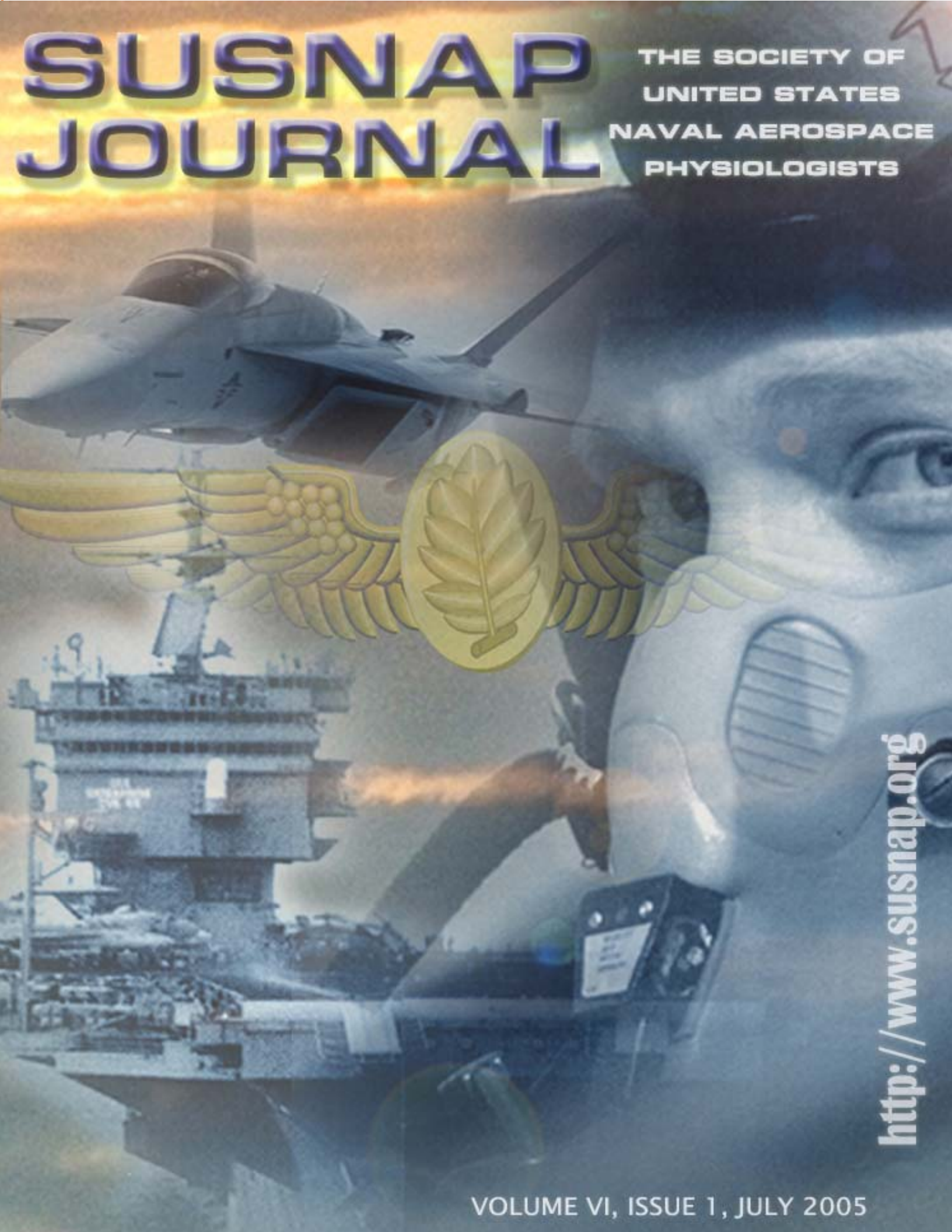
SUSNAP JOURNAL

THE SOCIETY OF UNITED STATES NAVAL AEROSPACE PHYSIOLOGISTS



http://www.susnap.org

VOLUME VI, ISSUE 1, JULY 2005

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Society of U. S. Naval Aerospace Physiologists

Note: The views expressed in the articles/writings are those of the authors and do not reflect the official policy or position of the Department of the Navy, Department of Defense, nor the United States Government.

PRESIDENT'S MESSAGE

SUSANP, I am honored to serve as your new President. I can't remember who came up with the idea of forming a society but I was involved in the initial e-mails several years ago. At the time I was most excited about creating a newsletter. As a Preceptor, I had found a few copies of an AIRPAC Aerospace Physiology newsletter and something called "The Fishwrapper." Anybody remember these? There was a ton of good "gouge" in those publications and I believed that something like that would be helpful for new Aerospace Physiologists like me. I published the first few copies of the newsletter myself. They have improved greatly since that time. I had hoped that in addition to serving as a good source of "gouge," they would serve as a journal of the history of our program. I can remember people saying that the journal idea had been tried before and that it wouldn't last. Well, it is still going strong more than five years later. I encourage you all to help keep it that way. Please consider submitting an article (or two!) to LT Scheeler.

The other reason that we started a society was to give our community an organized way to acknowledge promotions, retirements, weddings etc. In the past, we have passed the hat at FAILSAFE or ASMA. With a society we could use the money that we collect (dues) rather than passing the hat. Unfortunately we haven't done much of that in recent years. The bright side is that we have plenty of money in the bank. This is one of the first issues that I want to address as your new President. We will come up with a standardized way to get this done.

Recently we voted for several bylaws changes to simplify our election process and to reduce the number of officers. This fixed most of the problems but we need to go to work to clean up the rest of the bylaws issues. I can only blame myself for any issues with the bylaws because as the first SUSNAP Secretary, I helped to write them. Shortly, we will begin work on more revisions to the bylaws to simplify the way we do business.

I look forward to working with the SUSNAP officers on these and other issues.

V/R,
LCDR Mike "Chow" Prevost

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Volume VI, Issue 1, July 2005

The Prowler, 112 and Quickdraw Trifecta

by

Capt Barry Crews & LT Rich Folga

The AN/PRC-112B1 personal aircrew survival radio has been in service for several years and is currently used by most deployed forces. The advantages over the older PRC-90 are the ability to send an encrypted data burst transmission of a survivor's location as well as preprogrammed and freeform text messages to the QUICKDRAW2 Interrogator. During Weapons and Tactics Instructor course (WTI) 1-05 final exercise (FINEX), the EA-6B was equipped with a QUICKDRAW2 Interrogator to aide the TRAP (Tactical Recovery of Aircraft and Personnel) force in locating and communicating with downed aircrew in the event a TRAP mission was executed. More specifically, the purpose of the flight was to demonstrate and reinforce the tactical utility of equipping the EA-6B with QUICKDRAW2.

The QUICKDRAW2 Interrogator is simple to use and only requires 30 minutes of demonstration and practice in order to employ properly. No modification to the EA-6B airframe or avionics was required. However, one minor modification has to be made to the Intercom Communication System (ICS) connection below the oxygen regulator on the aircrew's survival vest. This new connection allows the unimpeded use of the QUICKDRAW2 as well as both normal ICS and radio communications. In addition to the modification, the QUICKDRAW2 requires one VHF/UHF radio tuned to the SAR frequency in order to transmit and receive data bursts from the PRC-112B1. The Interrogator itself, is designed to be strapped on one leg, much like a kneeboard, and its small size makes it easy to stow in most places in the aft cockpit.

The WTI 1-05 FINEX TRAP mission was a follow-on event to the AV-8B, EA-6B and FA-18 Air Interdiction strike on an enemy airfield. A section of A-10s provided airborne alert CSAR allowing the EA-6B and A-10 to successfully conduct pre-strike checks from QUICKDRAW to QUICKDRAW.

Upon egressing from the target area, the AV-8B simulated being shot down and the downed pilot (an actual person on the deck) pulled out his PRC-112B and sent the first data burst, which was successfully received by the EA-6B. Within minutes, the EA-6B was able to authenticate, get the survivor's location and other essential information to facilitate a TRAP mission. The EA-6B remained the "On Scene Commander" until the A-10s arrived. An effective turnover was conducted by forwarding the survivor's information from the EA-6B QUICKDRAW to the A-10 QUICKDRAW without a single voice communication.

Nearly the identical FINEX TRAP scenario was executed during WTI 2-05 with the EA-6B as the primary QUICKDRAW platform. This time, Sandy trained F-16 fighters provided support for the downed aircrew without the QUICKDRAW. Secure communications between the F-16s and the QUICKDRAW capable Prowler allowed for minimal voice transmissions from the survivor since two-way data burst was established with the PRC-112B1 throughout the exercise. A second QUICKDRAW2 was located aboard the TRAP Mission Commanders' aircraft, a CH-53D.

Employment of the QUICKDRAW2 Interrogator in the EA-6B is tactically advantageous for several reasons. First, EA-6Bs are likely to be involved in most high threat missions. Second, the EA-6B usually has a longer on station time than most other tactical aircraft currently employing QUICKDRAW. With four individuals in the aircraft, it is feasible to have one person devoted to operating the QUICKDRAW without distracting from the EA-6Bs primary EW mission. With the EA-6B's four radios (three VHF/UHF and one HF) plus the scan list capabilities of the two ARC-210 radios, the aft-cockpit's ARC-182 radio is best suited for QUICKDRAW operations. This configuration the other ECMOs to help facilitate the information flow to support a TRAP mission. For these reasons, it is advantageous to the MAGTF Commander to tactically utilize the EA-6B for QUICKDRAW employment.

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Article edited by LT Rich Folga

The USN/USMC Safety Listserver

by
LT Tyler Scheeler

As Aeromedical Safety Officers (AMSO's), we have all attended aviation safety officer (ASO) school. We fill a billet that is extremely unique and demanding. Along with our AMSO duties, we traditionally are assigned a multitude of other "safety" hats. Director of Safety and Standardization (DOSS), ASO, Radiation Safety Officer (RASO), Family Readiness Officer, and NATOPS officer are just a few that come to mind and I'm sure there are many others that I have not mentioned. Being dual and multi-hatted is something we as a community have become very efficient.

On occasion, a situation arises and the answer may not be plainly visible. Wouldn't it be nice to have a vehicle that would allow you to communicate with hundreds of safety professionals around the world simultaneously? The United States Army currently uses an "aviation safety officer list server" (ASOLS) throughout their aviation safety community. The server allows Army aviation safety officers the ability to quickly communicate to other safety personnel throughout the Army and facilitates information flow.

The MAG-24 DOSS is a member of ASOLS and has been receiving Army safety related emails for the last several month and has found it extremely beneficial. Sometimes information that might enhance the effectiveness and/or efficiency of a Safety shop is only shared locally (shop, squadron, MAG, Wing, etc.) and might not survive the turnover process. Most Navy and Marine Corps aviation unit's safety departments encompass both ground and aviation safety; both of these programs would benefit from a list server.

Safety and ORM have taken an active an essential roll in every task and mission we undertake. A quick and efficient way to exchange safety related information across squadrons, groups, wings and the entire Navy and Marine Corps would be beneficial. Information exchange could be accomplished through the creation of a safety list server. Information would not take the place of that currently put out through naval messages.

But, you don't see a naval message requesting addressees send their best boat safety brief to the message originator, or asking where to find information on a certain subject. This type of information flow is beneficial, especially to the person requesting the information.

Though the request through the list server address goes out to all members, any person replying has the option of only replying to the personnel requesting the information or of sharing it with everyone. If the subject line on the email isn't applicable or it doesn't interest you than delete the email. Safety briefs and information are re-usable and it is much easier to modify or update a brief than to start from scratch. Having a few good briefs on the same subject from different sources will allow for the creation of a better brief or the ability to use the best brief available. Often you do not know names/email addresses of your counterparts throughout the fleet. The list server would give you the ability to reach all of your counterparts quickly and efficiently.

At present, we as Aerospace Physiologist do have a list server, but this only reaches a small percentage of USN/USMC safety professionals. By creating a Navy and Marine Corps list server, we could dramatically increase the effectiveness of all that we do, not only as AMSO's, but as Navy and Marine Corps Safety Officers as well.

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Article edited by LT Corey Littel

My Bid to be the AN/PRC-112B1 and Quicdraw SME

by

LT Leslie Kindling

Like most Marine Corps Aeromedical Safety Officers (AMSOs), I have been preparing aircrew for deployments since the first day in the billet. Twenty-four months later, I feel that I am almost an expert on PRC-112B1 and Quickdraw2 training. I say "almost" since I keep learning more about the HOOK2 GPS (Global Positioning System) Combat Search and Rescue System. This article is meant as a means to share the near-expertise.

The article is broken down into four sections. The first section describes issues with the Radio Appliqué. The second section covers issues with the Loader Program Software. The third section covers problems with electromagnetic interference. Finally, there is information regarding an issue recently discovered by those at the pointy end of the spear.

Training events described in this article were conducted between April 2003 and March 2005. Aircrew received didactic and dynamic training using actual PRC-112B1 radios and QuickDraw2 Handheld Interrogators. Classes were presented as part of Desert Talon (DT) Courses, Weapons and Tactics Instructor (WTI) Courses and individual unit training. Students were preparing for deployments in support of (ISO) the Global War on Terrorism. Marine Aircraft Group 13 (MAG-13) and Marine Aviation Weapons and Tactics Squadron One (MAWTS-1) AMSOs and Aeromedical Safety Corpsmen (AMSCs) provided the instruction.

Issues with the 112B1 Radio Appliqué Versions

In August 2003, Fighter Wing Atlantic (FITWINGLANT) AMSO (LT Corey Littel) sent out an e-mail indicating CVW-8 had radios with both appliqué versions 2.7 and 2.8. He passed that appliqué version 2.8 was available for download from the PMA-202 website. The technical manual, NAVAIR 16-35PRC112-1-1 dated 1 Mar 03, also indicated that 2.8 was the latest radio appliqué.

MAG-13 took temporary possession of PRC-112B1 radios returning with MAG-13 squadrons from Operation Iraqi Freedom (OIF) Semester I in July and August 2003. In October 2003, MAG-13 received radios returning from Operation Enduring Freedom (OEF). At that time, Third Marine Aircraft Wing (3D MAW) directed return of all but 12 radios. MAG-13 maintained possession of the twelve radios for training purposes. The MAG-13 training pool radios utilized appliqué version 2.7 and 2.8. Appliqué version 2.8 was downloaded from the PMA-202 website and the radios were updated with the current appliqué. No official documentation of this update was made.

MAWTS-1 conducted the first Desert Talon in January 2004. This course prepared Marine aircrews for OIF II and OEF deployments. PRC-112B1 training was conducted by MAWTS-1 utilizing the version 2.8 radios.

In April 2004, a Harrier detachment began pre-deployment training for OIF Semester II. Additional radios were received from 3D MAW to support this deployment. Appliqué versions were not verified prior to deployment, as radios were received Ready for Issue (RFI) from 3D MAW. Operational requirements changed and fewer pilots were deployed than originally planned. This resulted in 6 radios being added to the MAG-13 training pool. Five radios had appliqué version 2.8. One radio had appliqué version 2.9. The deployed radios returned to MAG-13 in February 2005 with either version 2.8 or 2.9 installed.

While preparing radios for DT 2-04 in June 2004, the one version 2.9 radio in the training pool was discovered. Wing Aviation Logistics Department (ALD) was contacted to ask the Assistant Aviation Life Support Systems (ALSS) Class Desk if 2.9 was the current, authorized version. The class desk was out of the office, and unable to respond until after radio training was conducted.

Unknown to the instructors, the new appliqué version (2.10) was available on the PMA-202 website. A Commodity Software Change (CSC) issued June 7, 2004 by PMA-202 authorized use of the new appliqué (071428Z JUN 04). Naval Air Force, US Pacific Fleet (AIRPAC) and US Atlantic Fleet (AIRLANT) did not readdress the CSC at that time. Without AIRPAC's readdressal, the CSC was not authorized for west coast squadrons.

Radio training was conducted on 18 June with radios of appliqué version 2.8. About one week later, 3D MAW ALD passed that a new version was available on the PMA-202 website. Due to local issues with Navy Marine Corps Intranet (NMCI) and Public Key Infrastructure (PKI), the local AMSOs and AMSCs did not have access to the Program Manager Aviation for Aircrew Systems (PMA-202) website and thus could not download the new appliqué version.

In early July 2004, NMCI and PKI issues were resolved and the new appliqué version was downloaded. Without AIRPAC's approval (CSC readdressal), the new appliqué was loaded onto the radios. Noticing the differences in the GPS display, the instructors searched for descriptions of the specific changes resulting from the new appliqué. No such descriptions were found in the technical manuals or on the PMA-202 website. Similar information was found in a brief from the October 2003 General Dynamics HOOK2 Users' Conference. Upon request, the Fleet Air Indoctrination/Liaison of Survival Aircrew Flight Equipment (FAILSAFE) Team Lead sent a description of changes via e-mail. No official document exists to describe changes with the new appliqué version.

To remedy the lack of official documentation, a Technical Publications Deficiency Report (TPDR) was submitted following this discovery. The intent of the TPDR was to get the new appliqué documented in table 2-1 of the manual (NA 16-35PRC112-1-1). The TPDR was ruled invalid because an Engineering Change Proposal (ECP) would be issued to document the change. It was further indicated that the manual revision due out in September 2004 would incorporate the change. As of October 8, 2004, PMA-202 website indicated one ECP titled "PRC 112B1 GPS Radio System Software Mod" was pending. As of February 23, 2005, the PMA-202 website indicated the ECP is complete (completion date not listed), however, the revision to the manual had not been released. At that time a TPDR involving the Authenticate option, which appears after a radio is interrogated was submitted. The manual indicates that the Authenticate option only appears when the radio is interrogated with the encryption set to OFF. However, during training with encryption ON, the Authenticate option appeared. The TPDR is in review.

Regarding the GPS interference capabilities with appliqué version 2.10, a short brief based on the information from General Dynamics and the FAILSAFE Team Lead was developed. In mid July 2004, the brief was presented to aircrew trained weeks earlier with version 2.8 radios.

To this point, a copy of the CSC had not been received by MAG-13. The FAILSAFE AMSO forwarded it on 23 August 2004, but there was no AIRPAC readdressal. On 26 August, AIRPAC readdressed the message, authorizing appliqué version 2.10 radios in AIRPAC (260519Z AUG 04).

During Weapons and Tactics Instructor (WTI) course 1-05 and VMA-311 pre-deployment training, several radios were observed sending an "Unknown Canned Message". The receiving radios displayed "Error Unknown Canned Message Received". A request for help was sent to General Dynamics. Their experts evaluated one of the radios with the received message and found the problem. The error was created due to the default value, 32, being written to the message field when "Erase Flash Memory" is selected during radio software (appliqué version) updating. Appliqué version 3.0.0 will correct this problem. Until then, make sure your QuickDraw users know they can see this message. Selecting "No Message" on the radio unit or using the Default option on the Program Loader Software will clear the unknown message.

In February 2005, two MAG-13 detachments returned from Iraq and asked what they should do with the radios they brought back. The radios had not been purged of classified information; so they were placed in a secure location. Upon turning on the radios to begin overwriting the information, it was discovered that the 16 radios had Appliqué versions 2.8 or 2.9. Fourteen of these were radios issued to the April 2004 Harrier detachment mentioned earlier. The radios were purged of classified information and updated with Appliqué version 2.10.

Issues with the HOOK-112 Loader Program

In April 2004, 3d MAW ALD provided MAG-13 with Program Loader Software version 2.11. This version was sent to Iraq with a deployment in May 2004 and has not been authorized for use. At the time of the deployment, software version 2.9 was authorized.

Software version 2.10 is now currently authorized for AIRPAC units (260519Z Aug 04). Since 3D MAW provided version 2.11, it was assumed this software was authorized and used it to update the appliqués. Gouge had been circulated indicating that Program Loader Software 2.10 was required for updating the radio and QuickDraw2 appliqués, but no official documentation of that fact could be found.

Radio appliqués were updated using loader software version 2.11. The radios required an average of 10 minutes to load, until it was realized that the baud rate defaulted to the minimum rate, 9600. Once the highest baud rate was selected, the radio programming took just a minute or two.

Issues with Electromagnetic Interference

Difficulty was experienced during hands-on QuickDraw2 training on two consecutive Fridays in July 2004, and again in September 2004. The QuickDraw2 and radios were able to communicate only once during the first two training evolutions. During the September training, successful communications only seemed to occur when global interrogation was used even though the specific radio information was preloaded in the QuickDraw2.

July training was conducted on the flight line directly outside of the squadron's hangar. One QuickDraw2 and 5 PRC-112B1 radios were employed. Equipment was loaded in accordance with established procedures. The radios were tested to ensure voice and data burst capabilities on the selected training frequencies. QuickDraw2 preflight requires connecting the interrogator to the aircraft and transmitting using the aircraft's radio. This was done as part of the training on day one without incident. However, communication problems occurred during the first training scenario. We moved the QuickDraw2 to a second aircraft without success. On the second training day, only one aircraft was available. Again, the QuickDraw2 received one response, but no more.

Additionally, the PRC-112B1 radios performed poorly on the flight line. Two radios could communicate via voice, but not data burst. Due to the communications problems, training was stopped and the radios were returned to MAG-13 Headquarters Building. The radios were postflighted and no problems were noted.

MAWTS-1 AMSC talked to Helicopter Anti-Submarine Wing, Pacific (HSWINGPAC) AMSO and the FAILSAFE Team Lead to gain insight into the problems. HSWINGPAC AMSO reported having similar problems and indicated it was due to interference from the airfield tower and radar. It was suggested that in future training evolutions, the PRC-112B1 radio antenna be turned towards the ground. It is also recommended to have the aircraft parked in an area away from the tower and radar, such as the Combat Arming Loading Area (CALA) at Marine Corps Air Station Yuma. QuickDraw2 training conducted during WTI 2-04 in April 2004 was completed without incident at the CALA.

September 2004 training was also conducted at the CALA. The root cause of the encountered problems could not be identified. A TPDR dealing with the interference found during QuickDraw2 training was submitted and is valid. It will be incorporated with the next update.

From the Front Lines

In March 2005, the following was sent from a forwardly deployed squadron:

> I have a (hopefully) small problem with [our sister squadron's] PRC-112's that I'm hoping you can help me with. [Our sister squadron] is flying with us here in Iraq for a while, but I noticed as soon as they got here that they are all flying with the old B series model of PRC-112 with the 1.01 software version. I have tried to convert them to our updated 2.10 appliqué, but my version 2.11 loader software, which auto recognizes what type radio and software your [sic] running, does not allow me to update software when it sees a B1 with 1.01

> software…. Can a "B" series even be brought up to 2.10? …I am surprised that [our sister squadron] was allowed to deploy with out of date software aboard, but also, their own flight equipment was never allowed to handle their own radios. They never saw a loader block before, or knew how the radios functioned. Their avionics dept took all responsibility of SPINS updating, and all they [flight equipment] were allowed to do was put the radio in the pocket, and take it out. I don't get it. My avi tried that with me, and I quickly had that squashed. I have of course, been teaching PRC-112 101 to them to spool them up where they need to be.

PRC-112B radios are not upgradeable like the PRC-112B1s. Numerous messages were sent to various Naval aviation communities instructing them to return all PRC-112B radios to General Dynamics for hardware upgrades to make them PRC-112B1s. This was not all-inclusive, so PRC-112Bs remain in the fleet. The squadron that sent the message quoted above has the ability to rotate radios so that aircrew only fly with PRC-112B1 radios. Other squadrons may not be as fortunate, and aircrew may not be flying with the best possible survival equipment.

Another issue brought up is: "Who programs these things?" Also, "Are they programming them correctly?" The Marine who sent the message spent a year in Afghanistan where he programmed radios for a Harrier squadron. Additionally, he was directly involved with preparing PRC-112B1 radios for three training evolutions prior to deployment. A more experienced PRC-112B1 maintainer would be very hard to find. Operators and maintainers are typically only exposed to the HOOK system just prior to deploying; therefore, inexperience is unfortunately the norm.

This flight equipment Marine had noticed that his sister squadron's avionics department was not using the proper radio ID as delineated in the SPINS. They were using a numeric identifier they created on their own and had used on a previous deployment. The pilot's Isolated Personnel Report (ISOPREP) did, however, indicate the ID programmed in the radio.

If they are not using the proper radio ID per the SPINS, what else is not correct? If flight equipment only puts the radio in the pocket, does that mean they are not performing pre-flight, post-flight and 90-day inspections? Who is making sure the aircrew carry the proper number of spare batteries? Our jobs as FAILSAFE team members, AMSOs, AMSCs, and Aviation Survival Instructors continue to include getting these questions answered.

Summary

Over the past twenty-four months, I have learned to ask questions of everyone I know who has conducted radio training. I have also learned that it is best to conduct QuickDraw2 training away from the control tower and airfield radar. With each training evolution I feel more and more like an expert. There just cannot be that many more quirks left to discover in the system. Until we find all the quirks, we will remain "almost" experts.

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Article edited by LT Sean Lando

Volume VI, Issue 1, July 2005

We Are The Experts
by
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Aerospace Physiology Program
Manager & Specialty Leader

Aerospace Physiology Program - A Force Enabler

Our Mission: Assist our Warriors in winning the fight,
Prevent Losses due to hostilities & mishaps, Ensure Survival of hostilities & mishaps

As members of the Aerospace Physiology community we bring knowledge and information to the fleet and become the 'experts' in a variety of topics and systems (and hopefully with age and maturity, we will also bring wisdom…however, in my case, I'm still waiting). In fact our 'expertise' is sought for information ranging from the current fad diet (i.e., the South Beach Brazilian Grapefruit High Ethanol Carbo-Free Diet) to the electronics within the latest GPS facilitated secure locating and communicating device (available at Best Buy and on sale for $239.89).

We are depended on to know why the wait at the Hospital ER is over an hour, what the survival time in Nomex underwear is in 52 degree water (sea state 3 ? 5?...how about in a raft?), what do you think this 'funny thing' is that is growing on my foot? and how many quotas are available at the local ASTC for jet refresher next week when my qual expires? (*and no, I haven't scheduled myself… can you help me out Doc?*).

In the past I've compared ourselves to Encyclopedias, we have lots of information, are 'authorities' on numerous topics, but are not always possessing the extreme details on any single topic. However, like a good encyclopedia, we have references, and within our own program, our references include the Subject Matter Experts (SMEs). One of the tag lines you will commonly see following my e-mail closing address is ***"I'm pulling for you, we're all in this together"*** (attributed to Mr. Red Green, Leader of the infamous Possum Lodge located on Possum Lake (just south of Port Asbestos) in Ontario Canada (courtesy of Canadian Broadcasting System and your local PBS station)). I use that tag line because **I really do see us as a team, and of *all us being in it together*. One of the key elements of our teamwork is the SME program.**

The encyclopedia version is that the Naval Aerospace Physiology Program (NAPP) seeks volunteers to serve as the SME in a variety of topics. In recognition of an individual's expertise, experience, or billet assignment, fellow officers are either recommended to the NAPP Program Manager or volunteer to become the NAPP SME in specific topic areas. The assignment is not 'forever', as you change assignments & PCS throughout your career, you may become the SME for an entirely different subject area but you may also carry your assigned topic with you for several years. You can serve as member on any number of Subject Matter Expert Teams or even be the Team Leader on more than one topic. A former Team Leader would usually continue to serve on the Subject Team for some time following their relief.

When assigned as a SME, you receive a letter via your commanding officer outlining some of the expectations as listed below. The assignment letter states "*As a NAPP SME, you and your team become a source of expertise and have the following responsibilities:*

1) Submit nominations of additional team members to BUMED (Aerospace Medicine).

2) Maintain current and accurate information on the assigned subject, to include resource material and internet resources posted with your SME listing on the Navy Medicine Online (NMO) Aerospace Physiology (NASTP) SME website.

3) Become thoroughly familiar with all applicable instructions and regulations pertaining to the topic and flight operations.

4) Create/update aeromedical briefs, Performance Enhancing Programs (PEP), Lesson Topic Guides (LTG) for submission to the Naval Aerospace Physiology Program Model Manager for posting on NMO.

The SME is the 'go to' person for our program on their selected topic, they are our POC and provider of information updates. For currently posted examples of well developed SME web-topics please check out the topics like "Fatigue" and "Nutrition & Over the Counter Medications" on the NAPP SME website: https://navymedicine.med.navy.mil/nastpsme/

Our current list of SMEs (or about to be designated as a SME) is as follows:

Acceleration	**LCDR Lenny Milligan**
Advanced Training Technology	**LCDR(s) Tony Artino**
Anthropometry	**LCDR Eric Sherman**
Aviation Life Support Systems	**LCDR Matt Hebert**
Chemical/Biological/Radiological Issues	**LT Amber Biles**
Cold Weather Survival	**LT Jim Balcius**
Ejection Issues	**LCDR Becky Bates**
Fatigue	**LCDR(s) Tony Artino**
High Altitude/Mountain Helo Issues	**CDR(s) Bill Davis**
Hot Weather Survival	**LT Sean McCarthy**
Hyperbaric/DCS	**LCDR J.P. Wilcox**
Human Factors	**LCDR Dan Patterson**
LASERs and LASER Countermeasures	**LT Rich Folga**
Medical Intelligence	**LCDR Stephen Popielarz**
Motion Sickness	**LT Jake Morarend**
Night Vision Devices	**LT Rich Folga**
Nutritional Support/OTC Medications & Supplements	**LT Jon Champine**
Operational risk Management	**LCDR Dave Hanley**
Survival Parachuting Procedures	**LT Tim Ringo**
Simulation Technology	**CDR Sam Griffith**
Spatial Disorientation/Situational Awareness	**unfilled**
PRC-149/URT-140 Survival Radios	**LT Rob Higgins**
PRC-112 Survival Radio	**LT Corey Littel**
CSEL Radio Operations	**LT Russ Linderman**

As a SME you are tasked with developing (or updating) Power Point presentations (including Notes Page) which can be forwarded to the Naval Survival Training Institute's HPTT Directorate (current POC is LT Tony 'Gu' Artino) who will then post it along with your contact information on the website. Sending critical or timely information to the NAPP Program Manager (me) for 1836 or *All Aerospace Physiologist* distribution is also encouraged when deemed necessary. Providing update articles to the SUSNAP Journal on your topic area (short abstracts or longer discussions are accepted) should be done regularly (short note updates at least every other issue!).

The SME Program is a valuable tool in our kit; it once again puts us ahead as leaders and innovators in Navy Medicine - **we all must actively take part and make it work**. For my part, I do plan on re-invigorating the SME program and actively monitor (issuing new assignment letters, encouraging active participation, and even replacing SME Team Leaders when activity by them ceases to move forward (anytime a SME is replaced, a letter will be sent via their Commanding Officer, some in the form of letters of appreciation, others will be in the form of a generic announcement**)). A successful SME Team approach involving all Aerospace Physiologists is what I believe is a critical element to the continued success of the Naval Aerospace Physiology Program. Helping each other do their best, helps ourselves as a program!**

Volume VI, Issue 1, July 2005

NEW topic "Break, Break"

One of my first items I addressed to SUSNAP from the Program Manager's office was **communication,**.. so honestly, **how am I doing?** Most of you consistently receive the "Greetings from BUMED", opening line on e-mails containing information, messages, updates, rosters, Congratulations and weekly "BZs" from this office. If you have not received a "Greetings from BUMED" e-mail opening (or a "Hello from BUMED"), please read on and follow the instructions for signing onto the 1836 Mail Server as hosted by BUMED.

My personal goal from the Program Manager/ Specialty Leader's office has been to forward information at least weekly and more often if timeliness is critical (Jimbo's new callsign "Spam-man"). I know that this is an information 'spam' but my hunch is that you are the best at sorting out whatever is currently important to you and what can be deleted, you do not need me to screen for you, and I hope you find elements within the information overload valuable personally and professionally.

As you have found out, I use two primary sources for information spamming, one is my Outlook Address Group consisting of All Active Duty Aerospace Physiologists. The other is the 1836 mail server which goes to Active Duty Physiologists, Retired Aerospace Physiologists, Reserve Aerospace Physiologist, friends of Aerospace Physiologists, former Aerospace Physiologists, friends of former Aerospace Physiologists, interested parties, COs, XOs who have requested, and pretty much anybody else who requests to be included. That list actually currently consists of about 120 individuals, but is open to all as outlined above.

If you are not currently signed up for the 1836, I encourage you to apply. To apply, go to http://bumed30.med.navy.mil from the left column select the 'Public Mailing List' button. Fill in your current e-mail address, select 'Immediate Delivery', scroll down the specialty list (about 2/ 3rds down) and select the 1836@bumed30.med.navy.mil – "Aerospace Physiology MSC Officer" and then return to the top of the page and select 'SUBMIT'. I will receive a note from the server that you have requested access and then 'okay' it. And you are on! (I believe all Active Duty Aerospace Physiologists are currently signed up – whenever I receive an e-mail address update, I automatically sign you on to the 1836 server).

Importantly, for both lists, **keep me posted on your PCS moves and NMCI migrations**, once a new e-mail address is assigned please forward it to me (unless of course decide to purposely hide from the 'Spam-man').

Have a great summer and take care of each other!

-Jimbo

Capt Jim Norton, MSC USN
Aerospace Phyisology Program Manager & Specialty Leader
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NAVY MEDICINE
World Class Care...Anytime, Anywhere

Article edited by LCDR(s) Tony Artino

Understanding the Matrix

by
LCDR Mike Prevost

Do any of you out there feel like you have a firm grip on our current NASTP curriculum system? You might think you do, but you probably don't. With the exception of a very small handful of individuals, I doubt that most of you are really familiar with all of the intricate details of our system. After working with it for nearly 3 years as the NASTP Model Manager I can tell you that I am still learning. If we don't understand it fully, how well do you think the squadron NATOPS officers understand it? Based on the questions and phone calls that I get, I can tell you that they are confused. It is not that we have a bad system, it is just that it has become a bit outdated and is becoming increasingly difficult to work with. Let's examine some of the issues and then discuss a proposed fix (the fix that we proposed at the recent 3710.7 working group meeting…..they liked it). What follows is a discussion of our current system and a summary of what we are going to propose at the 3710.7 conference. Currently we have 21 curricula (all of our N, NP, R/RP, N/NP courses):

- N1/NP1
- N5/NP2
- N2/NP7
- N2/NP8
- N3/NP3
- N4/NP4
- NP5
- NP6
- N6
- N7
- N8
- N9
- N10
- N11
- N12
- N13
- N14
- R1/RP1
- R2/RP2
- R3/RP3
- R4/RP4

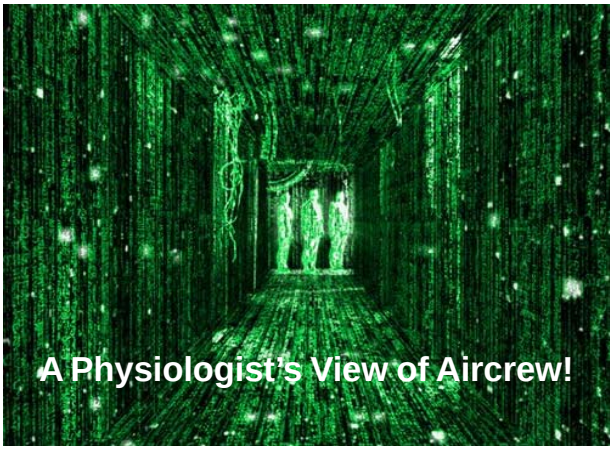
However, we have more "quals" than we have curricula. A "qual" is what you need to fly. A course is defined by chapter 8 of the OPNAVINST 3710.7T. Because some of the curricula have special "qual" versions, we stamp them differently. As a result, we currently have 33 "quals."

- N1/NP1
- N5/NP2
- N2/NP7 cat 1
- N2/NP7 cat 2
- N2/NP7 cat 3
- N2/NP7 cat 4
- N2/NP8 cat 1
- N2/NP8 cat 2
- N2/NP8 cat 3
- N2/NP8 cat 4
- N3/NP3
- N4/NP4 cat 2
- N4/NP4 cat 3
- N4/NP4 cat 4
- NP5
- NP6
- N6
- N6-T6
- N7
- N8
- N9
- N10
- N11
- N11-E2
- N11(no parachute)
- N12
- N13
- N14
- R1/RP1
- R2/RP2
- R2/RP2 – E2
- R3/RP3
- R4/RP4

Different "quals" for a given course is driven by different ALSS configurations and different egress training. With the introduction of the T-6 and the V-22 and the F-35 on the way, we need to create more "quals." To meet these needs we would need 46 "quals":

- N1/NP1
- N5/NP2
- N2/NP7 cat 1
- N2/NP7 cat 2
- N2/NP7 cat 3
- N2/NP7 cat 4
- N2/NP7 – T6
- N2/NP7 – JSF
- N2/NP7 – V22
- N2/NP8 cat 1
- N2/NP8 cat 2
- N2/NP8 cat 3
- N2/NP8 cat 4
- N2/NP8 – T6
- N2/NP8 – JSF
- N2/NP8 – V22N3/NP3
- N3/NP3 – T6
- N3/NP3 - JSF
- N4/NP4 cat 2
- N4/NP4 cat 3
- N4/NP4 cat 4
- N4/NP4 – V22
- NP5
- NP6
- N6
- N6-T6
- N7
- N8
- N9
- N10
- N11
- N11-E2
- N12
- N13
- N14
- N15 (no parachutes)
- R1/RP1
- R1/RP1 – T6
- R1/RP1 - JSF
- R2/RP2
- R2/RP2 – E2
- R3/RP3
- R4/RP4
- R4/RP4 – V22/C2

You thought the current system was complicated! The difference between 33 "quals" and 46 "quals" represents the amount of curricula that we would need to write just to get up to date with current requirements (13 "quals" X 5-10 LTGs per "qual")! Under this system, we would never catch up. Also, we would just be adding more complexity to a complex system.



Brian Swan and I took a hard look at the system and decided that we needed to scrap the whole thing and start over. It was obvious to us that we have started to move towards aircraft specific "quals" but that there was quite a bit of reusability among the different briefs. That led us to the concept of "reusable learning objects" (RLO). In this case the RLO is a specific lecture, brief or training evolution (lesson topic guide or module as defined by the 3710.7T appendix E). For example, a T-6 Texan ALSS brief that was created for one curriculum could be used for other curricula as well. The same is true for the parachute training. That led us to the idea of a "plug and play" system using RLOs. We took a hard look at all of our curricula to determine how many unique training modules would be required and how many would be reusable between curricula. We found that instead of creating 13 more "quals" that we could create between 40-50 unique training modules (and reuse them as appropriate) to completely rewrite all of our curricula from top to bottom. Instead of having 46 different "quals" with 5-10 lesson topic guides each, we could have 40-50 different RLOs (essentially, reusable lesson topic guides) to cover all of our curricula. Under this system, we could reasonably expect to rewrite all of our curricula in one year. Currently, we have worked through a draft version of the refresher curricula. As a result, over half of the unique RLOs that we need to create (for all of our curricula) have been created. There are many aircraft unique RLOs. For example, the T-6, and F-35 have unique ALSS briefs. The V-22 includes a HABD RLO. So what does the system look like? Here is a snapshot of part of the new matrix (draft version):

Course	Aircraft	A: NASTP Overview	B: Altitude Threats	C: Hypoxia Lab	D: Stress	E: Sensory Phys.	F: Acceleration Phys	G: ALSS	H: First Aid	I: Survival Swimming	J: Flight Equip. Swim	K: Water Survival Skill	L: Underwater Prob.	M: Underwater Egress	N: Parachuting	O: Liferafts	P: Rescue Devices	Q: Ejection	R: CFET	S: HABD	T: Parasail	U: Exam
Refresher NASTP Training for Category 1 Aircraft	A-4	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	AV-8	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	EA-6	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	F/A-18	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	F-14	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	F-16	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	T-45	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	F-5	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	S-3	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	T-2	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	T-38	2	2	1/4	2	2	2	1	2	1	4	4	1	1	1	1	1	2				1
	F-35	2	2	1/4	2	2	2	4	2	1	9	9	1	1	5	1	1	2				1
	T-6	2	2	1/4	2	2	2	3	2	1	8	8	1	1	3	1	1	2				1
Refresher NASTP Training for Category 2 Aircraft	E-2C	2	3	2	2	2		2	2	1	10	10	1	2	4	1	1			2		1
	C-2	2	3	2	2	2		2	2	1	5	5	1	2	4	1	1			2		1
	C-130	2	3	2	2	2		2	2	1	5	5	1	2	2	1	1					1
	P-3	2	3	2	2	2		2	2	1	5	5	1	2	2	1	1					1
	T-34	2	3	2	2	2	2	2	2	1	5	5	1	2	2	1	1					1
Refresher NASTP Training for Category 3 Aircraft	AH-1	2	4		2	3		2	2	1	5	5	1	3		1	1			1		1
	H-3	2	4		2	3		2	2	1	5	5	1	3		1	1			1		1
	H-46	2	4		2	3		2	2	1	5	5	1	3		1	1			1		1

Note first of all that the course names have changed. We don't call it R1/RP1 anymore. Now the course is called Refresher NASTP Training for Category 1 Aircraft. The numbers in the cells represent versions of the module. For example, take a look at the Aviation Physiology module (B). There is an indoctrination version, and a refresher category 1, 2 and 3 version. Each version is slightly different. The category 1 version has a discussion of OBOGS and issues like wearing a mask in flight, while the category 3 version discusses lower altitude issues faced by helicopter aircrew. Note also that the T-6 is a category 1 aircraft but some of the modules are different. T-6 aircrew use Air Force ALSS and the T-6 parachute decent procedures are different. Therefore if you get T-6 training, you get different modules. To assemble a curriculum, you simply pull the appropriate lessong topic guides (RLOs) off of the shelf according to the aircraft type. To complete a multi-qual, you simply teach all of the applicable RLOs. If a person needs an AH-1 and a F/A-18 qual, you simply pull all unique RLOs off of the shelf to assemble the appropriate curriculum. What makes all of this work is qualification letters. Instead of giving NATOPS qual sheet stamps that have to be interpreted, we will issue qualification letters that specifically state which aircraft the person is qualified to fly. In this case all category 1 aircraft, with the exception of the T-6 and F-35 would be listed as well as all helicopters (because they require the same RLOs). That way, there is nothing for a NATOPS officer to interpret. If the aircraft is listed, they can fly it. If not, they do not have the necessary qualification. Also, the new matrix gives our ASTCs clear guidance on how to do multi-quals. For example, to give a F/A-18 pilot a T-6 qual, you need to give them G3, J8, K8 and N3 in addition to their F/A-18 stuff (different ALSS and parachuting briefs as well as drag, hoist, swim and oral inflation in the T-6 gear). Instead of having curricula binders on a shelf, you will now have plug-and-play modules in binders on your shelves. You then use the matrix to assemble a curricula. The matrix serves as a recipe to assemble aircraft-specific courses. Another big advantage of moving to an RLO based system is that it gives us a much more responsive curriculum management system. If a HAZREP hits the fleet today, we can have a curriculum change on the streets next week. Compare that to our 15 year old refresher curriculum.

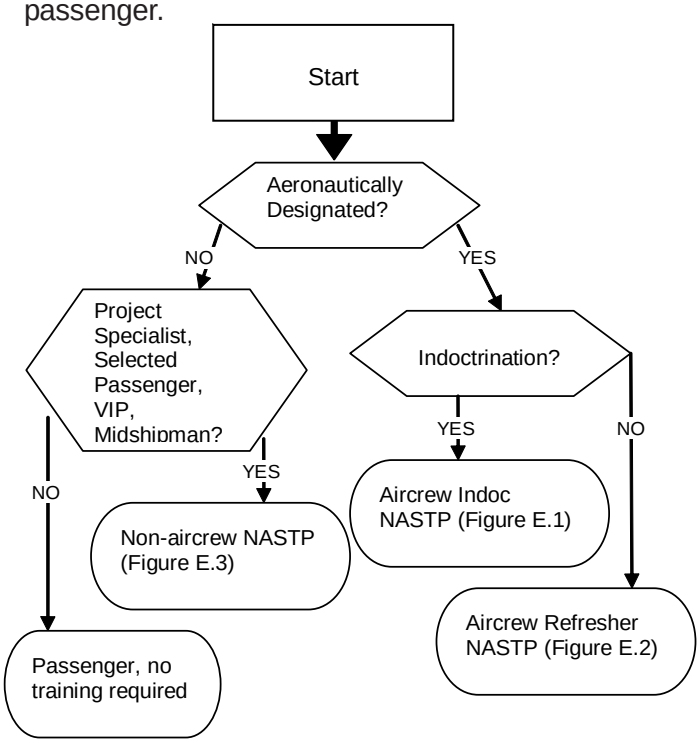
Under the new system we have the following courses for those requiring aircraft specific training:

Indoc Aircrew:
Indoctrination NASTP for Cat 1 Aircraft
Indoctrination NASTP for Cat 2 Aircraft
Indoctrination NASTP for Cat 3 Aircraft
Indoctrination NASTP for Cat 4 Aircraft

Refresher Aircrew:
Refresher NASTP for Cat 1 Aircraft
Refresher NASTP for Cat 2 Aircraft
Refresher NASTP for Cat 3 Aircraft
Refresher NASTP for Cat 4 Aircraft

Non-Aircrew:
Non-Aircrew NASTP Training for Cat 1 Aircraft
Non-Aircrew NASTP Training for Cat 2 Aircraft
Non-Aircrew NASTP Training for Cat 3 Aircraft
Non-Aircrew NASTP Training for Cat 4 Aircraft

Take a look at how simple the training matrix becomes. This is a decision tree that anybody could follow. If you are aircrew, you are either an indoc or refresher; if not you are non-aircrew or a passenger.



*Note that we combined midshipmen, VIPs, project specialists and selected passengers into one aircraft category specific system.

Additionally, we got rid of all of the N, NP or N/NP course names for the other courses. Now, for non-aircraft-specific training we have:

-CFET
-HAP
-HABD
-Survival Swimming
-CBR In-Water Familiarization
-Non-aircrew Underwater Egress Training
-USMC Underwater Egress Familiarization
-Advanced Underwater Egress
-Dynamic Hypoxia Training (new course)

Does anybody remember what N13 is? How about N14? That's why we are getting rid of those names (no more alphabet soup). This way, they are easier to remember. We have completed the revision of the Chapter 8 and Appendix E of the 3710.7 to make these changes happen. The proposed chances were well received at the recent 3710.7 working group meeting and will be presented at the Fleet 3710.7 conference.

Take the red pill and enter the new reality...

LCDR Mike "Chow" Prevost
NSTI, Director of Safety and Standardization
DSN: 922-2718
mcprevost@nomi.med.navy.mil

2004 Naval Aerospace Physiology Awards
Presented
by
Capt J.P. Norton

Outstanding Aerospace Physiologist

The Naval Aerospace Physiology Program Planning Committee takes great pleasure in presenting the 2004 Naval Aerospace Physiology Program Outstanding Aerospace Physiologist Award to:

LIEUTENANT RONALD SCHOONOVER MEDICAL SERVICE CORPS, UNITED STATES NAVY

For outstanding performance while serving as the aeromedical safety officer for Marine Aircraft Group 16, Third Marine Aircraft Wing from January 1st 2004 to December 31st 2004. During this period, Lieutenant Schoonover deployed forward in support of operation Iraqi Freedom II. His in depth knowledge and insight on night vision devices and survival equipment allowed him to liaison with intelligence and operational organizations developing invaluable training for joint and coalition forces on Survival Evasion Resistance and Escape (SERE), Combat Search and Rescue (CSAR) and night targeting techniques. He then traveled throughout the theatre during combat operations providing this training and dramatically increasing combat effectiveness. With resourcefulness and unwavering commitment he single-handedly developed and implemented the only fully functional night imaging and threat evaluation (NITE) laboratory in Iraq along with operational specific curriculums. In direct support of the warfighter, he managed the distribution, training and maintenance of 634 pieces of survival electronics, initiated procurement of PRC-112G survival radios and procured laser designators and crew served weapon aiming lasers (once again increasing the combat effectiveness of the Group). Lieutenant Schoonover's initiative and steadfast devotion to duty were

instrumental in the success of Marine and Coalition Forces during Operation Iraqi Freedom II and his exceptional professional ability, leadership and steadfast performance reflected great credit upon himself and were keeping with the highest traditions of the United States Naval Service.


LT Ron Schoonover

Robert Graham Senior Enlisted Award

The Naval Aerospace Physiology Program Planning Committee takes great pleasure in presenting the 2004 Naval Aerospace Physiology Program Robert Graham Senior Enlisted Award to:

HOSPITAL CORPSMAN FIRST CLASS
TONY RICHARDSON
UNITED STATES NAVY

For service set forth in the following CITATION:

For outstanding professional achievement in the superior performance of his duties while serving as Aeromedical Safety Corpsman and assistant to the Night Imaging and Threat Evaluation program manager at Marine Aviation Weapons and Tactics Squadron One (MAWTS-1) from January 1st 2004 to December 31st 2004. Petty Officer Richardson consistently performed his duties in an exemplary and highly professional manner. As the developer of a new MAWTS-1 Night Vision Goggle Training Course, he provided 88 periods of unparalleled instruction to Marine Aviation Support Personnel in preparation for Operation Iraqi Freedom. He directly participated in the Night Vision Device, Laser Safety, and Aviation Life Support Systems Training of 1334 soldiers, sailors, and airman as part of two Weapons and Tactics Instructor Courses and three Desert Talon Exercises. As the Night Imaging and Threat Evaluation administrative support leader, he expertly managed an operating budget of $120,000 and single handedly coordinated the purchase, management, and distribution of over $150,000 in training support equipment to locations worldwide. Hospital Corpsman First Class Richardson's exceptional professional ability, leadership and steadfast performance reflected great credit upon himself and were keeping with the highest traditions of the United States Naval Service.


HM1 Richardson and Capt Norton

James Janousek Junior Enlisted Award

The Naval Aerospace Physiology Program Planning Committee Takes great pleasure in presenting the 2004 Naval Aerospace Physiology Program James Janousek Junior Enlisted Award to:

HOSPITAL CORPSMAN SECOND CLASS
MICHAEL CHICK
UNITED STATES NAVY

For meritorious service while serving as an Aviation Physiology Technician and Aeromedical Safety Corpsman from January 1st 2004 to December 31st 2004 while assigned to Marine Air Group 39 at Camp Pendleton California. Petty Officer Chick displayed a highly motivated professional dedication to excellence as the Third Marine Air Wing Casualty Evacuation (CASEVAC) program manager and subject matter expert as he has been instrumental in ensuring that over 50 CASEVAC personnel have been properly trained and prepared for those demanding and strenuous duties. He has used his personal experiences to quickly gain their respect as one that has "been there, done that" while providing much needed insight into CASEVAC operations. Petty Officer Chick has served as the lead instructor for nearly 40 Night Vision Goggle courses that qualified over 300 pilots and aircrew. In addition, he provided essential stress, human performance, and spatial disorientation briefs to MAG-39 pilots on a regular basis. Leading by example, Hospital Corpsman Second Class Chick has provided an avenue for enlisted personnel to publish articles in the Society of United States Naval Aerospace Physiologists quarterly Journal. Petty Officer Chick's exceptional professionalism and selfless devotion to duty reflected credit upon himself and were in keeping with the highest traditions of the Untied States Naval Service.

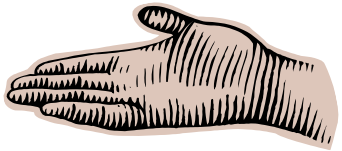
HM2 Michael Chick

Civilian Award

The Naval Aerospace Physiology Program Planning Committee Takes pleasure in presenting the 2004 Naval Aerospace Physiology Program Civilian Award to:

MR. MICHAEL P. GRAHAM

For meritorious service while serving as the lead training instructor and the Job Qualifications Requirements (JQR), Standard Operating Procedures (SOP), and curriculum developer for the Naval Aviation Survival Training Program at the Naval Survival Training Institute (NSTI) in Pensacola, Florida from January 1st to December 31st 2004. As NSTI's primary Naval Aviation Water Survival Training Instructor, Mr.Graham expertly assembled a mobile training team to provide crucial training at the outlying detachments, saving the command over $10,000 in travel costs. He created an abbreviated Instructor's familiarization course which is now used to indoctrinate student Naval Aerospace Physiologists and Aerospace Physiology Technicians on essential water survival basics, which has dramatically increased their productivity and key high risk training awareness. Mike has also successfully served as the test director for the in-water testing and provided invaluable assistance for the Test & Evaluation efforts of several critical joint service projects over the past year. His work to help validate new approaches to water survival training will influence underwater egress training for organizations worldwide! Mr. Mike Graham's expertise and commitment to excellence contributed greatly to the Naval Aviation Survival Training Program and his distinctive accomplishments, unrelenting perseverance, and steadfast devotion to duty reflected great credit upon himself and were in keeping with the highest traditions of the United States Naval Service.



NAPP Special Award
presented to
CDR Rick Mason

The Naval Aerospace Physiology Program Planning Committee takes great pleasure in presenting the Special Award in Naval Aerospace Physiology to:

COMMANDER RICK MASON
MEDICAL SERVICE CORPS, UNITED STATES NAVY

For service set forth in the following CITATION:

For consistently outstanding performance in aerospace physiology from 1984 to 2005 while serving in various duties throughout his career. CDR Mason displayed extraordinary knowledge, creativity, and organizational skills in developing and improving aeromedical safety and training programs that significantly enhanced fleet readiness for all Naval and Marine Corps warriors. For example, his dedication and professionalism provided the initial impetus to the simulator physiology program where he aggressively moved simulator-based refresher aviation physiology training from concept to implementation. CDR Mason was instrumental in the successful development of innovative concepts including the highly touted Reduced Oxygen Breathing Device (ROBD) which allows more operationally relevant presentation of hypoxia training while at the same time eliminating high risk safety hazards of the current training systems. Through his outstanding leadership and management skills he has had phenomenal success in the acquisition and refurbishment of training systems in support of the Naval Aviation Survival Training Program while serving at Naval Air Warfare Center – Training Systems Division. His numerous contributions in the past twenty years will positively influence and impact the Aerospace Physiology Program for the next twenty years. CDR Mason's sustained superior performance, outstanding professionalism, selfless devotion to duty reflected great credit upon himself, and are keeping with the highest traditions of the United States Naval Services.


CDR Rick Mason

NAPP Special Award
presented to
CDR Mark Baysinger

The Naval Aerospace Physiology Program Planning Committee takes great pleasure in presenting the Special Award in Naval Aerospace Physiology to

COMMANDER MARK BAYSINGER
MEDICAL SERVICE CORPS, UNITED STATES NAVY

For service set forth in the following CITATION:

For sustained superior performance in aerospace physiology for over 20 years during filling various positions ranging from Aviation Survival Training Center Department Head to the lead acquisition officer for survival training systems. CDR Baysinger was the first Aeromedical Safety Officer at MAG-16, quickly establishing an extensive pre-deployment training program and creating their Night Vision Goggle Training Program, and eventually deploying with them during the 1991 Gulf War in support of combat operations. He successfully served as the critical liaison between design engineers and the fleet during development, test and evaluation of numerous new Aviation Life Support Systems as the key coordinator for the FAILSAFE program

while stationed at Naval Air Development Center Warminster. CDR Baysinger successfully chaired the Spatial Disorientation Small Business Innovative Research (SBIR) source selection team efforts which are resulting in pertinent hands on spatial disorientation awareness and recovery training. Working closely with program managers, he successfully initiated the recapitalization program for several survival training systems, including acquisition of the new Module Egress Training System (METS) and Parachute Overwater Slide Trainer (POST). CDR Baysinger successfully initiated the Navy's involvement in the development and implementation of new infrared and night vision training systems including the ROC-V combat vehicle identification system and the SBIR program for computer based NITE Lab training. CDR Baysinger's sustained superior performance and selfless devotion to duty reflected great credit upon himself, and are keeping with the highest traditions of the United States Naval Services.

Capt Norton accepting for CDR Mark Baysinger

"AMSO Top Ten List"

by

LT Leslie "Wood" Kindling

"Hey AMSO, I heard…

10. ACC-668 has been rescinded because the glare hood extensions are a FOD hazard.

9. Belleville brown leather flight boots without the defined heel are no longer authorized for flight.

8. Integrated torso harnesses are not authorized for shipboard ops.

7. If you wiggle the PRC-112B1 battery you will loose your GPS fix and it will take on average 6 minutes to reacquire.

6. An IR Marker is not a laser. As long as I'm flying at an altitude above the marker's NOHD, I can mark anything I want (including my house).

5. Aircrew who are above or below the certified nude body weight for an ejection seat are not authorized to fly in that aircraft.

4. Red Wing brown boots are authorized for flight. I know, because I see all those Navy guys wearing them.

3. I haven't focused my goggles in the Hoffman box because the goggles were issued directly to me and no one else uses them.

2. The green undershirts all of us Marines buy at the exchange and wear under our flight suits everyday, except on TACAIR No T-shirt Tuesdays, are 100% cotton.

1. There is no way that itty-bitty Hoffman box can actually focus to optical infinity, so you need to refocus your NVGs when you get to the aircraft."

WARNING: These are not in any Manual or Message

ARMY Training Sir!

by
LTjg Austin Latour

Given that I am one of the last Aerospace Physiologists to go to Airborne School in quite some time, I thought there might be some other physiologists interested in what happens at Jump School. For a long time, the Army was not accepting physiologists or anyone else who was not actually being deployed into combat. So, when the opportunity was offered to me, I accepted without question.

The first week was of course ground week. I learned about the main parachute and reserve parachute I would be using, from every D-ring and strap, to the material the harness is made of. This week was also our first introduction to moving into and exiting from the aircraft in a safe manner. It is important for each person to exit properly for the safety of all jumpers. During the latter part of this week we began our many hours of PLF's. Luckily for me, I performed them well based on my training in API with the Parasail Department. Some students were performing PLF's for a long time; until they were correct. PLF's are important, because the majority of injuries at Jump School occur during landing. During the first week, we also began part of tower week. This consisted of jumping out of a 50-foot tower and sliding down on a thick cable to the ground below.

The second week, tower week, also included many more PLF's. After PLF's, we continued practicing exits from the 50 foot tower in single and mass exit. The objective of tower week is to make the individual comfortable jumping out of a mock aircraft door in groups so that students do not suddenly stop and cause problems for other students. On the last three days of tower week, we practiced on the swing landing trainer. During this training, the student stands on a 15-foot high platform, and then swings down. As the student is falling, the instructor lets go of the line holding the student in the swing and expects the student to perform a proper PLF. If the student does not perform enough successful PLF's, they will be rolled to the next class. Also, during this week, students learn additional procedures on how to properly secure themselves in the parachute harness.

Finally, we began Jump Week. During the first two days of jump week our company had only one C-130 which allowed us to send only 60 students per flight. Thus, students spent the majority of the time sitting in an uncomfortable harness and waiting until it was their turn to jump. Complete silence was mandatory or the student was removed from airborne school. After the first two days of jump week with only one C-130, the Air Force provided us with one more. The time spent waiting was considerably shorter. Between our five jumps we were allowed lunch and one latrine break in a ten minute period.

Three of the five jumps were considered "Hollywood," which means the jumper exits the

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aircraft with no gear except the main parachute and reserve parachute. The other two jumps included a 25-pound ruck sack attached below your reserve and some additional gear attached to your left side. Of our five jumps, one was to be a night jump. This was cancelled due to bad weather, so instead it became a day jump.

By the numbers, Charlie Company started with 450 students. On the first day, about 60 students failed the Army PRT. The Army operates its PRT very rigidly and the Cadre are always finding ways to lessen the number of students to train. During Ground week, about 15 more students dropped out for not being able to keep up with the Army workouts and other various reasons. When Tower week arrived, Charlie Company had about 15 more students drop out for injuries and other various reasons. During jump week, there were probably 15 injuries ranging from sprained ankles to broken ankles, legs, and even an arm. By the end of jump week, Charlie Company graduated 333 students, which produced an attrition rate of 26%.

Over all it was a great experience and if I could do this all over again, I would. The Army definitely does things differently, but it was good to learn how they operate and see how their various airborne pipelines function. It was a great education and I recommend that if anyone is provided the opportunity, take it!

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Article edited by LCDR(s) Tony Artino

"Meet and Greet"
LTjg Amy Hendrix
ASTS Pensacola

LTJG Amy Hendrix was born 28 June 1973 in Indianapolis, Indiana. She graduated in 1991 from Mt. Vernon High School in Fortville. She attended Ball State University in Muncie, Indiana, where she completed a double Bachelor's of Science in Athletic Training and Exercise Science, with an emphasis in Wellness in 1996. In August 1996, she obtained certifications as a Certified Athletic Trainer by the National Athletic Trainer's Association – Board of Certification and as a Health / Fitness Instructor by the American College of Sports Medicine.

LTJG Hendrix completed her Master of Arts in Kinesiology with a double emphasis in Exercise Physiology and Sports Psychology from Southeastern Louisiana University in 1999. She authored a thesis and co-authored an article in the Journal of Athletic Training entitled, "An Examination in Stress and Burnout in Certified Athletic Trainers in Division I-A Universities." She served as a graduate assistant athletic trainer with the Southeastern Louisiana University Athletics Department, and as the Head Athletic Trainer and Clinical Instructor at St. Thomas Aquinas High School in Hammond, Louisiana. Her graduate course work included cardio-respiratory and neurological aspects of exercise physiology and applied sports psychology. She assisted in research at the SLU Department of Kinesiology on iron status in female cross-country runners.

LTJG Hendrix began teaching in the Alvin Independent School District, at Alvin High School in the 2000-2001 academic year. She taught first year biology and athletic training principles, along with sponsoring an extracurricular club. She achieved certification from the State Board of Educator Certification (SBEC) for the state of Texas in July 2003. She is authorized to practice as a Teacher of Record in Secondary Biology (Grades 6-12).

LTJG Hendrix received her commission into the U.S. Navy on 03 May 2004 and attended Officer Indoctrination School (OIS) in Newport, Rhode Island. After graduation from OIS in July Naval Aerospace Physiologist (SNAP) training.

LTJG Hendrix received her designation as a Naval Aerospace Physiologist on 11 February 2005. She is currently an intern at the Naval Survival Training Institute Aviation Physiology Unit at NAS Pensacola, Florida.

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HM2 Collins being reenlisted by LT Brian Bohrer aboard the USS Nimitz

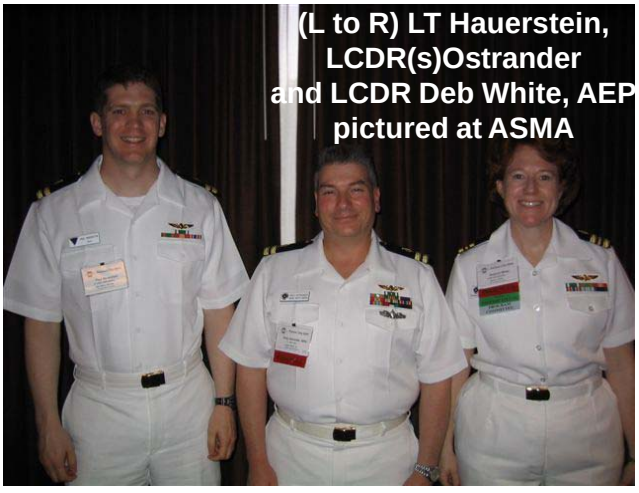
LT Dave Peterson

The Mighty Hunters....

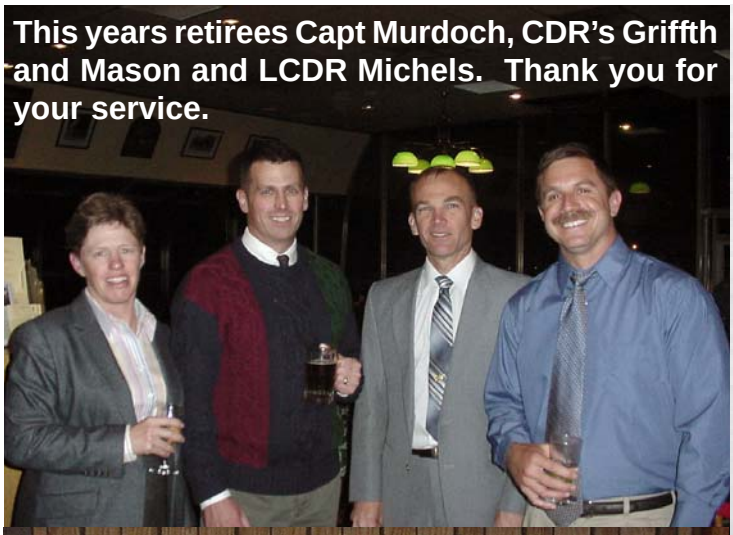
LT Nick Dimaso

Have Returned!

CDR Andrews receiving the Meritorious Service Medal in the Oval Office.



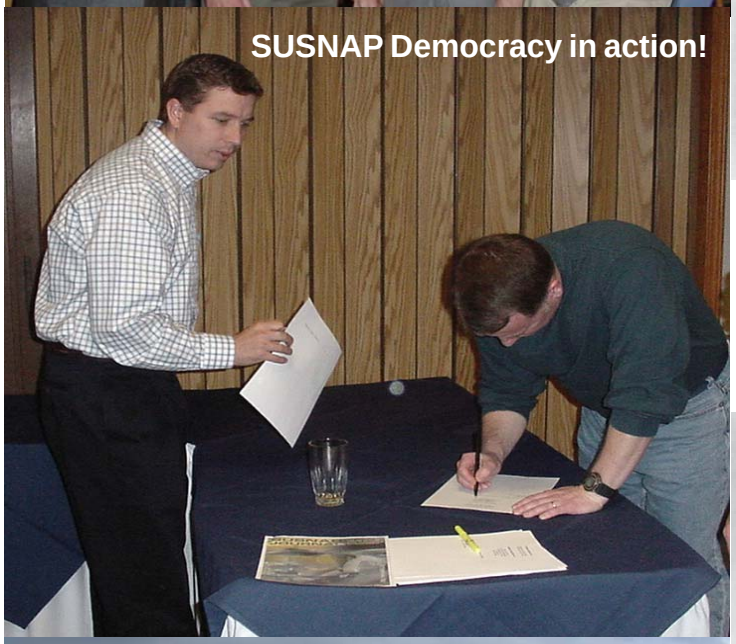
(L to R) LT Hauerstein, LCDR(s)Ostrander and LCDR Deb White, AEP pictured at ASMA



This years retirees Capt Murdoch, CDR's Griffth and Mason and LCDR Michels. Thank you for your service.

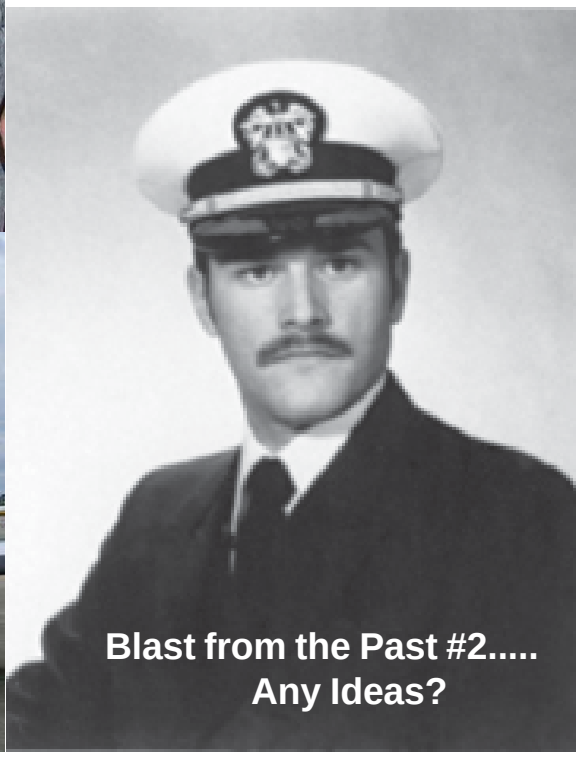
Blast from the Past #1..... Any Guesses?

That's our very own CDR Strickland pictured here as a LTjg in class 88002.



SUSNAP Democracy in action!

Front row (left to right) : PR2 Baldwin, LTJG Turcotte, HM3 Thompson, HM2 Ballas. Back row (left to right): HM2 Morin, HM1 Hendrick, HM2 Sankey, HM3 Edens, LT Jones, and LTJG Hendrix.



Blast from the Past #2..... Any Ideas?

That's our very own CDR Lawry pictured here as a LTjg in class 86002.

LTjg Clifford and LT Corpus

Back (L to R): LCDR Michels, CDR Service, LCDR (ret.) Swan, LCDR(s) Artino, CDR Essex and LCDR Hebert. Front (L to R): LT Folga and LT Biles

SUSNAP President, LCDR Mike Prevost

Top (L to R): LT Corpus, LT(jg) Marryman, LT Landis, and LT(jg) Clifford. Front (L to R): LT's Seegers, Turcotte and Campbell.

LCDR Vitatoe

(L to R) LTs Scheeler, Littel, Peterson, Shaddix, Lando and Hauerstein