

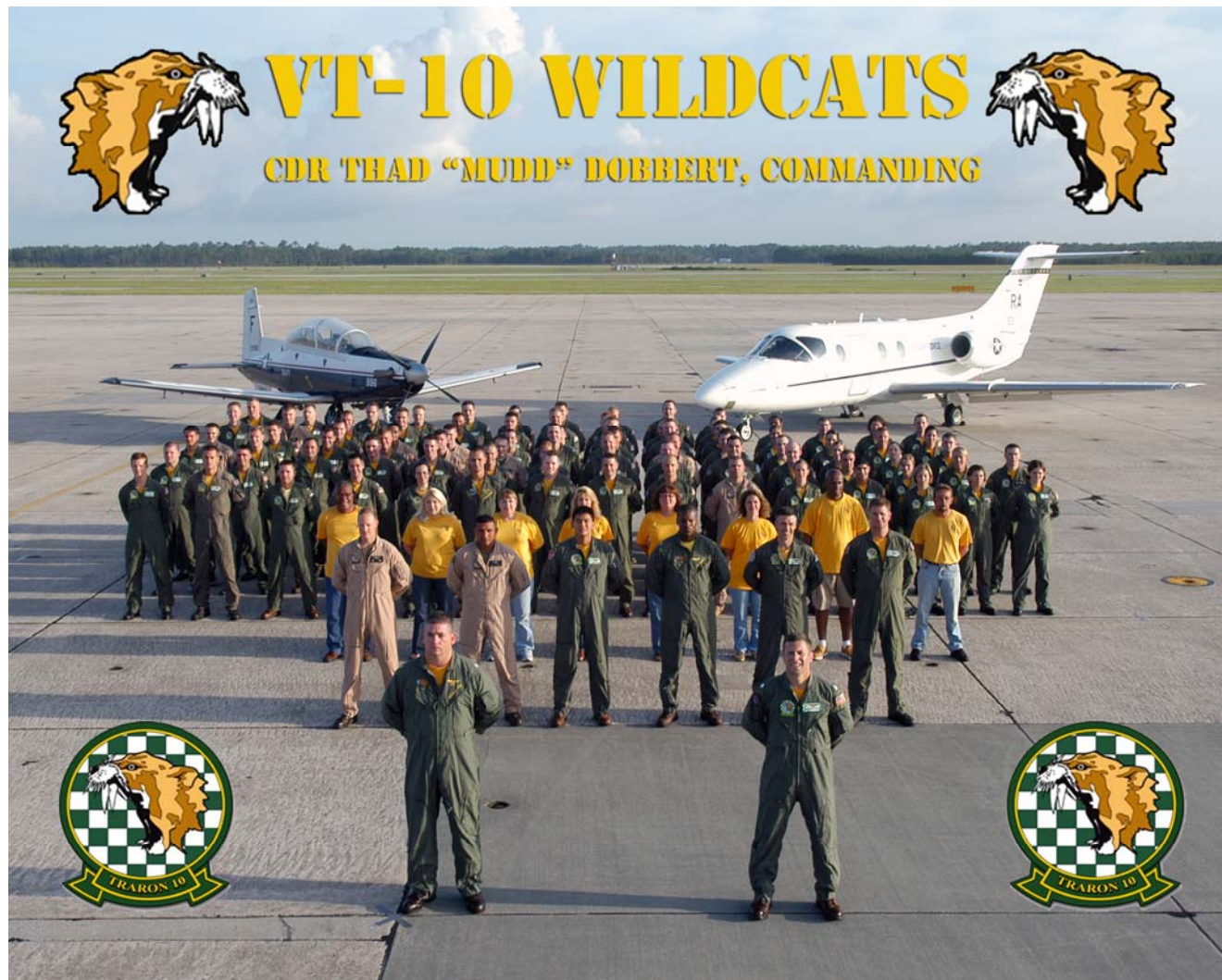
# SAFETY –

It's an all hands effort.

*Assess* the risks...

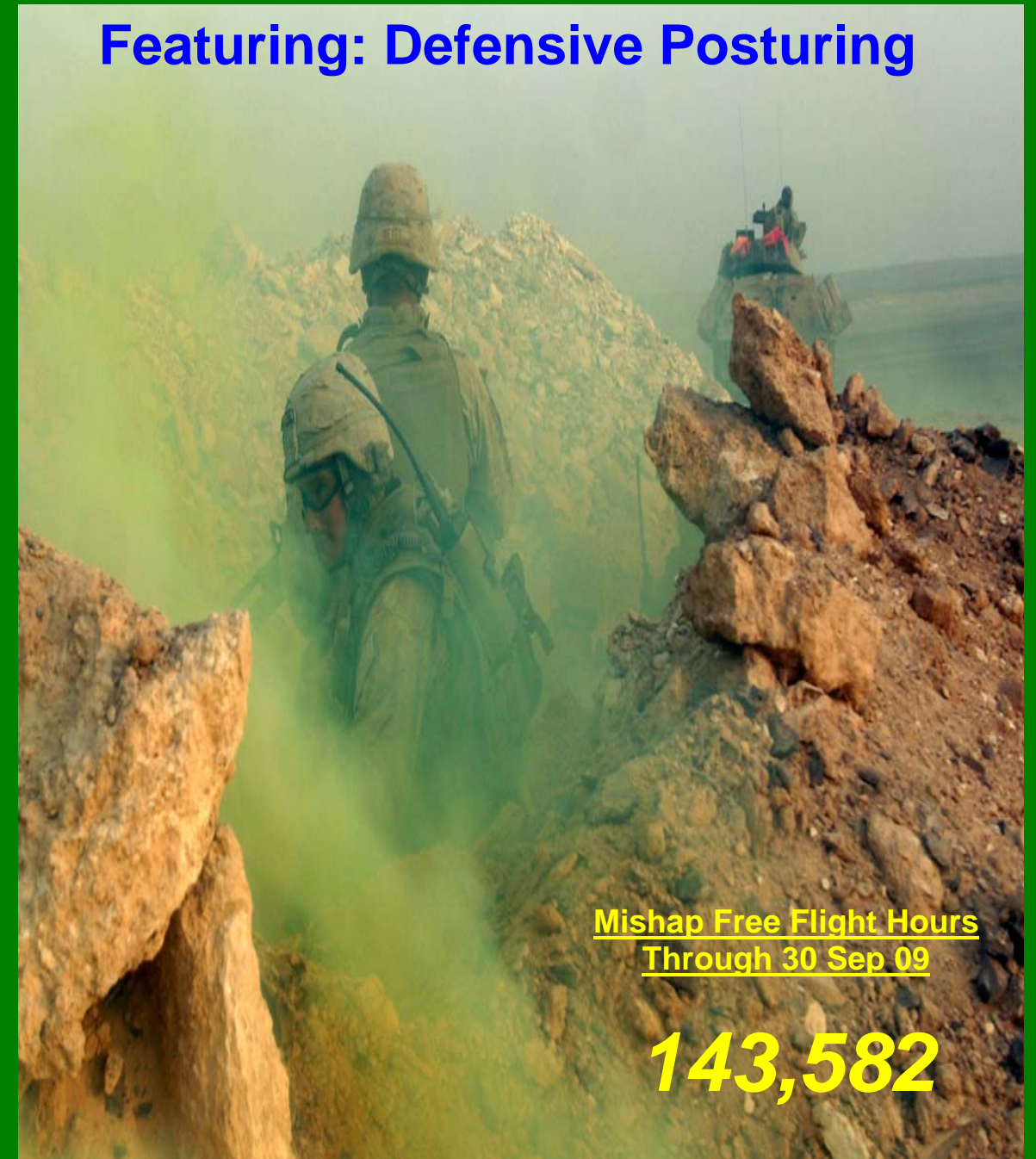
*Adapt* your plans to mitigate the risks and continue to adapt...

*Attack* the mission once risks are acceptable while continuing to assess and adapt...



# Scratching Post

Featuring: Defensive Posturing



Mishap Free Flight Hours  
Through 30 Sep 09

**143,582**

Assess, Adapt, **Attack!**

VT-10 IS A SUBORDINATE OF TRAINING WING SIX BASED ABOARD NAS PENSACOLA



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Commanding Officer

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## About VT-10

VT-10 has an 80 member Navy, Air Force, and Marine Corps Instructor Staff that currently trains over 300 Student Officers annually.

Training Squadron TEN has been awarded Seven Meritorious Unit Commendations and Seven Chief of Naval Education and Training "Shore / Technical Training Excellence Awards", the most recent in 2005.

"Wildcat" safety initiatives have earned the squadron Twenty-Two Chief of Naval Operations Safety Awards, the most recent in 2008.

The squadron was awarded the Towers Award for Safety in 1978 and 2008.

In 2004 and 2005, the command was awarded the U.S. Navy Pettibone Safety Publication Award, and received Runner-Up honors in 2007 and 2008 for the Scratching Post newsletter.

Most recently, VT-10 received the 2009 Department of the Navy Safety Excellence Award.

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## CO's CORNER CDR Thad Dobbert



Wildcats,

I want to take this issue to look at what you are doing to make sure you are staying at the top of your game and not in a slow unrecognized decent. Ask yourself two questions:

**"... you should be placing yourself in a bubble..."**

1. Am I safely and accurately going through each checklist item? IP and INs should ensure that every student is part of the checklist challenge and response process to ensure proper cross-checks are being done. This one CRM mistake is a prime causal factor in most mishaps over the last 8 years. If you feel rushed during preflight which makes you "cut corners", I implore you to consider walking earlier. There is nothing too important with our job here to have to not do things the right way.
2. Are you separating flight and ground job requirements adequately? Some time before your brief, you should be placing yourself in a bubble where you are not thinking or conducting work related to your ground job. When you are in that bubble, all your time should be spent preparing yourself and your student for that flight to ensure you are conducting it in the safest manner possible. I would consider 30 minutes before your brief as the bare minimum an aircrew needs to get into the mental mindset needed for a successful flight.

None of this is new to any of us. We have been trained by the best. Let's ensure we provide the best training by ensuring we are mentally in the game when it is our turn to get airborne.

# WILDCATS AND A GROUND SAFETY WORST CASE SCENARIO CDR Kevin Quarderer

Earlier this week the Wildcat Safety Department solicited me for an article on Defensive Posturing for this month's edition of the Scratching Post. I struggled with a subject, but knew from my personal experience that a "It Happened to Me" type of article was the way to go. Allow me to share a short story from my Ensign days as a Wildcat student during a memorable trip to Pensacola Beach.

Many moons ago, all API students went through CPR training as part of the curriculum. About a year passed since my initial CPR qualification and I was in the heart of Intermediate training at VT-10. It was a coveted day in flight training, no flights scheduled, no ground events, just a day off. Needless to say, three of us grabbed our running shoes and headed to the beach for some great PT followed by plans for refreshments.

We were about half way done with our run when my friend spotted something bobbing in the surf. As we got closer, it

became apparent that the object was actually the body of an older gentleman, face down in the surf. We sprinted to him, turned him over, and found no pulse. He was all alone and we had no idea how long he had been there, so we began CPR. I started my stopwatch as we took turns with the breathing and chest compressions.

It was certainly a surreal situation and not exactly what we had planned for our coveted day off. Things were moving in slow time and I had lost situational awareness of my surroundings, when suddenly the thud-thud-thud of an air ambulance helicopter landing behind us snapped me back to reality. I looked at my watch and saw 5 minutes had already passed. I looked up to find that a large crowd had formed on the beach and I assumed someone had called 9-1-1. A paramedic casually walked up to us, pulled out an econo-sized syringe, and repeated the scene from Pulp Fiction with a jab of adrenaline to the man's heart.

To my amazement, after 7 minutes without a pulse, this nameless stranger was back among the living! He was quickly loaded into the helicopter and within 8 minutes start-to-finish, the whole experience was over.

I share this story for a couple reasons. One – it is a shameless plug for the Wildcats upcoming voluntary CPR course. Sign-up--It works! Two – I think it is a good example of how good, old fashioned military training can provide a level of defensive posturing against a "worst case" ground safety scenario. Rightly so, Wildcats spend a lot of time concentrating on flight safety. However, in some rare instances, our training may be just as valuable during off-duty, non-flying time. Full spectrum training is the first step toward defensive posturing.



1. Don't take the machine into the air unless you are satisfied it will fly.
2. Never leave the ground with the motor leaking.
3. Don't turn sharply when taxiing. Instead of turning sharp, have someone lift the tail around.
4. In taking off, look at the ground and the air.
5. Never get out of a machine with the motor running until the pilot relieving you can reach the engine controls.
6. Pilots should carry hankies in a handy position to wipe off goggles.
7. Riding on the steps, wings, or tail of a machine is prohibited.
8. In case the engine fails on takeoff, land straight ahead regardless of obstacles.
9. No machine must taxi faster than a man can walk.
10. Never run motor so that blast will blow on other machines.
11. Learn to gauge altitude, especially on landing.
12. If you see another machine near you, get out of the way.
13. No two cadets should ever ride in the same machine.
14. Do not trust altitude instruments.
15. Before you begin a landing glide, see that no machines are under you.
16. Hedge-hopping will not be tolerated.
17. No spins on back or tail slides will be indulged in as they unnecessarily strain the machines.
18. If flying against the wind and you wish to fly with the wind, don't make a sharp turn near the ground. You may crash.
19. Motors have been known to stop during a long glide. If pilot wishes to use motor for landing, he should open throttle.
20. Don't attempt to force machine onto ground with more than flying speed. The result is bouncing and ricocheting.
21. Pilots will not wear spurs while flying.
22. Do not use aeronautical gasoline in cars or motorcycles.
23. You must not take off or land closer than 50 feet to the hangar.
24. Never take a machine into the air until you are familiar with its controls and instruments.
25. If an emergency occurs while flying, land as soon as possible.

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## FLAP OVERSPEED

LT Nicholas Zimmerman

The afternoon of August 2<sup>nd</sup> I read the flight schedule and found myself scheduled for a C4001 flight the next day with my first on wing. I immediately started thinking about the flight and spent that evening planning for the brief and flight. The next morning the brief went very well and my student's procedures

**Once BACK on deck with ... a DOWN aircraft...**

were solid. We checked into the MOA and began going through the maneuvers as briefed. When we got to the Level Speed Change the student was at the controls and called for the flaps prior to starting the before landing checklist. I interrupted the student to ask what was missed in the procedure and in doing so I failed to note that the flaps had been put to the takeoff position. With the aircraft approaching the MOA boundary and a short conversation about what was missed in the procedure I took the controls to demo the maneuver. I set the PCL to max, raised the gear and started a descending turn to set up for the demo, over speeding the flaps in the process. Once back on deck with an incomplete C4001 and a down aircraft I found a few things that could have prevented this from happening. The first and most obvious thing I lost was my situational awareness on the configuration of the aircraft. I was fixated on the maneuver and failed to accomplish some basic aviating. The second technique that was since suggested is to let the student finish the entire maneuver from start to finish before stepping in. This allows students to learn from mistakes and minimizes the time spent halfway through a procedure. The last thing I could have done on that day was select a lower power setting until a clean aircraft has been visually verified. Good habit patterns along with forward thinking will keep you safe and within the operating limits of the aircraft.



## UNSAFE GEAR INDICATION IN THE T-1

LT Catherine Sagehorn

Coming back to NPA after a double low level on the VR-1022, I had a student in the right seat and a student and flight surgeon in the back. Weather was VFR and the student had opted to come back Course Rules to runway 7. We initiated the Before Landing Checklist at point X-ray and reported the numbers as instructed by tower. Cleared for the break, we began our turn and at the appropriate time the student called "Below 200". The pilot called for flaps 10, gear down and student responded in turn. The student then called "Below 170" and the pilot called for flaps 30. At that point I heard the pilot say, "Oh man!" I leaned forward and looked at the gear indicator lights and saw that only two of the gear lights were on and that the light indicating the nosegear was out. I told the student to press the light to test the bulb, and the bulb checked good. The pilot checked the landing gear circuit breaker and brought the flaps back to 10 degrees. The pilot decreased the throttle and we heard the gear warning horn. The pilot took the radios, told tower we had an unsafe gear indication and requested a low approach for a visual gear check.

I leaned back in my seat and asked the student to hand me the Dash 1 so I could run the expanded emergency procedures checklist. The student had trouble hearing me and I had to ask him three times for the Dash 1 (later he said that he had trouble hearing intercockpit communication on his headset). Tower confirmed that we had no nosegear visible and vectored us away from the pattern so we could troubleshoot. I opened the Dash 1 to 3-35 and confirmed that we had completed the Gear Down Verification to Emergency Gear radios when tower asked us and I responded with 1000 souls. The student in the seat checked list and was watching the items I was reading from for a few moments the pilot the Emergency Landing Gear was heads down watching him, and I was heads down reading the Dash 1. I told the student to keep his eyes outside the aircraft and scan our airspeed and altitude.

**At that point I HEARD the pilot say, "OH MAN!"**

checklist before moving on Extension. I took the for fuel and souls on board pounds of fuel and five had pulled out his pocket the pilot as he went through the Dash 1. I realized that was heads down activating Down Handle, the student

The gear was successfully lowered and we got "three green" to show all landing gear were locked into place. I informed tower and asked for a visual straight-in for runway 7. We were immediately given clearance to land and they asked if we wanted to declare an emergency. I confirmed we were declaring an emergency and the pilot called T-1 maintenance to inform them of our situation.

As we came around for short final I did my usual visual check involving checking that the appropriate lights are on, we have landing gear down, flaps set correctly, and that we are cleared to land. I saw that we were still at flaps 10 and told the student to run the Before Landing Checklist again. We had calculated our landing data based on a specific weight with 30 flaps and we needed to confirm our numbers. We recalculated Vref and lowered the flaps to 30, confirmed that wheels were down, yaw damper was disengaged, and landed safely without incident.

Two things I took away from this. First, the student was "backing" me up with his PCL and watching the pilot when he really should have been looking outside and scanning instruments (especially airspeed and altitude). The Dash 1 has more information than the PCL and the student was a better asset once he starting looking outside and scanning. Second, running the Before Landing Checklist again re-focused the crew to ensure we were doing everything we were supposed to. This incident really reminded me that if a checklist is ever interrupted it is a good idea to run it again to make sure we didn't miss any items.

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## WILDCAT SAFETY AWARDS

### DON 2009 SAFETY EXCELLENCE AWARD

FM SECNAV WASHINGTON DC  
> TO ALNAV  
> BT  
> UNCLAS  
> ALNAV 059/09  
> SUBJ/DEPARTMENT OF THE NAVY 2009 SAFETY EXCELLENCE AWARDS//  
> REF/A/DOC/SECNAVINST 5305.4// AMPN/REF A ESTABLISHES POLICY AND  
> PROCEDURES FOR SUBJECT AWARDS PROGRAM.// RMKS/1. IT IS MY PLEASURE TO ANNOUNCE THE RECIPIENTS OF THE DEPARTMENT OF THE NAVY 2009 SAFETY EXCELLENCE AWARDS. THIS IS THE EIGHTH YEAR DON HAS RECOGNIZED NAVY AND MARINE CORPS UNITS FOR THIS MOST PRESTIGIOUS AWARD. THE SAFETY EXCELLENCE AWARD RECIPIENTS ARE AS FOLLOWS:  
> A. SAFETY ASHORE:  
> - INDUSTRIAL: NAVAL FACILITIES ENGINEERING COMMAND HAWAII  
> - NON-INDUSTRIAL: NAVAL AIR STATION KEY WEST  
B. SHIPBOARD SAFETY:  
> - LARGE DECK SURFACE COMBATANT: USS TARAWA (LHA 1) WITH THE 11<sup>TH</sup> MARINE EXPEDITIONARY UNIT  
> - SURFACE COMBATANT: USS JARRETT (FFG 33)  
> - AMPHIBIOUS: USS FORT MCHENRY (LSD 43)

> - MINE WARFARE: MCM CREW DOMINANT  
> - SUBMARINE: USS OHIO (SSGN 726) (GOLD) C. MARINE CORPS GROUND SAFETY:  
> - ACHIEVEMENT IN SAFETY AWARD-GROUP I: MARINE CORPS BASE HAWAII  
> - ACHIEVEMENT IN SAFETY AWARD-GROUP II: MARINE CORPS AIR STATION IWAKUNI  
> - ACHIEVEMENT IN SAFETY AWARD-GROUP III: MARINE CORPS LOGISTICS BASE BARSTOW D. AVIATION SAFETY:  
> - ACTIVE DUTY NAVY: HELICOPTER ANTI-SUBMARINE SQUADRON LIGHT FOUR NINE (HSL-49)  
> - ACTIVE DUTY MARINE CORPS: MARINE LIGHT ATTACK HELICOPTER SQUADRON 369 (HMLA 369)  
> - RESERVE NAVY: PATROL SQUADRON SIX TWO (VP 62)  
> - RESERVE MARINE CORPS: MARINE MEDIUM HELICOPTER SQUADRON 764 (HMM 764)  
> - TRAINING COMMAND: **TRAINING SQUADRON TEN (VT 10)**  
E. MILITARY SEALIFT COMMAND SAFETY:  
> - USNS BRIDGE (T-AOE 10)  
> 2. ALL DON SAFETY EXCELLENCE AWARD RECIPIENTS TO THE DON 2009 SAFETY EXCELLENCE

AWARDS CEREMONY WILL BE FORMALLY RECOGNIZED AT A CEREMONY THAT WILL BE HELD SEPTEMBER 15, 2009 FROM 0930-1100 AT THE U.S. NAVY MEMORIAL AND NAVAL HERITAGE CENTER THEATER, 701 PENNSYLVANIA AVE NW, WASHINGTON DC.  
> 3. CONGRATULATIONS TO ALL DON SAFETY EXCELLENCE RECIPIENTS. YOUR INTEGRATION OF ?MISSION FIRST, SAFETY ALWAYS? INTO YOUR COMMAND CULTURE WAS SUPERLATIVE AND YOU HAVE JUSTLY EARNED THE RIGHT TO MY SAFETY FLAG FOR THE NEXT YEAR. YOUR EMPLOYMENT OF OPERATIONAL RISK MANAGEMENT TECHNIQUES, BOTH ON AND OFF-DUTY, DEMONSTRATED TOTAL COMMAND INVOLVEMENT AND IMPRESSIVE FRONT OFFICE SAFETY COMMITMENT. YOUR COMMITMENT TO SAFETY HAS NO DOUBT PREVENTED LOSS OF LIFE, AND PRECLUDED COUNTLESS INJURIES AND DAMAGE TO OUR MATERIAL ASSETS.  
> 4. YOUR CHALLENGE NOW IS TO SHARE YOUR LESSONS LEARNED WITH OTHERS AND MENTOR THOSE COMMANDS THAT STRIVE TO OBTAIN THE SAFETY EXCELLENCE YOU HAVE ACHIEVED.  
> 5. RELEASED BY RAY MABUS, SECRETARY OF THE NAVY.//

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## SIX HEALTHY HABITS

LCDR Darren Stennett

It is well established that maintaining personal health habits can help prevent stress. "L.E.S.S.O.N. PLAN" is an acronym developed by J.B. Cunningham to outline the key habits essential for good physical and emotional health. These six healthy habits can help prevent stress, enhancing resilience and create a healthy, happy lifestyle.

**Leisure Activities:** Leisure activities involve doing things you enjoy, such as spending time with family and friends or doing hobbies. Knowing when to take a break is an important step in managing the accumulation of stress. When people are "stressed," they often stop doing enjoyable life activities and socializing. It is healthy to balance their daily responsibilities with leisure activities.

**Exercise:** Regular exercise helps one to feel better. This sense of control over the body may translate to an improved sense of control over other aspects of life, a key defense against stress. Exercise also releases important mood enhancing chemicals into our body.

**Spirituality:** Spirituality represents our search for meaning and significance in life. Chaplains and community spiritual leaders can be good resources for enhancing or reconnecting to a spiritual life. Spirituality is associated with better overall physical health including lower blood pressure, less frequent hospitalizations, and longer life. Spirituality is also associated generally with healthier lifestyles, and greater life satisfaction.

**Sleep:** Sleep needs vary considerably from person to person. However, inadequate sleep can impair optimal work performance and raise safety concerns. Common Symptoms of missed sleep include irritability, poor concentration, and fatigue. Insufficient sleep can make it more difficult to cope with life stressors. Ensuring adequate sleep can significantly reduce stress.

**Optimism:** Optimism involves thinking in a realistic, flexible, and positive way. Optimists view setbacks as temporary, isolated challenges that they can overcome or get through. Optimism has been found to be associated with higher achievement, less mood disturbance, better immune system functioning, better health habits and longer life.

**Nutrition:** Unhealthy eating habits are often associated with stress. Many people do not realize they eat differently when they are under stress. For some, the response is to over eat for comfort. While others, begin to skip meals; both are unhealthy and need quick attention. Managing a good healthy diet will significantly reduce the effects of stress.

**Plan:** Once a personal assessment is accomplished in these areas, it is important to develop a plan to implement a healthy lifestyle. Making changes to improve health often means a change in lifestyle. NOW IS THE TIME, to establish a specific plan for making healthy habits an essential part of your success.

Along with the L.E.S.S.O.N. PLAN, it is also helpful to seek help in recognizing, establishing and maintaining healthy habits. Medical providers, chaplains, and Fleet and Family Support Centers (FFSC) are all resources for improving healthy lifestyles. As Wing Chaplain, please feel free to contact me anytime at 850-452-2341.

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# AVIATORS CAN'T LIVE ON WATER ALONE

## Part 1 of 3

LT Timothy Welsh

Caffeine is the most widely used drug in the world. Eighty-two to 92% of North Americans regularly consume caffeinated beverages. The average consumption is 200-600 mg/day with 20-30% of caffeine consumers ingesting >600mg/day. Even with such high usage rates, there has been some debate concerning caffeine and its possible dehydrating effects. Because of its purported diuretic potential many health professionals and governmental agencies have advised abstaining from caffeine consumption when attempting to prevent dehydration. Does that mean aviators should avoid caffeinated beverages based on the premise caffeine will induce dehydration? The belief that caffeine is a diuretic has been the accepted wisdom for many years, even though; there have been very few research investigations to support this belief and many others with opposing findings. The goal of this article is to clear up misunderstandings concerning caffeine and hydration and to give some basic guidelines for effectively using caffeine as a fatigue management tool.

Caffeine can cause a slight increase in fluid loss, but is the loss significant enough to negatively affect human performance and should aviators avoid consuming any caffeine? Debate currently exists concerning caffeine's effect on hydration status. When consumed within moderate limits (200-400 mg/day or 2-4 cups of coffee), studies have reported ingesting caffeine has little effect on hydration. In fact, water has been shown to have similar diuretic effects compared to caffeine. A recent review of the scientific literature examined caffeine's diuretic effects. Consumption of caffeinated beverages ranging from 100 to 680 mg doses resulted in 0-84% retention of the initial fluid volume ingested, whereas, consumption of water resulted in 0-81% retention. In this study, water caused ~3% more fluid loss compared to the caffeinated beverage. In 2005 another study reported that moderate doses of caffeine (3 and 6 mg caffeine/kg/day) over 6 days did not increase urine output above placebo and that caffeine does not put one at risk for heat stress. It appears, based on the recent scientific literature, that moderate consumption of caffeine should not put aviators at risk for dehydration. The Naval Aviation community knows that the 3710.7T states caffeine consumption should not exceed the moderate value of 450 mg/day (3-4 cups of coffee/day). If caffeine is only a very mild diuretic, why is there a limit on the amount aviators can consume?

High doses of caffeine can elicit a severe stress-like neuroendocrine response very similar to the "fight or flight response". This stress-like response may reduce an aviator's ability to perform his or her aircraft duties, but for this response to occur, it would take ~500 mg (approximately 5 cups of brewed coffee) to be consumed in one sitting. You may be thinking who drinks 5 cups of coffee in one sitting? Here is an example: A survey sampled one 16 oz specialty coffee each day over a six day period. The caffeine content ranged from 259 mg/16 oz to 564 mg/16 oz. Another example is Rockstar Zero Carb, which has 360 mg in one serving. As you can see, it can be very

easy to reach the 450 mg/day limit or even exceed it in one sitting. Due to the possibility to a performance degrading stress-like response (e.g. caffeine jitters), the use of only moderate amounts of caffeine (< 450 mg/day) may be recommended for consumption.

Based on the current research concerning caffeine's lack of diuretic effects, it can be concluded that moderate caffeine usage over a 7 day period does not negatively impact hydration or increase the risk of heat stress. However, the long term effects (i.e. > 7 days) of caffeine consumption are unclear at this time. Furthermore, excessive consumption of caffeine, especially in novel users, can have negative consequences such as over stimulation of CNS, withdrawal and de-sensitization. Even though these possible risks exist, they are manageable. An aviator can mitigate the risk of caffeine over-consumption and de-sensitivity by being aware of caffeine content in the foods and beverages they consume, by understanding their response to caffeine consumption, and by being aware of the amount caffeine consumed during the day/night. By educating our aviators concerning the risks of use and how to manage use, the likelihood of them experiencing any of the negative aspects of caffeine consumption can be significantly reduced.

## A CHALLENGE TO WAKE YOU UP! MAJ Andrew Jackson

Defensive posturing is a term that is common knowledge with flight instructors. Generally it means keeping your body parts in a place that allows swift action to prevent bad events - like a hand behind the PCL to keep the engine from getting inadvertently cut-off. That definition surely has its place and time. An example of this is when friends of mine were on a KC-135 when a moment of inattention during training allowed all four engines to be cut-off in a critical phase of flight. If the IP's hands had been behind the throttles it could be argued that the event might not have happened - sure. But what saved the lives of 5 airmen that day was the other defensive posturing, the mental one. Had the IP not had the knowledge, experience and mindset to react to the problem at hand in a moment's notice, things might not have ended safely.

Thinking defensively is every bit as important as physical positioning in the aircraft. For that matter it is important in all aspects of your life. When you walk to an aircraft without mentally preparing for what MIGHT go wrong, you are one step behind and less prepared to fight for your life. If you have any doubt, pick any seasoned aviator at random and ask them if they ever had a malfunction of some kind. My guess is that you will never find one that says no. EVERYONE has had SOMETHING happen at SOME TIME. If you can find someone that has never ever had a malfunction or EP then; first, don't fly with them, because they are due, second, come find me and I'll buy the first round.

That's it! That is the point of this itty bitty little blurb of words. Recognize that aviation is inherently dangerous and if you aren't willing to think defensively and be prepared then you aren't ready to fly, as a student, and especially as an IP. ASSESS the dangers, ADAPT to mitigate them, and ATTACK! to get the mission done.