



# The Safety Sigma

*Mission Readiness through Operational Safety*



Winter 2011

Volume II, Number 1

## From the Director: **What have you done for me lately?**

CAPT Bob "Cosmo" Conway, USN – Director

Happy New Year to you all! What a year we've had and what a year we are now looking forward to. On 01 Oct, Naval Aviation realized a record setting year for the lowest Class A mishap rate in history. As of the time of this article, Naval Aviation has experienced only two non-fatal Class A mishaps putting us well ahead of the game in setting a new record for FY11. At risk of patting SAS' self on the back, I will say that SAS is looking forward to another year of conveying aviation safety and command excellence to approximately another 900 ASOs, ASCs and CRMIs to achieve another record – but as the title asks, what has SAS really done for the fleet? The short answer – plenty!

For over 45 years, SAS has been providing aviation safety and command excellence education, research and Fleet assistance to organizations such as squadrons, sister services, foreign militaries, city and state aviation agencies, NASA, the Naval Operational Medicine Institute (NOMI) and many more. These services have not only been offered, they have been demanded from you! I recently had the opportunity to chop the SAS/CRM command history input for 2010 and noted page upon page of guest lecturing, safety stand down assistance, high level as well as squadron level research projects and other assistance over the 5 ½ pages of services provided to you in just the last year.

"This is a great newsletter. I believe all aviation commands should be getting this and I will be forwarding this to the Wardroom and Chiefs' Mess..."

– Recent ASO Graduate –

Am I tooting SAS' horn? Absolutely! But it's not from a selfish desire to make SAS look good, I'm tooting the horn because the services we provide are being taken onboard by the Fleet (buy-in), being put to good use and not only preventing mishaps but increasing the excellence of your commands through the educated expertise of your COs, ASOs and their safety/command excellence teams. We are a resource for you.

So what can we provide upon your request? Here's a sampling of what we have done for you. We have sent a representative to deliver *Rotary Wing and Fixed Wing Aerodynamic Blue Threat* briefing to the aircrew participating in Enhanced Mohave Viper (EMV) exercise at Marine Corps

Air Ground Combat Center in Twenty-Nine Palms California. Always entertaining and informative is Doc Dalitsch's *Fatigue in Naval Aviation* and *Nutritional Supplements and Energy Drinks* which he was asked to provide by several squadrons. We have sent representatives to the MH-60S NATOPS Conference in San Diego, California to provide expertise for CRM integration into NATOPS procedures, and sent CRM representatives to provide *Crew Resource Management, Time Critical Risk Management*, and fatigue briefs to a TYPEWING for their Operational Pause. We have submitted and aided articles for squadron safety grams. We have provided rotary wing and fixed wing aerodynamic briefings to the Weapons and Tactics Instructor (WTI) Course at Marine Aviation Weapons and Tactics Squadron One at Marine Corps Air Station Yuma, Arizona. We have conducted a study of leadership training and detachment mishaps rates for the Naval Safety Center. And we have sent a representative to deliver a presentation on structural issues on aging aircraft at the Naval Helicopter Association 2010 Conference in Jacksonville, Florida.

I could go on but the above should give you a good idea of what services we can provide to you outside of the ASO, ASC and CRM courses. Bottom line: whatever the request for whatever aviation safety topic, we will do our absolute best to accommodate. Education, research and Fleet service is in our charter and we are committed to enabling a safer and therefore a more ready Fleet. I can proudly say that our instructors are truly selflessly motivated to help you, credible resources and very much current in their expertise. All you need to do is ask! Again we are looking forward to assisting you in this coming year as we strive to beat last year's aviation mishap records through excellence in your commands and we are certainly looking forward to your requests in assisting you to do so!



Programs instructor Bob "Opus" Hahn is frequently featured at safety stand downs.

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# Man: Engineering “Human” Safety

LT Pete “UB” Walker, MSC, USN – Aerospace Experimental Psychologist

You’ve heard the stat before... four out of five aviation mishaps are the result of a human causal factor. However, it might surprise you to learn that across nearly every high risk industry, ranging from off shore oil drilling to medical surgery, the mishap rate due to human error is every bit as high as it is in Naval and Marine Corps aviation.

Meanwhile, a vast majority of these commercial industries have placed an alarmingly heavy emphasis on “classic” engineering disciplines such as civil and mechanical engineering with regards to accident prevention. However, less emphasis is placed on those engineering disciplines more closely aligned with safety and prevention. For example, a recent review of many of the top engineering schools in the country found that the vast majority of these schools did not even require their students to take a single safety course. Rather, the majority of students from these schools were exposed to safety issues while taking a course focused on more traditional engineering topics.

Recently, we surveyed over 100 aviators that reported to have a degree in engineering. Of the individuals surveyed, less than one percent of those aviators with a degree in engineering had actually taken a safety course. **Less than one percent!!!**

In response to these staggering numbers, the schoolhouse here at the Naval School of Aviation Safety has adopted a more human centered System Safety model of instruction. MIL-STD-882 has defined system safety as “the application of engineering and management principles, criteria, and techniques to achieve acceptable mishap risk, within the constraints of operational effectiveness and suitability...” With respect to the schoolhouse here in Pensacola, this means that we have adopted a curriculum that focuses on the human element in each of its respective disciplines. Whether the topic area concerns Human Factors Councils or Hooplah, the focus is on the development of tools and techniques at the squadron level to mitigate the risks associated with human factors.

There appears to be some agreement among the other service safety schools. For example, both the U.S. Army and U.S. Air Force provide only survey level introduction to concepts such as aerodynamics and structures. Rather, the primary focus of these schools is on human factors and safety programs. Therefore, it appears that the service safety schools, and not academia, may be leading the way with regards to increasing the awareness of the *human factor* and its influence on engineering.

The points raised above should not be interpreted to mean that military service schools should continue to deemphasize course topics such as aerodynamics or structures. Rather, these courses should continue to explore new and innovative approaches to incorporate human factors in each of the major topic areas. After all, it is, and will always be, a human at the controls of the aircraft! 

# Machine: A Review of Airspeeds

LtCol Bartt “Pinto” Greene, USMC – Fixed Wing Aerodynamics



Four commonly encountered types of airspeeds encountered by aviators are Indicated, Calibrated, Equivalent and True Airspeeds. These are easily remembered using the acronym “ICE-T”.

## Indicated Airspeed

Indicated Airspeed is proportional to dynamic pressure, ‘q’ ( $\frac{1}{2} \rho V^2$ ) according to Bernoulli’s equation. Forces acting on an airplane, such as lift and drag, are also proportional to dynamic pressure. So indicated airspeed is proportional to dynamic pressure, which in turn is proportional to the forces acting on the airplane. This means the aviator can get an *indication* of the forces acting on an airplane by referencing indicated airspeed. This is why most NATOPS airspeed limits are referenced as indicated airspeeds, and also why takeoff indicated airspeeds remain the same whether you takeoff from sea level or from mile high Denver International.

## Calibrated Airspeed

Calibrated airspeed is very similar to indicated airspeed with two corrections.

1. Calibrated airspeed accounts for instrument error.
2. Calibrated airspeed accounts for position error.

Instrument error is taken care of at the maintenance level through calibration. Position error corrects for the incorrect airspeed encountered at the pitot tube due to the distorted airflow caused by airflow/aircraft interaction (solved for in flight testing).

## Equivalent airspeed

Equivalent airspeed corrects calibrated airspeed for compressibility or changing density of the air due to flight at higher speeds or higher altitudes. This correction is generally negligible for low altitude/low airspeeds (helicopter flying), but must be incorporated for higher altitudes and higher airspeeds (generally around Mach 0.4) in order to make the final correction to true airspeed.

## True airspeed

True airspeed corrects equivalent airspeed for density. By correcting for density (think mostly affected by altitude), true airspeed gives a true indication of the aircraft’s airspeed through an air mass with defined and specific properties (density, temperature and pressure). True airspeed with wind correction produces ground speed, making it useful for mission planning. 

## Medium: New Self-Assessment Requirement

CDR Mike “Jake” Ryan – Programs Instructor

In case you missed it, there is a new reoccurring requirement (starting in 2010) for all Navy units, including aviation squadrons, to conduct an annual self-assessment. We have recently included this information as part of the Aviation Safety Programs curriculum at SAS. All Navy units are already required by OPNAVINST 5100.23G to conduct a unit self assessment annually. However, Navy commands/units shall complete an annual safety self-assessment by 31 Dec of each calendar year beginning with calendar year 2010 and report the findings up their respective chain-of-command.

In short, each command/unit is required to report the top five areas of concern, successes, and opportunities for program improvement up your chain-of-command following the self-assessment by 31 Dec each year. Please contact your direct chain-of-command for any specific format changes to the above as well as any internal due dates in support of this requirement.

Per the cover letter to the DON Safety Vision signed by SECNAV, CNO, and CMC, “Each Service’s Executive Safety Board shall annually review Echelon II plans and progress to include a review of those metrics chosen to measure success.” The Navy Executive Safety Board (NESB) Action Officers worked for a number of months on how best to fulfill that requirement and agreed what made the most sense was to require unit reporting following the self assessment and to roll up that information up the chain of command to Echelon IIs, analyze it, and eventually brief it to the NESB. NESB Flag leadership agreed. This is the first time self-assessment data will be submitted up the chain, and eventually looked at from an Enterprise perspective.

### CAPT Polonius to LT Laertes on Self-Assessment:

*“This above all: to thine own self be true,  
And it must follow, as the night the day,  
Thou canst not then be false to any man...”*

Some gouge: There is a Self-Assessment Guide for unit level activities, ashore and afloat. The guide provides a collection of metrics and tools that can be used to assess command safety posture and to plan and execute a unit self-assessment. Some of these were briefed during the ASO course including: CSA/MCAS, ESC and ASC minutes for command trends, ASAP, NSC/Internal Safety Surveys, HAZREP trends, and possibly HFCs. Reporting format is also included in the Self-Assessment Guide.

We would greatly appreciate any feedback from current ASOs/Safety Officers that may have to conduct this self-assessment in order to provide Fleet feedback directly to our current ASO course.

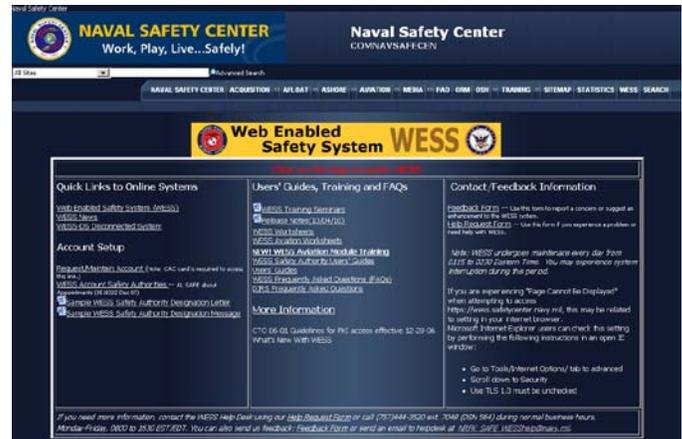
The Naval Safety Center POC on this issue is Mr. Alan Lewis, who can be reached at [alan.r.lewis@navy.mil](mailto:alan.r.lewis@navy.mil), or (757) 444-3520 ext. 7005. Please contact him for any specific questions on this annual requirement. 

## Mishaps: WAMHRS Frequently Asked Questions

CDR Dirk “Dutch” Hart, USN – Reporting Instructor

LCDR T.J. “Donuts” Staffieri, USN – Reporting Instructor  
with input and assistance from the Naval Safety Center

With the roll-out of the new Web-enabled Aviation Mishaps and Hazards Reporting System (WAMHRS) module version 1 there have been some shortfalls realized by the Fleet. These shortfalls are being addressed and solutions will be incorporated in one of the next two planned system updates. Training, education, and frequently asked questions (FAQ) can be viewed on the Naval Safety Center (NSC) website.



Until then here are some intermediary work-arounds, suggestions, and FAQs from the Fleet. Frequently-Asked Questions (FAQs) for WESS.

**Recommendation:** Strongly suggest use of **Arial Font**, when using the copy/paste function into WAMHRS as it prevents the ‘up-side-down’ question marks and other ambiguities in the software.

**Q1. How do I get training on WAMHRS?** There are only 20 phone lines NSC and it is first come, first serve. You can still follow along online and they will attempt to have the chat box going with text. Remember if you do not get a phone line they hold the training every Tuesday and Thursday at 1300 EST. See NSC FAQs list for specific details.

**Q2. Who is Safety Authority? How does someone become a Safety Authority?** A person within the command who manages the command’s WESS accounts, approves or rejects new account requests, and defines the level of access for command account users. How to become a Safety Authority: Must be designated in writing by CO (sample letter on NASC website). Signed CO letter will be faxed to NSC at 757-445-9124.

**Q3. What is the preferred place to add in acronyms that aren’t listed in the appendix? As an evidence file or just added in a paragraph somewhere in one of the write-ups?** NSC no longer uses the traditional acronym list; we use the standard Naval Correspondence format. Spell it out the first time with the acronym in parenthesis behind it and then you can use the acronym throughout.

**Q4. How do I file an initial notification if we do not have connectivity?** Type all information required for an Initial Notification per the PMP in a word doc with little to no formatting (#'s and bullets only) per the below template which is available on the NSC website. Email the word doc to Leslee McPherson (contact info below) and request a draft for review prior to release (if desired). She will email you the draft .pdf copy. Submit changes and approved for release. If time constrained approve release of message without steps 2&3. If after 1500 EST call DSN 564-2969. POC: Leslee McPherson, Naval Safety Center; email [leslee.mcpherson@navy.mil](mailto:leslee.mcpherson@navy.mil), or phone (757) 444-3520 ext. 7245 (DSN 564).

**INITIAL NOTIFICATION – NO CONNECTIVITY**

1. What commands do you want notified besides the ones required by 3750?
2. POC name, work number and e-mail address
3. Flight, Flight related or ground
4. What class mishap or unknown
5. What type of mishap was it or Undetermined
6. Are you requesting mishap support and if so what?
7. Give name, rank, e-mail, phone, etc for the ASO.
8. What time zone?
9. Event date
10. Local time
11. Day or night
12. DOD property damage; yes no or unknown
13. Non-DoD property damage; yes no or unknown
14. Short narrative (no more than 100 characters)
15. Reporting command name or UIC.
16. Parent squadron if different than reporting command
17. Number of fatalities if any.
18. Was the location classified? If not, give country, airspace, lat/long and any location remarks you may want to add.
19. Give T/M/S of the aircraft, BuNo, controlling custodian, departure location, destination, # aircrew, # injured aircrew, TMR code of type of mission, was it VMC/IMC and



*WESS is designed to make mishap and HAZREP reporting easier – found conveniently online.*

were they using NVGs.

**Q5. Is there a limit to the number of files I can upload as evidence? I would assume each LOE needs to be tied to an evidence file or a reference. So far WESS will not upload another file after 6.** WAMHRS is having issues with uploading evidence so recommend, for now, to burn all electronic evidence on a CD with the names you use in the lines of evidence. Once you are complete you will forward the CD to NSC and they will provide it to the endorsing chain when they need the evidence.

You no longer do any of the enclosure packages. Any data we needed we built into the system.

**Q6. I have not been seeing any new HAZREPS show up in “Notifications,” not even the ones released from my two UICs. Is that a problem with my account or is that a system issue that’s awaiting a fix?** That is a system issue that is awaiting a fix.

**Q7. Does my CO need to endorse a HAZREP if he already put his comments on the CO’s Comments line?** No he does not endorse it; the CO’s comments in the HAZREP are considered his endorsement. If the report requires further endorsement then you would put the next higher command after the CO as the endorser.

**Q8. All the endorsers have the PDF files but are unclear how to endorse a HAZREP. How do we?**

1. Open the report.
2. The first page is text only of the brief synapses of the HAZREP/MISHAP.
3. At the top is a selection titled “report PDFs”. This is where you can view the entire HAZREP/SIR and the endorsement document to read what previous endorsers have said.

4. Right below the “report PDF” button you will see four tabs. Click on the factors tab and when it loads click onto the first factor. That will give you a text version of the first factor. Review it and then go to the bottom of the screen and say if you Concur, Do Not Concur, or want to restate. If you concur, you do not have to give a justification but you may. If you Do Not Concur then you must give a justification. If you want to restate, that will turn all the fields of the factor into editable fields. You are not editing the original report, but the system does not know what part you want to restate so it makes them all available. You the edit the part you want to restate and type in the justification. Repeat for each factor.

5. Go to the recommendations tab and repeat actions from the factors page.

6. Go to the Comments tab and this is where you put CO’s comments. If you put in comments and want to change them, click the icon in the final comments section that looks like a bubble with a pencil in it. Go

back up to the comment above, edit the part you want to change and then hit "Save Comments". This will edit your comments.

7. If you want to add a factor or recommendation you can do so by clicking the green circle with a plus sign in it above the list of factors and/or recommendations.

8. You may also edit the endorsing chain by going to the endorsers/routers section on the left side of the window, selecting endorsers and doing a keyword search for the command you want to add. Select the command and click the arrow to move it from the left pane to the lower right pane. If you want to rearrange the endorsing chain, select the command you want to move in the lower right had pane and then use the arrows to move it up or down. Then hit save.

9. There is one button on the factors and recommendations screen that is a green circle with a check mark in it. This is a "Concur with all" button if you do not want to individually endorse all factors and recommendations. You must select that on both the factors and then the recommendations page or just one of them if you desire.

10. When you are complete with the endorsement, select the drop down titled "report actions" on the upper left side of the screen and then select "Endorse report". A narrative box will come up for justification (I know weird). You have to type something in there (I am trying to get this fixed; it is pretty obvious why you are doing an endorsement) and then you can release the endorsement.

11. Under the Report Actions tab there is also a selection for reconvene if you want to send it back to the reporting command.

**Q9. I've submitted the Safety Authority letter but am still having problems. How do I troubleshoot?** If you go into your WAMHRS account, click the start on the lower left side of the screen, select account maintenance/modify account. If the window loads up when all your information is in the fields then you are not registered as a SA authority in our system. If all the fields are blank then you are the SA and can type your UIC, a persons name, etc in the upper left search field. When their name pops up, select it and it will load all their account information. On the loser right hand side will have all the new aviation permissions. Select the ones they should have and then hit Save. The request then comes here for approval, and once that is complete they take effect. Standby for a follow-up e-mail on what each of the new permissions means.

**Q10. What does the Search/Edit function do?** The search/edit function is for reports from your command only. To search for past HAZREPS go to your start menu, select preformatted reports. A new screen will come up. Click on View Reports and then go down to the bottom of the page. There will be a selection for hazard by aircraft type, basic model or specific series. Select that, put in your date range and your type of aircraft. When the report comes up, export it to PDF (PDF symbol on the upper left). Then do a keyword search for what you are looking for. Once you find it if you click the link in the report, it will open up the actual HAZREP. If you save the research PDF, you can go back to it anytime. Just make sure you are logged into your account and the hyperlinks will still work.

**Q11. Why not give each command their own CD with the WAMHRS Program on it to combat program timeouts?** There are several ways we are attempting to deal with the connectivity issue. Unfortunately making a disconnected CD of the program is not an option since the program size is excessive, which requires its own server, and every time NSC changes a data field, the disk would become obsolete.

If the reporting unit does not have connectivity for a mishap, send the Initial Notification document and NSC will put it into the system. NSC will then transfer it into the ASO's WAMHRS account as a draft SIR. Leslee will also keep it in her account as a shared report with the ASO. This will ensure that if a command does not have connectivity, the command can do an updated MDR, send it to Leslee she will put it into the system, generate the PDF and send it to the command for review. Once approved, she will release the Initial Notification or updated MDR. If the command still does not have connectivity by the time the SIR is due to be released, the command can either send the information to me, or release it in message traffic and NSC will put it into the system so the endorsing chain can start. If the ASO gets connectivity prior to release of the SIR they can go into the first page of the report, select Leslee Mcpherson and click the arrow to move her name to the left screen then hit save. This will remove her access to the report so they can preserve the sanctity of the board.

### Show Me the Data!

*The easiest way to pull HAZREP, mishap and other safety data is via the [Safety Center website](#). On the top right select "statistics." Toward the bottom fill in the "statistics feedback form" with the request. The request will go to the SME on the data requested – and within a few days you'll receive an email!*

**Q12. Can Safety Center input our HAZREPS into WAMHRS?** For HAZREPS, NSC does not have the manning available to be able to input those for the squadrons. OPNAV 3750.6 says ASO's are to forward the reports to their wing for input into the system. NSC highly discourages any reports in message traffic due to any other reason besides connectivity. If they are filed in message traffic they will not get into the database, the endorsements will not be tracked and higher echelons will not be able to use the data for decision making processes regarding development and funding.

Additionally, NSC has PPT trainings on the safety center website on the WESS page under NEW Aviation training. NSC is also developing worksheets for each section of a report (General, Involved Aircraft, Involved People, Factors, Rec, etc) based of the new system data fields. Squadrons would be able to complete the worksheets, burn those and the evidence to a CD and forward it to us for mishaps. Please continue providing NSC questions and feedback on the system.

**Q13. I have a HAZREP that I want to submit but keep getting a validation error stating that I need to include CADS, under General Information-COI/Reference - I**

don't want to send the HAZREP to any CADs, I just want it to go to VT-86/VT-10/VT-4 and Naval Air Station Pensacola - which I have selected under the commands section. Can I still submit it with those validation errors? It is a requirement to include an aircraft CAD unless you are submitting a BASH report.

**Q14. Is it OK to send a HAZREP that still shows validation errors (but that are not important)?**

The system will not allow you to release a report that has validation errors. Follow the HAZREP reporting requirements per the OPNAVINST 3750.6

**Q15. How do I share the report?** On the first screen under "authorized drafters" you search for the persons name. When it comes up, select it and click the right arrow to move it to the right box. Hit save and it shares the report with them. It then moves the report to your shared folder. Whoever you share it with can access the report at the same time as you; however, if you both edit the same field at the same time whoever hits save last gets their entry saved in the report. This is a very good feature also if you are getting ready to go on leave or TAD as the person you share it with can still work on it and release it if you need them to. If you put someone in a report for review, then after that person reviews it you can take him out of the report by highlighting his name, hitting the arrow to move it to the left box and then hit save. Now he won't have access to it anymore.

**Q16. How can I confirm that my Safety Designation got updated in WESS?** If you go to your start menu, select account modification, modify account. A box will open up where all the fields are blank. You can type your UIC in the upper left field and it will pull up all accounts for your command. Also, when someone requests an account from your command, click the link in the e-mail or go into your account to the Pending Requests folder and the request will be there. Click on what permissions they are allowed and hit accept. FYI any changes you make to accounts or any accounts you approve then come to the safety center for approval; it doesn't take effect immediately. If after a few days you do not see the change, then contact Naval Safety Center to make sure the letter got here and your permissions have been updated. 

## Semper Paratus: HFC Training – Coming to a CG Air Station Near You!

*LT Ally "Showgirl" Shuler, USCG – Coast Guard Instructor*

Due to an overwhelming demand from Coast Guard graduates of the ASO and ASC classes, SAS staff has gone on the road to bring Human Factors Council training to Coast Guard Air Stations. Air Station Miami jumped on board in early 2010, and we just recently returned from Atlantic City. Commands are eager to bring the HFC philosophy to their units to reduce potential mishaps and better understand the challenges that members of their commands face.

The training consists of a few short briefs from our Programs Instructor, Cmdr. Ryan, as well as our Aerospace Psychologist, Lieut. Walker. Finally Lieut. Shuler, our resident Coastie, gives a couple of case studies and puts the Coast Guard spin on the program. The training is rounded out by an HFC exercise similar to the one conducted at the schoolhouse. The training is valuable for all hands because it addresses the possible stumbling blocks of implementing HFCs and shows how they can be a positive tool at every Air Station.

If you are interested in implementing Human Factors Councils at your unit and would like this training, email Lieut. Ally Shuler at [allyson.shuler@navy.mil](mailto:allyson.shuler@navy.mil). But act now because our calendar is filling up fast! HFCs have been a staple of Navy and Marine Corps safety programs for over 15 years and we are excited to have the opportunity to bring this tool to the Coast Guard. 

## Crew Resource Management: Nutrition, CRM and the Competitive Edge

*LCDR Shawn "Shawnbo" Bowen, USN – CRM Instructor*

In the environment of today's highly technical aircraft and airborne weapon systems, maintaining the competitive edge is crucial in order to win the Global War on Terror. With resources spread thin this can often be quite challenging. Though the necessity of eating properly is emphasized in the IMSAFE checklist, from the very beginning of an aviator's career, nutrition is something often not considered. Due to time constraints and daily tasking, "eating properly" most often is a cheeseburger or a hotdog from the FOD shack enroute to man-up for a mission.

How important is nutrition? CRM, particularly Situational Awareness (SA), Decision Making (DM), and Workload Management, is highly dependent on working memory capacity. Since all seven of the CRM skills are linked together, poor working memory capacity affects all of the skills and leads to breakdowns which decrease mission effectiveness and can cause mishaps.

The human brain works by electrochemical reaction. Proper brain function is highly dependent on vitamins and minerals used by the body to manufacture neurotransmitters in

### Did you know?

*Besides high caffeine, and ingredients that include poorly tested substances, there is a ridiculous amount of sugar in energy drinks:*

**Red Bull: 7 cubes of sugar**

**Rockstar: 15 ½ cubes of sugar**

**Monster: 15 ½ cubes of sugar**

*And even vitamin water: 8 cubes of sugar!*

*When's the last time your waiter asked if wanted 15 ½ lumps of sugar in your coffee?*

the brain. These neurotransmitters allow networking of various parts of the brain and transmission of information from one area to another.

Acetylcholine, for example, is a crucial neurotransmitter in the brain and is the primary carrier for thought and memory. Acetylcholine is synthesized within the body using primarily B and C vitamins during this process. Vitamin deficiencies such as B-12 have been linked to acetylcholine deficits in Alzheimer's patients and a variety of other cognitive defects. A lack of proper vitamins in your diet will decrease working memory and can cause you to lose your competitive edge.

Proper nutrition involves slowing down and having a proper diet, not just eating something when you can. This may be easier said than done, but a well balanced meal will go a long way if you are able to slow down and time permits. In our quest to maintain our competitive edge nutrition cannot be overemphasized as mission effectiveness and mishaps are directly impacted by working memory and CRM. Consider a balanced meal, instead of junk food to sharpen your CRM skills. 🦅

## Doc Bank Memorial Distinction: First ASO Recipients

As reported in the summer issue of *The Safety Sigma*, former Structures Instructor Milt "Doc" Bank passed away May 25<sup>th</sup>. He had taught at the School of Aviation Safety for nearly three decades when it was located in Monterey.

In memory of an instructor who embodied every positive attribute of the ideal teacher, SAS has instituted the *Milt*

*"Doc" Bank Memorial Distinction*. This award identifies the student or students in each graduating ASO class that best exemplify the characteristics of the late, great Doc Bank: motivation, intelligence, imagination and aptitude. Instructors at the school each have a vote to select the recipients in each class.

What does this award really mean? It identifies those ASO students that the faculty of the school would like to see come back from their fleet tour and serve alongside them teaching at the school.

The distinction was first presented at the ASO Class 10-7 graduation on October 8<sup>th</sup>. A reporter from the *NAS Pensacola Gosport* was on hand to cover the event. There were two recipients in the class: Lieut. Christian Pederson, USN of Air Test and Evaluation Squadron 30 (VX-30 *Bloodhounds*) of NAS Point Mugu, California, and Lieut. Christopher Wright, USCG of Coast Guard Air Station Cape Cod, Massachusetts. There were also two recipients in ASO Class 11-1 graduating November 19<sup>th</sup>. They were Cmdr. Kimberly Toone, MC, USN, currently in her last year in the Residency in Aerospace Medicine in Pensacola, and Lieut. Neil Fletcher, USN of Carrier Airborne Command and Control Squadron 117 (VAW-117 *Wallbangers*) of NAS Point Mugu, California. 🦅

### BB... or BG?

*Several astute readers noted in the last issue that AEP Lieut. Pete Walker's call sign BB was instead listed as BG. No, it was not a typo. The young lieutenant was the source of Bad Gouge for his fellow instructors on multiple occasions in a short two-week period... hence the call sign review.*



*Regardless of your aircraft, your machine's performance depends almost entirely on your performance: human factors such as nutrition, hydration and overall health. This photo of an MH-60S Sea Hawk of the Golden Hawks (HSC-12) landing aboard USS Ponce (LPD 15) was taken Dec. 24, 2010 in the Arabian Gulf by Mass Communication Specialist 1st Class Nathanael Miller. Photo released by the U.S. Navy.*

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