

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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FAA Revoked A&P Mechanic And Pilot Certificates On Fraudulent Aircraft Repairs

On January 22, 2015, Clive Felix Ure of Leesburg, Florida, was sentenced in U.S. District Court, Ocala, Florida, to 12 months incarceration and two years supervised release for falsifying airworthiness documentation on a Cessna 337 propeller. Ure was also ordered to pay almost \$68,000 in restitution to a private pilot and a flight school for [failure to properly overhaul aircraft engines](#). Additionally, Ure was required to [divest himself](#) of any interest in his business and not to engage in any other business related to maintenance, repair, or the sale of aircraft or aircraft parts.



Ure, a certified Federal Aviation Administration (FAA) Airframe and Powerplant mechanic and owner of Aircraft Maintenance & Repair, Leesburg, Florida, sold the un-airworthy propeller via eBay to a customer in Oregon.

Prior to selling the propeller, an FAA certified repair station informed Ure the propeller was no longer safe for flight. However, Ure utilized another repair station's information to [falsify a logbook entry and approved](#) the propeller for return to service. Ure sent the buyer a log book with a false entry showing the overhaul.

"He also stamped a false serial number on the propeller because the true serial number had been obliterated by the propeller repair station, at the direction of the FAA" court document reported.

The FAA [revoked Ure's mechanic and pilot certificates for life](#) based on his criminal conviction. Ure at one time was a member of the Leesburg International Airport Advisory Board.

“Charlie Victor Romeo” Now Streaming Online

The independent film “Charlie Victor Romeo,” with all of its dialog taken from the CVR transcripts of real aviation accident, now is available for viewing via iTunes.

“Charlie Victor Romeo” delivers the **intensity and gut-wrenching emotion** of these emergencies via the unique approach of live performance, says the iTunes site.

A.O. Scot, film critic for the New York Times, called it “one of the most terrifying movies I have ever seen.” If you missed it in New York, or at one of the film festivals or independent theaters where it played, now you can see it from any computer or wifi-enabled TV.

The film is available for rental or for sale at iTunes, at prices from \$3.99 to \$9.99. Other digital release announcements are expected soon; details will be posted on the film’s website.



<http://www.avweb.com/avwebflash/news/Charlie-Victor-Romeo-Now-Streaming-Online223425-1.html>

<http://charlievictorromeo.com>

Miracle on the Hudson Passenger Interview

Clay Presley describes his experience on US Airways Flight 1549



http://www.aopa.org/aopa-live?watch=tpMzZjMjrQ-6-TGwi1DlrZtd_qe9s1cJ#oid=tpMzZjMjrQ-6-TGwi1DlrZtd_qe9s1cJ

Safety Websites Providing Quick Tips

A recent **AINSafety** story focusing on safety websites generated reader suggestions for a few more, such as the [SM4 Aviation Safety Resource Library](#), which hosts useful articles related to safety training, safety regulations, [human factors](#), the culture of safety and medical support. Another site is the safety arm of the [National Business Aviation Association \(NBAA\)](#). Here, even non-members will find resources such as a list of the association safety committee's top safety priorities for the year, articles focused on aircraft icing, runway safety, climb performance, hazmat, takeoff and landing currency and dealing with wildlife strikes.



Another location worthy of note is the [Safety Standdown](#) site dedicated to the knowledge shared at the annual safety event held in Wichita. The site also includes pilot resources available through Bombardier's Leading Edge Network such as in-aircraft upset and recovery training, the Automation Airmanship webinar series and Safety Management System toolkit.

<http://sm4.global-aero.com/safety-resources/acronym-guide/>

<http://nbaa.org/ops/safety/>

<http://nbaa.org/ops/safety/top-safety-focus-areas/>

<http://www.safetystanddown.com/>

<http://www.safetystanddown.com/programs/the-leading-edge-network/>

Beware the Taxi Accident!

by Gene Benson

My informal observation tells me that we are having more taxi accidents and incidents than usual. Of course the time of year in the more northern latitudes produces slick ramps and gusty winds. That of course increases the risk of a taxi accident. But many of the accidents/incidents blamed on slippery ramps or taxiways could certainly [be avoided by increased vigilance](#). An excellent practice, whether the ramp is slippery or not, is the "[sterile cockpit](#)." Used successfully by airlines and business aviation for many years, the sterile cockpit simply means that we do not talk about anything not directly related to the operation of the during critical times. [One of those critical times is during taxi.](#)



We simply brief our passengers on the sterile cockpit procedure during the required briefing regarding door operation, etc. We tell our passengers that we will declare a sterile cockpit during critical times and announce when sterile cockpit procedures are no longer in effect. Try it.

Feb. 1 Issue of Vectors for Safety Now Available

The latest issue of Vectors for Safety is now available. Click [here](#) to go to the newsletter

ASRS - CallBack

Crossing the line: Runway Incursions

Runway incursions, a top FAA safety concern, are formally defined as “any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.”¹ Runway incursions can be caused by Pilot Deviations, Air Traffic Controller Operational Incidents, and Ground Vehicle Deviations.

Eighty Degree Error

A PA28 pilot [learned a lesson](#) about the importance of a basic sense of direction or the use of basic navigation equipment in selecting the correct runway. The incident also serves as a reminder to Tower Controllers to be aware of the possibility that a pilot is approaching the [wrong runway](#) when an aircraft doesn't show up where it is expected to be.

■ Approach Control reported radar contact and gave me visual approach instructions for landing on Runway 14. Approaching from the east, I had [the field] in sight from about 10 miles out. From the moment I had the field in sight, I [incorrectly viewed Runway 06 as my assigned runway](#).

I had the Airport Diagram on my knee board. I simply failed to identify the assigned runway with my heading indicator, compass, or other ground references. The Approach Controller advised that the Tower Controller's Radar was inoperable. I was asked to report a two mile left base for Runway 14. I actually reported a two mile left base for Runway 06. I was cleared to land on Runway 14, but I continued for Runway 06. On final, the Tower Controller advised he did not have me in sight. As I was touching down on Runway 06, the Tower Controller asked for my current position and I advised I was touching down.

I believed I was landing on Runway 14, however I was clearly flying to the northeast. As a new private pilot with [about 100] hours of experience, I failed to properly plan for and make accurate decisions on this approach and landing. I should have been much more concerned that the Tower Controller did not have me in sight. Although I was cleared to land, the better decision would have been to execute a missed approach and land only after the Tower had me in sight.

Freaky Friday - U.S. Navy

It was a late Friday night and the squadron had already broken down to a skeleton crew. While waiting for the fuel skid operator to arrive, one of the team members found a large metal object resting on the ground in the fueling pit. Having no idea what it was or where it might have come from, he reported it to the Leading Petty Officer (LPO). The LPO took the object to Quality Assurance (QA) for it to be investigated Monday morning.



When the squadron was back at work on Monday, a second class Quality Assurance Representative (QAR) in charge of analyzing the daily FOD was extremely puzzled about the metal piece.

He noticed a part number etched on the top of the object and cross-referenced the numbers against the Support Equipment (SE) publications that the squadron used. He determined that the object was not from any of the SE. **It bothered him** that he was unable to identify the part, so he decided to try web-searching the part number. Bingo! He got a hit. A company that makes truck suspensions came up as the manufacturer of the part.

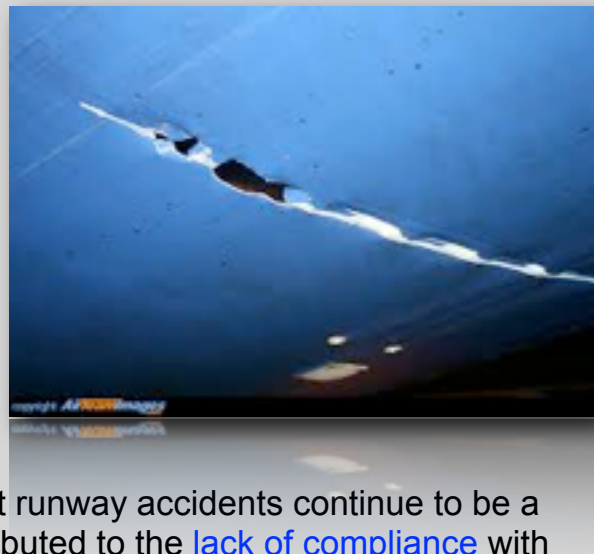
His thorough investigation discovered that the fueling trucks fit the profile for the specifications provided on the website. **Realizing** the potential for a catastrophe, he immediately notified the fuel farm and cautioned them to thoroughly inspect their truck suspensions. Inspection of the fleet of trucks uncovered the culprit which was immediately removed from service for repair.

A fully loaded fuel truck traveling at 50 mph having a suspension failure would be nothing short of disastrous. With **ingenuity, persistence and genuine concern**, a second class petty officer helped to prevent a mishap, ensuring the safety of personnel and equip

Aviation experts to highlight the importance of ground damage

Industry-leading aviation experts speaking at the third World Aviation Safety Summit this year will discuss the measures regional players are taking to **minimize accidents due to ground damage**, which is the primary cause of aviation accidents in the Middle East.

The aviation summit, hosted by the Dubai Civil Aviation Authority and organized by the Streamline Marketing Group, will be held on March 16 and 17 in Dubai, UAE. Aircraft runway accidents continue to be a common global industry challenge, attributed to the **lack of compliance** with international ground handling regulations.



According to IATA, this is becoming an escalating issue in the region where it is witnessing rapid growth with rising flight activity.

Specialist strategy sessions at the summit will explore how the aviation sector can strengthen runway safety by focusing on the risks of excursions and how these risks can be overcome to ensure safe and successful flights. Experts will also [explore best practices and solutions](#) to reduce aircraft excursions and the role air traffic controllers can play in runways and taxiways safety, especially in cases of emergency landing.

“Safety remains the top priority for air travel in the Middle East,” said Captain Joachim Wirths, head of operations at Qatar Civil Aviation Authority. “We have extensive systems in place to maintain our safety record and are extending greater coordination across different areas including innovation and training between the parties involved. [Performance-based oversight and risk-based decision making](#) are the proper tools to deal with the fast growing regional aviation industry.”

In addition to aircraft ground damage, other safety issues such as aircraft tracking, the risk of carrying hazardous items, effective collaboration and risk of remotely piloted aircraft systems will be discussed at the event.

The two-day summit will bring together local and international stakeholders from regulatory authorities, airline operators, airport operators, aircraft manufacturers, pilot associations, and other key experts to discuss key strategies and challenges in improving safety culture. International speakers at panel discussions, strategy sessions and group discussions will explore a range of topics related to safety in air travel. Experts will also share regional case studies on how the challenges of integrating and implementing new and existing safety procedures can be overcome.

American Airlines's Tulsa maintenance base experiences drop in injuries

On-the-job injuries have dropped nearly 45 percent since 2010.

Injury rates at Tulsa's American Airlines maintenance base

2010 = 10.61

2011 = 8.62

2012 = 8.37

2013 = 8.98

2014 = 5.89

About four years ago, the vice president of base maintenance for American Airlines offered up a challenge to the thousands of employees at the airline's Tulsa maintenance base.

New to his job overseeing maintenance operations for the air carrier, Bill Collins challenged Tulsa employees to drastically cut the base's injury rate.

Companies in industries that are not considered to be low hazard must calculate and submit injury rates to the Occupational Health and Safety Administration, the federal agency charged with the enforcement of safety and health legislation. Rates reflect incidents of work-related injury and illness per 100 full-time employees. So far, employees are well on their way to achieving that goal Collins set. During 2014, the Tulsa maintenance base brought its collective injury and illness rate down [to an all-time low](#) of 5.89 per 100 full-time employees for the whole year.

That 2014 rate is down nearly 35 percent compared to the injury rate the base clocked during 2013.

And the most recent figure is nearly 45 percent lower than the rate in 2010, the year Collins took on the vice president role.

The base had always been focused on safety, but Collins' call to drastically lower injury rates — [he challenged employees](#) to bring the rate down more than 80 percent to a 2 — prompted the base to reassess how it operates, said Mark Easton, managing director of Tulsa Base Maintenance.

Easton noted that in years before the decline began injury rates had been as high as the 12 to 15 range.

"When he gave us that challenge, it gave us the opportunity to look at the structure we had internally, [communication and policy and procedures](#), and say 'What do we need to do differently to get to a rate of two?'" Easton said.

One of the changes the base has made is the institution of a program called [Work Fit](#) about 18 months ago.



The maintenance base hired two full-time athletic trainers and also employs interns from the University of Tulsa to work with employees on how to do their jobs in the safest way possible.

“They actually go out onto the job site and they’re part of the mechanic training,” Easton said. “They’ll watch a mechanic perform a task and come up with [ergonomics](#).”

The maintenance base has also begun working with OSHA as part of the agency’s [Voluntary Protection Program](#) and has a wellness program that promotes overall employee health instead of focusing solely on injury prevention, Easton said.

Changes are noticeable Easton said, adding that the base hopes to continue seeing large rate reductions. Having no employees going home injured is the ultimate goal.

“It’s really thanks to the employees, what they’re doing,” Easton said. “[Having folks go home safely and spend time with their families](#), that’s the ultimate goal.”

FAA To Issue New Sleep Apnea Guidance

On March 2, the FAA will issue new medical guidance to Aviation Medical Examiners (AMEs) that incorporates industry and Congressional feedback balanced with the FAA and NTSB’s safety concerns about pilots flying with Obstructive Sleep Apnea (OSA). The FAA is not changing its medical standards related to OSA; however, [it is revising the screening approach](#) to help AMEs find undiagnosed and untreated OSA.

The new guidance will improve safety and pilot health by reducing the burdens and disincentives that may have prevented some pilots from seeking an OSA evaluation and treatment. Pilots will be able to continue flying while they are evaluated and as they begin treatment, if needed. Based on industry feedback on the FAA’s draft guidance, the new guidance does not rely on a body mass index (BMI) score. Instead, the risk for OSA [will be determined by](#) an integrated assessment of history, symptoms, and physical/clinical findings.



The FAA plans to publish the new guidance in the FAA Guide for Aviation Medical Examiners on March 2, 2015. For more information, visit <http://www.faa.gov/news/updates/?newsId=81444> or see the FAA's sleep apnea fact sheet [here](#).

NTSB repeats calls for cockpit video

Cockpit cameras are back on the agenda after America's most powerful aviation safety organization tabled the proposals before the Federal Aviation Administration.

The National Transportation Safety Bureau (NTSB) has previously spoken of a 'crash-protected image recording system' to capture the cockpit's last two hours of a flight to aid investigations".

The agency also now wants aircraft to have tamper-resistant locator technology that would more accurately locate an aircraft if it crashes. "Technology has reached a point where we shouldn't have to search hundreds of miles of ocean floor in a frantic race to find these valuable boxes," said NTSB acting chairman Christopher Hart. "In this day and age, [lost aircraft should be a thing of the past.](#)"

The NTSB proposes that such a cockpit device would have a two-hour recording duration, as a minimum, and be capable of recording, in color, a view of the entire cockpit including each control position and all actions made by the flight crew.

"The cockpit image recorder should be mounted in the aft portion of the aircraft for maximum survivability and should be equipped with an independent auxiliary power supply that automatically engages and provides 10 minutes of operation whenever aircraft power to the cockpit image recorder and associated cockpit camera system ceases, either by normal shutdown or by a loss of power to the bus," the NTSB states, adding. "The circuit breaker for the cockpit image recorder system, as well as the circuit breakers for the CVR and the DFDR, [should not be accessible to the flight crew during flight.](#)"



The Air Line Pilots Association responded with a statement, calling the recommendations a 'premature overreaction ... Cockpit image recorders will not improve safety and could, in fact, impede it by diverting limited resources that could be used for more valuable safety enhancements'.

One source told *Air Traffic Management*: "Cockpit cameras have been proposed before but always faced unrelenting opposition from the pilot's unions," adding, "The NTSB recommendation for position reporting want a tamper proof system with an accuracy of 6 miles which implies reporting about once per minute."

Read the NTSB's [recommendations on cockpit image recorders and the need to protect flight recorder systems against intentional or inadvertent deactivation](#).

A3IRCON 2015 Successfully Examines and Evaluates Future of Commercial Aviation, Cyber Security, Drones and More

Global research experts and aviation industry leaders joined more than 100 high school students, their families and college students representing nearly a dozen Arizona and California schools this past week in Phoenix for the second annual 2015 Aviation, Aeronautics and Aerospace International Research (A3IRCon) Conference. In addition to witnessing two unmanned aerial vehicle ("drones") demonstrations presented by students at Embry-Riddle Aeronautical University's Prescott, Ariz., campus, attendees met with conference keynote speaker National Transportation Safety Board (NTSB) board member [Robert Sumwalt](#) and others to discuss topics ranging from commercial airline crash investigations and incidents such as missing Malaysian Airlines MH370 to the future of national air space integration, drone regulation, pilot training and cyber security.



The conference, presented by Embry-Riddle's Prescott Campus and featuring representatives from all three of the university's campuses as well as university faculty from Purdue, Arizona State University, Tennessee Technological University and the University of South Australia, Horizon Air and SkyWest airlines representatives, and National Aviation Hall of Fame member and pioneering pilot/engineer in aviation safety Dr. S. Harry Robertson, was held Jan. 15-18 in Phoenix, Ariz.

Delegates from Australia, South Korea, Taiwan, Turkey and the United States presented their latest research during multiple days of concurrent sessions, networking and panel discussions. Outcomes and recommendations in some of the world's most pressing issues facing aviation include:

- Unmanned Aerial Systems (UAS)/"Drones": The U.S. is falling behind in the development and integration of the UAS into the national airspace system. The delegates issued a UAS collegiate challenge to meet and address at next year's A3IRCon.
- Diversity in aviation: Delegates cited the lack of diversity within the industry and recommended the development of a Center for Diversity of Aviation under the A3IRCon umbrella.
- [Safety and human factors in aviation](#): Experts in the field, including NTSB's Sumwalt, Dr. Robertson, Embry-Riddle Prescott Campus Chief Academic Officer and global security expert Dr. Richard Bloom and Vahid Motevalli of Tennessee Technological University were part of an interactive discussion on the state of global security. Sumwalt also presented an NTSB 2014 Year In Review. A recently unveiled post-crash survivability presentation by the Aircraft Owners and Pilots Association (AOPA) wrapped up the conference.
- MH370: Multinational experts evaluated various theories of what happened to the missing Malaysian Airlines flight, and expressed caution when it comes to various conspiracy theories.
- Cyber attacks: Experts explored emerging technologies, the role of UAS in proxy warfare, UAS threats and consumer perceptions.

Event organizer and Dean of the College of Aviation at Embry-Riddle's Prescott Campus, Dr. Brent Bowen confirmed preparations are underway for next year's A3IRCon to be held January 14-17, 2016 in Phoenix.

"As the premier research and information sharing conference devoted to issues vital to the industry's current and future leaders, A3IRCon's influence and impact will be felt worldwide," said Bowen.

For the complete conference communique, go to <http://commons.erau.edu/cgi/viewcontent.cgi?article=1114&context=aircon>

Aviation consortium to develop non-halon fire extinguishing solutions for aircrafts

A consortium of aviation manufacturers, along with other industry companies, is working to develop non-halon fire extinguishing solutions for use in aviation engines and auxiliary power unit fire zones.

Named the [Halon Alternatives for Aircraft Propulsion Systems](#) (HAAPS), the consortium is managed by Ohio Aerospace Institute (OAI).

The consortium comprises aircraft manufacturers, including Airbus, Boeing, Bombardier, Embraer and Textron, as well as fire extinguishing system suppliers such as engine, auxiliary power unit, nacelle companies, and other key stakeholders. The project is designed to identify a [common environmentally-acceptable](#) non-halon fire extinguishing solution.

"The project is designed to identify a common environmentally-acceptable non-halon fire extinguishing solution." Halon 1301 fire extinguishing agent has been in use for decades. However, production of the compound [was banned in 1994](#) in compliance with the Montreal Protocol on substances that deplete the ozone layer. Industry aircraft manufacturers, suppliers and fire suppression companies worked on producing a suitable replacement for Halon 1301, although these attempts yielded no results. OAI said in a statement: "[A limited amount of time is available](#) for the aviation industry to transition to the use of non-halon agents. "In addition, since cessation of new halon production per the Montreal Protocol, aviation including fleet maintenance is dependent on recycled halon supplies, which are expected to be significantly constrained in the future."

EU and International Civil Aviation Organization (ICAO) regulations require use of non-halon engine / APU fire extinguishing agents in aircrafts designed after 2014. The EU rules mandate a retrofit deadline of 2040.



Personal smoke hood introduced

Cool Travel Stuff, a travel supply company specializing in general aviation products, has introduced the Personal Smoke Hood. Resisting temperatures of up to 450°C (922°F) while filtering out toxic particles caused by fires and heavy smoke, the Personal Smoke Hood provides users with up to 20 minutes of breathable air. The Personal Smoke Hood's one-size-fits-all feature protects adults, children and pets, according to company officials.

Jim Chandler, Owner and CEO of Cool Travel Stuff, asks, "Have you ever felt smoke billowing down your lungs as you try to stabilize a flight that requires an emergency landing?"

"You don't want to. That's why Cool Travel Stuff is launching our latest product: The Personal Travel Hood. Now, you won't have to worry about maintaining breathable air and a clear line of sight in the event of a fire emergency."

The key to Personal Smoke Hood's protective powers lies in its design and materials first used by NASA to secure space shuttles, he noted. A thin layer of high-temperature resistant polyamide film allows for clear vision while protecting a user's face from flames up to 450°C.

Toxic air then travels through seven layers of temperature control and micro-particle removal filtration bringing users enough breathable air to avert a lethal crisis.



<http://www.cooltravelstuff.com/>

Lack of Sleep Is Second Most Common Cause of Tardiness Among Employees

According to a CareerBuilder survey, lack of sleep is the second most common cause for tardiness for employees, with 30% of employees citing it.

The most common cause cited for tardiness is traffic (50%). Rounding out the top 5 are:

- bad weather (26%)
- trying to get the kids to school or day care (12%)
- public transportation issues (6%)
-

When asked how often they come in late to work, more than 1 in 5 workers (23%) admitted they do it at least once a month, and 14% say it's a weekly occurrence for them. More than 2,100 hiring and human resource managers and more than 3,000 workers across industries participated in the nationwide survey, conducted online by Harris Poll from November 4 to December 2, 2014.

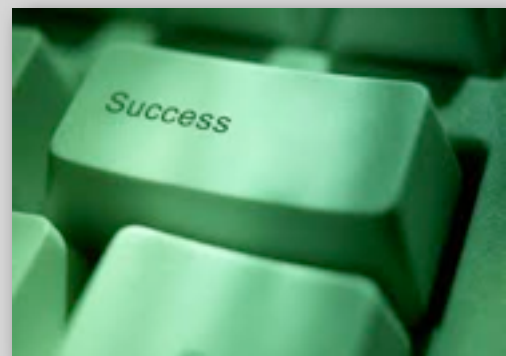


5 Things Successful People Do Differently Before Going To Sleep

Successful people have **bedtime rituals** that maintain their intense focus and mental conditioning so that they always stay ahead in their chosen field. You can also practice these pre-sleeping approaches to always be ready for the next day's challenges.

1. Read

Successful people like Bill Gates have bedtime rituals that will enhance their knowledge as well as help them relax in preparation for sleep.



Reading is one of the most common habits of millionaires because aside from making them feel sleepy at night, they stay updated about several issues concerning their business and other important global news, based on a report by LifeHack.

2. Light exercise

Many successful people like to take a stroll around the neighborhood or in their own backyard at night before going to bed to relax their mind. Career-driven individuals are usually stressed and think of various things throughout the day which can make it difficult for them to sleep at night. Light exercise will help put their mind into a state of relaxation, which allows them to rest better so they have more energy the next day.

3. Plan ahead

Successful people also have bedtime rituals that involve creating a schedule of the things they need to accomplish for the next day or week. This will help them organize things on paper instead of storing information in their brain, making it difficult to relax and sleep at night. Planning ahead will help you feel more at ease since you will not be forgetting anything.

4. Talking to loved ones

Goal-oriented individuals also enjoy communicating with their loved ones. It helps them air out stress and prevent bad feelings that they may be carrying the entire day. Find a hobby or leisure activity that helps you keep your mind off work in the final hour before going to bed.

Inc.com wrote, "That dose of positivity induced feelings of calm that allowed for more restful sleep."

5. Review accomplishments for the day

Benjamin Franklin reportedly asked himself the same question before going to bed, that is if he had accomplished anything good for that day. A timetable of his daily routine reveals that "[Examination of the day](#)" was a prominent part of his schedule before actual sleep. The same also shows that he starts his every day with a question, "What good shall I do this day?"

These simple successful people bedtime rituals should be practiced every day for best results. You can prevent and get rid of stress by doing activities that relax your mind and improve your quality of sleep.

<http://www.lifehack.org/articles/productivity/6-habits-highly-successful-people-before-bedtime.html>

<http://communitytable.com/35748/parade/what-was-benjamin-franklins-daily-routine/>

Inspirational



<http://www.cnn.com/videos/health/2012/09/05/hf-gupta-laura-sharpe.cnn>