

Navy Medicine

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FIGHTING

DEPRESSION SADNESS ANXIETY GRIEF PAIN HARM LOSS FEAR ANGER SUSPENSE GUILT GRIEVANCE VOICE COMPREHENSION STRESS HATE REGRET DISAPPOINTMENT SCORN FRUSTRATION PANIC SUICIDE BURDEN EMPTY DISTURBED AGONY HATE DISTRESS

**Navy Medicine wages
a war far from the
battlefield | 28**

**Alternative
Therapy**
18

**Providing
Comfort**
36

**The Best
Medicine**
44

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Articles must be between 600-1,000 words.
All articles must be present tense/active voice.
Photos must be minimum 300 dpi.
Photos showing action are preferred.
All photos must be accompanied by a caption and photo credit.

Subjects considered:
Scuttlebutt: Stories about activities at MTFs and the field.
Photo Album: Action shots from across Navy Medicine.
Feature Articles: Stories featuring interesting contributions of Navy Medicine to military operations including everything from combat support to Humanitarian Relief/Disaster Response will be considered. Please contact Shoshona Pilip-Florea (shoshona.pilip-florea@med.navy.mil) for current theme of issue in progress.

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Quality Care: Anything that improves the quality of care for our patients.

IT, QA: Any articles showing how Navy Medicine is utilizing the electronic age.

Shipmates: Anything interesting about our shipmates working in the healthcare field in the Department of the Navy.

All submissions must be accompanied by complete contact information for author. In the event there is more than one author please assign one author to be primary correspondent.

Feedback Welcome

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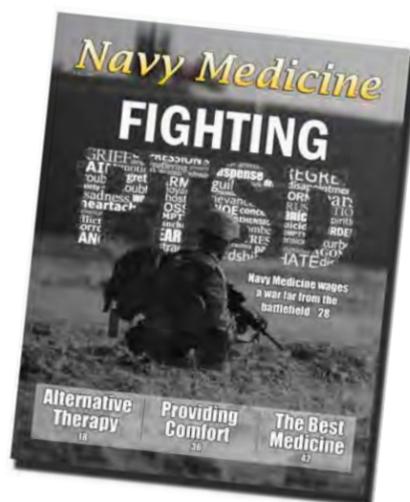
Contents

In every issue

- 4 ADMIRAL'S CALL
- 6 FORCE NOTES
- 48 INNOVATIONS/R&D
- 52 A LOOK BACK

Features

- 8 RADIATION HEALTH
- 10 MINDFULNESS TRAINING
- 14 CLOSING THE SCHOOL DOORS
- 16 A GUIDING HAND
- 24 TRAINING WITH SOLDIERS
- 26 REDEFINING OPERATIONAL MEDICAL TRAINING
- 32 PUBLIC HEALTH IN ACTION
- 34 ONE DAY AT A TIME
- 40 WHAT I'VE LEARNED
- 42 HONORING A FALLEN SON
- 46 PREVENTING DENGUE FEVER



On the Cover

A U.S. Navy Hospital Corpsman takes a knee while on a security patrol in Afghanistan.

Navy Medicine continues to fight post traumatic stress disorder, which effects a large population of service members who have suffered traumatic events, both overseas and stateside.

Photo by Cpl. Nathan McCord

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FIGHTING PTSD 28



PROVIDING COMFORT 36



ALTERNATIVE THERAPY 18



THE BEST MEDICINE 44

The Dangers of Spice

As we enjoy this Fall season with our friends and family, I'd like to focus this Admiral's Corner on a serious health issue affecting our Sailors, Marines, and their families. I'm talking about the dangerous health effects of Spice and other synthetic designer drugs.

I would like to take this opportunity to educate and inform all Navy and Marine Corps personnel not only of the potential adverse health effects, but also the legal consequences. It is paramount all Navy Medicine personnel are aware of the adverse effects of these drugs. Commanding Officers must be fully engaged in synthetic drug abuse prevention and do everything in their power to increase awareness within their commands of the serious health consequences and legal ramifications if caught using, possessing, manufacturing, promoting, or distributing Spice and other synthetic designer drugs.

I hope this will help providers advise their patients, and provide facts and figures that our Military Treatment Facilities should communicate to their personnel in order to provide training, counseling, and increased awareness for all hands.

The Navy's zero tolerance policy for drug abuse includes possession of substances or designated products that contain synthetic cannabinoid compounds, including Spice, fake marijuana or fake pot, herbal incense or potpourri, salvia divinorum, bath salts, Skunk, Genie, Blaze, Dream, Spike 99, Ex-Ses, Spark, Fusion, Dark Knight, Yucatan Fire, K2,

and many others. Navy and Marine Corps personnel who wrongfully possess, use, promote, manufacture, or distribute designer drugs or products containing synthetic cannabinoid compounds such as Spice or paraphernalia may be subject to punitive action under Articles 92 and 112a of the UCMJ, adverse administration action, or both. Consumption of any of these products meets the criteria for drug abuse and is prohibited. On March 1, 2011, the Drug Enforcement Agency issued a final rule placing five synthetic compounds used to manufacture Spice on the controlled substance list. This action makes the wrongful use, possession, distribution, and introduction of these substances unlawful under 112a, UCMJ.

Spice and other Synthetic Drug use such as bath salts, plant food products, and other herbal products is on the rise in our Navy and Marine Corps, are readily available, and falsely marketed by manufacturers as a safe way to get high while avoiding drug detection. Manufacturers constantly change product ingredients and market products under new names. In the past year alone, hundreds of Sailors were held accountable for use or possession of Spice or a Spice derivative. One time use is enough for discharge. These incidents are not restricted to one type of platform, command, or location either.



Most offenders are E-5 and below. Detection through confession of use and reporting of behavior has been the most common. (First offender caught reports of others' use within the command.)

Spice looks similar to marijuana or oregano and is used for psychoactive or hallucinogenic effect. The product contains organic leaves coated with chemicals. It is not FDA approved for human consumption, and there is no oversight of the manufacturing process. Unlike marijuana, the synthetic chemicals in Spice-type products are more potent to the brain and other organs because they bind themselves more permanently to receptors. Spice could have multiple unknown chemicals including harmful metal residues, with unknown potency potentially five to 200 times more potent than the THC in marijuana. Users

are also experimenting by combining different products which can dramatically change or increase the effects. Rapid tolerance in some users can lead to increased dosage and addiction, either physical or psychological. According to the DEA, increased use of Spice and other synthetics has led to a surge in emergency room visits and calls to poison control centers.

The signs and symptoms will certainly vary with users. However, typical effects onset within five to 10 minutes include relaxation and sedation, marijuana-like effects such as euphoria, giddiness, bloodshot eyes, impaired short-term memory and concentration. There is also a morning after hangover-like effect. Other more serious signs and symptoms that may last for eight to 10 hours may include internal unrest, tremor, panic attacks, delirium, impaired coordination, sleeplessness, seizures, palpitation, agitation, headache, diarrhea, nausea and vomiting. Some have even reported paranoid hallucinations, confusion, mood disorders, loss of consciousness and psychotic symptoms that can last for days or even months in some cases, and can become debilitating.

The Navy is working with the Armed Forces Medical Examiner System (AFMES) to develop testing for new substances. The AFMES has developed the capability to test for a limited number of these products. This is a moving target and detection is not currently available using the Navy's routine drug testing program. Only six compounds are on the DEA's Schedule I list on controlled substances, while there are 100 or more synthetic compounds that underground chemists can and will continue to use to design new synthetics to optimize effects and improve their marketability by advertising their lack of detectability.



To deter drug abuse, I urge all commanding officers and others in positions of leadership to be fully engaged in their command's implementation plan to continually communicate and educate all hands as to the Navy's zero tolerance policy on Spice and other synthetic designer drugs. Each command's aggressive awareness and education campaign should begin during indoctrination and be reinforced throughout the year. We cannot over-communicate this issue. Accountability for those who abuse these substances will help deter their abuse. Given the rise in usage, deterring Spice abuse must be an all-hands effort. We all need to look out for each other and our shipmates and report known violations.

Spice represents a real and present danger to our Sailors' and Marines' mental and physical health, as well as their military careers. Please help me get the word out to all hands. Navy Medicine will continue to shine a light on this growing concern by delivering sustained, coordinated, aligned and targeted messages to leadership and to the deck plates. Thank you for everything you do and thank you for your service. It is my honor and privilege to represent you as your Surgeon General.

--Vice Adm. Adam M. Robinson, Jr.

“Spice represents a real and present danger to our Sailors' and Marines' mental and physical health.”

The Importance of Suicide Prevention

Across all services September was recognized as Suicide Prevention and Awareness Month. While suicide numbers in the military tend to be lower than their civilian counterparts, suicides within all branches have increased. This disconcerting trend has prompted leaders within the Department of Defense to reemphasize the importance of service members, veterans, and their families maintaining proper emotional, physical, and psychological health.

Existing resources are available to enhance local suicide prevention programs and inform service members of programs available to them. The DoD and VA have established a partnership dedicated primarily to providing education, counseling, and treatment in an all-hands effort at suicide prevention; anyone can access this resource by visiting www.suicideoutreach.org.

Above all, as Shipmates, we have a duty to look after one another. It is our moral imperative to seek professional guidance when our loved ones, co-workers, or friends manifest warning signs such as vocalizing an intention to harm their self, exhibiting social withdrawal, or otherwise showing uncharacteristic

changes in behavior. If the situation should arise, we must have the courage to act; ask if they are planning to harm themselves, care for them by actively listening and removing any means for self-injury, and ensuring they are escorted to treatment as soon as possible.

As the Force Master Chief and Director of the Hospital Corps, I am fully aware that many Sailors believe there is a stigma attached to seeking help for both depression and stress. Such thinking, however, could not be further from the truth. In fact, it is a sign of strength to seek help and strength in all areas of fitness is critical for not only personal wellbeing, but for military readiness as well. One of our chief duties, then, is to eliminate the stigma associated with seeking help and to become stewards for those resources available to all of us. Organizations like Military One Source, Fleet and Family Service Centers, and your local commands offer robust resources toward identifying suicidal behaviors and offering pathways toward treatment. Additionally, the National Suicide Prevention hotline is immedi-

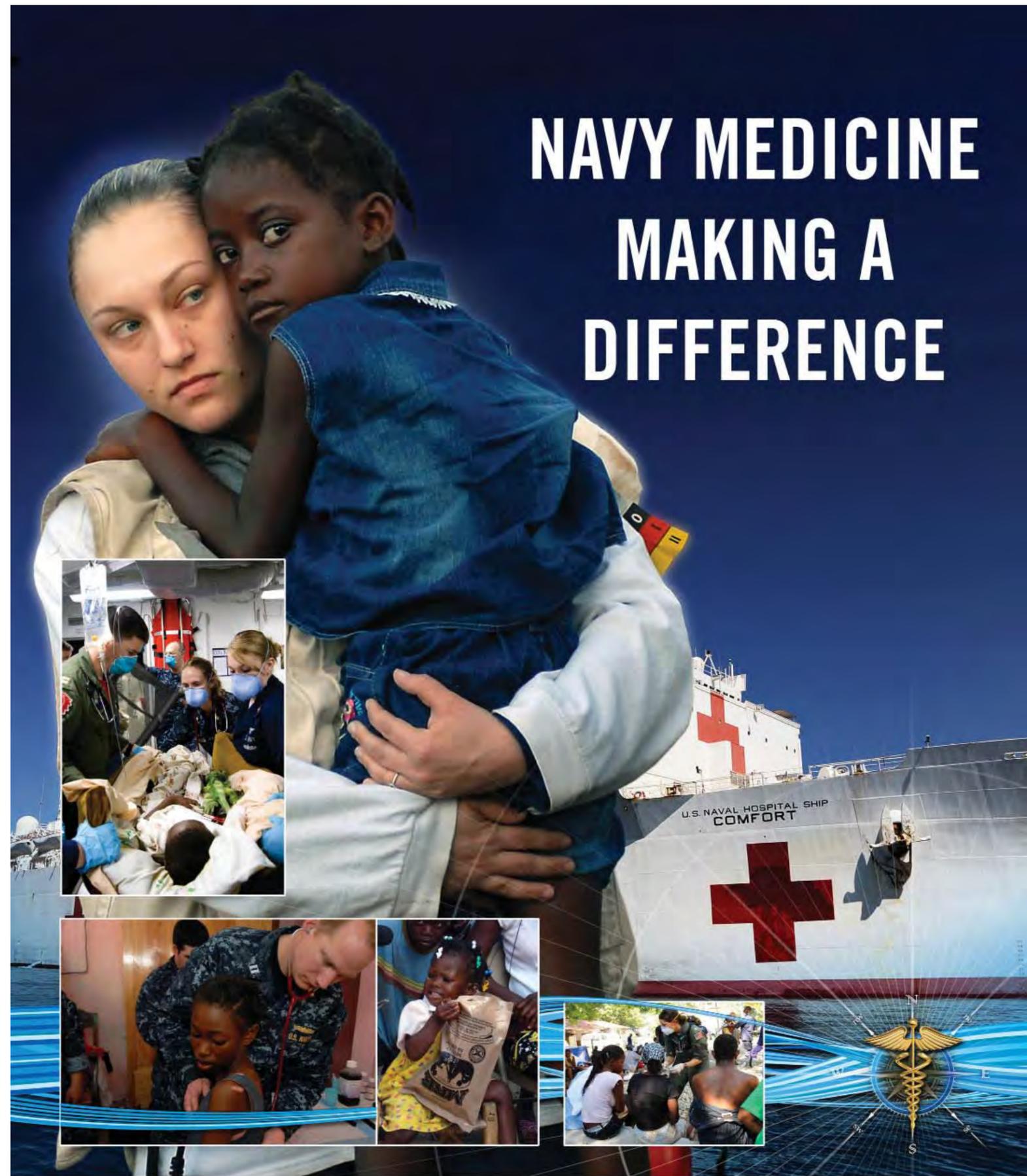


ately available to service members by dialing 800-273-TALK (8255) and choosing "1".

As we continue to fight wars on multiple fronts, deal with the uncertainty of frequent deployments, and the challenges of reintegration with our families, there has never been a time more critical for re-familiarizing ourselves with the tenets of suicide prevention. Even one suicide is one too many, it is our duty and sacred obligation to look after one another at home and abroad. Our chosen occupation has inherent stressors that are not commonplace in the civilian sector and we must be increasingly vigilant in identifying those Sailors manifesting a desire to do self-harm and seeking treatment before the desire is acted out. Please take care of yourselves and each other.

-- Force Master Chief
Laura Martinez

Even one suicide is one too many, it is our duty and sacred obligation to look after one another at home and abroad.



CARIBBEAN SEA Navy Medical Corps personnel are conducting humanitarian and disaster relief assistance as part of Operation Unified Response after a 7.0 magnitude earthquake struck Haiti on Jan. 12, 2010.

AMERICA'S
NAVY

A GLOBAL FORCE FOR GOOD™

By Cmdr. Ted St. John
Executive Officer, Naval Medical Research Unit, San Antonio

Radiation Health key in Japan disaster relief



Courtesy Photo

A Radiation Health Officer decontaminates an air-filter housing. Although the levels of radiation did not pose any immediate danger by direct exposure, precautions were taken to prevent inhalation or ingestion of radioactive particles.

Fortunately, there are very few opportunities for radiation health professionals to take leading roles in disaster response. Radiation is one of those things that relatively few people know much about, so when operational commanders' humanitarian assistance efforts are confounded by radioactive fallout, they need the kind of expertise that the Navy Medical Service Corps can provide.

Radiation Health Officers (RHOs) and Radiation Health Technologists (RHTs) are trained to understand and explain the risks and benefits of radiation; they do it routinely in hospitals and wherever radioactive sources are used for industrial applications.

Risk communication is just a small part of what nearly half of the Navy's RHO Community and several RHTs

have been doing since the Japanese reactors in Fukushima Prefecture made world headlines. The plant suffered major damage from the 9.0 earthquake and subsequent tsunami that hit Japan on March 11, 2011. Within a few days, the Navy Surgeon General was being briefed by Cmdr. Chad Mitchell, the RHO Specialty Leader, about how he intended to engage Navy RHOs to support the Sailors and Marines who were stationed in Japan and those aboard ships steaming within range of the expected radioactive plume. The operation was dubbed "Operation Tomodachi." Tomodachi, which means "friends" in Japanese, is the U.S. military mission to support the government of Japan and the Japan Self Defense Forces' humanitarian relief efforts.

Mitchell presented a plan that included the deployment of 10 RHOs to

Japan to provide on-sight monitoring of radioactive fallout, counseling to those affected and advice to Navy and Marine fleet and force commanders as well as Marine commanding generals and combatant commanders in the Pacific Area of Responsibility.

RHOs normally fill a variety of diverse operational and support billets within the Navy and Marine Corps. These billets require expert knowledge of all aspects of radiation and radioactive materials, such as personnel dosimetry throughout the Navy; RH programs in all Naval hospitals, on carriers, submarine tenders and shipyards; management of the Navy's master radiological materials program; radiological education, training and research; radiation safety; health care including nuclear medicine, radiology and radiation oncology; public health; medical intelligence; policy

and oversight.

Most of the RHOs who were tasked to respond did so within 48 hours of being contacted. The RHOs were welcomed with open arms by commanding officers (COs), many of whom had never dealt with any kind of radioactivity. The most important and immediate impact that these RHOs had was the assurance they provided that personnel and equipment were not in any immediate danger. Without that assurance, COs might have been uncertain about their ability to meet their mission requirements and their crews would have been subjected to high levels of stress that comes from fear of the unknown. Before that day, the only thing that many of them knew about radiation was either what they might have been told in a hospital (if they had previously had a medical procedure involving radiation) or what they had seen in the movies (where it is usually portrayed as the thing that causes fantastic mutations and impossible transformations).

Knowing that you may be in the path of a radioactive plume can be very frightening even if the experts back in the U.S. say that you are safe. But if a subject matter expert joins you on board your ship or station with radiation monitoring equipment and explains the risks face to face, as the RHOs did, you can rest assured that it is safe to continue doing your job without worrying about an invisible threat.

Radiation Health technicians (RHTs), the enlisted counterparts to RHOs, also joined the effort to assist with monitoring, decontamination, dosimetry issue, etc. After monitoring the ships and stations for contamination, RHOs and RHTs trained and led ship's crews in decontamination procedures.

Navy RHO Cmdr. Ted St. John was assigned to the commanding general Marine Forces Pacific and the Pacific Command (PACOM) Joint Radiation Health Working Group at Camp Smith, Hawaii. They worked with Army and Air Force Radiation Health experts and established the hub of communications for a world-wide network of radiation health experts, including Navy RHOs in the U. S., representatives from Naval Reactors, Army and Air Force Public



Courtesy Photo

Radiation Health Officers provided training to ships' personnel and conducted surveys to determine the extent of surface contamination topside as well as throughout the ship. In this photo, a contamination probe is being used to count a "swipe". Any positive results would require decontamination procedures.

Health Centers and all of the RHOs in theater. They collected, shared and analyzed data, advised the PACOM Surgeon and recommended guidance and policies for U. S. forces in Japan.

Lt. Cmdr. Thad Sharp arrived in Japan with two RHTs and began working with Lt. Donald Ordinario, the RHO already stationed at Naval Hospital Yokosuka. Together they finalized plans for issuing dosimetry when it arrived and conducted area radiation monitoring. They also worked in concert with the Air Force Radiation Assessment Team (AFRAT), which was designed specifically for this kind of event. The AFRAT responded as designed, and provided Electronic Personal Dosimeters (EPDs) to Marines who were required to operate in the "warm zone" or the "hot zone" until the Navy's dosimetry arrived. The cooperative efforts of multiple services were key factors to the success of this mission.

The Naval Dosimetry Center in Bethesda, Md. was not designed for this type of event, but Cmdr. Lisa Kennemur, officer-in-charge, directed her staff to meet unprecedented requirements – to anneal (or re-zero), package and ship 13,000 Thermo-luminescence Dosimeters (TLDs) to Japan in a matter of weeks while keeping up with their

normal full-time customer load.

The immediate response phase lasted nearly six weeks. By then, it was clear that there was no significant health risk due to radiation and several RHOs returned to their regular jobs. However, in order to determine the long-term risk and to provide documented evidence that those Sailors and Marines did not ingest any significant quantities of radiation, several RHOs were assigned the monumental task of conducting internal monitoring and dose reconstruction of all personnel that were in the area at the time of the accident and those who provided humanitarian assistance. Three whole-body counters and 30 portable scintillation counters were sent to Japan while CONOPS and a dosimetry algorithm at PACOM were written. Lt. Cmdr. Reed Selwyn provided technical assistance on the dose algorithm from USU in Bethesda.

As of the writing of this article, months following the initial accident, RHOs were still in theater conducting extensive monitoring and follow-on actions. Thanks to the combined efforts of all Radiation Health Professionals who supported Operation Tomodachi, there were no incidents or mission degradations attributable to radiation or even the fear of radiation exposure. ☺



A role player mourns over an injured local national after a vehicle-borne improvised explosive device left his spouse disabled during a training scenario at the Infantry Immersion Trainer at Camp Pendleton, Calif. The role players act as the human element, which may be one of the most valuable pieces of intelligence that can be encountered overseas.



A vehicle-borne improvised explosive device detonates after Marines and Sailors from Combat Logistics Battalion 7, Combat Logistics Regiment 1, 1st Marine Logistics Group enter a simulated town of Afghanistan during an Infantry Immersion Trainer scenario at Camp Pendleton, Calif.

Mindfulness Training

Story by Naval Health Research Center Public Affairs

Photos courtesy of U.S. Marine Corps



Marines and sailors from Combat Logistics Battalion 7, Combat Logistics Regiment 1, 1st Marine Logistics Group perform a security patrol during an Infantry Immersion Trainer scenario at Camp Pendleton, Calif.

The Naval Health Research Center's (NHRC) Warfighter Performance Department is engaged in a first-of-its-kind resilience research effort with the 1st Marine Expeditionary Force (I MEF) at Camp Pendleton, Calif.

Sponsored by the Office of Naval Research (ONR) and the Navy Bureau of Medicine and Surgery (BUMED), the study, "Mindfulness Training for Warfighter Performance," is designed to evaluate the potential stress inoculation effects of the Infantry Immersion

Trainer (IIT), identify neural mechanisms that underlie elite warfighter cognitive functioning, describe the efficacy of mindfulness-based mental skills training to enhance warfighter performance and identify risk and resilience factors in warfighters exposed to combat stress.

In order to achieve this, NHRC is comparing the stress-resilience effects of an eight-week (20-hour) mindfulness-based mental fitness (MMFT) training course against a non-training control group to determine whether specific neural mechanisms that confer an adaptive advantage during stress exposure are modifiable through mindfulness training. This collaborative research effort between ONR,

BUMED, USMC, I MEF, NHRC, UCLA and UC San Diego is intended to develop, through novel approaches to neuroscience measurements, a better understanding of the processes of resilience, the underlying mechanisms of resilience, and whether risk factors can be mitigated through resilience training such as mindfulness training that is designed to optimize operational performance.

"The U.S. Marine Corps remains committed to building mental toughness and resistance to injury in all Marines prior to the onset of psychological stress," said Rear Adm. Michael H. Anderson, U.S. Navy Medical Officer of the Marine Corps. "We are committed to developing programs and



Marines with Security Platoon, 7th Engineer Support Battalion, Combat Logistics Regiment 1, 1st Marine Logistics Group drag a Marine who simulated being injured by a IED during the Infantry Immersion Trainer.

“...to develop stress resistant, psychologically resilient, mentally adaptive Marines -- 21st century tough Marines.”

- Rear Adm. Michael H. Anderson
U.S. Navy Medical Officer of the Marine Corps



A Marine with Security Platoon, 7th Engineer Support Battalion, Combat Logistics Regiment 1, 1st Marine Logistics Group signals to the lead vehicle of a potential danger area during the Infantry Immersion Training.

initiatives that make our Marines more resistant to the stress of combat, more resilient when psychological trauma occurs, and better able to recover rapidly from injury. Training the mind, similar to training the body, strengthens individual Marines, making them more resistant to stress, more resilient after trauma, and better able to adapt to rapidly changing demands on and off the battlefield. We need proof-of-concept demonstrations and studies to help us decide the way forward in

using advances in the neurosciences to develop stress resistant, psychologically resilient, mentally adaptive Marines -- 21st century tough Marines.”

The objective of resilience-focused training of any type is to provide the best skills and tools available to Marines and their leaders so that they can better cope with the challenges of combat and the rigor of life as a Marine, both deployed and in garrison.

Understanding the neural mechanisms that make a Marine more resil-

ient will allow NHRC to determine if those mechanisms can be modified through mindfulness training. Evaluations in the study include assessing training performance, gathering data on saliva, blood, neuropsychological assessment, heart-rate, behavioral performance data, and underlying neural mechanisms of changes as a result of mindfulness training.

The study utilizes cutting-edge approaches to measurement, balanced by the imperative to provide warfighters with tools they can use to mitigate stress and optimize operational performance. The intent of the study is to provide a potentially beneficial mental skills training tool for warfighters, as well as to capitalize on the IIT as an opportunity to practice newly acquired stress mitigation and

performance optimization skills such as mindfulness training in a simulated operational setting.

“Our goal is to understand the ‘how’ and ‘why’ of this type of training through a disciplined and scientific approach, informing the Marine Corps/Navy team on the value of the training, and ultimately improving the training,” said George Solhan, Deputy Chief of Naval Research, Expeditionary Maneuver Warfare and Combating Terrorism, Science and Technology, Department Office of Naval Research. “This supports the commandant’s goals of effective and resilient Marines, unit cohesion, and keeping faith with Marines and their families.”

Much of the recent interest in stress-resilience comes from seminal studies by the National Center for Post

Traumatic Stress Disorder (PTSD). After decades of researching combat stress, trauma, and PTSD, a group of investigators decided to examine factors that predicted an individual doing well after trauma rather than developing stress-related pathology. Given this background, it can be helpful to think of stress-resilience and PTSD as opposite ends of a continuum of stress adaptation. Therefore, stress-resilience and PTSD are distinct but related constructs, and findings from one domain of research often inform the other.

“NHRC’s program of stress-resilience research and training is unique in that it is based on a translational neuroscience approach,” said Dr. Douglas C. “Chris” Johnson, lead scientist for Warfighter Performance,

NHRC. “By ‘translational neuroscience’ we mean that the program uses neuroscience technologies (e.g., fMRI and bio-markers) to identify the underlying mechanisms that distinguish someone who adapts well to stress from someone who is more vulnerable to stress-related injury.”

It is known that mindfulness training approaches work under the conditions that have been tested so far. The “why” and “how” questions are critical to improve and institutionalize the resilience training. The anticipated outcome of the training project is to provide the Marine Corps with scientific information and facts that will inform decisions about whether to continue with this type of mindfulness training approach to fostering resiliency in the USMC warfighter. 🌐

“This supports the commandant’s goals of effective and resilient Marines, unit cohesion, and keeping faith with Marines and their families.”

- George Solhan, deputy chief of Naval Research, Expeditionary Maneuver Warfare and Combating Terrorism, Science and Technology, Department Office of Naval Research

closing the School Doors

Hospital Corps' premier training facility closes its doors

From Navy Medicine Support Command Public Affairs

The Hospital Corps' premier training facility closed its doors July 28, following a disestablishment ceremony aboard Naval Station Great Lakes, Ill. The facility, which has provided initial training to the U.S. Navy's enlisted medical professionals for nearly a century, is relocating to Fort Sam Houston, Texas.

Rear Adm. Eleanor Valentin, commander, Navy Medicine Support Command and director, Medical Service Corps, presided over the ceremony and addressed Sailors, civilians and attendees of the important role the facility has played in training an estimated 4,200 corpsmen annually.

"Your students have gone far, saving countless lives in harm's way on the battlefield, on board ships at sea, and at clinics and hospitals across the globe," she said. "They have gone on to help shape Navy Medicine as we know it today, and they have made significant contributions to the establishment of the METC (Medical Education Training Campus), ensuring Navy requirements are met in the joint environment. We know that the corpsmen you have trained are well

prepared with the right capabilities to support our war fighters and their families. To each of you, well done for carrying-on the traditions of excellence and commitment passed down to you from your predecessors."

More than 200 Sailors, faculty and invited guests attended the event which included remarks from Valentin and Force Master Chief Laura Martinez, director of the Hospital Corps. NHCS staff also rolled the school's colors - a tradition which companies or platoon-sized elements carry to signify their unit designation and corps affiliation for the final time, something Valentin said marks both a beginning and an end.

"Today marks the end of an era, so we pause to recognize the rich legacy of your past, reflect on your accomplishments, and highlight your future legacy at METC in Fort Sam Houston, Texas," she said. "Each of you have and will leave a legacy in the form of the hospital corpsmen you have trained.

Your legacy is and will be training those who ensure the medical readiness of the greatest naval force in the world."

Naval Hospital Corps School Great Lakes Commanding Officer Capt. Theresa S. Gee echoed Valentin's sentiments, saying that serving as the commanding officer of the U.S. Navy's



Photo by Electronics Technician 3rd Class Trisha Teran
Master Chief Hospital Corpsman Yvette Pryor and Hospital Corpsman 1st Class Melyncholi Rose Saxton, furl the Naval Hospital Corps School (NHCS) Great Lakes colors during a disestablishment ceremony July 28.

largest "A" School remains a definitive marker in her career.

"I have such respect for the corps; what they do, how they manage to do it and why they do what they do," she said. "This all began when I, as a young (lieutenant,) taught corps school in San Diego, and I feel my career has come full circle coming back to the school that made such an impact on me."

The decision to disestablish the school and relocate all military enlisted medical training to Texas came in 2005 from the Base Realignment & Closure Commission, something Valentin said will echo the shifting face of U.S. involvement in contingency operations around the world.

"Our history illustrates that we moved, transformed, and changed over time in response to and anticipation of how we fight wars," she said. "Our move to METC is another such move and transformation. When our Sailors and Marines in the fight are hurt, we apply all of our training resources to provide rapid care, and almost everything we do is in partnership with our sister services. This is how we fight today's wars, and that is why we are committed to one integrated inter-service education and training system that leverages the assets of all defense health-care practitioners."

Gee said the advent of the new training facility at Fort Sam Houston, Texas, will provide a unique learning environment while instilling a sense of pride and professionalism to what has become one of the most heralded ratings in the United States Navy.

"This does not mean that our corpsmen will not be corpsmen any longer," she said. "Each service is unique, and each must retain those things that make sense in their unique environments. It is important we retain what makes our corpsmen Sailors - our customs and traditions. I believe we can work side by side as corpsmen, medics and technicians doing the same functions for our patients in a standardized way to meet quality guidelines yet still retain all the uniqueness that make us Sailors, Airmen and Soldiers."

The Naval Hospital Corps School initially opened in January 1917, one month before the onset of World War I, and bears the distinction of being one of the first two schools established at Naval Training Center Great Lakes. The school was closed in 1921 after World War I, but subsequently reopened two decades later to facilitate corpsman training for U.S. involvement in World War II, remaining active since.

In 1997, the Navy's remaining hospital corpsman 'A' schools were consolidated and NHCS Great Lakes became the Navy's sole training facility for basic enlisted hospital corpsman training.

Navy Medicine Support Command, headquartered aboard Naval Air Station Jacksonville, Fla., provides a single point of accountability for all support services within Navy Medicine, and exercises command and control, and financial management oversight over subordinate commands and ensures the economical and effective delivery of Navy Medicine enterprise-wide support services. 🌐

By Paul Dillard
U.S. Navy Bureau of Medicine and Surgery Public Affairs

A Guiding Hand

PHOP Offers Assistance to Returning Reservists

An intoxicated Marine sits in his dark bedroom -- hand trembling as it wraps tight around a pistol. The weapon is facing inward at the man's heart -- an empty spot since returning from Iraq a year earlier. He pulls the trigger hoping for release from his inner-turmoil. Shaking badly, he misfires and the bullet plunges into his shoulder.

The Marine survives his wounds -- both physical and mental -- through support from friends, family and the Navy and Marine Corps Reserve Psychological Health Outreach Program.

This Marine is one of many Reserve service members who must face immense culture changes and the challenges of reintegrating into civilian life

after returning home from deployment.

In fact, many Reservists live in remote geographical areas that render finding support or counseling services for themselves or their loved ones difficult. Due to this, it's easy to understand why some Reservists may feel as though they are part of an overlooked population.

"The initial relief of being home and being with loved ones can give way in a few weeks or months to feelings of isolation, which can exacerbate any psychological health issues stemming from the stress of being mobilized," said Paul A. Finch, director of psychological health Reserve programs for the Navy Bureau of Medicine and Surgery (BUMED).

According to Finch, Reservists also face access to care challenges, since their eligibility and access to military or Veteran Affairs health care is dependent on a number of factors.

This is where the BUMED Navy and Marine Corps Reserve Psychological Health Outreach Program (PHOP) comes in.

"The PHOP teams work every day to ensure Reserve Sailors and Marines get the same quality of care with regards to their mental health as an active duty service member because their sacrifices are just as great," said Shelly S. McDowell, the PHOP project manager.

PHOP was initially developed in 2008 to fill a gap in services identified



Photo by Mass Communications Specialist 3rd Class Charles Oki

The Navy and Marine Corps Reserve Psychological Health Outreach Program assist Reserve service members who face culture changes and the challenges of reintegrating into civilian life after returning home from deployment.

for the Reserves by BUMED leadership. It was piloted first in the Naval Reserves (NR) and then expanded to include the Marine Forces Reserve (MFR) in fiscal year 2010. The program is designed to ensure that Reservists have full access to appropriate psychological health care services, to facilitate recovery from any stress injuries, and to increase resiliency among deploying Reservists.

"PHOP is primarily marketed as a safety net for psychological health," said McDowell. "But to really understand what we do, you have to think outside the traditional psychological support box. If there is anything that can impact a Reservist or their family, either positively or negatively, or anything that can support or detract from their readiness, PHOP can assist them."

This means that outreach team members help Reserve Sailors and Marines, as well as their families with problems in ways that go beyond the usual perception of mental health treatment, often tackling concrete issues that need to be alleviated before the traditional psychological or mental health treatment efforts can even begin. Embedded with NR or MFR units regionally, all of the five to six members in each PHOP team are licensed mental health providers. They are also experts in finding and connecting with military and local resources that effectively support Reservists.

"I recall a time when a service member came back from deployment and discovered that his employer was no longer in business," said Linda Green-Baskett, a member of the PHOP team in the Northwest Navy Reserve Component Command (RCC) in Everett, Wash. "We explored what type of work he enjoys, what skills he felt were his strongest and what he could imagine doing for his life's work moving forward. We were able to connect him to specific resources for employment and education and he made the decision to return to college in order to complete his education."

According to Green-Baskett, this is but one example of PHOP helping to



Photo by Paul Dillard

Paul A. Finch is the director of psychological health Reserve programs for the Navy Bureau of Medicine and Surgery.

determine the needs of a client and then putting them in touch with a broad range of resources to meet those needs. They can and have helped service members locate resources closer to home to reduce travel time. They can help service members look for jobs, continue their education or deal with marital problems.

The help and resources PHOP teams offer are not restricted to service members; they frequently deal with family members as well. They can offer services such as finding resources for new parent support, emergency food, employment, engaging family members in coping with deployment and much more.

"Our program is a resource for everything that can have a stressful impact on a service member's life including help finding employment, health care, transportation, education, even home repairs," said Green-Baskett. "We want every service member to know that the PHOP program provides support and referrals for everything that impacts a service member or family member's well being and is not limited to dealing with just the mental health issues that accompany life's changes."

At full capacity the PHOP program has 55 staff members and consists of 11 teams assigned throughout the United States. Teams are embedded at

each of the five Navy RCCs and at six geographically-centered MFR home training centers.

According to Finch, during fiscal year 2010 the PHOP teams conducted mental health screenings for more than 1,500 reservists, made outreach calls to over 5,000 demobilized reservists, followed up on more than 3,601 referrals from Reserve commands, family members and others, and conducted approximately 400 site visits to Reserve units throughout the country, providing psychological health training to more than 38,000 Reservists and staff members. They also made approximately 40,000 other contacts—successful follow-ups with current clients and collateral contacts with commands, all while serving as facilitators for all of the Yellow Ribbon Returning Warrior Workshops.

"Many times folks can be misled by the name Psychological Health Outreach Program and believe that all we might offer is referrals for counseling," said Green-Baskett. "Yes, we can certainly provide referrals and client management for mental health and counseling needs, but we also do so much more."

For further information on the PHOP program or for contact information visit <http://www.navyreserve.navy.mil/pages/phop.aspx>

Alternative Therapy

Navy Medicine uses unconventional methods to treat service members

Art

By Anna Hancock
Naval Hospital Camp Lejeune Public Affairs

A heavy metal song was blaring throughout the art studio. A Marine initiated small talk about past combat experiences filled with roadside bombs and six-hour long firefights. Several others chimed in sharing their stories; comparing notes. Paintings of bloodied Kevlar helmets, rocket-propelled grenade launchers, HUMVEEs and patriotic tones were scattered in the room. Marines and Sailors, who can be expected to discuss weapons and warfare, wrapped up their conversation by deciding on illustrating their experience with either a pencil or a paint brush.

This was not your conventional art class.

It was a weekly studio art therapy group session at Naval Hospital Camp Lejeune's (NHCL) Central Intake and Referral Center (CIRC).

The art therapy program continues to be one of the most effective Post-Traumatic Stress Disorder (PTSD) treatment programs offered by CIRC. Patients with Traumatic Brain Injury (TBI) also benefit greatly from art therapy.

The goals of art therapy are many. According to the American Art Therapy Association, by integrating the fields of human development, visual art, and the creative process through models of counseling and psychotherapy, art therapy helps patients who have been diagnosed with PTSD or TBI resolve

conflicts, develop interpersonal skills, manage behavior, reduce stress, increase self-esteem and achieve insight. It also assists in rehabilitation by developing hand-eye coordination and increasing focus and concentration.

Knowing your chances and getting help

Research conducted by the DoD

Center for Deployment Health Research shows that service members who deploy have an increased risk for PTSD symptoms and or exposure to instances causing TBI. Marine Corps Manpower and Reserve Affairs reports that between 2001 – 2010, about 276,500 Marines have deployed in support of Operation Enduring Freedom or Operation Iraqi Freedom. And in 2011, Marine Corps Base Camp Lejeune deployed approximately 23,000 Marines and Sailors.

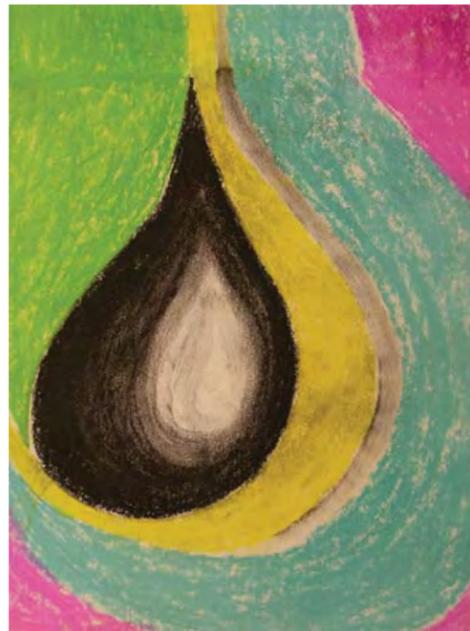
One can expect the high number of deployed Marines and Sailors to cor-

relate with NHCL's volume of patients being treated with PTSD or TBI, but those who do not feel comfortable admitting they need help, have trouble communicating their feelings, or have difficulties recognizing something in them has changed, may still not be receiving the treatment they need.

"There is a stigma that exists with

admitting you are dealing with stress from exposure to a traumatic event. Service members often feel exposed, weak or even defeated. Some feel like they were not successful at accomplishing their mission," explained Gayla Elliott, Master's-level art therapist and founder of NHCL's art therapy program. "Hopefully art therapy can reach the patients reluctant to undergo other, more traditional, forms of therapy."

Marine Corps leadership and Navy medicine providers across the board are urging Marines and Sailors to realize they are not defeated. They are not weak. They should not be ashamed. It is okay to ask for help.



The black tear in this chalk drawing represents when the patient feels depressed. The patient explains that the colors that surround it show the good feelings that the patient wants to have.



In this chalk drawing the mountains represent a patient's PTSD. The reflection in the water represents the illusions and self-deception used to avoid the pain of traumatic memories. The metaphor allow the patient to see his goals of confronting the immensity of the challenge, climb the mountain and reach the hope and power symbolized by the sun.

And the providers at NHCL agree that striving to approach military medicine on a comprehensive, more holistic approach is the best way to do so. Holistic medicine provides options for service members to get treatment when they need it, using a method that works best for them, while feeling comfortable doing so.

"War deployments expose service members to unique, life-altering, traumatic events that one can never be fully prepared to handle. That's just the nature of the beast," stated Elliott. "But it's the process of reintegrating into life outside of the combat environment and learning how to cope with the trauma that is crucial to moving forward in a positive direction."

No skills required

For many patients in the art therapy program, they noted how difficult it was to embrace traditional one-on-one sessions with a mental health therapist.

NHCL's art therapy program treats an average of 40 patients per week who are referred for care from their Primary Care Manager, and have been identified as patients that may respond well to this non-traditional form of therapy. The group and individual sessions augment traditional therapy and give voice to thoughts and feelings that the service member may have difficulty expressing. Elliott lauded the patients for being ded-

icated and focused in their art therapy sessions and driven to progress.

Art therapy groups are also offered on the inpatient psychiatric ward at NHCL. Each session typically begins with a discussion lead by Elliott. The patient briefly talks about their experiences or about something that is weighing heavily on their minds. Then Elliott or the group chooses a theme to depict through art, and each patient decides on the medium for their artistic creation. Elliott has pencils, paints, chalk, pastels, clay and collage materials available for the patients.

"The great thing is that you don't need to be good at art," explains Elliott. "Unconscious material is shown through art, even if the drawing is not mechanically perfect."

Elliott continued to say that the drawings, paintings and sculptures are powerful because the content has deep meaning for the patient. Once the art is put on paper, the patient can see both the art and the problems face to face. Then Elliott assists the patient in understanding the images and discussing the best method to overcome or deal with what is depicted.

"A new problem or a new feeling or a new way to heal unfolds every time a patient explains the picture, whether it is a scribble or a highly developed painting," said Elliott.

Moving forward

One benefit that is not typically researched as an attribute of art therapy is how it influences individuals beyond the treatment of PTSD or TBI.

After gaining insight from each artistic piece created in the CIRC studio art therapy group and learning from other wounded service members overcoming similar challenges, several patients decided to give back to who they call their "wounded warrior family."

"I donated one of my favorite art pieces to be sold at an auction held to raise money for the family of an explosive ordinance device technician I once served with. He was wounded overseas," noted Marine Corps Staff Sgt. Jason Jensen, art therapy patient who was wounded during a deployment to Iraq in 2006. "As a wounded warrior, I feel honored to give a piece of my artwork to help another wounded warrior family."

Many of the members in the group session also donated pieces to be auctioned off to assist the family in need.

All agreed that Jensen's work and artistic ability supersedes their own. All agreed his work will bring in the most donations for the family.

A positive, clear and supportive way of thinking that demonstrates how art therapy assisted with the rehabilitation for patients overcoming the life-changing experiences of combat. ☺

Alternative Therapy

Canine

By Tami Begasse
Naval Hospital Jacksonville Public Affairs

Over the past 60 years animals have been used to benefit patients of all ages and ailments in coping with the medical and psychological challenges that face them. Research suggests that visits with animals may improve patient outcomes, decrease length of hospital stay, help with confusion, depression and manage pain symptoms. And today, dogs and other pets can be found in hospitals, convalescent homes and residential care facilities around the world—including at Naval Hospital Jacksonville.

Understanding the value four footed therapists bring to the healing process, Naval Hospital Jacksonville established its Canine Corps—a pet visitation therapy program—in 2008. The volunteer-based program currently boasts eight

certified dogs with seven human handlers who see up to 100 hospital patients, visitors and staff each time they visit.

“Our Canine Corps provides patients and staff alike with a feeling of companionship and unconditional love which can create a sense of calm, emotional comfort and safety,” explains Naval Hospital Jacksonville Associate Director for Nursing Services, Cmdr. Deborah Roy, who also heads up the program. “Visiting animals can help people feel less lonely and less depressed. Patients and their families often talk to the dogs, sharing personal thoughts, feelings and memories.”

Along with boosting patients’ spirits, encouraging interaction and reducing stress, pet visitation therapy has been shown to reduce blood pressure, increase sensory stimulation and decrease pain perception during and after visits. These benefits can accelerate recovery times and ease the burden of being in a hospital. Animals also provide a socially acceptable way to satisfy the human need to touch and be touched.

Roy’s two cavalier spaniels, Molly and Teddy, are active in the program. Illustrating the positive affect dogs have on patients, Roy recalled a visit to the hospital’s immunization clinic where she saw a number of young children waiting for shots. After noticing an especially anxious 5-year-old girl, Roy had her dog Molly stay with the girl the entire time, providing her with comfort while serving as a much-needed distraction.

While assigned to another military hospital where she participated in a similar program, Roy brought her dog Molly to visit a woman who had suffered a stroke. “After placing the woman’s unaffected hand on Molly, the woman began to move her hand to pat her coat. It was the most interaction the woman had shown to that point in her recovery,” said Roy.

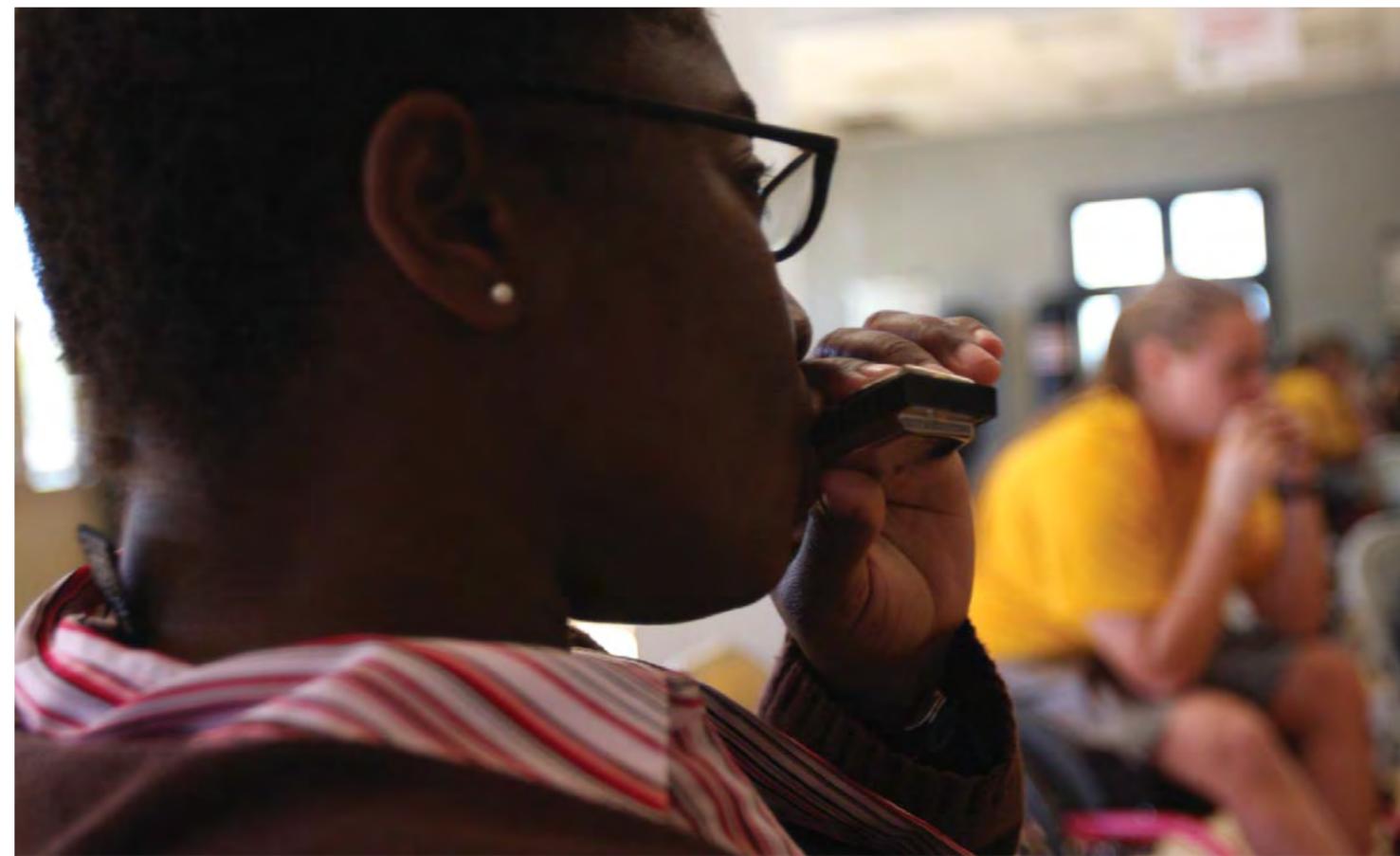
“This program helps support a healing environment by bringing aspects of home into the hospital to reduce anxiety—whether in our patients or our staff,” said Roy. “Our patients and staff understand that our Canine Corps volunteers and their dogs aren’t asking for anything. They are simply offering companionship. When our dogs come in, people cheer up—even if just for the moment—while they get their dose of puppy love.”

The dogs in NH Jax Canine Corps have been screened for health, temperament, and obedience with all dogs having obtained their Canine Good Citizen certification through the American Kennel Club and must be at least 12 months old. Human handlers are not certified therapists, and do not provide therapy to patients. Volunteers commit to no less than one hour per month to the program. For more information call 904-542-7583. 🐾

Naval Hospital Jacksonville (NH Jax) Nurse, Ensign Chelsea Godfrey (left), takes a moment to say hello to Teddy, a pet therapy puppy and his handler, NH Jax Associate Director for Nursing Services Cmdr. Debroah Roy (right). The hospital’s Canine Corps pet visitation therapy supports a healing environment by bringing aspects of home into the hospital to reduce anxiety for patients and staff alike.



Photo by HM1 Scott Morgan



Petty Officer 2nd Class Tyreen S. McRae and Petty Officer 3rd Class Tina A. Leet, participants in neurologic music therapy, perfect their harmonica skills at Naval Medical Center San Diego Feb. 28. Wounded Warriors use music therapy to improve motor function, memory retention and stress management.

Music

Story and photo by Lance Cpl. Lisa M. Tourtelot
Marine Corps Air Station Miramar, Calif.

“One day I was really mad and Tina was depressed,” said Petty Officer 3rd Class Elisa M. Wyatt, a participant in the neurologic music therapy group at Naval Medical Center San Diego. “We started writing the ‘Medical Hold’ song and then we couldn’t stop laughing. Everyone in the group got into it. They started coming up with dances, like the crutch dance. It just spread. People related to it.”

Wyatt and Petty Officer 3rd Class Tina A. Leet, are Wounded Warriors. The group is the neurologic music therapy group at NMCS where they play music to aid the healing process.

Neurologic music therapy uses music - learning to play various instruments, sing, read sheet music and write songs - to help patients achieve non-musical goals in their recovery, such as improved motor skills, speech articulation, memory improvement and stress reduction.

“[Music therapy] has been one of the most helpful things they have here,” said Wyatt. “We get to contribute [in song writing] and be part of a team, which is why we joined the military.”

The Wounded Warriors share common experiences as service members to communicate as a group. “[Group members] have a look of relief when they say something and someone else says they know what the other person is talking about,” said Rebecca Vaudreuil, a board-certified neurologic music therapist with Resounding Joy, Inc. “They feel more comfortable opening up in the future. It’s a support system.”

Vaudreuil began the first eight-week session in October 2010 and subsequent groups have recorded CDs and performed their songs at private ceremonies, including military graduations and celebrations at local music museums.

Wounded Warriors participating in the group decide whether they want to write music, record CD’s or perform live, explained Vaudreuil.

The needs of the group dictate the direction each eight-week session takes, but the overall goals of pain and stress

management, memory retention and improved motor function remain the same.

Patients work on relevant stress and pain control tools when they are learning to play the various instruments. For example, patients focus on deep breathing techniques while learning to play the harmonica.

Deep breathing, Vaudreuil explained, can help patients avoid angry outbursts when in a stressful situation.

Leet explained that she now turns to her favorite positive music when the anxiety begins to take hold, and has even found that her pain lessens when her stress is under control.

Vaudreuil explained that while playing instruments is vital to the therapy, song writing remains one of the most important aspects of music therapy because of its cathartic effect on patients.

“Every time I listen to our songs it brings tears to my eyes,” said Wyatt. “It brings that sense of camaraderie back.”

Those interested in purchasing a CD, donating or volunteering can contact Vaudreuil at rvaudreuil@resoundingjoy-inc.org. 🐾

Alternative Therapy

Equine

By Tami Begasse
Naval Hospital Jacksonville Public Affairs

Naval Hospital Jacksonville is piloting an evocative new treatment modality to improve the emotional, psychological, and social wellbeing of its post-deployed service members. Called Equine-Assisted Therapy, this emerging therapy approach uses horses to help participants experience themselves differently and discover new ways of dealing with difficult situations.

Naval Hospital Jacksonville Deployment Health Center Clinical Psychologist Tracy Hejmanowski is collaborating with Licensed Mental Health Counselor StarrLee Heady of PX Equine Enterprises to offer this pilot program to six service members. The 12 sessions have been taking place at a 30-acre facility in Green Cove Springs, Fla.

"This form of animal-assisted therapy continues to gain support among mental health professionals as an effective therapeutic approach, addressing a number of mental health concerns, including depression and anxiety, self esteem, post traumatic stress and relational problems," said Hejmanowski. "Our long-term goal is to combine equine-assisted therapy with other traditional and non-traditional therapies as the basis for an immersive day treatment program we will make available to service members diagnosed with PTSD and post-concussive syndrome."

Animal-assisted therapies recognize that the bond between animals and humans can encourage emotional healing. Developing a relationship with a horse has been shown to help people overcome fears, to problem solve and develop coping techniques, while building trust, respect, confidence and compassion.

Rather than riding the horse, equine-based activities are performed on the ground, and include such things as grooming, haltering, leading and overall relating to the horse. During the process of working with the horses, Hejmanowski and Heady and her staff – all certified or trained in the Equine Assisted Growth and Learning Association (EAGALA) model of Equine Assisted Psychotherapy – verbally engage with service members to process feelings, behaviors and patterns. The ultimate goal is to build skills such as assertiveness, patience, effective non-verbal communication, confidence in novel or tense situations and better self-control.

Heady explains why the use of horses as an adjunct to psychotherapy is so effective. "Horses combine fearfulness and power. They aren't judgmental, and don't care what you look like. They mirror human moods, and respond negatively to negative emotions. This helps participants understand that their own behavior can affect others, making it necessary to modify their behavior in order to work successfully with the animal. And only through mutual trust and respect can a human and horse bond," she said. Something as simple as the size differential between horses and people actually creates an opportunity to overcome fear."

Horses can be stubborn or defiant, playful or moody, while exhibiting herd dynamics such as

pushing, kicking, biting, squealing, grooming one another and grazing together. These encounters can help people learn about themselves and their own family and friends. As "prey animals" horses' hypervigilance makes them amazingly sensitive. They pick up on body language, instinctively flee from fear, and some can actually pick up on certain feelings.

Naval Hospital Jacksonville's new intensive day treatment program to help service members with PTSD and post-concussive symptoms is expected to be launched early 2012. Along with the successful equine-assisted therapy, it will bring together other treatment approaches involving creative arts, physical and recreational activities, desensitizing activities, cognitive retraining and group processing - both in traditional and unique settings, such as the National Cemetery and Memorial Wall.

Hejmanowski adds, "We know that healing the deeply felt wounds of war to help service members find greater peace of mind happens most meaningfully in an experiential treatment program where participants can heal alongside their comrades."

For more information contact NH Jax's Deployment Health Center at 904-542-3500, ext. 8115 or 8724 or PX Equine at 904-529-7999.



A servicemember walks his horse around the facility as part of an equine-assisted therapy program. Naval Hospital Jacksonville is piloting a new treatment program to improve the emotional, psychological, and social well being of its post-deployed servicemembers.

Photo by Mass Communication Specialist 2nd Class Jacob Sippel

Acupuncture

By Tammy Eskew
Naval Hospital Lemoore Public Affairs

The use of various forms of complementary healthcare is being integrated into the military to help ensure mission readiness. One such valuable service now available to active duty military members is acupuncture.

Naval Hospital Lemoore Hornet Health Clinic is one of the locations offering the unique treatment to service members.

Lt. Cmdr . Chris Hardy, the staff Occupational and Environmental Medicine physician, was one of the first active-duty Navy doctors to be trained in acupuncture.

"It was a great opportunity and incredible learning experience to receive this training. I now have an additional tool to help my patients; many whom have tried other traditional modalities without success."

Acupuncture has been practiced for 5,000 years, originating in China. Tra-

ditional acupuncture has been practiced as a complete system of medicine, with introduction to the United States in the 1970's.

"The last 10 to 15 years have seen tremendous progress in the understanding of how acupuncture actually works, especially for pain relief," said Hardy.

Acupuncture is currently being utilized by Navy physicians in combat environments with promising results.

"The greatest benefit has been seen in pain management, as acupuncture patients are often able to use less narcotic pain medication for pain resulting from their injuries," said Hardy. "Acupuncture and electroacupuncture (adding a small electrical current to the needles) stimulate the release of our body's own pain relieving chemicals from the brain and spinal cord."

Conditions that typically respond well to acupuncture include: headaches, chronic back pain, and other chronic musculoskeletal pain.



Photo courtesy of Naval Hospital Lemoore

"Acupuncture has also shown early promise in stress-related conditions such as PTSD. It is important to realize that acupuncture is not a 'cure-all', but rather a valuable adjunct to a comprehensive treatment program for chronic pain and stress-related psychiatric issues," said Hardy .

Acupuncture services at Lemoore Hornet Health Clinic are being offered only to active duty members by consultation from their Primary Care Manager.

A servicemember walks his horse through a barricade during an equine-assisted therapy program. Naval Hospital Jacksonville is piloting a new treatment program to improve the emotional, psychological, and social well being of its post-deployed servicemembers.



Photo by Mass Communication Specialist 2nd Class Jacob Sippel

Training with Soldiers

Story and photos by Spc. Trisha Pinczes



Naval candidate Petty Officer 3rd Class Toby League straps a casualty onto a litter with the help of staff support as part of Combat Testing Lane 3 for the 2011 U.S. Army Europe Expert Field Medical Badge Standardization and Testing Aug. 3, 2011.



Above - Naval candidate Petty Officer 3rd Class Toby League straps a casualty onto a litter with the help of staff support as part of Combat Testing Lane 3 for the 2011 U.S. Army Europe Expert Field Medical Badge Standardization and Testing Aug. 3, 2011.



Left - Petty Officer 3rd Class Toby League, Naval candidate for the 2011 U.S. Army Europe Expert Field Medical Badge Standardization and Testing calls for an evacuation of casualties as part of Combat Testing Lane 3 Aug. 3, 2011.

Air hissed between the teeth of Hospital Corpsman 3rd Class Toby League as he maneuvered under a

barbed wire fence obstacle as part of Combat Testing Lane 3 during the 2011 U.S. Army Europe Expert Field Medical Badge Standardization and Testing here, Aug. 3.

Navy Corpsmen are rarely seen training with U.S. Army Soldiers, however, League and Seaman Corey Keating, both from Naval Support Activity

Naples, Italy, are participating in the Expert Field Medical Badge, or EFMB, testing in order to further improve the overall standard of care for wounded personnel on the battlefield.

“It broadens your scope,” Keating said. “Everyone does their patient assessments and field exams differently so you can pick and choose between different things and build a larger knowledge base.”

Working with Soldiers brought about a new way of thinking for the two Sailors participating in this event.

“I didn’t know what to expect as a corpsman out here

in a group of Army,” said Keating. “I got to meet a lot of these guys and you hear stories here and there but meeting them and working with them really changes your mind about it.”

League, who has two combat deployments under his belt, found he had a lot in common with his fellow Army candidates.

“These guys, a lot of them are combat deployed like myself,” he said. “We’ve seen a lot of different things that we relate to since we’ve been in a lot of the same places.”

As Sailors, League and Keating faced several difficul-

ties adjusting to the Army requirements.

“The one that I’m really worried about is the land navigation,” League said. “We don’t really get to do that much since in the Navy there’s not much land in the ocean.”

Keating expects to run into some difficulties when he performs his run-through of the EFMB’s Combat Testing Lane 3, which is heavily focused on basic Soldier skills that are not as familiar to medical professionals who work in a naval environment.

“I’m expecting some of the more difficult points to be the

extraction from the vehicle,” he said. “The radio as well will be hard, because I haven’t really dealt with that at all.”

While run-throughs and demos of all required tasks are performed several times before testing, the EFMB still remains a serious challenge, regardless of military branch.

“Most of my Marine buddies would probably laugh about this, but [EFMB] is pretty serious,” League said. “They push these guys real hard. Just look at the pass fail rate. Only half of these guys are going to make it.”

“I’m not even sure I will, honestly,” said League. 🇺🇸

Redefining Operational Medical Training

By Mass Communications Specialist
1st Class Bruce Cummins
Navy Medicine Support Command Public Affairs

Navy medical professionals deploying to the busiest military trauma center in the world will receive a new pre-deployment training course as early as February 2012, according to members of a Navy Medicine Support Command (NMSC) August 30-31 planning meeting held in Jacksonville, Fla.

The meeting, organized to enhance existing training doctrine and programs for service members scheduled to spend six, nine or 12 months at the North American Treaty Organization (NATO)-run Role 3 Hospital at Kandahar Air Field in Afghanistan, resulted in a plan to further integrate the Navy Expeditionary Medical Training Institute

(NEMTI) in the training pipeline for Kandahar Role 3 Hospital-bound Navy Medicine personnel.

The term "Role" describes the tiers in which medical support is organized, with Role 3 describing the capabilities of a theater-level hospital.

Service members and civilian employees from the Navy Bureau of Medicine and Surgery (BUMED), Fleet Forces Command (FFC), NMSC, Navy Medical Center Portsmouth, VA, Navy Medicine Manpower, Personnel, Training and Education (NM MPT&E) Command, the Naval Operational Medicine Institute (NOMI) and NEMTI discussed the feasibility of integrating a

training mechanism designed to provide a well-rounded approach to medical professionals preparing for a tour of duty at the military's most active battlefield hospital in more than four decades.

According to NMSC Lean Six Sigma Program Management Office Director Capt. Kathryn Summers, Nurse Corps, providing a training evolution to prepare medical professionals for an arduous tour of duty remains a cornerstone of NMSC leadership. The majority of these professionals have not experienced this level of combat trauma, and this training is something she said will directly benefit the hundreds of patients the Kandahar Role 3 Hospital will un-

doubtedly see.

"The medical team that Navy Medicine will be sending to Kandahar in February will have an incredible responsibility to provide critical life and limb saving health care to our most precious asset - our Sailors, Soldiers, Airmen and Marines," she said. "It is our leadership responsibility to train our staff so they can continue to optimize health outcomes for our wounded warriors and Navy Medicine Support Command leadership takes the responsibility of providing world-class pre-deployment training with great pride."

FFC, which maintains oversight of Navy Individual Augmentee Combat Training (NIACT), remains the final approval authority for the additional training medical professionals en route to Kandahar Role 3 Hospital will undergo. Individuals charged with developing the curriculum said incorporating scenarios closely approximating what personnel could expect remains paramount. While at the same time ensuring that all requisite training, both combat skills and medical unit training, for U.S. Navy personnel entering the U.S. Central Command (USCENTCOM) area of operations is completed.

"It is critical that we provide as much realism as possible, said Navy Medical Center, Portsmouth, Va., Simulation Center Director Capt. Jim Ritchie. "This helps manage the expectations of the staff and will, through team work, build stronger resilience as they provide the life-saving medical care in such a challenging environment."

The U.S. Navy assumed responsibility for the Kandahar Role 3 Hospital operations from Canadian forces in August 2009, and a newer, more modern \$60 million facility was opened in May 2010. Previous training for medical personnel deploying to the Kandahar Role 3 hospital centered primarily around combat skills, a necessity for deployed service members. Program managers, however, recognized the need to integrate medical training scenarios to expand upon the knowledge and skills required to fill positions at the Kandahar Role 3 facility, a far cry from the standard operating procedures at most military treatment facilities.

"It is critical that we provide as much realism as possible."

- Capt. Jim Ritchie,
Navy Medical Center, Portsmouth, Va.,
Simulation Center Director

In response to feedback from previously deployed personnel, including the past and current commanding officers of the Role 3 Kandahar Medical Facility, and other identified gaps in training, CENTCOM published the USCENTCOM 2012 Non-Standard Forces Training Requirement Document which adds specific medical training requirements for medical units deploying to the area of operations.

New requirements include specific trauma team training, care of mild traumatic brain injury, clinical practice guidelines (best clinical practices developed in theater), sexual assault forensic examinations and training on the clinical computer systems used in theater.

According to NMSC Deputy Chief of Staff, M5, Pat Craddock, with medical team training now recognized as a CENTCOM requirement, Navy Medicine's training structure is making plans to provide the much-needed training to the next wave of personnel destined for Kandahar Role 3 Hospital. She said NOMI Detachment NEMTI, located at Marine Corps Base Camp Pendleton, Calif., will serve as an intermediate stop after medical professionals complete NIACT requirements at military training sites such as Fort Dix, N.J. or Fort Jackson, S.C.

Craddock added that this additional medical team training is estimated to last 8 to 10 days, but stressed that no time would be added to the length of a service member's deployment.

She also said this training effort, designed to continue providing the life-saving care and treatment of service members actively engaged in contingency operations in Afghanistan, is the result of numerous entities working together to ensure the estimated 200

members staffing the hospital each deployment - 60 of whom are Navy Reservists - are expertly trained and ready for what can be a challenging mission.

"It will take a team effort to execute the full training schedule with such a large group in a compact time period," she said. "But I have no doubt that NEMTI will accomplish this training by capitalizing on partnerships with Navy Medicine as well as through receiving support from the Defense Medical Readiness Training Institute for trauma instructors and other Navy Medicine MTFs [Medical Treatment Facilities] for assistance in simulation exercises."

Summers also said the importance of partnerships during this effort could not be understated, citing NEMTI as instrumental in the thrust for this revitalized training pipeline.

"Team training on equipment and the latest life saving protocols such as the Joint Theater Trauma guidelines are essential tools to arm our medical team with in advance of their deployment," she said. "NEMTI has worked extensively with key stakeholders to tailor the training curriculum to include topics such as trauma management, combat stress, and management of total brain injury, setting the stage for a seamless turnover of responsibility to the new Navy Medicine team."

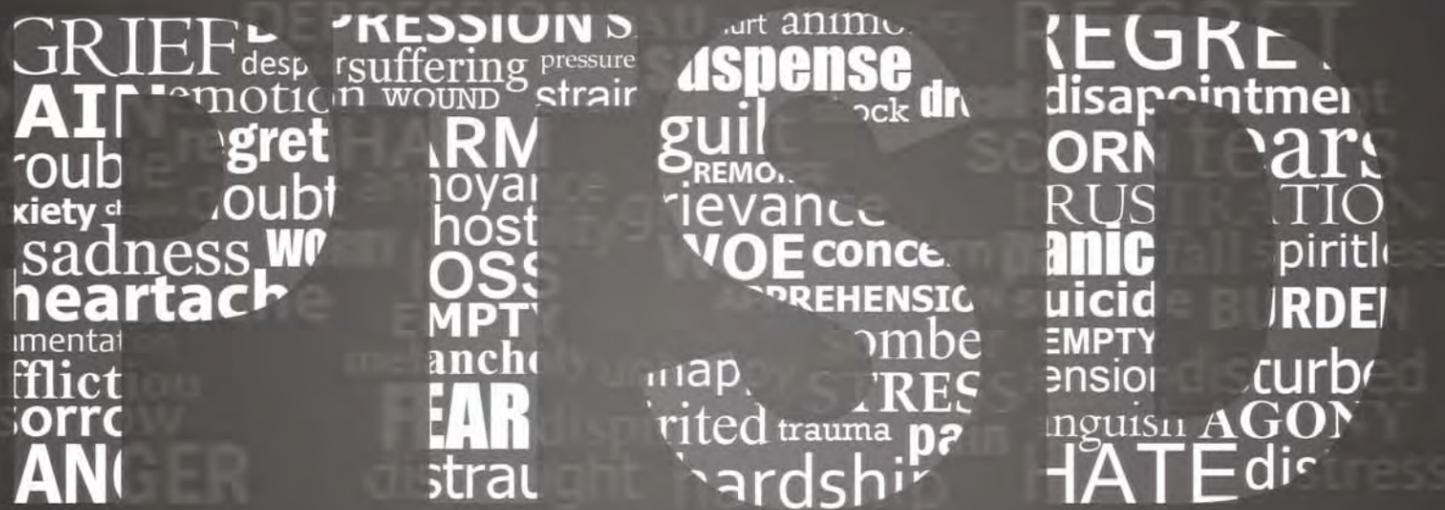
NEMTI reports to Navy Medicine Support Command, headquartered aboard Naval Air Station Jacksonville, Fla. NMSC provides a single point of accountability for support services within Navy Medicine, and exercises command and control, and financial management oversight over subordinate commands and ensures the economical and effective delivery of Navy Medicine enterprise-wide support services. 🌐



Photo courtesy of the NATO Role III Medical Center

Navy Corpsmen take an injured patient to the NATO Role III Medical Center in Kandahar, Afghanistan.

FIGHTING



A U.S. Navy Hospital Corpsman takes a knee while on a security patrol in Afghanistan.

Photo by Cpl. Nathan McCord

Navy Medicine wages a war far from the battlefield

By Paul R. Ross
U.S. Navy Bureau of Medicine and Surgery Public Affairs

A war is being fought far from the arid, dusty deserts of Iraq and many miles from the mountainous battlefields of Afghanistan. An unseen enemy creeps into the minds of our nation's warriors and attacks from within causing recurring nightmares filled with trauma and despair.

Service members become disconnected from those around them and are left with feelings of shame, guilt and hopelessness, which can lead to destructive behavior including alcoholism, drug abuse and in the most severe cases -- suicide.

The foe is Post Traumatic Stress Disorder (PTSD) and it affects a large population of Sailors and Marines who have experienced traumatic events. Navy Medicine is combating the disorder in a variety of ways in order to gain a better understanding of how to heal its troops.

"PTSD occurs when the mind and body are forced to respond to an overwhelming stress -- a stress that by its very nature threatens the life or the body integrity of the affected individual," said Cmdr. Curt West, psychiatrist and assistant deputy commander for Behavioral Health, Walter Reed National

Military Medical Center. "The disorder breaks down into three parts: re-experiencing, arousal, and avoidance. Conceptually, I teach patients that it is the first two that lead to the third group of symptoms."

According to West, re-experiencing involves nightmares, intrusive thoughts, physical reactions to reminders, and in severe cases dissociative episodes or flashbacks. Arousal includes exaggerated startle responses, hyper-vigilance, sleep problems, irritability and anger outbursts, and problems staying focused. Avoidance, the most crippling group of symptoms comes as an attempt to minimize the intensity of re-experiencing and arousal symptoms. It includes staying away from people and situations, avoiding talking or thinking about the experience sometimes to the point of blanking all or parts of it out. Avoidance also includes a sense of detachment or numbness from relationships and the world, and a sense that there is little or no future.

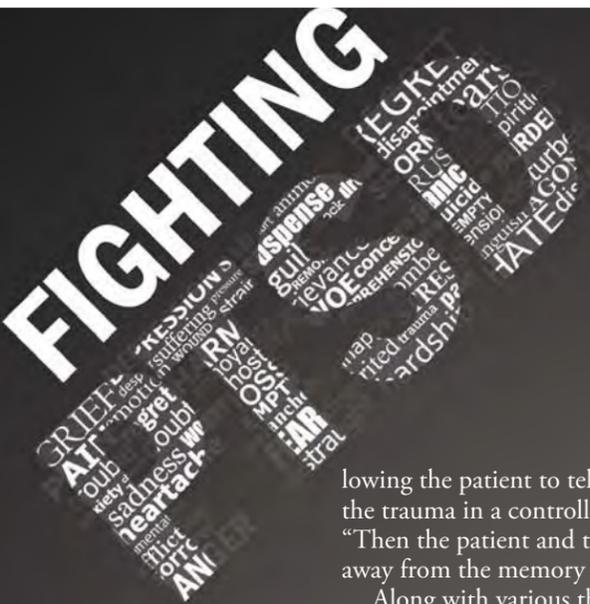
"In my experience it is this group of symptoms that represents the greatest impairment for PTSD sufferers," said West. "They cannot seem to get back into their life."

Navy Medicine has deployed a wide variety of treatments for PTSD including those that are primarily evidence-based.

"Through collaboration with such organizations as the Center for Deployment Psychology, we have trained hundreds of providers in proven therapies," said West. "All of these include a combination of exposure to traumatic memory and methods to modulate the increased arousal that these memories generate."

The most common therapies in use today are Cognitive Processing Therapy, Prolonged Exposure Therapy, and Eye Movement Desensitization Re-processing therapy.

"All (of these therapies) use some form of al-



lowing the patient to tell themselves the story of the trauma in a controlled, safe setting,” said West. “Then the patient and therapist work to take power away from the memory and restore it to the patient.”

Along with various therapies, medications are also used in order to treat specific symptoms of PTSD.

“Antidepressants, such as sertraline (Zoloft) and fluoxetine (Prozac) are the most common agents used,” said West. “They effectively help the patient to self-modulate arousal better. Treatment is typically nine months to a year, and often longer depending on the response. Other medications can be added to help with sleep and nightmares.”

While the majority of service members being treated for PTSD have combat-related symptoms, there are also those who have experienced other traumatic events including sexual assaults, witnessing the death or someone close to them or other tragic incidents. But the most typical story of PTSD

diagnosis is that of the young Sailor or Marine between deployments.

“He or she has been back for three months from Iraq or Afghanistan but just can seem to feel right,” said West. “They most commonly come in because their spouse tells them they must do something. They are edgy and irritable, worse in crowded public situations, and tend to not sleep well at night. When they come home there can be a ‘perimeter sweep’ in which they check the locks and exterior of their house. They sometimes need three or more drinks at the end of the day to wind down and hopefully fall asleep, but sometimes this doesn’t work, they drink too much and end up dissociated.”

The family is relied upon greatly in certain instances to help those suffering from PTSD symptoms.

“Hopefully their spouse or friends is able to keep them contained, reorient them, and keep them from

getting into trouble,” said West. “Sometimes not, and then they have an alcohol-related incident.”

There is a large amount stigma and shame involved with PTSD, which may cause people to never seek treatment.

“I had a patient who always had a ‘John Wayne’ persona,” said Lt. Cmdr. Russell Carr, psychiatrist, integrated service chief Adult Outpatient Behavioral Health Clinic Walter Reed National Military Medical Center. “They experienced combat in Afghanistan – killing people and seeing people killed. It was very shocking and overwhelming for him. Instead of being able to turn to his battle buddy he felt shame and isolation for not living up to that John Wayne stereotype.”

In the Navy a large portion of service members treated for PTSD are medical personnel such as corpsman, nurses and physicians, who have witnessed traumatic events on deployment.

“Combat PTSD, Sexual assault-related or PTSD related to other traumatic events involves anxiety, anger, sadness,” said Carr. “The real problem comes with the experience people are left with. They have a need to process these emotions with other people but can’t. That’s when it becomes traumatic. They become isolated, alone and feel shame.”

Various medical treatment facilities across the Navy Medicine enterprise have different treatment programs for the disorder. The programs vary widely as more and more research is being completed to determine the best way to treat patients.

“Camp Lejeune has Pathway which is a combination of groups and individual therapies,” said Carr. “Portsmouth has something similar as does Camp Pendleton. One thing that’s unique to the Navy is that San Diego has a residential program for PTSD. The patients stay on the grounds for 60 days and receive various therapy techniques.”

Another area of Navy Medicine leading the way in PTSD treatment is the Naval Center for Combat & Operational Stress Control (NCCOSC):

“There are a number of innovative ways that

“They are edgy and irritable, worse in crowded public situations, and tend to not sleep well at night.”

- Cmdr. Curt West, psychiatrist and deputy commander for Behavioral Health, Walter Reed National Military Medical Center

NCCOSC is working on the PTSD Front,” said Capt. Scott Johnston, director of the NCCOSC, “We’re studying the possible causes of the disorder, designing programs that streamline the treatment process, and we’re helping researchers determine the most effective treatments.”

Education is also key in leading service members toward treatment.

“We also have a very active outreach program to teach Sailors how to recognize stress in themselves and their shipmates,” said Johnston. “A big part of that education focuses on building psychological skills so Sailors are less susceptible to stress injuries of any kind.”

According to West, one of the challenges in getting people into treatment for PTSD is overcoming avoidance. It is not unusual for patients to avoid seeking treatment, particularly if they expect they will have to tell the story.

“The most important thing to do is tell them you care, and that you can see that there is a problem,” said West. “Identify behaviors or actions that you observe and how you can see that they are struggling. The key is to focus on what you observe. Tell them you care and that you can see they are uncomfortable. If you are a senior and see this in one of your subordinates, offer to assist them in getting to help. Some of the best outcomes are when the command supports and the patient feels they have an advocate in their chain of command.”



A U.S. Navy Hospital Corpsman fires at insurgents in Iraq.

Photo by Samuel Peterson

Navy Medicine Public Health in Action

By Dr. Paul Gillooly
Navy and Marine Corps Public Health Center

The Campania region of Italy has experienced numerous challenges associated with trash collection; open burning of uncollected trash and illegal waste disposal practices which forced the Navy to modify its operations in the Fall of 2008.

In response to health concerns expressed by U.S. Navy personnel, the commander, Navy Region Europe, Africa, Southwest Asia (CNREURAFSWA) contacted the Navy and Marine Corps Public Health Center (NMCPHC) to conduct a comprehensive public health evaluation to assess the potential health risks for U.S. personnel living in the Naples area.

The completion of the Naples Public Health Evaluation (PHE), both in scope and complexity on foreign soil in a host nation, is unprecedented for the U.S. Navy and has never before been attempted within the Department of Defense (DOD). The posting of the Final Report for the PHE, on the NSA Naples Website, brings to an end a formal study that began in January 2008 to assess health risks associated with potential exposure to chemicals and microorganisms in the environment resulting from the area's waste disposal practices.

NMCPHC has the right mix of multidisciplinary experts to conduct these unique evaluations in OCONUS locations where no specific public health risk policy exists to address potential health risks from host nation-generated pollution, both on and off-base. Having these experts and contractors (e.g., human health risk assessors, risk communicators, toxicologist, occupational & environmental health physicians, epidemiologists) enables NMCPHC to integrate the multiple lines of evidence gathered in these investigations to provide a broader holistic assessment of the potential public health risks. In all, a wide range of subject matter experts

worked on the Naples PHE, representing a variety of U.S. commands and organizations and private sector agencies.

The PHE focused on the Naples and Caserta provinces of Campania where U.S. Navy personnel work and live. Since the geographical area that was investigated was very large, the study region was segregated into nine geographical study areas covering 400 square miles. Because a PHE of this scope takes more than a year to complete, a phased approach was used. Phase I focused on areas of Campania where the potential for detecting chemicals, based on Italian maps presenting trash and chemical dump sites, was greatest. Phase II sought to improve the spatial/geographic distribution of the sampling locations and to delineate clusters of residences that exceeded risk criteria during Phase I.

The study involved the collection of tap water, irrigation water, soil, soil gas and ambient (outdoor) air samples from Government facilities and private rental homes because approximately 50% of the population lived off base in the Study Areas. Approximately 200 chemicals were analyzed in each sample and a total of 344,000 laboratory sample analyses were conducted. In total, 543 off-base residences and 10 Government-related sites were sampled.

An ambient air sampling and monitoring evaluation was performed, spanning one year. Four epidemiological studies—focusing on birth defects, cancer and asthma—and a food study were completed. An extensive review of Italian scientific literature and media reports was also conducted.

Because attitudes and expectations of our service members and families have evolved over the years to expect equivalent public health protection while on PCS assignment overseas, to the extent possible, the PHE was conducted in accordance with USEPA and USN Risk

Assessment Guidance. Therefore, the PHE team chose to compare environmental testing results to USEPA Maximum Contaminant Levels (MCLs) for tap water; USEPA Regional Screening Levels (RSLs) for tap water, air, soil, and soil gas; and USEPA National Ambient Air Quality Standards (NAAQS) for air, rather than Italian or European Union environmental regulatory standards.

Predominant among the findings are chemical and bacterial contamination of tap water (primarily from non-permitted, private wells) and the potential for vapor intrusion of volatile organic chemicals at off-base homes. In response to these findings, the Navy implemented a number of health protective measures, including issuance of a bottled water advisory in 2008, relocating families to other homes when health risks at the home could not be reduced, and establishing New Lease Suspension Zone (NLSZs) areas that are off-limits for new leases.

Although the formal study has ended, enduring processes will be in place to ensure the health of our military and civilian families continues to be protected:

- Bottled water advisory
 - Health protective lease clauses for off-base rentals
 - Maintain NLSZ areas
 - Health information updates on the Naples Community Health Awareness website
 - Education and counseling at the U.S. Naval Hospital Naples Environmental Health Information Center (EHIC)
- Additional measures under development include:
- More robust health risk education programs for U.S. personnel.
 - Modifications to Housing's database system to distribute reminders to residents and landlords about cleaning



Courtesy photo
Dr. Paul Gillooly (right) discusses public health evaluation results with Capt. Craig Bonnema, U.S. Naval Hospital commanding officer, Naples, while Mr. Tony Carotenuto, public health specialist from NMCPHC discusses results of water testing with residents at an Open House.

and disinfecting the home's water holding tank every six months.

- Naval Hospital Naples will continue the monitoring of Italian environmental and health-related information and make public health information available to U.S. personnel.

From the very beginning, risk communication has been an integral and critical part of the NPHE. To develop a sustainable and focused risk communication program NMCPHC partnered with CNREURAFSWA and NSA Naples Public Affairs. The communication program proactively served to inform stakeholders about project activities and findings, communicate health risks and mitigation actions, and provide opportunities for stakeholder involvement. Moreover, risk communication activities

were designed to allow USN personnel and their families to make informed choices for themselves and be active partners in their own health protection.

Important to this concept was, for the first time in Navy Medicine, the establishment of the EHIC at U.S. Naval Hospital Naples. The EHIC was established as a resource to conduct one-on-one health consultations, as a repository of sampling results and informational materials (e.g., fact sheets) for handout and discussion, and to inform residents who participated in the sampling program of their sampling results.

In recognition of their efforts, the CNREURAFSWA/NMCPHC public affairs risk communication team was selected by the Chief of Naval Information for its prestigious Thompson-Ravitz

Award for Excellence in Navy Public Affairs for calendar years 2008 and 2009.

The Phase I and II report and associated Fact Sheets can be found on the NSA Naples Community Health Awareness website at <http://www.cnrc.navy.mil/Naples/About/HealthAwareness/index.htm>

U.S. personnel who have health-related questions should contact the Environmental Health Information Center at U.S. Naval Hospital Naples in Gricignano. The phone number is 081-811-6299 (commercial) or 314-629-6299 (DSN).

For more information on environmental health risk assessment and risk communication, visit the NMCPHC website at http://www.nmcpchc.med.navy.mil/Environmental_Health/.

By Douglas H. Stutz
Naval Hospital Bremerton
Public Affairs

One Day at a Time

SARP program seeks Sailors willing to help Sailors

Substance Abuse Rehabilitation Program (SARP) counselors want other Sailors to help with recovery -- one day at a time.

"What we do doesn't make the ship move, land an aircraft, or kill the enemy. But we save lives and that's important. SARP can salvage nearly destroyed careers, and help us be a more mission capable and healthier military force," said Patrick W. Graves, NHB SARP Counselor and Tobacco Cessation

Facilitator.

Navy SARP is now actively recruiting Sailors to help with delivering drug and alcohol screening and outpatient treatment to active-duty members, retirees and adult family members. The mission is to treat problems stemming from alcohol and substance abuse, improve operational readiness, and promote healthy lifestyles. Program counselors design treatment guidance to meet the individual needs of active duty service members and their families. Additionally, Sailors learn about basic life skills, stress management and the effects of alcoholism and substance abuse disorders (SUDs).

"We want quality Sailors to do this type of work for a rewarding shore/sea rotation, and we also want the commands we serve to know exactly what our SARP counselors

do and the services we provide," said John T. Vaughan, of NHB's SARP/Mental Health Department. "Prospective counselors are initially screened for two weeks at their nearest SARP to get an idea of the work and dedication that is required to become a counselor. We also screen to insure they would fit in this profession. Then, there's a required 10-week Navy Drug and Alcohol Counselor School at Pt. Loma, Calif."

Aviation Maintenance Administrationman Master Chief Angela Mattison-Lindbom became a SARP

counselor to continue her Navy career in a more personal way. "I was searching for orders and becoming a SARP counselor



Hospital Corpsman 2nd Class Steven L. Guittar, NHB psychology technician, lends a hand in NHB's SARP screening process, using his mental health training to help counselors assess program clients and be part of the overall treatment team.

sounded very interesting. It was a new field and a new area. I was excited about the opportunity."

Mattison-Lindbom already had honed many of the intangible skills needed from her years advancing to the rank of master chief. She knew she was a good communicator and had good listening skills. She had supported her Sailors in handling personal issues. She considered herself compassionate, and able to share empathy without enabling. She knew she could help make a difference.

"Alcohol abuse can damage lives. I felt I could help others overcome that and put such behavior in permanent remission so they can continue to serve in the Navy," Mattison-Lindbom said. "SARP provides them with hope to cope. We let everyone know that they are not alone. We have them understand the ramifications of alcohol abuse."

But before even becoming a counselor, Mattison-Lindbom recommends that any prospective candidate has to be comfortable in their own skin and be able to step back to critically look at themselves before they help others. A counselor also has to be willing to walk along with the person they are assisting, a day at a time if necessary.

"This is not independent duty. It's a clinical environment," said Mattison-Lindbom.

For Graves, the decision to become a counselor was a result of wanting to move on from being a respiratory therapist and a desire to help people in crisis. After the intensive screening and qualification process, Graves passed the training course which qualified him to take a certification exam after a year of internship. "There's also follow-on training in mental health, which really equips you to deal with patients and help salvage their lives before they end up on life support," said Graves.

Graves took over three years ago as the command's Tobacco Cessation Facilitator and considers himself uniquely qualified being a prior RT as well as with SARP for almost six years. "It combines both worlds," he said.

"Alcohol abuse can damage lives. I felt I could help others overcome that and put such behavior in permanent remission so they can continue to serve in the Navy."

- Master Chief Angela Mattison-Lindbom
SARP counselor

According to Vaughan, compiled statistics show that if a person quits tobacco when they quit alcohol, they have a 30 percent greater chance of remaining abstinent from both.

"Our Tobacco Cessation program has been clinically run by SARP counselors since 1998 when it was recognized that nicotine dependence was a SUD, like alcohol or any other substance and it needed to be treated as such," said Vaughan, who voluntarily developed the Tobacco Cessation program to treat tobacco similar to the way alcohol and drugs are treated.

"We have had the longest running and most successful TC Program in the Navy," said Vaughan. "We are the only Navy SARP that treats nicotine dependence for the whole catchment area and Graves is our dedicated alcohol/drug counselor that has been specially trained for nicotine dependence."

But the primary focus of NHB SARP is on drug and alcohol issues. To that end, psychology technicians assigned to the Mental Health (MH) department, along with NHB social workers and psychiatrists are being trained to assist with the SARP screening process and facilitate alcohol awareness classes.

"We primarily treat alcohol and drug problems," said Vaughan. "If there are additional issues that are getting in the

way of our clients getting clean and sober, we will address them. We treat co-occurring disorders, family of origin issues and other problems along with their substance dependence. We also are seeing more individuals with co-occurring disorders such as depression, anxiety, and Post Traumatic Stress Disorder due to being deployed in a theater of operations."

SARP is a division under the Mental Health Department, and as such, relocated from Naval Base Kitsap Bangor to NHB's Seventh Floor in September.

"Mental Health and SARP work hand in hand to facilitate a total treatment regime," said Hospital Corpsman 1st Class (Fleet Marine Force) Cameron Wink, MH Leading Petty Officer. "Many personnel have co-occurring issues that may not arise until after treatment programs are instituted. Identifying the issue is step one. Once they identify these problems, many times after only a few sessions, the treatment team moves into action. The communication and cooperation between the separate departments allows for the individuals to achieve coping skills, life skills and overall better mental health."

For more information on SARP and application guidance, please contact John Vaughan at 360-475-4219 or stop by their offices at NHB. 🌐

Providing Comfort

Operation Continuing Promise provides humanitarian assistance to the Caribbean, Central and South America



Above - Hospitalman Cherie Williams holds a patient at the Terminal Varroux medical site in Port-au-Prince, Haiti during Continuing Promise 2011. (Photo by Mass Communication Specialist 2nd Class Eric C. Tretter)



Left - Lt. Cmdr. Andrew Sellers, from Chesapeake, Va., reviews an X-ray at the Killick Haitian Coast Guard Base surgical screening site in Port-au-Prince, Haiti during Continuing Promise 2011. (U.S. Air Force photo by Staff Sgt. Alesia Goosic)

Above - Service members and civilians embarked on board USNS Comfort (T-AH 20) are transported by boat to the Killick Haitian Coast Guard Base surgical screening site in Port-au-Prince, Haiti during Continuing Promise 2011 (CP11). CP11 is a five-month humanitarian assistance mission to the Caribbean, Central and South America. (Photo by Mass Communication Specialist 2nd Class Eric C. Tretter)



Right - Hospital Corpsman 1st Class Darwin Flores, from San Salvador, El Salvador, performs a dental cleaning at the Terminal Varroux medical site in Port-au-Prince, Haiti during Continuing Promise 2011. (Photo by Mass Communication Specialist 2nd Class Eric C. Tretter)

Middle - Lt. Cmdr. Timothy Mickel examines a patient at the Killick Haitian Coast Guard Base surgical screening site in Port-au-Prince, Haiti during Continuing Promise 2011. Photo by Mass Communication Specialist 2nd Class Eric C. Tretter)



Navy Medicine Fall 2011



Hospital Corpsman 2nd Class Amanda Fletcher, from Lancaster, Calif., conducts an eye exam at the Killick Haitian Coast Guard Base surgical screening site in Port-au-Prince, Haiti during Continuing Promise 2011. (Air Force photo by Staff Sgt. Alesia Goosic)



Above - Capt. William Todd, director of surgical services on board USNS Comfort (T-AH 20), carries a patient to a waiting area at the Killick Haitian Coast Guard Base surgical screening site in Port-au-Prince, Haiti during Continuing Promise 2011 (CP11). (U.S. Air Force photo by Staff Sgt. Alesia Goosic)

Below - Project Hope orthopedic surgeon volunteers embarked aboard USNS Comfort (T-AH 20) review X-rays of a 2010 Haitian earthquake victim on board USNS Comfort (T-AH 20) as part of Continuing Promise 2011 (CP11). (U.S. Air Force photo by Staff Sgt. Courtney Richardson)



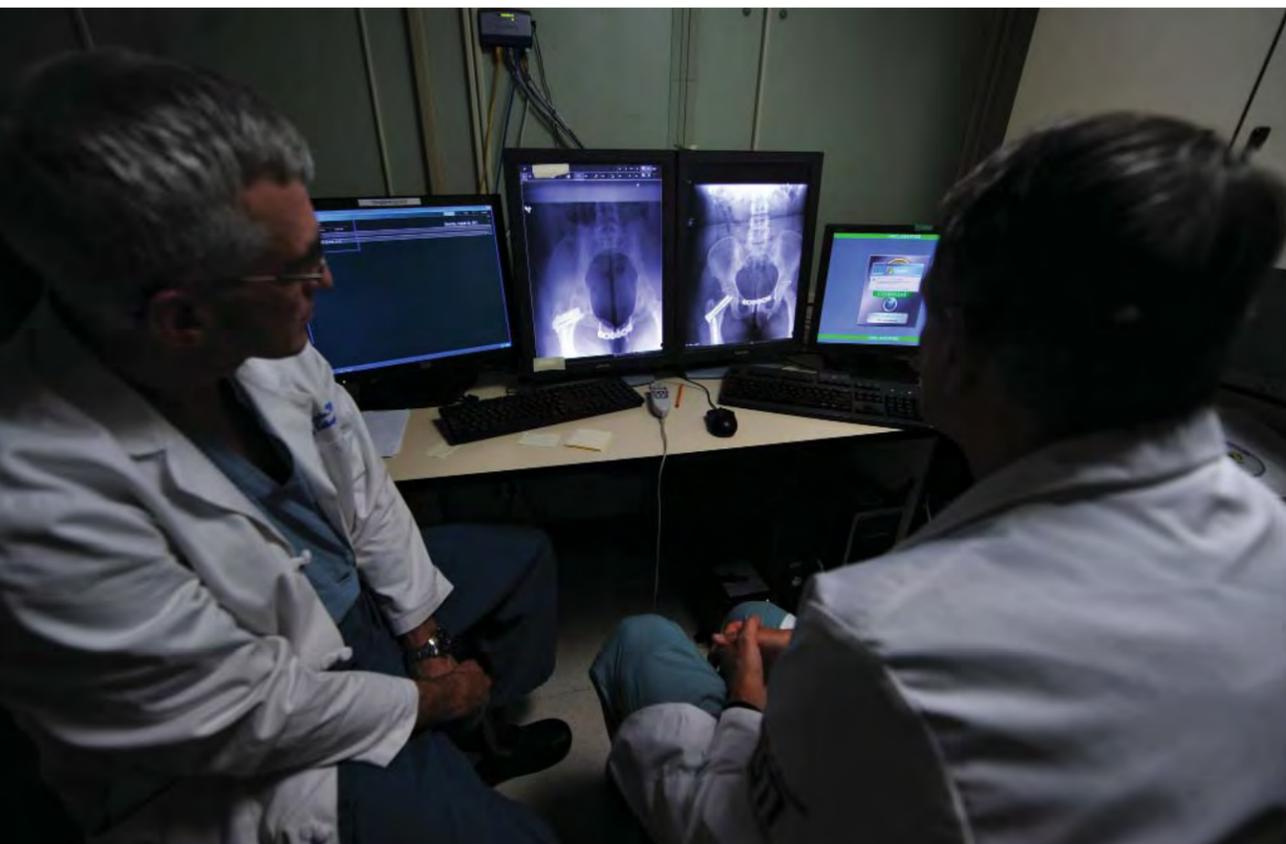
Personnel embarked on board USNS Comfort (T-AH 20) walk toward the Terminal Verreux medical site for site breakdown in preparation for Tropical Storm Irene in Port-au-Prince, Haiti during Continuing Promise 2011 (CP11). CP11 is a five-month humanitarian assistance mission to the Caribbean, Central and South America. (Photo by Mass Communication Specialist 2nd Class Eric C. Tretter)



Lt. Cmdr. Tim Mickel, right, from Piedmont, Calif., and Hospital Corpsman 2nd Class Amanda Fletcher, from Lancaster, Calif., perform a burn contracture release surgery aboard USNS Comfort (T-AH 20) in Port-au-Prince, Haiti during Continuing Promise 2011 (U.S. Air Force photo by Senior Airman Kasey Close)



Above - Cmdr. Laurie Hale, from Green Cove Springs, Fla., examines a patient at the Terminal Varroux medical site in Port-au-Prince, Haiti during Continuing Promise 2011 (CP11). (Photo by Mass Communication Specialist 2nd Class Eric C. Tretter)



Left - Aviation Boatswain's Mate (Handling) 2nd Class Rocio Luna, attached to Helicopter Sea Combat Squadron 26, marshals an MH-60S Knight Hawk helicopter toward a pallet of supplies for transport from USNS Comfort (T-AH 20) to shore in Port-au-Prince, Haiti. (U.S. Air Force photo by Staff Sgt. Courtney Richardson)



Vice Adm. Adam M. Robinson

Things I've learned

When I was growing up I always wanted to be a doctor. My dad was a doctor and most children will emulate their parents. But I ended up getting a degree in political science and taking a lot of courses in German -- comparative literature courses, and also Anthropology courses. But during that time I found that I was called, for some reason, to do medicine. I decided that I would never be satisfied unless I became a physician.

I came into the Navy as a way to finance my medical education. The year I was accepted in 1972 was also the first year of the Health Profession's Scholarship Program. So I was in the first class of Health Profession Scholars and that is how I paid for my medical education.

I don't know if there's one overwhelming influence in my life, but I think that my father and my mother would be influences -- great influences. My grandfather -- my father's father -- would be a great influence. My background in terms of being raised in a religious household was very instrumental in helping me understand that I needed to think beyond me as a person. I needed to start thinking about others and about the community and about a higher, perhaps even more spiritual calling, that we're not here just to garner rewards for ourselves. We're here to help other people.

The memory of my patients and what I have learned from them is that care and caring for them was not only beneficial to them as human beings, but it was also a tremendous benefit to me. In the process of giving to others, you also receive a lot for yourself.

We can always be there for our patients from an emotional, physiological and even spiritual perspective so that they never feel abandoned or alone. I learned from my patients that even when you couldn't cure them, you could certainly be with them.

Navy Medicine is in a wonderful position. The physicians, nurses, dentists, medical service corps officers, allied health professional, the corpsmen, all of the civilian employees and the volunteers that actually make up what we call Navy Medicine are some of the brightest, most devoted and impassioned people I have ever met. I know as I leave that same level of passion and service commitment will always be there.

Patient and family-centered care is a commitment to all who we have the privilege to serve. That is our duty and obligation.

The reason I stayed in the Navy after I came on active duty was that I had never found a better group of men and women who were dedicated to service and dedicated to one and other -- men and women who had an ethos of honor, courage and commitment, which in the civilian side probably sounds trite and maybe even as sloganeering, but on the military side is a commitment and a framework by which we live and do our work on a daily basis. I had never experienced that before in my life.

The men and women of Navy Medicine are the essence and heart and soul of Navy Medicine. I have been incredibly privileged and honored to lead them and I have enjoyed every moment of that experience. Navy Medicine is about the men and women who carry on the hard work, who labor in the vineyards, who deploy with our troops into harm's way on a daily basis. It's about the men and women who deploy on our carriers and other surface ships, submarines and aircraft through the world on a daily basis, who do the hard work to make sure that freedom reigns throughout this country and in many other countries to make sure that the commitment that we make to others, as being a nation to help win the peace as well as winning the wars, is captured and to make sure that when we have people who are in need of medical care, psychological care and when we find people in need, we're there to help them and to make their lives better. I only want to thank them from the bottom of my heart for allowing me to be a part of such a great group of individuals. 🇺🇸



Photo by Cpl. Thomas Provost

Cmdr. Bill Krissoff in 2009 joined the Navy Medical Corps after his son, 1st Lt. Nathan Krissoff, died in Iraq from wounds he had suffered from a roadside bomb explosion. He will be deploying with Combat Logistics Battalion 4, 3rd Marine Logistics Group, to Iraq

Honoring a fallen son

By Staff Sgt. Brian Buckwalter
1st Marine Expeditionary Force Public Affairs

The Navy was never where Cmdr. Bill Krissoff thought he'd be. Not at 18, and certainly not at 60. But, in fall 2007 he shuttered his orthopedic practice in a mountain resort town near Reno, Nev., and donned the uniform he still wears today.

It wasn't that life in Truckee, Calif., was bad. For an avid outdoorsman, it was the perfect spot for Krissoff and his wife Christine to raise their two sons.

"We were close growing up," said Austin Krissoff in an email. "Dad, Nate and I took frequent summer trips together. We established a pretty fun trio for doing 'man things' - powder skiing, whitewater kayaking and traveling."

No, life in Truckee was good. Until Dec. 9, 2006 - the day his youngest son Nathan, a Marine first lieutenant, was killed in action near Fallujah, Iraq. The 25-year-old was the counterintelligence officer for 3rd Reconnaissance Battalion.

Call to service

Krissoff said the events of 9/11 deeply affected both of his sons and they both responded to the call to service. Nate, who majored in international relations at Williams College, joined the Marines in 2004.

"He joined because he deeply believed in the importance of service and for citizens of this generation to do their part," Austin said of his brother. "He was not content

to sit inside the Beltway at a think tank and write about foreign policy without having actively participated in its execution."

Austin followed his brother, joining the Marine Corps in 2006 after he graduated college. He was at officer candidate school about to graduate when he got the news about his brother.

Their service was an inspiration to Krissoff. After his son's death he started to prefer the company of people who understood the sacrifice and valor that comes with serving. "There's almost a chasm of those people who serve or who have families who are in the service and those who are not," he said. He thought about joining himself.

That idea solidified when Nate's commanding officer, Lt. Col. Bill Seely, spent a few days in town visiting families who had lost Marines. Seely talked about the battalion surgeon who took care of his Marines forward. Such a role was appealing to Krissoff.

Joining the Navy wasn't a decision made lightly. He talked it over with his wife, Christine, and Austin. He sought the advice and support from friends too.

"The friends that we had were very encouraging ... I only had one doc that I knew fairly well in Reno that told me I was crazy. And he had been in the Navy, so maybe he knew something I didn't," Krissoff said.

Once Krissoff decided to join, he faced another challenge: his age.

Although the Navy desired his professional skills, and

he was physically fit, the recruiter wasn't sure he could get a waiver to join someone nearly 15 years past the cut off age.

The breakthrough came when former President Bush, who often met with families of the fallen, was in Reno in 2007. There Krissoff asked former President Bush directly for the waiver. It was only a matter of days after that Krissoff had the paperwork he needed.

Krissoff didn't join the Navy for closure. "Closure" is a term he takes exception to - a word people who've never experienced loss use, he said. For him, being a Navy doctor meant a chance help a group of people he has endless respect for stay in the fight.

"It's their strength of character, courage, their unit cohesion, their bravery, their skills and their dedication that are unimaginable to people who do not know about our military," he said.

Training Ground

Just over a year after receiving his commission, Krissoff deployed to Iraq. His son Austin was also in theater. "I felt like in my mind, we were finishing what Nate started up," he said.

"This was a non-kinetic and different mission than when Nate was there in 2006, but it was important in order to strengthen the security gains made during the [Anbar] awakening and the surge," Austin said. "I vividly remember turning off the lights and closing the door to my office, which I thought was symbolic of concluding years of rotations of Marines whom had bled and sweat to make our eventual departure possible."

After experiencing deployment from both sides - home and away - Krissoff said deployments are harder on the families to a certain extent. "The deployed person is working. They're focused. But the family has a lot of emptiness in those evening times."

Austin agreed. "It was difficult for my mom because Dad and I were gone at the same time. I didn't appreciate how hard this was, to be at home, until Dad departed for Afghanistan in 2010."

Almost immediately after returning from Iraq, the opportunity to deploy to Afghanistan arose. Although the timing wasn't ideal, Krissoff volunteered to go.

Never to be duplicated

Krissoff's deployment to Afghanistan started at Camp Bastion, a major base in southern Afghanistan for the British and Marine Forces.

Blast injuries, especially from improvised explosive devices were the main injuries Krissoff saw. Second were gunshot wounds, and then third was "everything under the sun."

Whatever the injury, Krissoff and his team provided the best care they could. He says it was a new experience being a part of a multi-national team but "the busier we got, the better we functioned."

"The best care is: you come to Bastion's hospital with a heartbeat as a Marine, you have a 99 percent chance of surviving and leaving Bastion alive... These numbers are truly remarkable in the history of combat trauma surgery," Krissoff said.

"He was not content to sit inside the Beltway at a think tank and write about foreign policy without having actively participated in its execution."

- Austin Krissoff, son of Cmdr. Bill Krissoff

During the second half of his deployment, Krissoff served in western Helmand province at Forward Operating Base Delaram Two as part of a shock trauma platoon and forward resuscitative surgical team.

Even though the team was very mobile - everything they needed could be crammed into a conex box - Krissoff said they had ER capability supported by several general surgeons and ER doctors.

The forward location revealed to Krissoff the lack of medical care available to the population in Afghanistan. People would show up at the front gate with injuries from car wrecks, bus wrecks, bomb blasts, or snake bites, he said, because there just wasn't any place else to go. His team took care of them all.

There were times the person they were treating was likely the enemy - stories sometimes didn't match injuries. "It's difficult. [But] you do what you need to do. That's part of our job, and we give the best care to our enemies. That's what we do. We do not prioritize, and we do not hold back on the care," said Krissoff.

Despite the challenging conditions and situations, Krissoff said he was fortunate for the opportunity to deploy.

"Afghanistan, as I told my surgical team as we left Bastion, was never to be duplicated," Krissoff said. "It was probably the most rewarding time of my orthopedic career, and it was intense, and horrific, but satisfying as well ... sometimes at the same time."

The road ahead

Krissoff is now at Naval Hospital Camp Pendleton treating patients, mostly Marines, doing what he did forward: getting them back to duty.

He recently received a promotion to commander at a ceremony in the Pentagon. Maj. Gen. Larry Nicholson, who was Nate's regimental colonel in Fallujah, presided over the ceremony. Christine and Austin pinned on the rank. Friends, family, and some of those whom he deployed with were there too.

Krissoff says that his time in the military is probably winding down, but he'd still like to do some short terms deployments as a reservist - maybe to Africa, Ukraine or on the Navy's hospital ship USNS Mercy. He'd also like to continue doing orthopedic evaluations for reservists returning from deployments - something he enjoys.

Although the death of his son changed the course of his life, Krissoff says what came out of it was an unexpected opportunity.

"I'm just a doc that was fortunate to be able to use my surgical skills in a deployed setting to care for injured Marines, sailors and soldiers," said Krissoff. "I'll be sad when I'll hang up the uniform, I'm sure." 🇺🇸

THE BEST MEDICINE

Marine captain praises Navy Medicine for life-saving efforts

On March 5, 2010, while conducting combat operations in Helmand province, Afghanistan, Capt. Matthew Kutilek's life would change forever.

While on patrol in Laki, Garmsir District, an enemy sniper sighted in on one of Kutilek's Marines. However, the enemy's high velocity round strayed just inches away from his Marine's face below him and struck Kutilek's right leg. Kutilek immediately dropped on top of one of his corpsman, and without hesitation, the corpsman immediately applied a tourniquet to stop the blood loss. The round severed his tibia bone, two out of three arteries, took out half of his calf muscle and nine centimeters of his tibia nerve – all open compound – and resulted in massive amounts of blood loss.

With his life in serious doubt, Kutilek was medically evacuated to a Forward Resuscitative Surgery System at Forward Operation Base Dwyer for further lifesaving treatment, then to Landstuhl Regional Medical Center in Germany before ending up at the National Naval Medical Center in Bethesda, Md., for the next eight months for treatment that he said, "Is the best medicine" he has ever received. In fact, he said he would, "Take Navy surgeons and doctors over the highest paid civilian doctors any day of the week."

Since that horrific day, Kutilek has undergone at least 10 surgeries, more than 90 hours of physical therapy and pain management appointments among many other rehabilitation procedures. With his most recent surgery, doctors removed a 16-inch plate previously placed in his right leg at the Landstuhl Regional Medical Center, inserted a metal rod and rotated his knee cap back to its normal

Capt. Matthew Kutilek on patrol in Afghanistan before being wounded by a sniper's bullet.



position at the Naval Medical Center Portsmouth in Portsmouth, Va.

He is attached to the Wounded Warriors Battalion-East aboard Marine Corps Base Camp Lejeune as a patient while he makes a full recovery. As a patient, he does not idly sit by while he recovers. He wants to let those who have helped him recover know they are appreciated.

On June 16, he told doctors, physicians and nurses how much Navy medicine has had an impact on his life at a weekly medical meeting at the John Westfield building on the campus of Naval Hospital Camp Lejeune aboard MCB Camp Lejeune. He

did so at the invitation of his pain management doctor and friend, Cmdr. Jerry Foltz. Not suspecting anything besides another weekly Power Point, Navy medical staff members were honored by the words of Kutilek.

"There's a running joke about Navy medicine," said Kutilek, as he opened his speech. "It's the lowest bidder, the cheap alternative to real medicine, which is off base. The fact is, if it weren't for naval medicine, you'd be talking to a dead man."

Kutilek described his corpsman's quick, 30-second reaction that saved his life. He said if the corpsman waited another 20 seconds, he would have died.

"It really irritates the life out of me when I hear people talk like that about Navy medicine," said the Bronze Star Medal with Valor recipient. "These people obviously never have received any treatment from the Navy, or let alone military, because if they did, they would have a totally different opinion. They're ignorant."

Kutilek believes he can talk about the positive exploits of naval medicine in good faith, as he has encountered, according to his medical records, everything from neurologists and physical therapists to X-ray technicians to podiatrists. He even can attest to the delivery rooms as he and his wife have three daughters. He believes he has received a Navy hospital's virtual tour since he's been injured.

Kutilek knows medical staff not only have the stress of saving lives and giving sound medical advice to their patients, but also, as he described the stress of "unappreciative patients," is not something they should focus on.

"Don't focus on those who give you all a black eye," said Kutilek. "Instead, focus on those who have great attitudes, ones you've developed a relationship with."

Kutilek feels Navy medical staff goes far beyond what is required of them. His wife was eight months pregnant with their third child when he was wounded, and during the course of his recovery, doctors consoled his wife as she felt the pain as well. He said those things were just as consoling to him.

"In addition to the top-notch medical care you all provide, do one more thing," said Kutilek. "There are Marines who come from abusive backgrounds, broken homes. Give them preferential treatment. Don't just be their doctor or therapist, be their friend and help them through their tough times. I came from a positive home with parents who are still married to this day. I have a beautiful wife and three beautiful girls. I have a lot to be thankful for."

He ended his talk for those in his audience with the hope they draw a parallel from a bit of advice he provided a young Navy nurse from his Sunday morning church group who is deploying to the Helmand province. She has never seen combat nor has she ever deployed. She asked him what she should do in country. He didn't know how to answer her ques-



Capt. Matthew Kutilek receives treatment from Orthopedic Trauma Surgeon, Dr. Robert Gaines at Naval Medical Center Portsmouth, Va. Kutilek was injured by a sniper's bullet while serving in the Helmand province, Afghanistan.

"The fact is, if it weren't for naval medicine, you'd be talking to a dead man."

- Marine Capt. Matthew Kutilek

tion other than what he experienced.

"Go as far forward as possible, go to the front lines. Volunteer yourself to those who you will serve," said Kutilek. "Yes, you will see dead Marines and sailors, you will see wounded Marines, but they will need you. I couldn't tell how many bruises I left on the nurses' and doctors' arms because of the pain I was in. They didn't care what rank I was ... to them, I am a Marine. That's all that matters to them."

Those in attendance were completely awe-struck about his experiences and thankful for his kind words.

"Wow," was all Cmdr. Marnie Buchanan, the head of the Staff Education and Training Department, NHCL, said. "He's truly an amazing Marine and person. For him to say all these nice things about what we do really means a lot."

Navy doctors, nurses and corpsmen all have made an impact on Kutilek and his family. He is an advocate for Navy medicine and for wounded Marines. He is thankful for those who have helped him and his family through the tough times. To Kutilek, it's not about him. It's about those who are still in harm's way. It's about the forward-deployed Navy medical personnel and the brave Marines they will make an impact on.

"I am doing my best to be an advocate and voice for wounded Marines and Navy medicine," said Kutilek. "It's all about them, not me."

Photos courtesy of Capt. Matthew Kutilek

Preventing Dengue Fever

Story and photos by Chris Aguinaldo
Naval Region Hawaii Public Affairs



Lt. Ian Sutherland, Navy Environmental and Preventive Medicine Unit No. 6 (NEPMU-6) entomologist, inserts a mosquito into a test tube to start the process of molecular analysis for dengue fever. The U.S. Naval Medical Research Unit No. 2 Pacific and NEPMU-6 teamed up to assist the State of Hawaii with an outbreak of dengue fever that hit the islands.



When a possible dengue threat hit Hawaii earlier this year, personnel from Joint Base Pearl Harbor-Hickam contributed their expertise to help given the potential impacts.

“Dengue Fever can be a debilitating mosquito-borne disease,” said Naval Medical Research Unit No. 2 Pacific microbiologist Lt. Dustin Harrison. “Although not often fatal, it causes severe headaches, muscle, eye, and joint pain.”

But he explained when multiple forms of the dengue virus are introduced into an area, there is an increased risk for an even more serious form called Dengue Hemorrhagic Fever (DHF). “Because Hawaii has mosquitoes that are capable of efficiently transmitting the virus and there is no specific treatment for infection, it is important to quickly identify and respond to any potential outbreak as soon as possible.”

NAMRU-2 Pacific and Navy Environmental and Preventive Medicine Unit No. 6 (NEPMU-6) had teamed up to assist the state of Hawaii after reports of dengue fever in the islands in February.

Back then, the state Department of Health confirmed four cases of dengue fever on Oahu.

These initial cases were reported to have no history of travel to a dengue endemic area and were localized to a single neighborhood in Pearl City, a short distance from the U.S. Marine Corps Manana Housing Area.

Since February, NAMRU-2 Pacific and NEPMU-6 have been assisting with the outbreak by providing informational pamphlets to Manana Housing residents, educating the public on ways to control mosquitoes around their homes, and conducting mosquito trapping and dengue testing.

“Prevention is the key to reducing mosquito bites,” said Lt. Ian Sutherland, NEPMU-6 entomologist. “Eliminating sites where mosquito larvae can grow is the single most effective step.”

Residents can help reduce the risk by removing debris which could accumulate water, including discarded bottles, cups, and cans. Things like potted plants and open containers

such as garbage cans missing their lids can quickly fill with water and become “mosquito factories,” Sutherland said.

“Nearly anything that can hold water for five



U.S. Naval Medical Research Unit No. 2 (NAMRU-2) Pacific microbiologist Lt. Dustin Harrison, watched by Lt. Ian Sutherland, Navy Environmental and Preventive Medicine Unit No. 6 (NEPMU-6) entomologist, prepares a sample for molecular analysis. The tests may take between 2-4 hours to determine if mosquitoes are carrying the dengue virus. NAMRU-2 Pacific and NEPMU-6 teamed up to assist the State of Hawaii with an outbreak of dengue fever that hit the islands.

days can serve as a source of mosquitoes. Inspect and repair window and door screens to keep mosquitoes from entering homes. Wearing lighter colored, long-sleeved clothing as well as personal insect repellent containing DEET can also be effective at reducing the risk of mosquito bites,” he added.

Both Sailors agree that if one suspects a dengue infection to call a physician or medical care provider.

Of the almost 100 suspected cases of dengue fever, 42 have tested negative with the rest awaiting testing, which is being done by the joint NAMRU-2/NEPMU-6 lab, the Hawaii State Labs and the Centers for Disease Control and Prevention in Atlanta. The samples have been collected from all over Oahu.

The NAMRU-2/NEPMU-6 staff have collected and identified 1,905 *Aedes albopictus* females (the vector for dengue virus in Hawaii) from three sites set up by the NEPMU-6 Entomology Department and one site set up by the state of Hawaii. The mosquitoes are being analyzed using a proto-type dipstick test for dengue virus that is being field tested and evaluated in conjunction with Walter Reed Army Institute of Research.

This type of testing is only one of the many things that the JBPHH units are involved in. NAMRU-2 Pacific conducts research on infectious disease agents throughout the Pacific and South East Asia. Anything that has mission abortive potential — including diarrhea, malaria, dengue fever, leptospirosis, influenza, to name a few — is the focus of their research.

“Our goal is Force Health Protection, protecting warfighters from disease so they can complete their missions,” Harrison said.

“NEPMU-6 maximizes combat readiness of operational forces for the entire Pacific region by providing specialized environmental and preventive medicine support,” Sutherland said. “Our team consists of public health professionals, including medical entomologists, industrial hygienists, environmental health officers, physicians, and microbiologists.”

NEPMU-6 oversees prevention and control strategies against insect-borne diseases, water-quality problems, and any other conditions threatening the health of Pacific Sailors and Marines.

“We are the Pacific region’s front line preventive health specialists,” Sutherland said. 🌐



NSMRL Tests New Eyewear for Submariners

Naval Submarine Medical Research Laboratory Public Affairs

A research team from the Naval Submarine Medical Research Laboratory (NSMRL) tested a new improved eyewear design to support Naval Ophthalmic Support and Training Activity's (NOSTRA) search for a replacement of the outdated and uncomfortable "granny" P3 glasses.

NOSTRA worked with a vendor to develop new submarine duty glasses that would be functional, attractive, comfortable and easily fit inside submarine emergency breathing apparatus used during drills and emergencies. After satisfactory analysis of the glasses at NOSTRA, Ms. Alison America, an NSMRL researcher, began testing the eyewear for fit and comfort with Submarine Independent Duty Corps-men (IDC) volunteers from the Naval Undersea Medical Institute.

"The IDCs provided posi-



Submariner wearing new and improved submarine duty glasses.

Photo courtesy of NSMRL

"I determined that 95 percent of submariners wanted the glasses available."

- Alison America, Naval Submarine Medical Research Laboratory researcher

tive feed-back and comments on the initial evaluation of the eyewear, citing good fit and attractive appearance," said America. Based on their favorable comments, she proceeded with testing on submariners, providing eyewear prototypes to 57 volunteer submariners on the USS

Hampton; USS Philadelphia, SSN 690; and USS New Hampshire, SSN 778. The volunteers wore the glasses for up to nine months, then provided their evaluations and comments to America.

"During my last deployment I found the new glasses to be lightweight, comfortable and extremely easy to wear in breathing protection. A vast improvement over the old glasses," said Cmdr. Chad Hennings, former executive officer, USS Hampton, SSN 767.

"I determined that 95 percent of submariners wanted the glasses available, saying that the new eyewear was an improvement, and the thin yet sturdy metal frames

permitted a tight seal and easy fit within the full-face masks EABs," America said. "Also, the design avoided the uncomfortable pinching at the temples and resulting skin creases."

After successful testing, NOSTRA adopted and began issuing the new frames to submariners. The new glasses are now available at local optometry clinics.

Established in World War II to conduct mission-critical studies in night vision, sonar sound discrimination and personnel selection, NSMRL continues to serve the fleet by taking the lead in undersea human factors, sensory sciences and operational medicine. 🌐



A High Density Array EEG system in UDRI Human Factors Group lab.

Story and photos by Naval Medical Research Unit-Dayton Public Affairs

Establishing orientation in one's environment is necessary to perform virtually all aspects of normal behavior, so it is not surprising that spatial disorientation (SD) poses a significant hazard during physically and cognitively demanding activities such as aviation. The Naval Safety Center cites this cognitive threat as the principal contributing factor in class A aviation mishaps.

Recognizing the need to develop countermeasures for SD, the Naval Medical Research Unit-Dayton (NAMRU-Dayton), in collaboration with the University of Dayton Research Institute (UDRI), is pursuing innovative research aimed at advancing our understanding of the human brain's spatial orientation system.

Previous laboratory research established the existence of a network of specialized neurons within specific brain regions that integrates visual and

vestibular (motion) signals, creating an "anatomical spatial display" that operates much like a compass and perhaps a gyroscope, orienting an animal to its position within an environment. In humans, a recent clinical study utilizing functional magnetic resonance imaging (fMRI) techniques found similar neural processes in participants engaged in a simulated spatial awareness task. However, fMRI imaging requires participants to remain physically motionless, which limits our interpretation of how humans process spatial awareness and SD in real world/operational settings.

To overcome this limitation, a novel project is underway at NAMRU-Dayton that incorporates recording neural activity with simultaneous subject motion in human participants.

Recently, NAMRU-Dayton researchers, led by Dr. Richard Arnold and Lt. Stephen Eggan, met with UDRI scientists and engineers to begin integrating UDRI's advanced 256-channel dense-array electroencephalography (dEEG)

NAMRU-Dayton Investigates Neural Localization of Spatial Processing



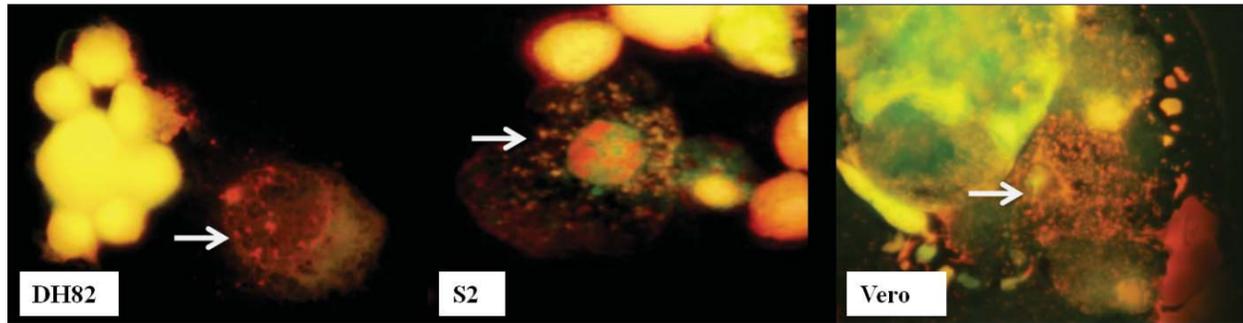
NAMRU-Dayton's Visual Vestibular Sphere Device (VVSD) will be used to produce spatial orientation stimuli.

technology with NAMRU-Dayton's unique Visual Vestibular Sphere Device (VVSD). Unlike standard EEG technology, which measures gross neuroelectrical activity at the scalp, dEEG provides high-resolution neuroelectrical signals that can be reconstructed in three-dimensional space and localized to specific anatomical brain structures.

Additionally, dEEG allows for participant motion during recording, overcoming the limitation of fMRI. NAMRU-Dayton's VVSD will introduce combinations of visual tracking tasks and participant motion during recording, allowing researchers to distinguish between visual and motion influences on spatial processing.

Findings from this collaborative research could identify techniques for future applied NAMRU-Dayton research designed to measure SD during flight simulations and will lay the groundwork for developing future methods of detecting SD and countermeasures to reduce the risk of aviation-related SD mishaps. 🌐

Rickettsial Research: Fighting the Bite of Fleas, Lice, Mites and Ticks



Modified Diff-Quik File: Diff-Quick staining of rickettsiae in three different types of cells (DH82, S2, Vero). Arrow indicates cell containing rickettsia.

By Dr. Alison Luce Fedrow
Naval Medical Research Center

The bacteria that are responsible for rickettsial diseases are transmitted by fleas, lice, mites and ticks, and are capable of debilitating deployed military personnel. Symptoms associated with rickettsial infections are flu-like and can range from mild to lethal. Biomedical research that contributes to the prevention, diagnostic effort, and vaccine development is an important component of Navy Medicine. To date, no vaccine for the protection against rickettsial infections is available.

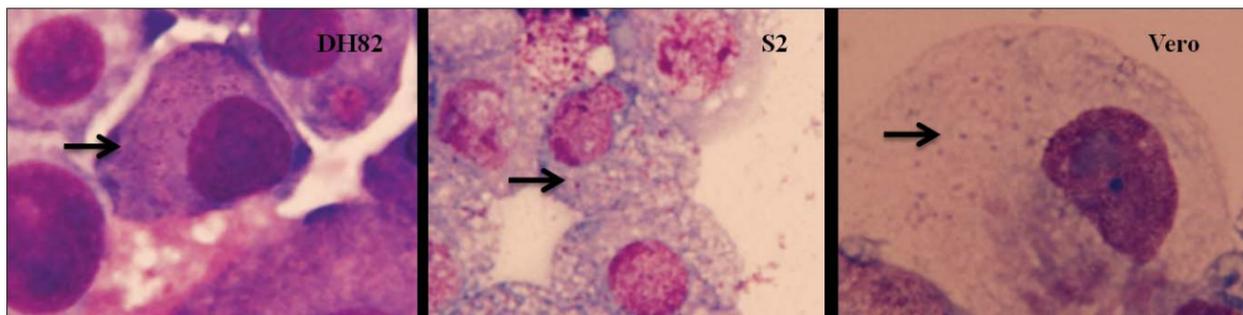
Epidemic typhus, scrub typhus, spotted fevers, and ehrlichioses have affected the military during World War I, World War II, the Korean conflict, and the Vietnam conflict. Current research efforts are underway to determine the prevalence of these diseases among troops serving in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

Since 1984, more than 14 new types of rickettsial species have been discovered. In 2002, a bacteria named *Candidatus Rickettsia andeanae* was identified during an investigation of a febrile (fever) outbreak in the area around the town of Sapillica in northwestern Peru. The bacteria were detected in two different species of ticks which were collected from two domestic horses. The DNA from the *Candidatus Rickettsia andeanae* was compared to the DNA of other known rickettsial species and was found to be similar, but not identical to any known rickettsial species. Consequently, *Candidatus R. andeanae* was determined to be a novel rickettsial agent, with the potential for causing disease in humans. In 2010, *Candidatus R. andeanae* was detected in a tick collected by researchers from Old Dominion University, Norfolk, Virginia, near the Portsmouth River.

One of the challenges faced by our research team at the Naval Medical Re-

search Center was finding suitable cells to grow the bacteria, which could then be used for future experiments. The *Candidatus R. andeanae* from the tick collected by Old Dominion University was used to infect three different types of cells in our laboratory. Infections were confirmed using a technique called quantitative polymerase chain reaction (qPCR). Additionally, transmission electron microscopy and different cell-staining techniques were used to produce images of the *Candidatus R. andeanae* that could be used to determine the size and the location of the bacteria within each type of cell.

Since November 2010, these infections have been continuously maintained in the laboratory. This first successful cultivation of *Candidatus R. andeanae* in three distinct cell lines represents a major step towards better characterizing and understanding the potential virulence of this emerging rickettsial species. 🌐



Modified AO File: Acridine orange stain used to show presence of rickettsiae in three different types of cells (DH82, S2, and Vero). Arrow indicates cell containing rickettsia.

NAMRU-3 Supports Force Health Protection in the Horn of Africa

By NAMRU-3 Public Affairs

Camp Lemonnier, established in Djibouti in 2002, is the only fixed U.S. base under the Africa Command (AFRICOM) and is also home to the U.S. Combined Joint Task Force-Horn of Africa (CJTF-HOA).

Originally focused on counter-terrorism operations, the camp's mission has now expanded to include strengthening partnerships and contributing to stability in East Africa. This serves as part of a comprehensive approach to increase African partner nations' capacity to maintain stable environments for their citizens.

The increasing role of U.S. military personnel in the region is also important from a force health protection perspective. Lt. Cmdr. Peter Sebeny, a U.S. Naval Medical Research Unit No. 3 (NAMRU-3) research clinician who has worked in the region, said, "With the growing presence of U.S. personnel in Africa, there is a need to better understand infectious disease threats in the region, which can be challenging since little surveillance data and public health capacity exists. Improved surveillance

and laboratory diagnostics are the cornerstone to gaining a better understanding."

NAMRU-3 initiated a diarrheal surveillance project at Camp Lemonnier's Expeditionary Medical Facility (EMF) in 2007 with plans to integrate the surveillance to include other illnesses, including influenza-like illness and acute febrile illnesses such as malaria. NAMRU-3's research activities are under an umbrella protocol aimed at detecting health threats among deployed military personnel and are executed in accordance with the NAMRU-3 Military Infectious Disease and Operational Health Surveillance Network.

The importance of a surveillance system is that it can identify new disease trends or infectious disease outbreaks. For example, during the early period of the 2009 H1N1 influenza pandemic, the EMF, with direct support from NAMRU-3, utilized the existing surveillance system to identify an outbreak of seasonal influenza A (H3N2). That surveillance also identified the first confirmed pH1N1/2009 influenza cases in the Horn of Africa among U.S. service members. Ongoing surveillance has also

been important in identifying common etiologies of acute gastroenteritis in the region, including Enterotoxigenic E. coli (ETEC) and norovirus. Recent findings from this surveillance were presented by NAMRU-3 at the European Command and AFRICOM Science and Technology Conference in June 2011.

Limited laboratory capacity within the EMF remains a challenge, but NAMRU-3 is currently working with camp leadership and the French military (who have well-established clinical laboratory facilities in Djibouti) to solve this problem.

"Establishing better local laboratory capabilities in Djibouti will be important for current surveillance efforts as well as to conduct more advanced studies to understand the causes, burden and impact of gastroenteritis, one of the most common illnesses in deployed populations," said Sebeny.

It is through efforts such as these that NAMRU-3 has built valuable professional relationships with the EMF and the CJTF-HOA staff and continues to play an important role in force health protection in Africa. 🌐

Navy Researcher Places in International Young Investigator Competition

By NAMRU-San Antonio Public Affairs

Lt. Leedjia Svec, principal investigator with the Naval Medical Research Unit-San Antonio (NAMRU-San Antonio), was invited to compete in the Space Medicine Association's international young investigator competition.

Researchers who study aviation medicine or aviation performance and who are still young in their careers were invited to participate. To compete, Svec had to write a manuscript and present her research for judging during the 82nd Aerospace Medicine Association's (AsMA) annual conference in Anchorage, Alaska. The finalists in this year's competition were selected from 175 contestants. Svec was awarded fourth place in this tough international competition.

According to Dr. Jeffrey Myers, after whom the award is named; "Lt. Svec's presentation was judged to represent the top of the performances at the conference."

Svec presented current research in laser eye protection (LEP) and mathematical modeling. Her research was titled,

"Predictive models of visual behavior in the military environment," and was coauthored by Dave Freeman, M.A.; Tom Kuyk, Ph.D. TASC; and Lt. Col. Martin LaFrance, Ph.D./O.D.

Svec is especially grateful for her dedicated team of colleagues and said, "I could not have achieved this accomplishment without their help; this is their award, too."

Within the Directed Energy Biomedical Research Department, Svec and her colleagues identify, understand and manage the bio-behavioral effects and risks associated with human exposure to radiofrequency, microwave, optical radiation (laser) and low-frequency injected current directed-energy sources. Part of that program is LEP and visual effects such as color vision or glare.

NAMRU-San Antonio's mission is to conduct medical, dental and directed energy biomedical research that focuses on ways to enhance the health, safety, performance and operational readiness of Navy and Marine Corps personnel and addresses their emergent medical and dental problems in routine and combat operations. 🌐

Sam Stone's Combat Stress

Sam Stone came home,
 To his wife and family
 After serving in the conflict overseas.
 And the time that he served,
 Had shattered all his nerves,
 And left a little shrapnel in his knee.
 But the morphine eased the pain,
 And the grass grew round his brain,
 And gave him all the confidence he lacked,
 With a Purple Heart and a monkey on his back.

"Sam Stone" lyrics by John Prine

By Richard Ginn
Col., MSC, U.S. Army (Ret.)
Article originally appeared in The GROG

When Johnny Cash sang "Sam Stone," he sang about another war and era that echo in the challenges faced by our military today. If we ignore the effects of the inevitable stresses of combat and deployment, and if we leave people who are having problems unattended, then the outcomes can be as sad as the story of this veteran who came home from Vietnam "with a Purple Heart

and a monkey on his back," and descended into a downward spiral of drug addiction and death from a drug overdose.

As we discussed in recent Grog articles, the BUMED oral history project is helping to preserve the stories of Sailors and Marines who are making history today. One of the areas we are concentrating on is Navy medicine's efforts to control and treat combat and operational stress, a program squarely aimed at helping the Sam Stones of our "Long War" in Iraq and Afghani-



Wounded in the hand and suffering from nervous exhaustion, this Marine is still able to walk back to a first aid station with a little assistance from a fellow fighter. There was not far to walk for this casualty this was the battle of Tarawa, where "rear lines" were back in the fleet lying offshore and the front was the whole island.

*Drawings by Kerr Eby.
Courtesy of the Navy History and Heritage Command.*

stan. In a series of interviews, we are recording the stories of people who are engaged in this important effort. We are collecting the personal experiences of Navy psychiatrists, psychologists, chaplains, social workers, hospital corpsmen, psychiatric technicians, and other members of the mental health team who day-by-day build and expand combat stress control initiatives, while also treating sailors and Marines who need help.

The effects of combat stress, ranging from mild to severe, are pervasive, but accurate statistics are elusive. A RAND Corporation study in 2008 estimated that of the 1.7 million service members who had deployed to OEF and OIF at that point, over 300,000 had developed PTSD or major depression, a number that does not include the full range of stress-related disorders.¹ Indeed there are estimates that 30 percent of the population from OEF and OIF may be affected by post-traumatic stress symptoms.² Whatever the actual numbers turn out to be, they cannot be relegated to simply statistics, which are, after all, "people with the tears wiped off." The fact is that no one is unchanged by their deployment, and our oral histories move from the realm of

numbers into the real world of human beings, as told in their own words. Often their stories are gripping, as reflected in a few vignettes.

There is the story of the Marine corporal, re-deploying home with his unit, who learned that the buddy he had last seen in Iraq "stacked like cordwood on a Humvee" was in fact alive and would be present for homecoming celebrations at Camp Lejeune. The corporal sought help from a psychiatrist for the dilemma that was tormenting him. "Doc, my family will be there. Who should I hug first, my buddy or my family?" This poignant encounter deeply moved the medical officer, and drove home a fundamental insight.

"Why don't we give the wounded the opportunity to spend some quality time with their brothers in arms before the contamination, if you will, of the reunion? And I say contamination because the mental mechanisms of depression, suppression, and denial are so great. I think at that point I really learned that any work that needs to be done really needs to be done before individuals set foot back on their soil."

In another example, a psychologist who deployed to Iraq as part of an effort to bring mental



The artist often wondered what the infantryman thought as he looked over his handiwork. This Marine searched for water for his friends on the still-smoking beach during the Battle of Tarawa in 1943. The fight was still going on farther down the island.

health support to the operational unit level, volunteered to participate in a mounted patrol “outside the wire.” He found it physically exhausting and emotionally fatiguing. “The initial excitement wears off, and then you’re left with hours of just sheer boredom and monotony. But you have to maintain vigilance. So you talk about your families and cars and football, any type of

“The initial excitement wears off, and then you’re left with hours of just sheer boredom and monotony. But you have to maintain vigilance.”

- Anonymous psychologist who deployed to Iraq

small talk you can think of, smoke cigarettes, and drink that ever present water that you keep in the back of the Humvee. Then you get those moments of sheer terror when the police come by and everybody’s getting riled up thinking there’s going to be a fire fight. I began to realize, though, it’s as much the overall wear and tear and constant stress and strain as any one incident that really has its impact.” While this episode entailed no direct combat exposure, it was an example of the stress caused by being in a combat theater itself. “I began to realize there are traumatic events, but that daily wear and tear does a lot to people as well.”

A third example comes from the experience of another mental health professional whose deployment illustrated an aspect of operational stress that involved neither direct combat or the fact

of being in the theater, but the deployment itself. His flight included a layover at a remote airfield in the wee hours of the morning. As he talked about his weariness, the routine stop, and the deserted airport, he was suddenly overcome and unable to continue. As he regained his composure, he described how he and his fellow sailors were surprised when they were warmly welcomed by a group of volunteer greeters who routinely met all service members who came through the airport. For this caregiver, some powerful emotions that were just under the surface had emerged during our interview and taken center stage, perhaps for the first time.

Our interviews illustrate that operational stress is both the result of combat as well as the operational deployments themselves. Injury may occur even if the individual has not been directly

involved in combat or single dramatic incident, but as the result of constant stress. Often, a key to relief is the chance to talk to someone. As one medical officer put it, enlisted Marines and Sailors “will walk through hell in gasoline pants, but they want respect; they want someone to listen.” Our interviews are also underscoring the need to care for the caregiver, such as the mental health professional who found that in the process of helping others he was coming to grips with his own need for help. Those who listen also need someone to listen to them.

About the Author: Colonel Richard V.N. Ginn, an oral historian under contract with the Navy Medical History Office, is a retired Army Medical Service Corps officer. He is the author of In Their Own Words: The 498th Medical Company (Air Ambulance) in Iraq.



Faces tight with strain, hospital corpsmen watch breathlessly to see the effect of the blood plasma they have injected into the veins of a Marine casualty at Tarawa. Silence cloaks the onlookers as Destiny balances the delicate scales: Will it be life or death?

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