical and technical behavior and performance. Again, like safety culture, professionalism is contagious. There are no notable differences in the requirement for professionalism between GA and airline maintenance personnel.

The topic of “required inspection items” made No. 8 on the important challenges in maintenance human factors. The reason is that many events in airlines and in general aviation are a result of incomplete inspection. On a risk assessment matrix, a missed inspection is not always ranked as “catastrophic” but it is ranked as a frequent occurrence. The term “required inspection” means just that. The workshop delegates felt that the tasks that require a double inspection are often treated as a normal and routine maintenance task. There is another risk that a mechanic may be lax, knowing that the work would have another inspection. The inspector, on the other hand, may expect that the mechanic was especially diligent due to the importance of the task and because it would get “an extra set of eyes” before flight. The result could be inspector complacency.

What do you need to do?

The solution to the “required inspection items” tasks falls into all of the solutions described in challenges 1-8. The solutions work in GA and airline maintenance environments. And the solutions make a good ending to this article. That includes:

1. Adhere to procedures/documentation;
2. Get proper rest and pay attention to schedules and to time of day/night;
3. Establish and nurture a safety culture that
4. Reports and analyzes data and
5. Demonstrates return on investment;
6. Make human factors a priority;
7. Apply professional behavior to delivery of safe and efficient aircraft maintenance
8. Pay attention to work that requires double inspection.

The Connection Between Fitness and Safety

We all have differing physical abilities. But it is important to keep as physically fit as possible in an effort to prevent injuries at work.

Physical fitness contributes to safety in a couple of ways. First, being flexible and having good muscle tone can help prevent the kinds of injuries caused by stresses and strains. Pulled muscles and back injuries are the kinds of problems which fitness can sometimes help to prevent.Second, overall health and fitness can help keep us alert and able to react rapidly to danger. Sometimes this can make the difference between a close call and an injury.

Fitness can make your work easier. By maintaining your health and strength, you can make it through the work day more easily—with some energy left over to enjoy life after your shift.

10 Ways to Stay Fit

1. Get enough sleep. Studies have shown that North Americans are chronically deprived of sleep. We pay the price by always feeling tired and functioning at less than our capacity. Sleep needs vary. A few rare individuals thrive on just a few hours' sleep, but many need more than the standard eight hours to do their best.
2. If your home life is demanding, or if you work shifts, you will have to make special arrangements to ensure that you get adequate sleep.
3. Take time to relax each day. This doesn't necessarily mean on the couch in front of the television, either. Find ways to unwind physically and escape mentally so that you can recharge your batteries. For many people, exercises such as deep breathing or deliberate relaxation of their muscles provides relief from stress. Books, tapes and courses are available to learn these relaxation methods.
4. Engage in aerobic exercise several times a week. This is exercise which gets you breathing faster and your heart beating faster, thus expanding the capacity of your heart and lungs. Power walking, running, swimming and biking are examples of these exercises.

5. You also need to exercise your muscles regularly, at least several times a week. Weight training is an example of this type of exercise, but many activities such as gardening or playing sports can strengthen your muscles. Pay particular attention to strengthening your back and abdominal muscles to prevent back injuries.
6. The third kind of exercise which you need on a regular basis is for flexibility. The goal is to gently stretch your muscles so you can move easily in all directions. Stretching as you warm up for a run and cooling down afterward is one example. Yoga is another type of flexibility exercise.
7. Certain exercises are designed to prevent specific work-related injuries. Learn what exercises you should use during work warmups and breaks. For example, if you work leaning over a bench or repetitively assembling parts on a conveyor, you should integrate muscle stretching and strengthening exercises into your routine.
8. Eat right for fitness. Choose a diet high in whole grains, fresh fruits and vegetables. Keep your intake of fat low. This is the way to maintain a healthy body weight and ward off illnesses associated with diets high in fats.
9. Drink several glasses of water a day. This provides needed fluid for your body, and can reduce cravings for junk foods and drinks.
10. Keep your consumption of alcohol down. Quit smoking—or don't start! Go easy on caffeine beverages such as coffee and soft drinks.

Check with your doctor before starting any new exercise program or weight loss diet. He'll probably be all for it, but will caution you if there is a health risk involved.

Not all of us are cut out to be Olympic athletes. Physical abilities vary according to the individual. Being physically fit means being as strong and healthy as you can be.

7 steps to becoming an effective leader

Here is some very good news for you.

There is no perfect leadership style, which means there is more than one way to lead effectively.

Why is this good news?

Because it means you, yes you, can become a highly effective leader.

Read that again and let it sink in.

Whatever your past experience, whatever your relative success or failure as a leader, you can become a self-assured, highly-effective leader of others. And it doesn't require that you become someone else or "play a role" to do it either, because there is no perfect leadership style.There is however, a leadership style that matches you – your strengths and weaknesses, values and beliefs, personality and tendencies. A big part of your personal leadership development process is determining this style and then developing in that direction. Notice the process doesn't end with finding your style – it starts there. Once you understand yourself enough to determine your style, then you can begin building your skills, practicing and more.

But this article is written to help you with that first part – determining your style. Here are some steps in that process.

Seven Strategies

To determine your unique leadership style, you must start by knowing yourself. These first three strategies will move you down this path.

- Consider your values. The best leaders lead from their most deeply held values. Leading from your values means that your behaviors, choices and actions will be guided by those values. All of this is a foundation of your personal leadership style.
- Know your personality traits. Your natural style will grow from your personality traits – how you are wired. Introverts can be leaders, as well as extroverts. Action oriented people can lead, as can disciplined planners and researchers. These natural tendencies (and many more) are an important foundation for your style. Take time to learn more about this using one of the many fine assessments. Any of these assessments, well administered and with good understanding and coaching can help.

- Validate strengths, recognize weaknesses. Take your personality preferences and tendencies and put that together with past experiences and learning and you are moving towards your strengths and weaknesses. It is important that you know both strengths and weaknesses, as collectively they help inform your style. Take the time in reflection, through 360 Assessments and other strengths-based tools to learn more about your strengths and weaknesses.

Once you begin looking at who you are, you can begin looking outside of yourself to round out your leadership style. Here are some ways to do that.

- Learn from, don't emulate. Look to leaders you admire. There is much you can learn by observing others. Doing this after you have begun to understand your own style is far healthier for your development, lest you fall into the comparison trap.
- Get feedback. Once you have a style in mind and know what you want to achieve, get feedback. Don't just ask people, general things like "how am I doing as a leader?", but using your personal style picture, ask questions about those specifics, to learn how you are doing, and how you can improve.
- Give yourself time. The steps described here won't be completed in a lunch break, an afternoon or even a weekend. Give yourself some time to take the steps suggested. Be patient with yourself and listen to your intuition as well. Intentionally determining your natural leadership style is time well-invested, so give yourself the time to do it well.

Last, but almost first, is the biggest strategy of all.

- Keep learning. Just because you are leading from who you are doesn't give you an excuse to stop learning, or allow you to deny your weaknesses. The best leaders are always learning – they are strengthening their strengths and shoring up their weaknesses too. Their constant learning focus is perhaps the biggest similarity between successful leaders across any particular style.

http://blog.kevineikenberry.com/leadership/my-dad-steve-jobs-and-the-comparison-trap/

Energy Drinks: The Good, the Bad and the Jittery

Step aside coffee, energy drinks are taking over! About half of all adults have tried them, and about half of all teenagers and young adults drink them regularly.

In fact, energy drink sales in the United States reached more than $10 billion in 2012 – and that number is only growing.But many questions still remain about the safety of the ingredients in energy drinks and the accuracy of their marketing claims. In this white

- Examine the ingredients that give energy drinks their boost
- Define the difference between energy drinks and other caffeine sources
- Look at the rise and popularity of energy drinks
- Identify potential safety issues
- And suggest best consumption practices

Download the White Paper:

Energy Drinks: The Good, the Bad, and the Jittery

CIRCADIAN offers its white papers for free to shift work managers and others interested in improving the health, safety and productivity of the 24/7 workforce.

Throughout our 30 years of working with shiftwork and extended hours operations, CIRCADIAN has written many white papers in response to our clients' questions and interests. If you have a question for us, please contact us.

For a complete list of our white papers, please click here.

Picture This! Someone's Thinking Took a Vacation on this Safety Message

Safety never takes a holiday, or does it? This confusing sign likely caused a few raised eyebrows and laughs, unfortunately undermining an important safety message in the process.