

USACHPPM TODAY

Volume 9, No. 1

March 2002

A U.S. Army Center for Health Promotion and Preventive Medicine News Bulletin



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USACHPPM TODAY

March 2002
Volume 9, No. 1

LET US KNOW

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If you have comments or questions concerning USACHPPM or any of its services, or wish to obtain any of the education materials we have available, please contact us.

We receive many calls and comments from our readers on what they read and what they would like to read. To those of you who have responded, "Thank you". Your input is important to us. To the rest of our readers, we would like to say "Let Us Know". If you have specific questions or if there are any topics you would like to see covered, send us an e-mail or write/call us.

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Inside USACHPPM

HOMELAND SECURITY

BY: Stephen L. Kistner

USACHPPM'S CHANGING ROLE IN THE WAR ON TERRORISM

"The World has come together to fight a new and different war - a war against those who seek to export terror, and a war against those governments that support or shelter terrorists."

... President George W. Bush

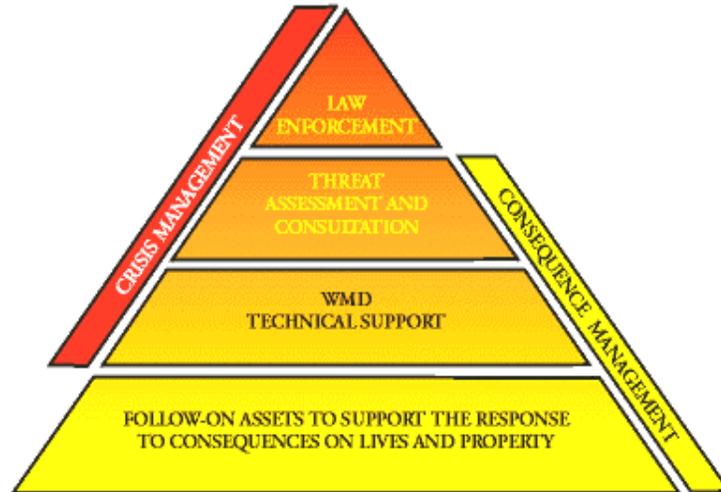
As a result of the terrorist attacks on 11 September 2001, Americans learned a painful lesson - American soil is not immune to evil or cold-blooded enemies capable of acts of mass murder and terror. Our Nation's leaders recognized the need to have our homeland protected. Homeland Security has emerged as a paramount national priority to strengthen protection against terrorist threats or attacks in the U.S.

Secretary of the Army, Thomas White, stated, "Since the earliest days of our nation, the Army has engaged in homeland security. The Army brings enormous experience, talents, and capabilities to this effort." USACHPPM has been a key player in

supporting the medical response to Homeland Security.

In responding to terrorist acts, crisis management and consequence management are critical. Crisis management involves detection, preparedness, prevention, protection, and incident management; consequence management involves recovery, reentry, and restoration phases of emergency response. The Federal Response Plan establishes policy to detect, prevent, defeat, and manage the consequences of terrorism. The following figure shows the relationship between crisis management and consequence management in responding to a terrorist incident.

Legend: WMD - Weapons of Mass Destruction



Source: Federal Response Plan

The Federal Response Plan also outlines how the Federal Government will respond to any acts or potential acts of terrorism.



The Federal Emergency Management Agency (FEMA) has the primary responsibility for coordinating, planning, and executing operations requiring a Federal response. FEMA provides the U.S. Army Forces Command and the U.S. Army Medical Command an interface with Federal agencies for supporting emergency medical support efforts. The components can be tasked to provide support for a disaster (natural or man-made) either through the Joint Forces Command or through the Director of Military Support. The Army Medical Department supports the Army mission of supporting a chemical, biological, radiological, or nuclear incident at a Department of Defense (DOD) facility or at a local facility for which the local and state authorities do not have adequate response capabilities. Our primary function is to provide consultative support to the first responders and/or on-scene commanders.

Our role in crisis management will be to provide information to the crisis managers assisting them in being prepared before a terrorist event occurs. As part of consequence management, we will deploy Special Medical Augmentation Response Teams - Preventive Medicine (SMART-PM) to assess, monitor, and sample for low level/chronic occupational and environmental health hazards in damaged areas.

Following the 11 September 2001 terrorist attack on the Pentagon, we assembled and deployed a SMART-PM to perform a reentry assessment for the 23,000 occupants. Our team conducted assessments of damaged corridors and work areas; monitored for acute hazards with direct-reading instrumentation; and sampled for low-level/chronic hazards in air, drinking water, and residue inside the building. The laboratory analysis results, performed by our Directorate of Laboratory Sciences, were provided to the DOD leadership within 24 to 48 hours. Our team of occupational and

environmental health specialists provided the expertise necessary to ensure the safety of all DOD personnel returning to their work environment after this horrific attack.

We also provided consultative assistance in the anthrax sampling of the Hart Senate Building as well as the Brentwood Postal Facility. A SMART-PM participated in developing sampling plans and protocols and consultation on remediation techniques and evaluation. We assisted the U.S. Environmental Protection Agency, the National Institute of Occupational Safety and Health, and the Federal Bureau of Investigation in their decision-making process.

Another major concern is the threat of bioterrorism. Healthcare professionals are on the front lines in this fight as they may be the first to detect a biological threat. They must be aware of biological terror diseases to ensure early diagnosis and timely treatment and at the same time calm unwarranted fears of the public.

We are developing biological threat information such as fact sheets, briefings, video presentations, and technical guidance. We also provide information from additional sources such as the Office of The Surgeon General, Headquarters, Department of the Army; Centers for Disease Control and Prevention; Johns Hopkins University; World Health Organization; Office of Homeland Security; and DOD publications.

Any organization responsible for fighting the war on terrorism should be putting training programs in place, establishing memorandums of agreements or contracts with subject matter experts or other responsible organizations and agencies, and assessing the potential health hazards and the vulnerabilities of facilities and installations. We will continue to be proactive in our counter-terrorism efforts.

To adapt is too dangerous because it means you're always running behind. You have to find a way to get ahead. Call it a vision. Call it a mission. Call it a cause. It is basically taking responsibility for shaping events.

...Peter Drucker

The following is a list of information products to support in the fight against terrorism found on our home page: <http://chppm-www.apgea.army.mil/>

Fact Sheets:

- Anthrax, 2001.
- How to Handle Mail with a Biological Threat, 2001.
- Handling Suspicious Packages, 2001.
- What YOU Should Know About Anthrax, Tri-fold, 2001.
- Smallpox, 2002.
- Health Risk Communication, 2001.

Technical Guides:

- TG 188 - U.S. Army Food and Water Vulnerability Assessment Guide, 2002.
- TG 204 - Glossary of Terms for Nuclear, Biological, and Chemical Agents and Defense Equipment, 2001.
- TG 218 - General and Detailed Facts About Chemical Agents, 1996.
- TG 230 - Chemical Exposure Guidelines for Deployed Military Personnel, 2002.
- TG 238 - Radiological Sources for Potential Exposure and/or Contamination, 1999.
- TG 244 - The Medical NBC Battlebook, 2000.
- TG 273, Diagnosis and Treatment of Diseases of Tactical Importance to U.S. Central Command, 2002.

Other Documents:

- Department of the Army Pamphlet 25-52, Mail Facility Security and Handling Suspicious Mail, 2001.
- Guide for Assessing Anthrax Contamination at DA Mail Facilities, 2001. Interim guidance on how to assess an Army mailroom for anthrax contamination.
- Transportation of Anthrax Samples Information Paper, 2001.
- Anthrax Mailroom Sampling training briefings and videos.

The following websites provide further information on homeland security efforts:

The White House <http://www.whitehouse.gov/>

The Office of Homeland Security <http://www.whitehouse.gov/homeland/>

National Domestic Preparedness Office <http://www.ndpo.gov/>

The ANSER (Analytical Services, Inc.) Institute for Homeland Security
<http://www.homelandsecurity.org/>

The World Health Organization <http://www.who.int/emc/diseases/>
Centers for Disease Control and Prevention Public Health Emergency Preparedness and
Response <http://www.bt.cdc.gov/>

Office of The Surgeon General Guidance for Healthcare Providers
<http://chppm-www.apgea.army.mil/HomelandSecurity/anthrax.asp#>

Army Medical Department <http://www.armymedicine.army.mil/>

Headquarters, Department of the Army <http://www.hqda.army.mil/>

U.S. Environmental Protection Agency Chemical Emergency Preparedness and
Prevention Office <http://www.epa.gov/swercepp/>

U.S. Environmental Protection Agency <http://www.epa.gov/>

Johns Hopkins Center for Civilian Biodefense Studies
<http://www.hopkins-biodefense.org/index.html>

Journal of the American Medical Association, Bioterrorism articles
<http://chppm-www.apgea.army.mil/HomelandSecurity/anthrax.asp>

U.S. Army Medical Research Institute of Chemical Defense <http://ccc.apgea.army.mil/>

U.S. Army Medical Research Institute of Infectious Diseases
<http://www.usamriid.army.mil/education/instruct.htm/>

US. Army Publishing Agency <http://www.usapa.army.mil/gils/index.html>

DOD Directives and Instructions <http://www.dtic.mil/whs/directives/>
DefenseLink <http://www.defenselink.mil/>

BG WILLIAM T. BESTER BECOMES USACHPPM COMMANDER



(l to r) LTG James B. Peake, The Surgeon General and Commander, U.S. Army Medical Command, passes the CHPPM flag to BG William T. Bester.

BG Lester Martinez-Lopez passed command responsibility for the U.S. Army Center for Health Promotion and Preventive Medicine to BG William T. Bester on March 14, 2002. The ceremony was held at McBride Parade Field, Edgewood Area,

Aberdeen Proving Ground, Maryland. It featured the U.S.A. Ordnance Center and School Salute Battery and the 389th Army Band. A reception was held at the Gunpowder Club following the ceremony.

The Army Surgeon General and Commanding General, U.S. Army Medical Command, LTG James B. Peake, hosted the ceremony. He thanked Martinez-Lopez for his leadership and competence. He said, "We salute the leadership that BG Martinez-Lopez has given and we recognize the continued importance of leadership as we pass the flag to BG Bester. It has been a remarkable time for our nation and for CHPPM. We are a nation at war. CHPPM teams have again been found literally at the front providing the best information that commanders can possibly get to make key decisions that affect the health of their soldiers truly at the tip of the spear. We could not have had a better leader to keep that focus."

Martinez-Lopez has been commander since January 24, 2000. He also served as Functional Proponent for Preventive Medicine since February 1, 2000. His previous assignments include Commander, Martin Army Hospital and PROFIS Commander, 14th Field Hospital, Fort Benning, Georgia; Joint Task Force Aguila Surgeon (Hurricane Mitch Relief) in Central America; and Command Surgeon, U.S. Army Forces Command.

Bester comes to USACHPPM from the Pentagon where he served as the Assistant Surgeon General for Force Projection and the Chief of the Army Nurse Corps. He completed the U.S. Army

War College in 1998 and subsequently served as Commander, Moncrief Army Community Hospital, Fort Jackson, South Carolina. Previous assignments include Chief Nurse, Fort Benjamin Harrison, Indiana and Deputy Commander for Nursing at Fort Leavenworth, Kansas. In 1994, he was assigned as the Deputy Commander for Nursing at the USA MEDDAC in Wuerzburg, Germany and was dual-hatted as the Chief Nurse of the 67th Combat Support Hospital.

His awards include the Legion of Merit (2 oak leaf clusters), the Meritorious Service Medal (3 oak leaf clusters), the Army Commendation Medal (with oak leaf cluster), the National Defense Service

Medal (with star), the Humanitarian Service Medal, the Army Achievement Medal, and several service ribbons. He is a member of the Order of Military Medical Merit, the Sigma Theta Tau Nursing Honor Society, and he holds the Expert Field Medical Badge and the Parachutist Badge.

In May 2001, Bester was invited back to the College of St. Scholastica to be the College's commencement speaker. During that event, he was presented with a Doctor of Humane Letters, Honoris Causa. In October 2001, he was presented with the Alumni Achievement Award for 2001 from The Catholic University of America.

USACHPPM Personnel

THE “A” PROFICIENCY DESIGNATOR

The Surgeon General awarded the prestigious “A” proficiency designator to COL Gemryl L. Samuels and LTC Mary E. Laedtke. Criteria were established consistent with the provisions of AR 611-101, Personnel Selection and Classification, Commissioned Officer Classification System. A brief synopsis of the criteria follows.

Be considered eminently qualified to chair a department, division, or service

Have held or have been qualified for a “B” Proficiency Designator for a period of not less than 5 years, except for officers of the Medical Corps who must hold the “B” Proficiency Designator, and have not less than 3 years time in grade as a LTC.

Have a total of not less than 15 years professional experience, at least 10 years of which must have been on active duty in the AMEDD.

Have been assigned to positions requiring their primary AOC for at least 50 percent of active duty time following their receipt of the “B” Proficiency Designator and have performed in an outstanding manner in these assignments.

Be leaders in their specialty, and have made significant contributions to the advance of knowledge in a particular field through extensive publication and active national professional organization membership.

Be a distinct asset to the AMEDD, both as officers and as professional specialists.



COL GEMRYL L. SAMUELS
Director, Health Promotion and Wellness

The talents, professionalism and dedication of COL Samuels are clearly evident in the conduct of her daily activities. She is a standard setter who is eager and most capable of providing superior leadership. At her previous assignment, she was nominated for and was recognized as the winner of the 1999 Army Nurse Corps (ANC) Association Advanced Military Nursing Practice Award, honoring a middle range ANC officer who made a significant contribution to the practice of nursing and the image of the ANC. In her role as clinician, she dumbfounded the Patient Administration Systems and Biostatistics Activity who demanded an explanation of the 360 percent increase in outpatient visits for her section four months after she took over leadership.

Samuels was one of three hand picked and offered the unique opportunity to serve on the very first medical team on a 10-day trip to Jordan, to gain

and report on first-hand knowledge of the public health capabilities of the Jordanian Royal Medical Services. She inspires follow-me confidence in subordinates. The research projects she and two junior officers investigated were the recipients of award-winning plaques for best research poster and best oral presentation at the second and third Army Force Health Protection Conferences.

After returning from a five-months deployment to Guantanamo Bay Cuba where she orchestrated a comprehensive public health program for a migrant humanitarian relief operation, Samuels ensured that the innumerable and individual contributions made

by Community Health Nurses remained after the migrants departed. Her two published articles in peer review journals provided clear implications for Community Health Nursing Practice in operations other than war.

She is the co-investigator on numerous funded grants presented at several professional conferences and meetings, was recently appointed to the prestigious position of Nursing Health Promotion and Wellness Consultant to The Surgeon General, and is certified in Community Health Nursing by the American Nurses Credentialing Center.

THE “A” PROFICIENCY DESIGNATOR AND THE ORDER OF MILITARY MEDICAL MERIT



(l to r) BG Lester Martinez-Martinez presents award to LTC Mary E. Laedtke

LTC Laedtke was awarded the “A” Prefix (see the criteria above) and the Order of Military Medical Merit. The Order recognizes outstanding soldiers and civilians who make significant contributions to the Army Medical Department.

Early in Laedtke’s career, a senior officer challenged her to dare to be different and this Army Occupational Therapist’s (OT) career has certainly been that! It was during her first military assignment at Letterman Army Medical Center, Presidio

of San Francisco, that Laedtke discovered her calling - providing education and training in outpatient settings. While stationed at Landstuhl Army Medical Center, Landstuhl, Germany, Laedtke noticed a significant number of soldiers and family members from the Baumholder community were being admitted to the hospital for psychosocial and drug-related problems. Baumholder had a large troop contingent an hour's drive from Landstuhl. Rather than having the troops and their family members coming to Landstuhl for psychosocial assistance, Laedtke traveled to Baumholder each week to provide various stress management and life skill classes.

The opportunities to provide non-traditional OT continued at Fort Benning, GA, which was her utilization tour after receiving her M.S. in Health/Fitness Management. As a member of the Family Practice Department, Laedtke was assigned to a position outside the hospital in the healthy community. She provided a variety of health promotion and stress management education classes to permanent party soldiers as part of their in-processing activities as well as educating Initial Entry Training soldiers during their basic training. She was involved in a program that helped drill sergeants and their families deal with the stress experienced while on the trail. She also teamed up with a hospital based OT and helped provide stress management classes to staff members (military and civilian alike) at the Martin Army Community Hospital.

While at Fort Benning, Laedtke had the experience of her military career. She was tasked to be the first active duty OT deployed with a Combat Stress Team during Desert Shield/Storm. Assigning OT personnel to combat stress teams had been

discussed for several years, but Desert Shield/Storm was the first time this concept was put into practice. The experiences and outcomes from Desert Shield/Storm were extremely positive and now OT personnel are assigned to Combat Stress Control Teams throughout CONUS and OCONUS.

Laedtke's real life experiences as a health promoter and her history of daring to be different led to her next assignment at the Pentagon and an assignment not previously undertaken by occupational therapists. She worked for the Deputy Chief of Staff for Personnel at the Pentagon as the proponent for AR 600-63 (Health Promotion Program) and AR 600-9 (Army Weight Control Program). While at the Pentagon, the Army Medical Specialists Corps chose Laedtke for a long-term education and training opportunity at the University of Wisconsin-Madison, where she completed her Ph.D. in Industrial Engineering.

Since completing her Ph.D., she has been at USACHPPM. She continues to do what she loves doing - teaching military and civilian professionals, technicians, and laborers throughout DOD and the Federal sector about ergonomics. Laedtke stated, "What I really like about this job is taking a subject that many think will be boring and ho-hum, jazz it up, and make it mean something to those who take the training." LTC Laedtke is one of a team of ergonomists who go out into the DOD and Federal sector to train them in ergonomics. She has provided over 50 classes and presentations on ergonomics since being at USACHPPM.

THE ORDER OF MILITARY MEDICAL MERIT



(1 tor) BG Lester Martinez-Lopez presents medal to MSG Luis Grillasca

MSG LUIS GRILLASCA, Operations Non-Commissioned Office, was inducted into the Order of Military Medical Merit. The Order recognizes outstanding soldiers and civilians who make significant contributions to the Army Medical Department.

Master Sergeant Luis Grillasca distinguished himself by exceptional meritorious service from 30 April 1992 to 30 April 2002. As Operations Non-Commissioned Officer (NCO), Office of the Deputy Chief of Staff for Operations, he developed, staffed and implemented the very first Command Inspection Program, was responsible for over \$600,000 worth of classified and unclassified equipment, deployed to Puerto Rico as part of a Special Medical Augmentation Response Team-Preventive Medicine (SMART-PM) during a malaria outbreak, and was invaluable in providing continuous operational support during Operations Noble Eagle and Enduring Freedom.

As Non-Commissioned Officer in Charge of the Department of Specialty Care, USA Medical Department Activity, Fort Drum, New York, he established and implemented a satellite obstetrics-gynecology clinic located at the local hospital, which provided an added convenience to patients, better productivity for the staff, and yielded a cost savings

in TRICARE dollars over \$324,000. Under his guidance and supervision, patient access to all specialty areas was significantly increased, reducing the amount of time soldiers and family members had to wait to be seen by a clinician by over 33 percent. His role as soldier and mentor led to an exemplary commitment to young enlisted soldiers and was demonstrated by two of his subordinates attaining NCO of the Year and Soldier of the Quarter in the 10th Mountain Division (L) competition.

As Treatment Platoon Sergeant, C Company, 725th Main Support Battalion, 25th Infantry Division (L), he was instrumental in training over 24 NCOs and 3 officers in achieving the coveted Expert Field Medical Badge, Emergency Medical Technician certification, and Cardio-Pulmonary Resuscitation certification, as well as training and certifying over 1,400 division soldiers as Combat Lifesavers. He was also responsible for his section receiving fully mission capable status on two Command Inspections, Command Maintenance Evaluation Team, and a Battalion External Evaluation. While stationed at Fort Hood, Texas, he was assigned as the 1st Cavalry Division's Medical Liaison to Darnall Army Community Hospital where he developed a professional and harmonious relationship with the Patient Representative Division, ensuring proper care was provided to all 1st Cavalry Division soldiers and their families. His ability to work through and anticipate problems, resolve conflict and ensure timely quality of care increased the overall readiness of the 1st Team.

Throughout his career, Grillasca has always put soldiers first. He has led by example and is the consummate professional. His over 20 years of active duty and dedicated service to the Army, its mission, leaders, and soldiers alike are in keeping with the highest traditions of military service.

MASTER CONSULTANT

Prakash M. Temkar, Ph.D., P.E., was selected as Master Consultant as an Environmental Engineer. This designation acknowledges that Dr. Temkar possesses exceptional technical acumen and is recognized by his peers for the highest level of expertise in the areas of health promotion and preventive medicine.

Dr. Temkar's contributions to U.S. Army's environmental health programs encompasses a wide range of projects from inventing the Pipe Loop system for water treatment optimization to environmental policy studies for developing Army's pollution prevention strategies. He has attained a prominent role in the environmental program through his achievements as a researcher, technical consultant, subject matter expert, team leader, and a senior fellow at various U.S. Army premiere organizations. Dr. Temkar's accomplishments have significantly advanced Army's posture on environmental compliance and significantly improved the quality of life at military installations. He has played a key role in the Pacific region by providing outstanding technical support to resolve some of the most contentious environmental health issues, assessing community health, and promoting a bilateral professional relationship with host nations. Recently, Dr. Temkar was recognized as one of the Top 10 finalists for the 2001 Federal Engineer of the Year Award. The National Society of Professional Engineers sponsors the award annually to honor Federal Engineers for their education, professional/technical society activities, civic and humanitarian activities, and engineering achievements.

Dr. Temkar has been assigned to USACHPPM-Pacific, Camp Zama, Japan as an environmental engineer in the Environmental Health Engineering Program since June 1998. He was also assigned to the U.S. Army Pacific Environmental Health Engineering Agency (now USACHPPM-Pacific) as an environmental engineer, October 1989 – August 1992. His educational background includes BE-Civil Engineering (Bangalore University, India), M. Tech-Civil/Environmental Engineering (Indian Institute of Technology, Kanpur, India) and Ph.D.-Civil/Environmental Engineering (University of Missouri, Columbia). Dr. Temkar is a Licensed Professional Engineer (Minnesota) and an accredited Environmental Management Systems Auditor.



THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES (AMSUS)

AMSUS has been working for the Federal Healthcare profession since its conception in 1891. It was originally a physicians' organization, however, AMSUS is not focused on only one service. Our constituency is comprised of professionals of all of the healthcare disciplines in the US Army, US Navy, US Air Force, US Public Health Service, Department of Veterans Affairs, US Army Reserve, US Navy Reserve, US Air Force Reserve, Army National Guard, Air National Guard, and the Coast Guard. AMSUS provides up-to-date information on the numerous healthcare fields that constitute the professions they strive to assist.

The 2001 AMSUS award recipients were announced to include Colonel George J. Dydek, Program Manager for Population Health Outcomes, Directorate of Epidemiology and Disease Surveillance. He received the Andrew Craigie Award for sustained exceptional leadership and dedicated service in pursuit of pharmaceutical care within the Federal sector. Dydek said, " I am honored to have been nominated and selected to receive this award. It has been my privilege as an Army Pharmacy Officer to have been associated with such a dedicated group of healthcare professionals as Federal pharmacists."

The first man to hold the rank of a commissioned pharmaceutical officer in an American army was the Bostonian apothecary, Andrew Craigie. First appointed commissary of medical stores by Massachusetts' Committee of Safety, April 30, 1775, he was present at the Battle of Bunker Hill, June 17, 1775, and probably assisted in taking care of the sick and wounded there in a makeshift station back of the lines. When Congress reorganized the Medical Department of the Army in 1777, Craigie became the first Apothecary General. His duties included procurement, storage, manufacture, and distribution of the Army's drug requirements. He also developed an early wholesaling and manufacturing business.



Colonel George J. Dydek, Program Manager for Population Health Outcomes, Directorate of Epidemiology and Disease Surveillance

OUTSTANDING ETHICS PROGRAM AWARD



Lorin S. Friedman, the USACHPPM Attorney, is also the USACHPPM Ethics Counselor

The USACHPPM received the Outstanding Ethics Program award, presented by Amy Comstock, Director of the Office of Government Ethics (OGE) at the OGE Annual Conference. General Eric K. Shinseki, The Chief of Staff, United States Army, sent a letter to BG Lester Martinez-Lopez, the USACHPPM Commander, congratulating the organization for receiving the distinguished award.

Lorin S. Friedman, the USACHPPM Attorney, is also the USACHPPM Ethics Counselor and is responsible for ensuring that USACHPPM person-

nel comply with the Joint Ethics Regulation, Procurement Integrity Act, Army Standards of Conduct, and all other laws, regulations, and policies guiding the ethical conduct of USACHPPM personnel. In addition to disseminating informative Government Ethics information to all USACHPPM personnel via his Legal Bulletins, Mr. Friedman is also required to present annual Government Ethics training lectures to all USACHPPM personnel required to complete financial disclosure forms. He reviews each of the forms in great detail to determine potential or actual conflicts of interest prior to providing an Annual Ethics Report to the Department of Defense thru the Department of the Army and the U.S. Army Medical Command. As part of the Ethics Program, Mr. Friedman consults with USACHPPM on a variety of Government Ethics issues regarding conflicts of interests, dealing with non-federal entities, gifts in the workplace, appropriate use of Government property and equipment, post-Government employment rules, off duty employment, proper use of appropriated dollars, travel benefits, and many more. The OGE recently conducted a formal 5-day in-depth audit of all organizational Ethics Programs at Aberdeen Proving Ground, which resulted in USACHPPM receiving the Outstanding Ethics Program award.

THE SILVER BEAVER AWARD

William A. Russell, U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), Aberdeen Proving Ground, MD, received the Silver Beaver Award from the Baltimore Area Council, Boy Scouts of America. The Silver Beaver is the highest honor the Council can award to a volunteer. It is not an award that can be earned, which makes it special to the honoree and to the Council. Russell was recognized at a dinner held at Martin's West recently for exceptional and noteworthy service to boyhood. His service to youth and the wide range of his professional and civic responsibilities fulfilled Scouting's aim of providing responsible, mature adults as good models for our youth.

Along with its values and principles, boy scouting has involved itself from its founding in providing a love and a respect for the outdoors. The love of country and the outdoors blends nicely and provides an opportunity to enjoy what has been given to us. To respect and to cherish these things are our right and our obligation.

Russell has helped numerous scouts and leaders throughout the Harford District, Baltimore Area Council and the National Jamboree to know the outdoors and all those things that make up our environment. His interest, knowledge, love, and devotion have provided our community with an outdoor laboratory for all to enjoy and perpetuate. As an active Scout leader, the District Commissioner, and Merit Badge Counselor, he has introduced boys to every aspect of the outdoors. He helped found the Harford Glen Foundation supporting environmental education. He co-authored books on bird breeding and helped to develop policy locally and in conjunction with the State of Maryland and U.S. Environmental Protection Agency, which guarantees the quality of life for future generations. He is listed in seven different Who's Who publications recognizing his prominence in the field of environmental science. He studies birds and supports the work of the Maryland Ornithological Society, National Wildlife Federation and the Harford County Environmental Advisory Board.

Russell is a member of the Raptor Research Foundation, Association of Field Ornithologists, the

American Ornithologist Union, and National Association of Environmental Professionals.

For 38 years, Russell has served his community as a member of the Aberdeen Fire Department where he has served as Lieutenant, Captain, Battalion Chief and Assistant Chief. He has experience and has held leadership

positions with the Fire, Rescue and Ambulance Departments. He is a nationally certified Firefighter III and Emergency Medical Technician - B.

At USACHPPM, Russell is an Environmental Protection Specialist in the Environmental Noise Program. He serves as a senior advisor, authority, expert and consultant on environmental noise and encroachment to elements of the Department of the Defense worldwide, providing guidance and direction of policy and objectives related to environmental noise and encroachment. He applies in-depth knowledge of computer models and application to environmental noise in adapting and applying new environmental noise technology and methods to the Army Environmental Noise Program. He is a Master Consultant in Environmental Noise, a recognition given to individuals who have demonstrated laudable achievement over a sustained period. Dr. George Luz, Program Manager, Environmental Noise, USACHPPM, said, "Bill Russell has learned the field of environmental noise from the bottom up. He is widely respected for his ability to explain the mysteries of the field in simple language, and he is committed to preventing the further loss of military training because of urban encroachment."



PREPAREDNESS AND RESPONSE COURSE

Several USACHPPM members attended the Center for Disease Control and Prevention (CDC) Preparedness and Response course in Atlanta, GA. This course covered the various technical issues regarding smallpox, including the history of smallpox, vaccination and eradication (including technical aspects and rationale for the original approach), vaccine complications, diagnosis and differential diagnosis, etc. on the first day. The second day

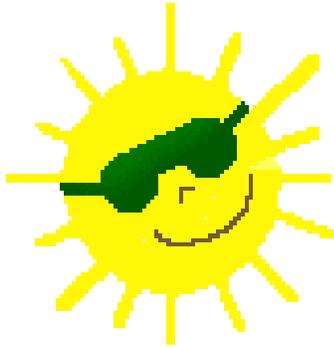
covered the CDC response plan and the response, should an outbreak occur. The third day was devoted to a tabletop exercise. This training will be invaluable to our role in preparations for and response to a smallpox outbreak. (POC: LTC Timothy M. Mallon, DSN 584-4312, 410-436-4312, or 1-800-222-9698).

IOWA ARMY AMMUNITION PLANT STUDY

USACHPPM received money to oversee the conduct of a congressionally-mandated health study of current and former DOD employees and DOD contractors at Iowa Army Ammunition Plant (IAAP), an estimated 38,000 workers. The study is designed to identify workers for inclusion into a cohort to compare rates of disease with the general population. Those workers and former workers will be referred to health care providers and offered medical screenings to document health outcomes related to workplace exposures. A health risk assessment will be done based on review of industrial hygiene sampling data, and

workplace exposure that occurred during the process of manufacturing conventional weapons. Preliminary research indicates that IAAP conventional weapons workers might have been exposed to a number of hazardous substances, including silica, beryllium, solvents, explosives, and epoxies. The study will also include workers in the risk communication plan and define measures to prevent exposure and improve occupational work practices in handling hazardous substances in the future. (POC: LTC Timothy M. Mallon, DSN 584-4312, 410-436-4312, or 1-800-222-9698).

Be Cool - Prevent Heat Illness



With the moving of the clocks ahead for Daylight Savings Time, we know Spring is here and summer is on its way. This time of year we should renew our awareness of exertional heat illnesses and how to prevent them. Heat illnesses dramatically increase during the spring and summer months as temperature rise and we increase our level of outdoor physical activity. By adhering to the personal preventive measures in this article, that include acclimatization, proper diet and hydration, appropriate work rest periods, and proper clothing you can stay “cool” this summer.

What are Exertional Heat Illnesses (EHI)?

There are two general classes of heat illness.

Classical heat illnesses usually occur in infants, the elderly, or individuals with predisposing medical conditions, during periods of heat waves. Classical heat illness is generally related to the lack of air conditioning in living environments. On average, approximately 300 people die each year from heat exposure in this setting.

Exertional heat illness (EHI), which is the focus of this article, is associated with a rise in body temperature related to physical activity in a hot weather environment or even milder temperatures with restrictive clothing. Physical activity can be related to a wide variety of activities from recreational sports, outdoors home maintenance, or from job-related activities, such as construction or military training. The body is able to control its internal or core temperature within a relatively narrow range, but when heat production exceeds heat loss, the body temperature can rise to dangerous levels.

EHI can range from minor, self-limiting to severe, life-threatening disorders.

Heat Cramps are painful contractions or spasms of the muscles of the legs, abdomen, or back that typically occur in unacclimatized individual with strenuous activity in a hot environment. The cramps usually affect only part of the muscle and may produce a hard lump. Heat cramps are associated with excessive loss of salt from the body through sweating and inadequate salt intake from the diet. Heat cramps can usually be self-treated by reframing from strenuous activity, cooling, and replenishment of fluids through drinking clear juice or a sports beverage. Salt replacement should be through normal salted foods and liquids in the diet, over several days. Salt tablets should not be used. Medical attention should be sought for severe symptoms or for heat cramps that do not subside in 1-2 hours of self care.

Heat Exhaustion is the most commonly encountered form of EHI. Heat exhaustion often develops after several days of exposure to high temperatures with inadequate or unbalanced replacement of salt and

fluids, and continued physical exertion. Signs and symptoms of heat exhaustion may include headache, fatigue, dizziness, loss of coordination, nausea, and vomiting. The skin may be cool and moist. If heat exhaustion is untreated, it may progress to heat stroke. Initial treatment is stopping all activity; loosen clothing, and replenishing fluids. Even though with heat exhaustion the body's cooling mechanisms are still functional, active cooling is still recommended. Active cooling can be done through a cool shower or wetting the body with cool water. Mild heat exhaustion may be treated with rest and oral fluid replacement, but moderate to severe symptoms may be indistinguishable from heat stroke and require prompt medical attention.

Heat Stroke is the most serious form of heat injury and a medical emergency. The core body temperature can rise to 106° F or greater and may result in damage to the brain or other vital organs. Signs of heat stroke are similar to heat exhaustion, but more severe. Heat stroke involves mental status changes such as agitation, confusion, and possible coma. Sweating may be decreased or have stopped. Heat stroke can lead to death due to metabolic disturbances, seizures, and liver or kidney failure. Immediate medical attention is required. All activity should cease and active cooling should be initiated while awaiting medical care.

In the military training environment individuals should always seek medical evaluation rather than trying to determine the severity of their symptoms.

Who's at Risk for EHI?

Anyone who is exposed to prolonged heat stress, from hot climatic conditions or physical activities in heavy clothing, will be susceptible to EHI, however there are additional factors that increase the risk of EHI. These include poor physical conditioning, excessive body weight, consumption of alcohol, the use of certain types of drugs that alter sweating or increase fluid loss, the wearing of restrictive clothing, and inadequate acclimatization.

What can be done to prevent EHI?

Understanding the basic prevention principles below are key to preventing exertional heat injuries.

Acclimatization is one of the most important factors in the prevention of EHI. The human body can adjust to hot environments through acclimatization. As the body becomes acclimatized it is able to cool the body more efficiently. Acclimatization results in the body starting to sweat at an earlier onset and at a higher rate, with less salt loss. These factors result in better core temperature control and exercise performance. However, with acclimatization there is greater fluid loss from sweating, making proper fluid replacement more important. Acclimatization takes 2 to 4 weeks depending on the level of activity. Initially only light activity should be done for 1 to 2 hours a day building up to more vigorous activity 2 to 3 hours a day. The physical exertion must be done at the temperatures you are trying to become acclimatized to. The principles of fluid replacement and work rest cycles as outlined below must be followed.

Fluid replacement is critical to maintain sweating and cooling. Fluid replacement should be based on the heat index and the level of activity. The U.S. Army Research Institute of Environmental Medicine has published guidelines for fluid replacement as shown in Table 1 below.

Table 1. Fluid Replacement Guidelines for Warm Weather Training Conditions

Heat Category	WBGT Index, (°F)	Easy Work		Moderate Work		Hard Work	
		Work /Rest	Water Intake (Quarts/hr)	Work /Rest	Water Intake (Quarts/hr)	Work /Rest	Water Intake (Quarts/hr)
	78-81.9	NL	½	NL	¾	40/20 min	¾
(Green)	82-84.9	NL	½	50/10 min	¾	30/30 min	1
(Yellow)	85-87.9	NL	¾	40/20 min	¾	30/30 min	1
(Red)	88-89.9	NL	¾	30/30 min	¾	20/40 min	1
(Black)	> 90	50/10 min	1	20/40 min	1	10/50 min	1

- Applies to average size and heat acclimatized soldier.
- The work-rest times and fluid replacement volumes will sustain performance and hydration for at least 4 h of work in the specified heat category. Fluid needs can vary based on individual differences ($\pm 1/4$ qt/h) and exposure to full sun or full shade ($\pm 1/4$ qt/h).
- NL= no limit to work time per hour.
- Rest means minimal physical activity (sitting or standing), accomplished in shade if possible.
- CAUTION: Hourly fluid intake should not exceed 1½ quarts.
- Daily fluid intake should not exceed 12 quarts.
- If wearing body armor add 5°F to WBGT in humid climates.
- If wearing NBC clothing (MOPP 4) add 10°F to WBGT.

The body cannot be trained to operate on less fluid, and as mentioned above when the body is acclimatized, the fluid requirement increases. It is physiologically impossible and medically dangerous to try to train the body to operate on limited fluid intake, doing so will only result in increased heat injuries. Under hot conditions, one cannot depend on thirst as a gauge on when to drink. The thirst mechanism is not activated until the body is 1-2 % dehydrated; one must drink before thirst kicks in. Fluids that contain caffeine, alcohol, or large amounts of sugar should be avoided; as these may actually cause you to lose more body fluid. A normal diet should provide adequate salt and calorie intake to replenish salt that lost during sweating. As mentioned earlier salt tablets are not recommended.

Work rest cycles are important to provide time to cool down and reduce body temperature between times of exertion. Rest should be in a shaded area if possible. The fluid replacement table also gives guidance for work and rest cycles based on the heat category and the level of work. Examples of easy, moderate, and hard work are shown in Table 2 below:

Table 2. Levels of Work

Easy Work	Moderate Work	Hard Work
<ul style="list-style-type: none"> • Weapon Maintenance • Walking Hard Surface at 2.5 mph, < 30 lb Load • Manual of Arms • Marksmanship Training • Drill and Ceremony 	<ul style="list-style-type: none"> • Walking Loose Sand at 2.5 mph, no Load • Walking Hard Surface at 3.5 mph, < 40 lb Load • Calisthenics • Patrolling • Individual Movement Techniques. i.e., low crawl, high crawl • Defensive Position Construction • Field Assaults 	<ul style="list-style-type: none"> • Walking Hard Surface at 3.5 mph, ≥? 40 lb Load • Walking Loose Sand at 2.5 mph with Load

Proper clothing allows air to circulate around the body and permit evaporation of sweat for cooling. Light colored clothing also reflects the sun's rays and prevents radiant warming of the body. When restrictive protective clothing must be worn, adjustments must be made to fluid replacement and the work rest cycles. Excessive sun-exposed skin should be avoided to lessen the risk of sunburn. Wide brim hats and sunglasses provide additional protection to the face and eyes from solar damage.

Be Cool this Summer

By observing the principles of exertional heat illness prevention: acclimatization, adequate fluid replacement, using work rest cycles, and wearing the proper clothing, you can conduct your outdoor activities in a safe and cool manner.

Disclaimer: The information in this article is general in nature and is not meant to replace specific military heat injury prevention training. Individuals should contact their unit training NCO for their specific unit guidance. (POC: LTC Mark A Lovell, DSN 584-2464, 410-436-2464, or 1-800-222-9698)

CIVILIAN INJURY CONTROL CAMPAIGN

The Army's bill for workers' compensation injuries and illnesses in 2001 was \$170 million dollars. The true financial impact of on-the-job injuries and illnesses is at least three times higher than this figure, when the cost of training and hiring workers to replace those lost to injury, and the cost of lost productivity are taken into account. The dollar cost does not show the people impact: the careers derailed, the training wasted, and the opportunities for advancement lost to those civilian personnel suffering permanent disabilities from job injuries.

The rate of occupational injury and illness claims is higher in the Army than in the private sector. Secretary of Defense Donald Rumsfeld has made the prevention of occupational injuries and illnesses, and the reduction of lost time and disability, an Army priority. The Army's Civilian Resource Conservation Program has regrouped and established a set of goals related to claim rates, costs and lost work-days. The Army Surgeon General has taken on the difficult task of leading the injury control effort for the Army.

Why is this a difficult task? There are many reasons why these rates and costs are so high in the Army. One is that the costs of the claims is absorbed at high levels, so that commanders at the installation and unit level are not accountable for the costs in their budgets. There is no financial incentive at the installation level to return injured workers to work before they are fit to assume all their regular duties. Another reason is that accurate data about injuries, especially rates that can be compared with similar installations, and from year to year, have been hard to come by. Without accurate information, it has been hard to identify problem programs and areas so that preventive measures can be taken. There has been no Army policy establishing control

of occupational injuries and disabilities as an expectation of commanders. The workers' compensation system that covers federal employees contains many impediments to creative and proactive approaches to case management. And finally, many of the initiatives that are needed to prevent and control occupational injuries are outside the control of the U.S. Army Medical Command. Any successful approach to this issue will require a collaborative approach among occupational medicine personnel, safety personnel, installation commanders, personnel specialists, and resource managers.

USACHPPM is supporting this campaign on a variety of fronts. The first of these is information. We have analyzed the compensation data for 2001, and have calculated the rates of claims and costs. This analysis allowed the ranking of installations to identify which installations had the highest rates of:

- New claims, which points to the need for targeted preventive efforts.
- New lost-time claims, which indicates the need for better coordination of early medical care and return to work efforts.
- Old claims, which indicates the need for more aggressive case management, to identify former employees who may be able to work in other jobs.

USACHPPM is now analyzing the causes and kinds of injuries predominating in these installations with high rates, and investigating the relevant local policies, resources, and activities, so that appropriate interventions can be recommended to reduce these rates. Teams of experts in occupational medicine, occupational health, safety, workers' compensation, and ergonomics have been as-

sembled to offer assistance to installation commanders with high claim rates and costs.

The other major initiative related to information is the development of a near real-time, comprehensive, web-based information system that will provide rates, trends over time, and analysis of causes and kinds of injuries. This information system will be searchable at a variety of levels, from Army total down through Major Command, installation and Unit Identification Code, and is expected to be used by commanders, occupational health and safety personnel, resource managers, and personnel specialists at all levels.

The second front is training. We have already developed a variety of training programs in ergonomics. New programs in development are training in the medical management of occupational injuries and illnesses and case management.

The third front is policy. An Army Civilian Resource Conservation Program policy has been drafted and includes a large MEDCOM role in

medical management and information support. USACHPPM is collaborating with the Army's Manpower and Reserve Affairs on an Army light duty policy, and a series of sample local policies to assist installation and medical treatment facility commanders in making the best use of their local resources in injury control.

The prevention of occupational injuries and illnesses will require a culture change led by commanders taking an active interest in the issue. Accurate information about injury claim rates, trends and causes is a critical component of the campaign, but offering technical assistance and training will provide commanders with the tools they need to effect this change at the local level. (POC: Dr. Marianne Cloeren, DSN 584-1011, 410-436-1011, or 1-800-222-9698).

DOEHRS-HC MAINTENANCE RELEASE 3.0

NO MORE "RUN TIME ERRORS"

Occupational hearing conservationists (OHC) who use Defense Occupational and Environmental Health Readiness System-Hearing Conservation (DOEHRS-HC) to conduct hearing tests for hearing conservation and physical exam programs are likely too familiar with the dreaded run time error. When the error occurs during testing, it almost always means the loss of test results and thus necessitates the need to repeat testing. For installations that perform group testing, a run time error can cause serious patient flow problems. DOEHRSHC Maintenance Release 3.0, scheduled for release by the DOEHRSHC Program Management Office (PMO) sometime this spring or early summer, eliminates run time errors.

Key features of the upgrade, in addition to the elimination of run time errors, include a data import function that will allow electronic retrieval of records from the DOEHRSHC Data Repository (DR) into the database of the user's desk top PC and a streamlined data export process that is conducted completely from within the DOEHRSHC software. There is one caveat. In order for the import function to function as it is fully designed, users must export the hearing test from their local database to the DR. Users of DOEHRSHC will find the import function extremely beneficial in helping them to accurately determine the correct course of care to provide the patients they test. This feature benefits patients because no matter where they were tested or are

currently assigned the hearing healthcare provider will be able to provide copies of all their hearing tests that reside at the DR.

Improvements and enhancements include improved printer speed and the elimination of many start-up messages and lists that now appear when the current 2.0.78 version of DOEHRHS-HC is initialized. In addition, the demographic data entry screen or run test screen will provide more flexibility to users entering data into DOEHRHS-HC. For example, users will once again be able to transfer patient Social Security Numbers to the audiometer software before completing patient demographic data entry. Data entry fields are more responsive to data entered by users and will direct users to clarify data entries when necessary. Active duty installations that test National Guard personnel will find this feature indispensable because the software will prompt users to identify the work location of Army/Air guard personnel tested at an active duty site from the demographic entry screen. Entry of hearing protective device information will require hearing protector information for both ears and will not allow illogical double hearing protector combinations such as noise muffs and ear canal caps. Maintenance Release 3.0 will not require data to be entered when it is not applicable to a patient because of their DoD component or service component. It will allow service unique unit/workplace identification systems to be used across services thus making DOEHRHS-HC a true Tri-Service application that is user friendly across all services.

A number of improvements and enhancements will facilitate hearing conservation program management. The new format of the Daily Report Log and Daily Significant Threshold Shift reports make it feasible for program managers to provide supervisors and commanders with hearing conservation participation reports within a relatively short turnaround period. Availability of an ad hoc reporting capability at the DR and user specific access to the DR is an adjunct capability not specifically provided by Release 3.0. However, installation of Release 3.0 will allow users to fully utilize the capabilities of the DR. Release 3.0 will give audiologists more latitude in selecting tests to create re-established references. With the current version, only a follow-

up two test or manually entered test may be used to re-establish a reference audiogram. An audiologist and/or physicians will be able to choose from the annual, follow-up one, follow-up two, or a manually entered test to re-establish a baseline audiogram. Improved test edit capabilities provide managers increased flexibility in managing personnel enrolled in the hearing conservation program.

Other upgrade features include content appropriate error messages, an improved automatic database backup function, updated user's manual, situation-appropriate on screen help messages, and a desk top ad hoc reporting tool called Business Objects. Users will find modifications to demographic fields requiring calendar dates. This change ensures Graphical User Interface compatibility with Composite Health Care System II (CHCSII) in anticipation of future CHCSII integration plans.

When deployed, the Release 3.0 CD will be accompanied by a C2 Security CD, Business Objects CD, and an additional RAM chip. Users are strongly encouraged to seek the help of their local Information Management Office to install the C2 security and additional memory. Installation of Release 3.0 is expected to take an hour. However, database conversion could take up to four hours depending on the size of the database being converted. Business Objects is expected to take an hour to install.

DOEHRHS-HC Maintenance Release 3.0 has received great reviews from the functional service representatives as well as actual hearing conservation alpha test sites selected to test the software upgrade. No software product is perfect but this upgrade comes closer than any of the past problem-riddled versions in the history of DOEHRHS-HC. Users should be eager to load the update for no other reason than just to rid themselves of that awful little run test error.

Integic developed Maintenance Release 3.0 for the DOEHRHS Program Management Office in cooperation with functional representatives from the Air Force, Navy, and Army. (POC: MAJ Cheryl Y. Cameron, DSN 584-1375, 410-436-1375, or 1-800-222-9698)

USACHPPM

Preventive Medicine (PM) Field Office, Alaska



The USACHPPM has provided consultation services to a variety of organizations within the U.S. Army Alaska (USARAK) for the past nine years and a number of facilities under the U.S. Air Force's 611th Air Support Group (611 ASG) in Alaska for the past four years. In the last few years, those services have expanded to include other Department of Defense (DoD) organizations in Alaska, such as the Missile Defense Agency (previously the Ballistic Missile Defense Organization), the U.S. Army Corps of Engineers, and the U.S. Army Space and Missile Defense Command. In the past 3 years, our services equated to about three full time equivalents annually, a significant portion of which included personnel on temporary duty in Alaska. In light of the increased and long-term work-load caused by the recent Notices of Violations in air quality and the enhanced regulatory scrutiny in drinking water, water quality, and occupational, safety, and health administration requirements, our two major customers, USARAK and 611 ASG, requested USACHPPM to provide more permanent onsite support for services. After 18 months of coordination and negotiations, we have teamed with the USARAK and 611 ASG in the establishment of a USACHPPM PM Field Office at Fort Richardson, Alaska. BG(P) Lester Martinez-Lopez, Commander, USACHPPM, and COL Fredrick J. Lehman, Commander, U.S. Army Garrison, Alaska, signed a formal memorandum of understanding on

November 6, 2001. A similar agreement is expected to be completed very soon between USACHPPM and 611 ASG.

The mission of the Field Office is to provide onsite environmental and occupational health consultative support to USARAK, the 611 ASG, and other eligible organizations to the extent possible and practicable, and to serve as a liaison for additional services from USACHPPM-Main, USACHPPM-West and USACHPPM-Pacific to meet customers' needs. The Field Office will serve as the primary point of contact for customer services in Alaska.

The Field Office is a part of the Office of the Director, Environmental Health Engineering (DEHE). On January 15, 2002, the U.S. Army Medical Command (MEDCOM) formally approved the Manpower Change Request and authorized to reflect the change on our next Table of Distribution and Allowance update. The MEDCOM is in the process of publishing Permanent Orders authorizing the standing up of this new organization.

The current staffing for the Field Office includes one Department of the Army Civilian and two Oak Ridge Institute for Science and Education (ORISE) Professional Associates. Ms. Debra Breindel is Chief of the Field Office and reported for duty on March 2, 2002. Ms. Amy Kearns, who started work in October 2001, currently fills one ORISE position. The other ORISE position is being re-

cruited. The Office Chief will be responsible for employee oversight, mentoring, and review; act as a liaison between both internal and external customers; participate in workgroups and committees; perform technical project work; and conduct other miscellaneous management functions.

The setup of the Field Office is ongoing with the finalization of the office space, staffing, and logistical support. The Field Office staff and the DEHE are very excited about this new venture and are looking forward to the challenges ahead

Please contact Ms. Debra Breindel (see mailing address, telephone number, and e-mail addresses below) or COL K.K. Phull (410-436-2306; DSN 584), if you have any questions or suggestions. Mailing Address: USACHPPM, ATTN: MCHB-TS-EAL (Ms. Debra Breindel), 730 Quartermaster Road, #6500, Fort Richardson, Alaska 99505-6500. Phone Number: 410-436-6560; DSN 584, FAX: 410-436-3656, DSN 584, E-mail: Debra.Breindel@apg.amedd.army.mil or Debra.Breindel@richardson.army.mil.

NEW ENVIRONMENTAL PROGRAM REQUIREMENTS WEB SYSTEM

Executive Order (EO) 12088 requires that each Executive Agency submit an annual plan for environmental compliance through the U.S. Environmental Protection Agency (EPA) to the Office of Management and Budget (OMB). To satisfy this requirement, the DoD utilized the Defense Environmental Security Corporate Information Management (DESCIM) Environmental Program Requirements (EPR) Module to generate an EPR Report each December for submission to the EPA. This module is now being replaced by an Internet accessible central database. The development of the new EPR Web system was contracted and will be managed by the Army Environmental Center. The EPR Web eliminates the need to transmit data, via either e-mail or disk, by utilizing a central database.

The EPA reviews the EPR Report to ensure that the identified projects are legitimate and address previous and current environmental violations, while the OMB and the U.S. Congress use the EPR

Report to develop future Federal budgets via the Program Objective Memorandum (POM) process. The EPR report is not a funding document; therefore, the identification of a project in the EPR Report does not ensure that the project will be funded. However, some Major Army Commands, including the U. S. Medical Command (MEDCOM), use the EPR Report to establish priorities and funding strategies for environmental costs within their commands. MEDCOM uses the EPR Report to develop future environmental budgets as required by the Assistant Secretary of Defense for Health Affairs [ASD(HA)] and Department of the Army (DA). Additionally, the EPR Report inputs to the Installation Status Report, Part II for Commanders to evaluate the performance of their environmental program. Thus, identifying a project in the EPR Web strongly indicates that the commanders and environmental managers are making a concerted effort to identify and correct

environmental problems by obtaining funding. The EPR Web's central database provides better continuity for the projects. Data will not be lost because of personnel rotation or computer hardware/software incompatibilities.

On 29-30 January 2002, the Hazardous and Medical Waste Program conducted a Workshop on Environmental Program Requirements (EPR) in Atlanta, GA for medical treatment facility (MTF) personnel. This workshop explained the MEDCOM unique environmental requirements along with DA guidance for requesting environmental funding. An overview of the new EPR Web system was provided as well as emerging issues unique to MTFs. By providing this workshop, we have

ensured that installation, Regional Medical Center, and MTF personnel can effectively compete for limited DoD environmental funding.

The EPR Web system requires an Internet access with a web browser, either Netscape Navigator 4.x or Microsoft Internet Explorer 5.x. Currently the system is Windows 95, 98, NT, and 2000 compatible (XP is being tested). Training for the new EPR Web was provided by AEC through mid March 2002. Access to the database is restricted so a user login and password is required. Log-ins and passwords must be requested through MACOM POCs. (POC for MEDCOM: Sandy Toscano, DSN 584-5223, 410-436-5223, or 1-800-222-9698).

WATER SYSTEM VULNERABILITY ASSESSMENT (WSVA)

The growing threat of international and domestic terrorism has generated heightened concerns of public safety and the vulnerability of our national infrastructure. Because the American military serves as a symbol of our country's strength, military installations present an ideal target for terrorists who wish to create fear and attract sensational media coverage. Of particular concern is the vulnerability of drinking water systems that serve U.S. Forces and their families.

The Water Supply Management Program (WSMP) has been contributing to prepare installations for drinking water emergencies for many years before the 11 September 2001 (9/11) terrorist attacks on our Nation. Spurred on by the Nunn-Lugar-Dominici counterterror legislation in 1996, the WSMP prepared a state-of-the-art paper identifying

preparedness and response measures to counter terrorist actions against drinking water systems.¹ In response to observations from the long-standing USACHPPM Environmental Compliance Assessment System (ECAS) audit program that many installations had at the very best only marginal emergency drinking water response plans, the WSMP developed a state-of-the-art guidance paper in 1998.² This paper contained brief, appendicized information for performing water vulnerability assessments. Pursuant to 9/11, the WSMP prepared a widely available Fact Sheet to assist in countering terrorism of water supplies through the USACHPPM and DENIX web sites.³ The Fact Sheet provides direction to address the physical destruction and cyber attack threats, in addition to the intentional contamination threat. Our

vision to help protect the DOD installations' water systems from acts of terrorism, coupled with The Army Surgeon General's emphasis to address the issue, resulted in preparing a state-of-the art and science WSVVA protocol.⁴

The WSVVA protocol addresses water system vulnerabilities a terrorist could exploit to cause physical destruction of water system assets, intentional contamination of raw or treated water supplies, or damaging cyber attacks. The protocol also contains relevant background information from multiple government agencies and industry resources. This information not only provides recommendations, but also many practical ways to reduce the vulnerability of water system components. Innovative and industry recognized methods of hardening water systems, such as improving physical security, increasing water quality monitoring, improving consumer communications, enhancing medical surveillance, and optimizing operations at the water treatment plant are also presented.

The heart of the protocol is the Army's published and widely used risk management process.⁵ Our engineers have included aspects of the methodology developed by the Sandia National Laboratory for the Department of Energy (DOE) Nuclear Surety Program to create a truly unique approach appropriate for the Army's small- and medium-sized drinking water systems.

The WSVVA protocol is a timely state-of-the-art approach for Army-wide installations to not only meet a probable future regulatory requirement, but

also to harden their drinking water systems against acts of terrorism. Implementation of the recommended countermeasures will reduce the probability, severity, and associated risk of the identified water system vulnerabilities.

The WSMP has scheduled WSVVA training for all our subordinate commands and is assisting in the execution of WSVVAs in both CONUS and OCONUS installations. (POC: CPT(P) Tom Timmes, 410-436-8869, DSN 584-8869, or 1-800-222-9698).

1. Burrows W.D., J.A. Valcik, and A. Seitzinger. Natural and Terrorist Threats to Drinking Water Supplies, 23rd American Defense Preparedness Association 23rd Environmental Symposium, 1997.
2. USACHPPM, Water Supply Information Paper No. IP 31-020, Potable Water Emergency/Contingency Plan, March 1998.
3. USACHPPM, Just the Facts- Countering Terrorism of Drinking Water Supplies, September 2001, <http://www.denix.osd.mil/denix/DOD/Library/Water/CHPPM/counterterror-factsheet.html>.
4. USACHPPM, Technical Guide 188, U.S. Army Food and Water Vulnerability Assessment Guide, February 2002.
5. Headquarters, Department of the Army, Field Manual 100-14, Risk Management, April 1998.

RESPONSE TO THE PENTAGON ATTACK: A MULTI-PRONGED PREVENTION-BASED APPROACH

On 11 September 2001 at 0938 hours, a hijacked airliner was crashed into the west side of the Pentagon near the heliport area. Immediately following this terrorist attack, USACHPPM responded with a multi-pronged approach that encompassed the areas of environmental science, behavioral health, occupational and preventive medicine, epidemiology, and medical surveillance. By 1300 hours of that same day, members of a Special Medical Augmentation Response Team - Preventive Medicine (SMART-PM) had deployed to the Pentagon to initiate the environmental assessment and response to this attack. These efforts involved coordination and collaboration of several directorates within USACHPPM, our subordinate units, and several other agencies in the Department of Defense (DoD).

Our Commander, the Army Functional PropONENT for Preventive Medicine, was designated to assume charge of those areas of the response to this attack that would naturally, and by policy and regulation, fall under his purview. They were: environmental assessment of the attack site and the rest of the Pentagon; development and distribution of behavioral and spiritual health promotion materials; the development of a health assessment tool, the Pentagon Post Disaster Health Assessment (PPDHA) for both military and civilian Pentagon employees; and risk communication.

In the months that followed the attack, our staff completed an in-depth environmental exposure assessment of the Pentagon; assisted the North Atlantic Regional Medical Command (NARMC) in providing direct health care to those with physical

and mental health concerns; developed, fielded, processed and began analyzing the results of the PPDHA; and has returned information on these areas to both decision makers in DoD and employees of the Pentagon.

This article provides an overview of the methods employed by our personnel to conduct the important and necessary duties of assessing the site, caring for the employees and service members, and developing an understanding of the effects of the attack, from physical and mental perspectives, on the employees of the Pentagon.

I. Environmental Assessment of the Attack Site

In addition to the tragic loss of life, the attack caused serious structural, fire, and water damage in the west side of the Pentagon. All personnel were evacuated from the building as emergency response personnel from the DoD and surrounding communities initially responded to fire and medical emergencies. On 11 September 2001 at 1300 hours, the USACHPPM assembled and deployed a SMART-PM Advanced Party and Main Body to support the medical response to the Pentagon disaster. The team consisted of one Chaplain; one Social Worker; one Preventive Medicine Physician; one Occupational Medicine Physician; one Health Physicist; nine Environmental Science Officers; three Sanitary Engineers; two Preventive Medicine Non Commissioned Officers; ten Industrial Hygienists; two Industrial Hygiene Technicians; three Environmental Engineers; two Environmental Scientists; two Engineering Technicians, and one Mechanical Engineer.

The initial concern following from the impact of the airliner impact was centered on the effects of the fire and associated toxic fumes. After the fire was controlled and extinguished, additional concerns became evident. These concerns included: asbestos and lead contamination from disturbance of asbestos containing material and lead-based paint in the structure of the Pentagon; surface contamination from residues resulting from the fire; lingering air contamination; and potential compromise of the water system. Air and wipe sampling was done for inorganic and organic contaminants to determine first the presence of these materials and then the effectiveness of building cleaning procedures. Water was tested for compliance with safe drinking water standards. This comprehensive approach allowed for a thorough evaluation of all the potential contaminants and pathways of exposure that could affect workers' health. Personnel assigned to work in areas determined by sampling results to have the highest potential exposure to lead contamination had their blood lead levels tested.

Determining the severity and extent of environmental contamination from the attack on 11 September against the world's largest office building was a daunting task. It required in-depth knowledge of the Pentagon structure, environmental and occupational sampling methods, governmental agencies' capabilities and responsibilities, personnel management, and comprehensive project oversight. Simultaneous coordination of multi-agency involvement was imperative for the proper evaluation of the potential health threats from contamination resulting from the attack. During the project, 25 different Army, Navy, and Air Force agencies or units; the Federal Emergency Management Administration (FEMA); the Occupational Safety and Health Administration (OSHA); the U.S. Environmental Protection Agency (EPA); the Federal Bureau of Investigation (FBI),

the Arlington County Virginia Fire and Rescue Department, and others were involved in various capacities to determine the level of contamination and potential risk to Pentagon personnel, emergency personnel, and cleanup crews at the site.

The rapid response of the SMART-PM team allowed the Pentagon to be evaluated and characterized for potential health risks from the attack within a few days. Because of this response, personnel were rapidly allowed to return to their duties with the reassurance and knowledge that their workplace environment was safe. This allowed the DoD to show resilience, strength, and functionality at a time when these principle characteristics were essential to the welfare of the United States.

Members of the SMART-PM team were an integral part of the larger team of professionals dedicated to assessing and communicating health risk information to Pentagon employees through an information operations campaign. Building circulars and signs were developed and distributed at the entrances and in the work areas of the Pentagon describing the monitoring efforts by the SMART-PM team, the results and associated risks, and a time line of the investigation. SMART-PM personnel routinely attended Pentagon Building Management meetings to convey the monitoring activities and results of risk assessments in an effort to spread the word to all members of the Pentagon work force and the civilian emergency response agencies (FEMA, FBI, EPA Region III, OSHA, and State Fire and Rescue Departments). Curious building occupants wondering about the type and purpose of the occupational and environmental monitoring efforts often questioned members of the SMART-PM team. After brief, informal, and informative descriptions of the assessment processes were routinely given. At all times our teams sought to reinforce the message to employees that the quality of their health and well being was of paramount importance.

II. Behavioral Health and Chaplaincy Assistance

Like most Americans on 11 September 2001, our personnel watched the events unfold with disbelief and shock. By the end of the day, two individuals assigned to our Behavioral Health Section (a chaplain and a social work officer) were in coordination with behavioral health officers at the U.S. Army Medical Command (MEDCOM), DA, and DoD. Through these discussions, USACHPPM was assigned the mission of gathering, editing, authoring, and distributing preventive behavioral health materials. The team disseminated products for adults (dealing with trauma, terror, and stress), parents (helping children cope with the tragedy), and rescue responders (how to cope with the stresses of rescue operations and body handling).

These materials were developed from several existing, non-proprietary sources, copies were made, and an initial quantity (some 300-500) hand-carried to the Pentagon and the newly established Family Support Center (Crystal City Sheraton Hotel) on the evening of 13 September 2001. On the following day, our social work officer deployed to the Pentagon in support of the behavioral health mission. Our chaplain was at the Pentagon, also and in daily contact with the Chief of Chaplain's office and with chaplains assigned to Headquarters, MEDCOM. The chaplain and social work officer subsequently provided assistance to our epidemiological team in the design and implementation phases of the PPDHA described below.

III. Pentagon Post Disaster Health Assessment (PPDHA) Survey

Following the attack on the Pentagon, there was a critical need to understand and document the extent of injuries, illnesses, and exposures sustained by Service members and civilian employees at the Pentagon. The mechanism chosen was the development and deploy-

ment of a survey instrument that would provide sufficient data to meet the above goals and to assist medical assets in providing care, documenting the extent of injuries and illnesses, and, it was hoped, in preventing complications from possible environmental exposures.

In order to accomplish the timely development and deployment of a post disaster survey in a timely fashion, a multi disciplinary approach that brought together the efforts of two major Army Medical Commands (USACHPPM and NARMC) supplemented personnel from all three Services and their civilian counterparts was initiated.

Survey Development

Personnel within the Directorate of Epidemiology and Disease Surveillance designed and developed the PPDHA, with assistance from the Directorates of Clinical Preventive Medicine and Health Promotion and Wellness. A mental health component to the instrument was developed in collaboration with staff from the Walter Reed Army Institute of Research (WRAIR), the Uniformed Services University of the Health Sciences (USUHS) and Walter Reed Army Medical Center (WRAMC). All the elements previously listed, as well as the Preventive Medicine and Mental Health Consultants at the US Air Force Medical Operations Agency (AFMOA) and the US Navy Bureau of Medicine and Surgery (BUMED), respectively, and the Armed Forces Epidemiology Board (AFEB) reviewed and improved the survey tool.

Other survey instruments have been developed and reported on in the wake of previous terrorist attacks^{1,2,4}. The information from those previous works and other resources³ served as a

basis for developing the instrument required for this attack. Using a previously developed instrument was not appropriate for this population, due to the number of affected individuals (23,000), the variety of injuries and exposures, and the demographics of the affected population.

Our primary team formulated the PPDHA within one week. The questions were based on, but expanded upon, the previous experiences with survey instruments used in the aftermath of the Oklahoma City and Khobar Towers bombings. Our goals were to gain insights into adverse health impact, including illness and injuries and the expected psychological sequelae, of the attack. The survey was designed to meet the above goals, as well as to provide surveillance and to serve as an outreach tool to augment the process of guiding expeditious, well-directed medical care to those in need. It was a voluntary survey and provided in web-based, as well as paper-based, formats.

The commander and staff of the DiLorenzo TRICARE Health Clinic (DTHC) at the Pentagon were instrumental in assisting with the approval process for the survey and in the development of an implementation plan.

A civilian contractor, Problem-Knowledge Couplers® (PKC) Corporation, developed a web-based format for the survey at no cost to the government in coordination with our Information Management experts. After developing an initial concept for a web-based version using the draft questions, the concept was then fully developed and operationalized by PKC. Field-testing was done using both paper and web-based version to assess operational utility.

Survey Deployment

After approval of the survey instrument, data storage methods, data security, confidentiality procedures, and an implementation plan, by all

involved decision makers (the Service Surgeons General; the Dean, USUHS; the Commander, NARMC; the Director of the Washington Headquarters Service; the Institutional Review Board; the Defense Manpower Data Center (DMDC); the Office of Management and Budget; the TRICARE Management Agency Health Program Analysis & Evaluation office; and the Acting Assistant Secretary of Defense for Health Affairs), the survey was deployed on 15 October 2001 by a team that consisted of elements from USACHPPM, WRAMC, and DTHC (Pentagon Health Clinic). NARMC elements (Tri-service teams under NARMC direction) were given the difficult duty of deploying the paper version of the survey and facilitating clinical contacts for those who responded in the affirmative to the question, "Is there any information about the incident or this health assessment that would be helpful to you or would you like someone to contact you to discuss any specific issues".

The Population Health Outcomes Program, given the lead on the PPDHA by the Commander, USACHPPM, began collecting and processing the data immediately. Though the conduct of the survey and reporting based on the survey was not research, but rather surveillance and clinical outreach, we intend that any subsequent studies that are based on the data gathered as part of the survey will meet rigorous criteria for scientific research.

During the conduct of the web-based survey, it was noted by respondents that they encountered numerous problems completing or submitting the web-based survey questionnaire due to the security protection restrictions on the computer systems at the Pentagon and also because of the unexpected diversity of the Pentagon informatics infrastructure. As a result, the web-based survey was used less than all concerned would have preferred. Technical support was provided for personnel who attempted

to do the survey in web-based format but had experienced and encountered difficulties. The survey remained open, in scannable paper and web-based forms, until 15 January 2002.

Some Pentagon personnel reported that the survey was of little significance to them during a time in which they were occupied with preparing to prosecute a war against new enemies. The USACHPPM and NARMC teams at the Pentagon took great pains to inform and remind the employees and service members at the Pentagon that participation in the survey was voluntary. Widely available publications and email were used to disseminate information, reminders, and updates on the survey. Two email boxes were set up for questions and inquiries about the survey. The lead officer on the project answered all such inquiries personally and within one day of receipt.

Preliminary Survey Results

The final results of the survey will be published in a USACHPPM technical report that will become available in late Spring 2002. Only preliminary results are available at this time. A total of 19,450 Pentagon employees were contacted and asked to complete the survey, of which 4,764 responded, representing roughly 25% of the entire Pentagon employee population. Despite technical difficulties noted above, the majority (69%) of the respondents completed the survey using the web-based instrument.

Respondents were predominately male (62%), and greater than or equal to 35 years of age. The majority of the respondents (3670, or 78%) indicated that they were at or near the Pentagon at the time of the attack, of which 557 (or 15% of those who answered this question) reported being less than 100 feet from the collapsed section. Among respondents who were at or near the Pentagon during the attack, 3% were injured from the initial attack, 3% were trapped, and 3% were injured during evacuation. Eighty-six percent of the respondents reported some type of exposure (smoke/dust/odors) following the attack. The smoke exposure for most (68%) was of light intensity with a median exposure time of 15 minutes. Thirty-six percent reported a worsening of prior health problems and/or new health problems, of which the majority (52%) were stress-related. There were 1,321 (28%) respondents who reported symptoms associated with high risk for at least one of the following: a post traumatic stress disorder (PTSD), depression, a depressive disorder, a panic disorder (attacks), and/or alcohol abuse. There were 862 (18%) of the respondents who expressed additional concerns about physical, mental health, and environmental health, present symptoms, and building safety, with 414 (9%) requesting additional information and/or contact by the healthcare team.

IV. Risk Communication

Health risk communication was incorporated into the response to unfolding events. Successful communication required that available information be distributed as widely and quickly as possible to ensure that those who needed information were receiving it. Information was placed on the web sites of both the DTHC and USACHPPM as soon as it became available. Dissemination of information proved to be a significant challenge. Once appropriate approving authorities were identified, those contacts were used fully. The large number of agencies involved resulted in wide dissemination of the messages. However, the multiple sources generating information within the Pentagon challenged a fundamental principle of risk communication. That is, to ensure consistent messages. Risk communication was accomplished appropriately for the intended population.

Discussion

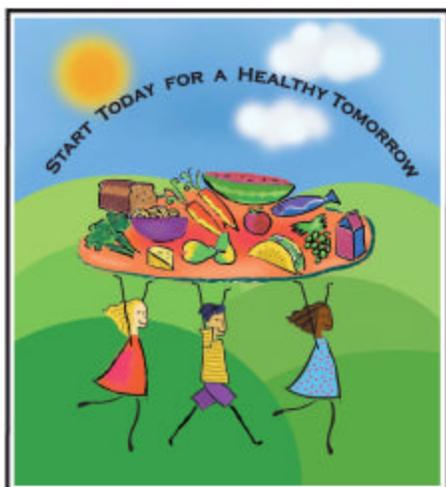
Our multi-pronged preventive-based approach enabled the rapid assessment of the site, the identification of the many perceived health effects, the dissemination of factual and complete information on health risks, and referral for appropriate health care to those employees and service members who requested it. Without the cooperation of all elements and agencies involved the process could not have been carried out expeditiously or effectively.

The preponderance of behavioral health complaints found in the survey is consistent with prior experience^{1,2,4} and supports existing doctrine concerning the need to maintain adequate behavioral health resources within the military health care system to cope with future disasters and attacks. This finding should not, however, detract attention from physical health problems that also have an impact on work performance and general well being. The affected population of Pentagon service members and civilian employees should be carefully followed over time and provided every opportunity to resolve their health issues, whatever the cause or manifestation.

The lack of a referent template for design, deployment, and execution of these survey instruments points out a shortcoming in our processes. As such, we are developing a source document (Technical Report) that will serve as a reference for the process and content necessary in carrying out similar missions expeditiously and effectively in the future. (POC: LTC James Wells, DSN 584-3534, 410-436-3534, or 1-800-222-9698)

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TOWARDS A HEALTHY TOMORROW



NATIONAL NUTRITION MONTH®
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Remember your New Year's Resolution to get healthier by eating smarter and being more active. How have you done so far? Are your clothes fitting better? Is it easier to walk up a flight of stairs? Or have you lost a little of your New Year's motivation?

During the last few months or even years, you may have forgotten about the four basic food groups that you learned in grade school. The results may be a few extra pounds, lack of energy, or having your health care provider tell you to take better care of yourself. Use the U.S. Department of Agriculture's (USDA) Food Guide Pyramid as your roadmap toward healthier eating. The Food Guide Pyramid goes beyond the basic four food groups to include the Dietary Guidelines as a part of your plan. (Obtain a copy of the pyramid from <http://www.nal.usda.gov/fnic/Fpyr/pyramid.html>)

The base of the Food Guide Pyramid and the foundation of your healthier eating plan is the bread, cereal, rice, and pasta group. In this group, you will also want to include starchy vegetables like potatoes and corn. The vegetable and fruit groups are located just above the bread, cereal, rice, and pasta group. Be sure to choose whole grains and fresh vegetables and fruits to increase your dietary fiber. A high fiber diet is linked to decreasing your risk for certain types of cancer and decreasing blood cholesterol levels.

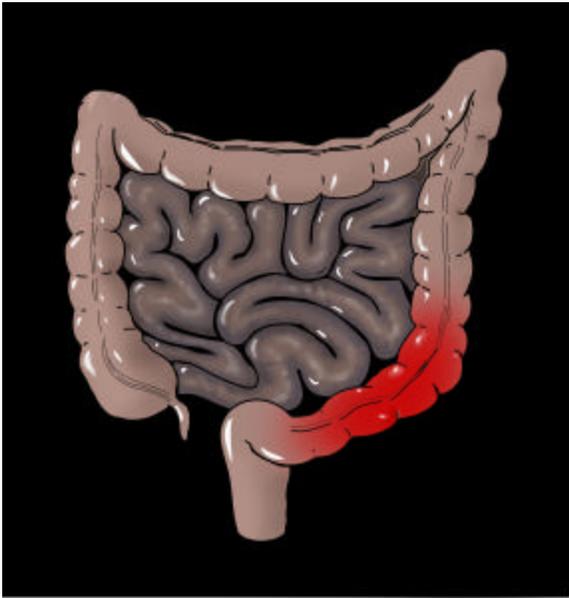
In the narrower part of the pyramid above the vegetable and fruit groups, you will find the dairy group and the meat, poultry, fish, legumes, and nuts group. These two groups should cover a smaller part of your plate with the vegetables, fruits, and grains covering the majority of your plate. When making choices from the dairy and meat groups, select the lower fat options. When preparing your meats, consider grilling, roasting, or stir-frying instead of frying. Remember to include low fat dairy choices in your meal planning. Although other foods, like broccoli, provide calcium, the dairy products are an excellent source of calcium, an essential mineral for bone density. Sweets and fats are at the tip of the pyramid. You may still consume an occasional favorite sweet – just possibly a smaller amount. The Food Guide Pyramid offers a roadmap toward healthier eating for not just you, but for all of your family members over the age of two years old.

As you use the Food Guide Pyramid to make your food choices, pay close attention to your portion sizes. Being overweight represents the consequences of a mismatch between energy intake and energy expenditure. If you consume a lot of healthy foods, but do not use all of that food for fuel, your body will store that extra fuel as fat for later use.

Achieving the necessary energy expenditure, in other words exercise, is the biggest challenge. You do not have to do anything extravagantly; you simply need to move consistently. To achieve your weight loss or health goal, you may need to increase the duration, intensity, or frequency of your activity. You may also want to add a new activity to your plan. Muscle conditioning exercises are also an important element to your exercise plan. Increased muscle mass helps you burn calories even when you are relaxing.

Trying new foods and new physical activities can jump-start your plans for better health. Get started today by making healthful lifestyle choices that will result in a healthier tomorrow. (POC: MAJ J. C. Corum, DSN 584-8856, 410-436-8856, or 1-800-222-9698).

PREVENTING COLON CANCER: SCREENING AND EARLY DETECTION SAVES LIVES



Colorectal cancer, cancer of the colon and rectum, is second only to lung cancer in the number of cancer deaths it causes. About 6 percent of Americans will develop the disease within their lifetime. Cancer of the colon and rectum accounts for 15 percent of cancer deaths. The risk of colorectal cancer begins to increase after the age of 40 and rises sharply at 50 to 55; the risk doubles with each succeeding decade. Despite advances in surgical technique and adjuvant therapy, only a modest improvement in the survival of patients who present with advanced neoplasms has occurred. Effective preventive approaches must be developed to reduce the morbidity and mortality from colorectal cancer.

A tumor causes many warning signs (See Figure A). By the time the warning signs are recognized, the tumor is at least a few centimeters in size. Screening people without warning signs may be the best way to find very early cancers. Regardless of age, anyone who develops warning signs associated with

colorectal cancer should consult a physician as soon as possible. Major warning signs include any change in bowel habits, rectal bleeding with bright red blood, unexplained weight loss, or constant fatigue.

No single cause exists for colon cancer. However, risk factors (See Figure B) should be lowered whenever possible. Colorectal cancer can be prevented if polyps that lead to the cancer are detected and removed. If detected in its early stages, 90 percent of colorectal cancer is curable. There are some things individuals can do to prevent the development of colorectal cancer. A high fiber, low fat diet may play a role in prevention. Stopping smoking and limiting alcohol intake may also help. The evidence for calcium and aspirin intake is less strong. Screening examinations that pick up polyps in their early stage help prevent them from becoming colorectal cancers. To date, there is no evidence that vitamin supplements such as B carotenes, selenium, and vitamin E protect against colon cancer; therefore, they are not recommended.

Four ways to screen for colon cancers exist (See Figure C). The first is a stool test to check for blood. Most cancers have no symptoms, hidden blood in the stool is often the first, and in many cases, the only warning sign. Most medical authorities recommend a stool test be done every year. The second is a barium x-ray. In this test, a contrast material is infused through the rectum. The radiologist can see large polyps or cancers (greater than 10 millimeters) in the entire colon. This test involves some discomfort and often fails to detect small polyps. The major limitation to the barium enema is that a colonoscopy is required if lesions are detected. The enema is recommended every five years. The third method is a sigmoidoscopy examination where a small flexible scope is used to look at the lower third of the colon. This examination is recommended every five to ten years. The fourth method is a colonoscopy. A

colonoscopy is similar to a sigmoidoscopy but allows the entire colon to be viewed. The patient usually is mildly sedated during a colonoscopy. Insufficient evidence exists to determine which screening method is best. The colonoscopy is the most thorough but takes longer, requires sedation, is slightly riskier (on rare occasions, the bowel can be perforated), and is more expensive than a sigmoidoscopy.

The type and duration of colorectal cancer treatment depend upon the extent of the disease and when it was discovered. Treatments can include surgery, chemotherapy, radiation, or a combination of all three. Surgery is the most commonly performed treatment for colorectal cancer. If the tumor is discovered before it has penetrated the bowel wall, removal of the cancer is usually all that is necessary for a complete cure. Small cancers localized to the rectum can be removed surgically, with radiation therapy follow-up. If surgery reveals that the cancer has spread to the lymph nodes or other organs such as the liver, chemotherapy is usually prescribed.

Cancer of the colon and rectum is second only to lung cancer as the leading cause of cancer-related deaths in the United States. Without undergoing screening or taking preventive action, approximately 1 in 17 persons in this country will develop colorectal cancer at some point in life. Research has shown that appropriate screening and treatment can alleviate much of the suffering associated with colorectal cancer and reduce the number of deaths caused by this malignancy. Colorectal cancer has not received the attention other cancers have, even though it is the second leading cause of cancer-related deaths in this country and it has a well-defined, identifiable, and treatable precursor lesion - the adenomatous polyp. Both health care professionals and the public need to become aware of the potential benefits of colorectal cancer screening. (POC: MAJ Ann Crosby, DSN 584-4656, 410-436-4656, or 1-800-222-9698)

Figure A.

Cancer Warning Signs

- Diarrhea, constipation, or other changes in bowel habit lasting 10 days or more.
- Blood in the stool or dark stools.
- Unexplained anemia.
- Abdominal pain and tenderness in the lower abdomen.
- Intestinal obstruction.
- Weight loss with no known reason.
- Stools narrower than usual.
- Constant tiredness.
- Anal lump.
- Abdominal fullness, gaseous.

Figure B.

Preventive Measures

- Annual fecal occult blood test.
- Double Barium Contrast Enema (every 5 years).
- Sigmoidoscopy (every 5 years).
- Colonoscopy (every 10 years).

Figure C.

Risk Factors

- Age
- Diet
- Excessive alcohol consumption
- Long history of smoking
- Personal history of colorectal cancer
- Personal history of colorectal polyps
- Family history of colorectal polyps or colorectal cancer
- Hereditary Syndromes (familial adenomatous polyposis)
- Personal history of chronic inflammatory bowel disease
- Rectal bleeding with bright red blood

SEXUALLY TRANSMITTED DISEASE IN OUR ADOLESCENTS



It is not a subject we like to think about when we think about our children. “My child is not going to have sex until he is at least 35” is what I laughingly would say. But according to the Centers for Disease Control and Prevention (CDC) in the 1999 Youth Risk Behavior Surveillance report, 49.9 percent of teens grade 9-12 indicated they had had sex at least once. This is a 4 percent decrease from that reported in 1991 but a 1.5 percent increase from 1997.

There are numerous diseases spread primarily by sexual activity. The good news is that the majority of these have a cure available. The bad news is that often these diseases have no symptoms. It is estimated that 75 percent of women and 50 percent of men with Chlamydia have no symptoms. Unless a person happens to be screened for a sexually transmitted disease (STD), the person will not know they are infected. With no symptoms, that person looks no different from anyone else and has no outward signs of illness. If the infected person

continues to be sexually active, the disease spreads. Studies have also shown that having an STD increases the chance of infection with the Human Immunodeficiency Virus (HIV).

The numbers of STDs in adolescents remain high. About 25 percent (approximately 3 million) of all new STD cases each year are among adolescents according to the CDC. Of the total new STD cases each year in the U. S., two thirds of the individuals are under the age of 25.

Chlamydia and gonorrhea are the most common curable STDs among teens. Curable STDs are caused by bacteria and can normally be killed with antibiotics. However, untreated disease can cause severe health problems later in life such as pelvic inflammatory disease (PID), infertility, and tubal pregnancies in women. There may be serious complications for babies born of women with untreated disease. The more times a person is infected with an STD, the greater the chance they will develop complications that may not be easily treated.

There are other STDs that have no cure. These diseases are normally caused by a virus and are diseases such as Herpes, Human Papillomavirus (HPV), Hepatitis B, and of course, HIV. Herpes Simplex Virus type 2 (HSV-2) or genital herpes causes painful ulcers. The ulcers can be treated, but the disease itself cannot be cured. The disease can be spread, even when ulcers are not present, to sex partners and from mother to baby during delivery. HPV is also spread sexually. This virus sometimes causes genital warts but often has no symptoms. HPV over the past years has grown as a public health concern after studies showed that certain types of HPV could cause cervical cancer.

STDs can affect anyone regardless of age, race, culture, or economic group. It is important that parents keep communication open with their children. This is critical for any important subject such as sex, violence, drugs, alcohol, and tobacco. Children are exposed to many things in the media today no matter how carefully parents may be screening what their kids are watching or listening to. If a child does not feel comfortable asking their parents about sex, they will talk to someone with whom they do feel comfortable, generally their friends. They may or may not hear the answers you want them to hear. Children need to be aware of responsibilities that go along with being sexually active and the possible consequences. If an adolescent is going to be sexually active, it is important that they know that condoms are the only form of birth control that protects against STDs. However, condoms are not 100 percent effective. Adolescents need to be aware that the only 100 percent effective way to prevent infection with an STD is abstinence.

Many parents are hesitant about discussing sex with their children. They may have been raised in a family where sex was not discussed or feel they do not know what to say. There are a number of books and pamphlets available on sexuality to help a parent talk with their child. It is not important to have all the technical terms, or even all the answers, but rather that the parent tries and is supportive. There are several sources on the Internet for information on STDs, prevention, and talking to your children. Included here are just a few sources: http://www.nnfr.org/adolsex/fact/adolsex_talkteen.html , <http://www.iwannaknow.org/> , <http://parentingteens.about.com/> , <http://www.cdc.gov/> , <http://www.nehc.med.navy.mil/> (POC: MAJ Sharon Reese, DSN 584-4656, 410-436-4656, or 1-800-222-9698)

CHILD ABUSE



A few years ago, the tobacco companies suddenly confessed that they had known for years that smoking was unhealthy. We were shocked. How could they deceive us? Now we were addicted and without any knowledge of the harm... Or did we know all along? Hadn't health officials, religious leaders, and our mothers counseled us not to start? Denial and "looking the other way" remain factors in our society today.

Once a year, we celebrate Child Abuse Prevention Month. Army Community Service and other helping agencies offer classes that are lightly attended, and a few people sport little blue ribbons on their nametags or clothing. For most of us though, the month will pass unimpeded with thoughts of

children and their needs beyond those of our own family. We know intuitively that abuse is wrong, but what we are now learning is just how damaging it can be beyond childhood.

In a large study, researchers linked many of the leading causes of adult death to childhood abuse and early home problems. They noted that psychological, sexual, and physical abuse is strongly associated with adult problems. These include substance abuse, depression, suicidal issues, smoking, poor self-reported health, sexual promiscuity, sexually-transmitted diseases, obesity, lack of proper exercise, heart disease, cancer, chronic lung disease, liver disease, and skeletal fractures.

We have learned over the years that second-hand smoke is unhealthy. Similarly, these researchers found that growing up in a home with domestic violence, substance abuse, mental illness, suicidal issues, or criminal activity is also associated with the same adult problems previously mentioned.

Together, these “adverse childhood experiences” or “ACEs” are fairly common. More than half of the participants in the study had experienced at least one ACE, and more than one person in four had experienced two or more ACEs – putting them at two to three times the risk for adult health problems as compared with those who had not experienced an ACE. Other studies reveal that chronic depression, marital problems, high use of medical care, and certain unexplained physical symptoms are also significantly linked to childhood trauma.

And, this is not just a civilian problem. Many of our service members experienced ACEs prior to joining the military. Various studies have reported levels of early childhood sexual abuse, physical abuse, and neglect at twice the national average.

Beyond personal suffering, high rates of prior trauma leave deep and widespread emotional damage and personality problems. This damage hurts readiness and retention, decreases unit cohesion, and may ultimately place these soldiers more at risk in combat since there is evidence that service members with a history of childhood trauma may be at increased risk of developing combat-related post-traumatic stress disorder.

These are serious matters. If we want a better life for our families, and ourselves we need to work through our own past experiences. If we change, our children have a much better chance of growing up free of ACEs.

September 11th brought a new focus on those who terrorize our country. If we really want to stamp out terrorism, perhaps we should start in our own homes. Help is available by calling your local Army Community Service or medical clinic. (POC: MAJ Anthony Cox, DSN 584-7412, 410-436-7412, or 1-800-222-9698).

24-HOUR PATIENT HANDLING STUDY

Musculoskeletal disorders exact an unacceptable toll on the health and military readiness of our personnel. Patient handling procedures performed by nursing staffs are no exception to this circumstance. Typical nursing tasks include transferring patients from a bed to wheelchair, rolling patients in bed, and lateral transfers from bed to stretcher. These tasks force nursing staffs to adopt and maintain extreme postures to perform patient handling procedures, increasing the risk of injuries. Patient handling equipment is available to assist nurses in these tasks, however, the equipment is high in cost and lacks nursing staff musculoskeletal injury statistics to justify its purchase and implementation.

The Ergonomics Program conducted a 24-hour patient handling study on 14 inpatient units at Walter Reed Army Medical Center (WRAMC), Washington, DC. The goal of the study was to define the patient handling demands placed on the medical staff based on patient dependency level and type of ward. The issues covered in the groundbreaking study worked toward spreading light on one of the major sources of staff injuries among nurses, as well as safety concerns associated with patients.

Surveys were distributed to the nurses that asked questions regarding the type of patient handling tasks they performed and the amount of discomfort they experienced from those tasks. Each nurse completed a demographic survey prior to the start of their shift in order to obtain baseline physiological measures and basic demographic information. The mean age of the population was 35 years, with 46% military, 42% civilian, and 12% contractor. Sixty-five percent were female and 33% male. Fifty-eight percent of the staff had experienced neck and shoulder discomfort in the last 12 months, with 63% having experienced upper and lower back

discomfort in the last 12 months. Twenty-eight percent of the staff felt low back pain at baseline. Research volunteers were required to staff each unit throughout the 24-hour survey period to answer questions and brief incoming nurses.

Early results from the study provide evidence that almost half (48%) of all transfers were transfers within the bed (i.e. rolling the patient in bed, moving patient to head of the bed, a combination of both, and pushing the bed with the patient in the bed), while 21% of all transfers were onto the bed. Thirty-two percent of transfers were maximal assistance and 30% were moderate assistance. Sixty percent of all transfers required greater than or equal to two staff members. In addition, 45% of the maximal assistance transfers required two staff members and 35% of maximal assistance transfers required greater than or equal to three staff members. This information is important to productivity. If three to five people are doing the job that one or two people could do with a device, there may be a cost benefit in both productivity and musculoskeletal trauma by implementing a patient handling device. Responses to the surveys demonstrated how the type of ward and level of patient dependency impacts patient handling demands.

This was a coordinated effort with individuals from DOHS, DCPM, DHPW and the WRAMC safety office participating. The nursing staff responded well and the information gained will serve as a basis for patient handling demand models and cost-effective equipment recommendations for the DOD. (POC: Robert Ehmann, DSN 584-5403, 410-436-5403, or 1-800-222-9698).

WHAT IT TAKES TO BE CIH

You may have heard the term CIH and wondered what it really meant. Many professionals in our Directorate of Occupational Health Sciences and Directorate of Laboratory Sciences are Certified Industrial Hygienists. As concern about health, safety and environment issues, and the associated legal ramifications grow, so does the demand for qualified professionals to evaluate working and community exposures. The CIH credential denotes credibility and high standards of professional conduct.

The American Board of Industrial Hygiene (ABIH) is accredited by the Council of Engineering and Scientific Specialty Boards (CESB) and controls the CIH process. Certification in the practice of industrial hygiene is a two-stage process. The individual must first demonstrate his or her educational and experience qualifications and then must successfully complete a written certification examination. The examination has evolved over the years; those of us who have been certified for years took a two-day exam with only a calculator and pencil. We had to memorize countless formulas on dilution ventilation, radioactive half-life, exposures to mixtures, and my personal favorite, "the fan laws". All formulas you were sure you could look up if you ever needed to use them. Eventually the exam included the formulas (though no advice on selecting the appropriate one) and today is a one-day quiz.

The ABIH regards certification to be an important milestone in a person's industrial hygiene career, but not an end point. As technology continually advances, scientific questions arise and legal requirements become more stringent and complex. It is increasingly critical that industrial hygiene profession-

als continue to develop and enhance their industrial hygiene knowledge and skills for the duration of their active careers. A CIH is required to demonstrate their continued professional development on a five-year cycle. In addition to paying ever-increasing annual dues to ABIH, the CIH must participate in various activities such as continued professional industrial hygiene practice, teaching, publication, and attendance on technical committees to maintain their certification. If you let your certification lapse, you are welcome to re-take the exam.

The ABIH is serious about certification; a certain percentage of CIH's re-certifying on the 5-year cycle will be audited. This is a very unpleasant experience where you wish you had kept better records. The ABIH may impose sanctions on a CIH or CIH-applicant for fraud, deceit, unethical activity, or conviction of a felony. Some industrial hygienists are Registered Professional Industrial Hygienists (RPIH), which is simply a registration, not to be confused with the venerable CIH accreditation.

So, if you want your CIH, start studying now, the next exam is June 2002 in San Diego. Good Luck. (POC: Sandra P. Monk, DSN 584-2439, 410-436-2439, or 1-800-222-9698)

BIRD BANDING

With the winter chill in the air and falling leaves also comes the sight and sounds of migrating birds overhead. Not only do various geese and ducks travel great distances to winter-over in warmer climates, so do many species of songbirds. In order to track and monitor their activities small individually numbered metal bands are placed on the legs of birds. Dr. Mark S. Johnson, a Research Biologist, Health Effects Research Program, uses this technique to learn about bird movements in respect to habitat. Johnson uses mist nets (ultra fine black threaded nets) to capture, mark, and then recapture songbirds. He has used banding procedures at APG as well as the nearby Anita C. Leight Estuary Center, Harford Glen Environmental Education Center, and currently at Eden Mill Nature Center. Johnson is a Master permitted bird bander licensed through the U.S. Fish and Wildlife Service. He is certified in field identification of breeding avifauna in compliance with the Maryland Department of Natural Resources, Critical Areas Commission, to conduct and assess avian censusing in Maryland.

Johnson uses strategically placed mist-nets to catch songbirds in activate areas of migration. After capture, the birds are carefully removed from the

nets for an examination of health-related criteria (for example, fat content, presence of ectoparasites, emacia) and banded to establish a record on the various species. Other data collected involve species diversity of habitat use, age, sex, and weight. An assessment of the vegetation and habitat survey is performed. The information collected during these censuses can be instrumental in determining the impact of a changing environment and to determine the species of birds using a specific habitat. From these data, scientists can determine which species use these areas for migration stop-overs (to fuel up along the way), which species could be exposed to chemicals, and which types of habitats are best suited for reproductive activity. "With the general decline in habitat for many songbirds, the way we maintain what we have left can be crucial to sustain populations," according to Johnson.

These field methods are also often used for environmental education purposes. At Harford Glen, these methods are demonstrated to 5th grade interns who often spend part of a two-week sleepover learning about conservation techniques. Volunteer contribution is often critical to success of these programs and for data collection.



(Dr Johnson shows net and banding process at Eden Mill.)



STABILIZATION FORCE (SFOR) EXPERIENCE

The U.S. Army Medical Command has tasked USACHPPM-West to provide preventive medicine professionals to fill the SFOR Preventive Medicine Staff Officer (PMSO) position on a rotating basis. For the lucky volunteer, this temporary assignment consists of serving four to six months at SFOR Headquarters, located in Sarajevo, Bosnia-Herzegovina. As a recent SFOR PMSO myself, I would like to share some of my experiences that may enlighten you on the mission and lessons learned from this very rewarding assignment.

The SFOR PMSO is assigned to the Combined-Joint Medical (CJMED) staff element of Headquarters, (HQ) SFOR. This headquarters is truly a multinational, joint services environment consisting of soldiers, sailors, airmen, and marines from a variety of different countries. For example, during my tour, the Theater Surgeon (and Chief of CJMED) was a German Navy physician, his Medical Liaison Officer was a physician in the Slovakian Army, his Medical Coordination Center Chief was a French Army physician, and his Medical Movements Officer was a Canadian Army flight nurse. The American PMSO is assigned to the Medical Force Protection Team of the staff element, along with a German Veterinary Officer and a Canadian Preventive Medicine NCO. Although English (or American as our British counterparts prefer to call our language) is the primary language spoken and written in HQ SFOR, the different accents and colloquialisms sometimes made communication quite challenging.

Although the SFOR PMSO's specific job description is normally tailored to the operation's current situation, the Theater Surgeon's priorities, and the individual staff officer's professional interests, the general PMSO duties focus on addressing

theater-level preventive medicine issues, to include environmental and occupational health, infectious disease monitoring and control, and pest management issues. Since SFOR consists of three multinational divisions (MNDs), the PMSO is also responsible for coordinating any cross-divisional boundary support required to address these preventive medicine issues. This especially includes maintaining an information exchange network between the MNDs. As the sole American on the CJMED staff and since American is the primary language in HQ SFOR, the PMSO's additional duties include drafting and/or editing the majority of the written correspondence leaving CJMED, as well as attending meetings and presenting briefings for the Theater Surgeon and other staff members. As you can well imagine, the additional duties alone were enough to occupy a normal workday.

As a staff officer for a theater-level headquarters element, the PMSO does not have direct control over any preventive medicine service support resources, except the SFOR Preventive Medicine NCO. This in itself can present certain challenges when attempting to address specific preventive medicine issues requiring on-site surveys and laboratory analyses. To receive this support, the PMSO is authorized to task individual MND assets (through the SFOR Commander) to provide direct support. However, in reality, the PMSO must "ask" for direct support from MND assets due to SFOR's multinational environment. Therefore, the PMSO must build strong professional (and in some cases personal) relationships with the MND preventive medicine assets through frequent telephone calls and face-to-face visits to accomplish the mission.

An example of one of my projects as the SFOR PMSO was the development of a theater-level environmental health hazard inventory. Due to Bosnia-Herzegovina's recent civil war, numerous environmental health hazards are scattered throughout the countryside. Examples include a highly radioactive Europium-152 source discarded in a local scrap yard located less than one kilometer from the HQ SFOR compound's (Camp Butmir) front gate, as well as 66 tons of potassium cyanide stored in corroding metal drums in an abandoned auto parts factory located less than five kilometers from Camp Butmir's back gate. Although a number of SFOR troop-contributing nations have conducted baseline assessments of their local environments, these assessments were usually limited to the military compound property, and the assessment results are normally maintained by these individual nations. However, SFOR personnel may potentially be exposed to numerous environmental health hazards located outside of their compound boundaries while traveling to other military compounds and checkpoints, working with the local population, and from migration of the contaminants through the air, waterways, and soil. To address this issue, the SFOR Commander tasked CJMED with developing a theater-level inventory of environmental health hazards in the form of a map. This map would identify potential environmental health threats to SFOR personnel, and it would provide relevant information to the international community (such as the United Nations Environment Programme) for eventual environmental remediation. Through numerous working group meetings, telephone calls, and e-mail messages, the first rendition of this map was eventually completed towards the end of my six-month tour. This project would not have been completed without direct support from the MND preventive medicine assets, the local Ministries of Health and Industry, and the U.S. Armed Forces Medical Intelligence Center.

In conclusion, let me share a number of lessons learned with those USACHPPM personnel who plan to participate in the HQ SFOR experience in the near future. First, all individually deploying soldiers are required to report to the CONUS Replacement Center (CRC), located in Fort Benning, GA, before they can "enter the box" (i.e., enter the SFOR/KFOR theater of operations). In my opinion, the CRC experience is probably the most challenging part of the entire tour due to the boredom and isolation. To reduce this challenge, meet most (if not all) of your Soldier Readiness Processing (SRP) requirements at your home station, bring your own TA-50 (i.e., field gear) if possible, actually study for and pass the USAREUR written driving exam, and bring cash for your dining facility meals. By the way, after the CRC experience, you will not be charged for any dining facility meals. Once you arrive in theater, start shedding some of your "Americanisms," and try to remember that you are an SFOR staff officer first and an American soldier second. Use simple phrases and terms, and speak slowly. For most European staff officers, English is a second, third, or fourth language. Adapt to the European work schedule. Most SFOR staff officers work the late shift (i.e., they start work later in the morning, and they leave work later in the evening), and they take numerous coffee breaks. Many of these coffee breaks are actually informal meetings to discuss work issues and develop professional relationships. And last of all, contrary to popular belief, General Order Number One (which includes a restriction on drinking alcoholic beverages while in theater) does not apply to American soldiers assigned to SFOR staff billets. Therefore, take advantage of the opportunity to work hard and play hard with interesting people that you would never meet unless assigned to a multinational, joint headquarters. (POC: MAJ Thomas C. Delk, DSN 367-0063, 253-966-0063)

WALKING THE WALK IN ENVIRONMENTAL STEWARDSHIP FORT LEWIS, WA

Beginning in August 2001, volunteers from USACHPPM-West have been assisting personnel from the Natural Resources Division by removing Scotch Broom, an invasive weed that competes with native plants, on the Prairie Oak Preserve (POP). On Tuesday mornings, we work alongside the POP manager, Connie Lee, for a 1-hour pulling session, and then go to work on our regular activities. About eight people volunteer on a regular basis. Scotch Broom is pulled using the weed wrench, a mechanical lever that was designed, patented, and made by a man living in the New Tribe Commune in Oregon. The weed wrench grasps the plant at its base, then with a downward push the weed, roots and all, come out of the ground. In October, our Commander, LTC Thomas Little, authorized a Scotch Broom pull and breakfast. Personnel began pulling Scotch Broom at 0700 and around 0830 gathered for a continental breakfast provided by the division chiefs. Our efforts have been the focus of a recent post newspaper article, and positive comments from nearby housing areas show that others appreciate and are becoming aware of us.

CPT W. C. Grant introduced Scotch Broom as seeds onto Vancouver Island in 1850. Three of these seeds germinated and thus began the Scotch Broom invasion of the Pacific North West. Scotch Broom produces dense thickets and crowds out native and other competing vegetation. It can reach a height of 8-10 feet and can prevent the use of training areas. Therefore, controlling Scotch Broom is a major concern on the POP as well as on Fort Lewis in general.

The preserve, officially known as the POP, is a 13.5-acre site located next to an elementary school and across the street from USACHPPM-West. Mrs. Toni Hill, wife of the Post Commander, dedicated and officially opened the POP in April 2001 to promote

environmental stewardship. Since then, Scotch Broom removal and the planting of native grasses have been the main focus at the POP. We have focused our efforts on a 2.5-acre plot, which is separated from the main preserve by a road. Since August, our personnel have cleared approximately 65 percent of this site.

The POP has been permanently set aside as an environmental-educational preserve. Jeff Foster, an ecologist, states, "There are three primary benefits for Fort Lewis in restoring the POP. The first is habitat restoration for uncommon plants and animals, especially native prairie grasses and wildflowers. The second is environmental stewardship: showing our residents and visitors a glimpse of an ecosystem that has largely disappeared from Puget Sound. The third is that this is an on-going project that encourages ownership within our community."

We are proud to be a leader in this effort, and plan to assist Fort Lewis with the POP maintenance as well as its POP educational program. (POC: MAJ William J. Sames, DSN 367-0073 or 253-966-0073).



Mr. William E. Irwin, an entomologist, is shown pulling Scotch Broom.

USACHPPM-Pacific

ELD IS AUDITED

In February 2001, for the second time, a representative from the American Association for Laboratory Accreditation (A2LA) audited the Environmental Laboratory Division (ELD). Although the laboratory was audited to the older International Organization for Standardization (ISO) Guide 25 standard, an ISO 17025 gap analysis was also performed to help implement the new requirements and maintain accreditation.

As a result of the audit, environmental lead testing was added to the laboratory's Scope of Accreditation. The Scope of Accreditation is a list of testing technologies for which the laboratory has proven proficiency. The lead assays added were lead in paint, lead in soil, and lead from swipes. This validation means that DoD agencies and installations in the Western Pacific (Guam, Japan, Kwajalein, Korea, Thailand, etc.) have a local laboratory that can provide the same valid service as U.S. commercial laboratories. With the continuous re-look at lead in paint in quarters and buildings on installations in countries that have not limited the use of lead in paint, or allow higher levels of lead than the U.S., having an accredited laboratory in proximity is a value added asset for us.

In addition to the new accreditation for environmental lead, the ELD maintained its accreditation for 96 potable and 62 non-potable water analytes. As with the new environmental lead tests, the ELD represents a valuable asset to DoD agencies and facilities in the Western Pacific by being the only military laboratory accredited to perform these assays. In addition, the ELD follows U.S. Environmental Protection Agency Methods for these assays. This is a service not available from the local Japanese and Korea laboratories. By providing this service, we play a key role in ensuring that the military population in Korea, Japan and other areas in the Western Pacific have safe drinking water, and that that water is maintained to the same high standards as drinking water supplies in the U.S. In addition, soldiers and their families do not have to compromise safe and healthy living conditions just because they are stationed overseas. (POC: Ronnie G. Masters, DSN 263-8415).



Mr. James Ito, Quality Assurance Coordinator and Mr. Ronnie Masters, Director of Environmental Laboratory Division, with Certification of Accreditation and Scope of Accreditation.



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