United States Public Health Service

MACHINATORES VITAE

Engineer Newsletter

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From the Chief Engineer Officer

Richard F. Barror, Ph.D, MPH, P.E.
RADM, USPHS
Assistant Surgeon General

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Teachable Moments

Unless someone like you,
Cares a whole awful lot,
Nothing is going to get better,
It's not.
-The Lorax, by Dr. Seuss, 1971

Those of you who have children can relate. I have two in elementary school. There are times when your kids do something that can be really aggravating. My first inclination is to react loudly proportional to the infraction, but I've found it is often better to stay calm and turn the situation into a "teachable moment." It takes patience because they usually don't get it the first time and thus we must repeat the process. Such is the life of a parent. The quote above is from one of many books I've read to my kids out loud. There's a lot of wisdom in those books, for everyone.

Leadership in many ways is about using, and learning from, teachable moments, and caring a lot. Leadership develops through a cyclical learning process. We learn from our own successes and mistakes, big and small. We reflect on them and adjust, or fine tune, our approach to the next challenge that comes our way. It sounds so easy, but it takes practice and some real effort.

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Peter Drucker, a management guru, wrote, "The only things that happen naturally in an organization are friction, confusion, and malperformance. Everything else is a result of leadership." And I would add, also a result of caring "a whole awful lot," meaning being committed to the vision or the cause. The organization to which Drucker refers can be your workplace, family, church, or community association. Thus, learning leadership skills can be very beneficial in all aspects of your life.

Back in 2000, the EPAC Chair, CAPT Cris Kinney, proposed having the EPAC sponsor leadership training. Since then, the PHS engineers have taken a lead among the PHS professional categories in teaching leadership. I've had the opportunity to participate in - and benefit from - these courses as both student and instructor. The courses offered in the last three years have been well received, which has been noticed by others. The Commissioned Officers Foundation asked that I help teach a one-day "Fundamentals of Leadership" course at their recent conference in Tucson. It was a scaled down version of the 3-day course we did in San Diego and Charleston. The course was well attended and received good reviews. Based on the success of this course, the COF is doing it again in Atlanta in June.

Since learning more about leadership, I have spent a considerable amount of time reading the literature and observing people who lead others. In the leadership development seminar, we state that "leadership is a process whereby an individual influences a group of individuals to achieve a common goal." One of the things we discuss in the seminar is that there is a difference between leadership and management. People in high management positions are not necessarily leaders. By definition, an executive manager who does not communicate with his/her subordinates is ***not*** a leader. Their ability to get something done may be because of the power of their position rather than their personal power to persuade through influence. However, strong leaders typically end up in highly placed management positions and they use both their position and their personal influence effectively depending on the situation.

At the COF conference in Tucson, I attended the leadership luncheon, which many of you may have attended. The featured speakers were three flag officers from the Office of the Surgeon General and the Regional Health Administrator (RHA) from Region 7, RADM John Babb. Having just taught the one-day Fundamentals of Leadership course 2 days earlier, I was curious to hear what they would say. The three from the OSG each had a humorous story, talked about the attributes of leaders, and pointed to the others on the stage as examples of good leaders. They were informative and well received. RADM Babb did none of that. He never mentioned leadership. He talked from the heart about public health at the ground level. He drove home a message about the fundamental mission of public health providers – serving the needs of people. He was communicating directly to us in the audience. His passionate words appealed to our very professional and personal core values. Rather than lecture about leadership, RADM Babb ***demonstrated*** leadership. And the audience followed by giving him a standing ovation, the only one of the four speakers who received one. It was a powerful observation about leadership and teachable moment.

At the Society of American Military Engineers meeting in Minneapolis last May, we heard from retired 4-star General Barry McCaffery about leadership. In his talk he quickly mentioned one example of leadership. When a squad leader directs one of his squad members to step out of a foxhole into harm's way, why does that squad member do it? Is it because the

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squad leader is the smartest guy around and has calculated the odds, or the squad leader is trusted as a friend, or the squad leader is feared, or is there more to it? It's a fundamental situation in military training involving the study of leaders, followers, influence, and mission (i.e., leadership). Influence has been defined as the ability to get others to *willingly* act even if it is against their own self-interest in pursuit of a group interest. It requires good leadership skills. In the leadership development seminar, we discuss influence and study interpersonal communication styles that make us better leaders.

Contrary to common perceptions, most leaders are not born leaders. Leadership skills are developed from childhood. And by adulthood, people have different abilities and potential to lead. Learning leadership is a life-long pursuit. Fortunately leadership is teachable and learnable. Achieving leadership effectiveness takes the same persistence and effort as learning to play a musical instrument. It requires practice and coaching (mentoring). Thus we cannot make people leaders in a one-day or three-day seminar, but we do provide the seminar participants a mental leadership "toolbox" consisting of definitions, resources, and a cyclical algorithm that one can take home and use as a foundation for improving their leadership competencies.

You don't have to wait for a leadership seminar to start learning about it. There are literally hundreds of books on leadership, each coming at the topic from a different angle. Don't be overwhelmed; focus on leadership fundamentals rather than the complex leadership strategies covered in these books. A practical definition of leadership is provided above. And a description of the various leadership competencies can be obtained at the following website: http://hhsu.learning.hhs.gov/competencies/comps-index.asp The Air Force has a great website that provides links to a multitude of other leadership websites at http://leadership.au.af.mil/sls-link.htm which also includes some short courses.

In 2008, the engineer category did not initiate a 3-day leadership course. Instead, CDR Jim Simpson organized an 8-hour leadership seminar at the AMSUS meeting in San Antonio. It used a different format, consisting of short talks on different leadership competencies. Most of the talks were by flag officers and we had more than 80 attend, many from the DoD services.

We plan to hold the next 3-day course in Colorado Springs from July 28 through noon-July 31. CDR James Ludington is heading up this effort. This course will be modeled after the San Diego and Charleston courses organized by CDR John Longstaff and CDR Hilda Scharen, respectively. Details will be out soon.

If you want to be a leader, look for opportunities to lead. Start with easily available opportunities, like mentoring a junior officer, chairing a committee, or leading a volunteer effort. Consider each challenge that you encounter as a teachable moment. The only thing that is required is that you care "a whole awful lot."

RADM Richard Barror
Chief Engineer Officer

2009 EPAC Chair

CDR John Longstaff

Hi all, and welcome to this, the first Engineer Newsletter for 2009. It's wonderful to see the publication coming back to its previous strength. This is just another sign of our category's ongoing strength and health. I've been tasked to put together some thoughts to share with everyone, so I've dug into my bag of issues to see what I could find for you.

First of all, I want to welcome the newest members of the EPAC, CDR Duane Hammond and CDR Edward Dieser, both from CDC, LCDR Jennifer Proctor from National Park Service, and CDR Peter Nachod from Indian Health Service. While membership on the EPAC is highly sought after and considered a good career move, it can certainly be a drain on your time. Really? Really! Your sacrifice is greatly appreciated by your category.

I would also like to welcome those who have opted to seek a second term despite having full knowledge of the time requirements of membership. Welcome back LCDR Varsha Savalia of FDA, and LT (LCDR Select!) Vivian Porter of IHS.

Next, I would like to extend a special welcome to our newest members, those officers called to active duty this last year. As of this writing there are 32 of you. You have no idea how soon you'll be running this place!

The last count I read showed the total number of Engineer Officers to be 422. This is a great improvement on the just shy of 400 we've been sporting the last few years, but I know we can continue to grow. The push for engineer recruiting has been ever-present, and the formal Associate Recruiter program is in flux, but I've found that PHS engineer officer recruiting isn't that tough.

In times like these, job fairs are becoming fertile ground for interested potential recruits. A couple of weeks back I had the joy of attending a recruiting event in Baltimore. It was well attended, and I was one of four uniformed PHS "recruiters." I met several eager ambitious youngsters with ink-still-wet degrees in hand, ready to shake the dust of this town off their boots.

In this age of middle eastern conflicts with protracted deployments, as well as other liberal uses of our military, the soon-to-have-Bachelors degree engineering students were understandably skittish about talking to the guys in uniform. However, like a Polaroid picture, once they had a chance to sit with us for just a minute or so, they found a different picture emerging. One of secure work, dynamic engineering positions, lots of leave (oooh, they liked that one!), decent health and retirement plans, and a chance to experience parts of the

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country that young, single, adventurous youth seeking their fortune should go. And we're hiring!

We showed them pictures and told tales of short-term (entirely voluntary!!) deployments to Afghanistan, Turkey, Texas, Iraq, Louisiana, and on the seas of the South Pacific and the Caribbean. We gave them glimpses of life as a Jr. Field Engineer on the Navajo or in the wilds of Alaska, an up-and-coming Mechanical Engineer in Atlanta, a reviewer of cutting edge medical technologies, and other exceptional opportunities available virtually nowhere else to someone just starting out. Good luck keeping the adventure seekers away.

They told us of the other interviews and jobs they'd experienced. Jobs of endlessly verifying spreadsheet calculations, or some similarly intensive design-free lifestyle. We told them of cradle to grave, concept to closeout, responsibility. The chance to think a thing up, design it, see it built, and then get it running. Where else can a young engineer grow so fast?

We found that in all honesty, PHS Engineering is a pretty easy sell. The trick lies in finding the opportunity to do so.

Another group of folks I've found that are frequently easy to sway are your peers in the Civil Service, especially those nearer the start of their career. The thing that can bring them over is that innate ability of engineers; their intuitive sense of math. Show them a leave schedule and a pay chart, apply the medical factors and the tax-free allowances, and they quickly see a way to get a pay raise with virtually no added cost to their agency. Not a hard sell there either.

I'm greatly pleased to see the growth that our category is continuing, and I only see it increasing. Remember that just about anywhere you go there lies the opportunity to get the word out about a great career track. Associate Recruiter Program or no, we are all recruiters.

Machinatores Vitae!

CDR John Longstaff, P.E.
2009 EPAC Chair

Pine Ridge Waste Water Treatment & Wetlands Facility

CDR Anthony G. Kathol, P.E.

Sanitation Facilities Construction (SFC) is an integral component of the Indian Health Service (IHS) disease prevention activity. The IHS has carried out the SFC program since 1959, providing potable water and waste disposal facilities for American Indian/Alaska Native (AI/AN) people. As a result, the rates for infant mortality, the mortality rate for gastroenteritis and other environmentally-related diseases have been dramatically reduced, by about 80 percent since 1973. The IHS physicians and health professionals credit many of these health status improvements to IHS' provision of water supplies, sewage disposal facilities, development of solid waste sites, and provision of technical assistance to Indian water and sewer utility organizations. The SFC Program is a preventive health program that yields positive benefits in excess of the program costs.

Posted Sign of Various Funding Agencies for the Pine Ridge Wastewater Treatment Facility & Wetlands

The SFC program has a staff of nearly 500 engineers and support personnel with an approximate annual construction budget of $200 million per year. The SFC program has a portfolio of 3,500+ active construction projects and provides essential water and sewer facilities to approximately 22,000 homes per year in 35 states.

Safe drinking water supplies and adequate waste disposal facilities are necessary preconditions for most health promotion and disease prevention efforts, as well as being a major factor in the quality of life of Indian people. As of the end of FY 2008, the list of all documented sanitation deficiency projects or needs totaled over $2.5 billion. As of the end of FY 2008, there were over 220,000 AI/AN homes in need of sanitation facilities, including over 34,000 AI/AN homes without potable water. Currently, about 1% of all U.S. homes lack safe water in the home while about 10% of all AI/AN homes lack safe water in the home.

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SFC projects are carried out cooperatively with the tribes who are to be served by the facilities. Tribal involvement has been the keystone of the SFC Program since its inception. Projects start with a Tribal Project Proposal and are funded through execution of an agreement among the Tribe, the IHS and other participating partners or contributors. In these agreements the Tribes agree to assume ownership responsibilities, including operation and maintenance of completed facilities. The wastewater project described in this article is a top quality example of an SFC project highlighting tribal participation, multi-agency funding partner coordination and technical challenges.

The project being highlighted here is located on the Pine Ridge Indian Reservation, home of the Oglala Sioux (Lakota) Tribe, in the southwestern part of South Dakota. The topography of the reservation ranges from rugged badlands in the north, to gently rolling hills in the south. The southern areas, which can be cultivated, are used to raise small grain, hay, and grasses with the remaining lands of the reservation used for range. The climate of the reservation is typical of the Northern Great Plains, with extremes during summer and winter. Normal precipitation for the year averages 17 inches. The population of the reservation is over 15,000 with a growth rate of nearly 26%. The major sources of income are from leasing lands and seasonal agricultural or construction activities. Per capita annual income on the reservation is estimated to be $6,143.

An existing wastewater treatment and disposal facility serving a population of over 6,500 people within Pine Ridge Village had a history of failed performance. The system served almost a 1,000 homes, the Oglala Community School (OCS) campus with approximately 1,100 students, nine Head Start Centers, the Bureau of Indian Affairs (BIA) Agency Office, BIA teacher's housing units, BIA Roads Shop, the BIA fire and police departments, the new 140 bed correctional facility, 17 commercial businesses, eight churches, a 58-bed IHS Hospital with 95 housing units for medical staff, the Oglala Sioux Tribal Administration Center, and other tribal offices located throughout Pine Ridge Village.

In the early 1990's, a private engineering firm was contracted by the Oglala Sioux Tribe to design and construct renovations to the existing community wastewater system with funding from the Environmental Protection Agency (EPA). In 1994, a new tri-plex sewage pump lift station was installed to replace the existing undersized and out dated sewage lift station. A new 32 acre lagoon cell was added to provide a total of 52 acres of lagoon area for a 180-day retention system. Due to higher than anticipated costs, the lagoon system was never fully completed and the primary cell was never sealed. The majority of the sewage was being directed to the secondary cell, which discharges into nearby White Clay Creek. The lift station was consistently down for electrical and mechanical repairs and the wastewater collection system had cracked and/or broken pipes.

The Tribe developed a master plan to construct a centralized wastewater treatment and disposal facility in lieu of repairing the existing conventional facultative pond (lagoon) system. The existing system was leaking into the adjacent creek and there was no land for expansion. Under IHS Project AB-01-584 (Phase 1), the IHS studied the wastewater flows and evaluated alternative site locations for a future treatment facility. A site was selected southwest of the village of Pine Ridge where soil borings and a comprehensive geotechnical report detailed the favorable soil characteristics of the new site. Meanwhile, the Oglala Sioux Tribe, under the leadership of their Director of the Envi-

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ronmental Protection Department, studied alternative wastewater treatment methods that required minimal maintenance as well as new technology in the biological treatment of wastewater in lieu of conventional lagoon systems that have been constructed throughout the reservation. After reviewing and visiting various pond sites, the Tribe was convinced that an Advanced Integrated Wastewater Pond System with a deep pit concept and wetlands was the preferred method of treatment that would be suitable to meet the current and future needs of Pine Ridge Village.

Advanced Integrated Wastewater Pond Systems (AIWPS) developed by Professor William J. Oswald and his co-workers at the University of California, Berkeley usually consist of a minimum of four ponds in series. These are Advanced Facultative Ponds (AFP), Secondary Facultative Ponds or Algal High Rate Ponds (HRP), Algae Settling Ponds (ASP), Maturation Ponds. The ponds incorporate special physical or environmental features for methane fermentation and photosynthetic oxygenation. The AFP has a different configuration than a conventional facultative lagoon pond with a deeper section that favors anaerobic digestion. AIWPS eliminate or reduce the amount of sludge produced and provide a high level of treatment, while minimizing maintenance and land use compared with conventional ponds.

Once the recommendation was put forward, the Tribe vigorously sought and secured funding through various governmental agencies. Without the collaborative effort by all the various funding agencies, the remaining five phases of the project would not have been possible. Under the Clean Water Act

Pine Ridge Sewer Improvements Project, Phases 1 - 6	
Projects and Funding Sources (Phase 1):	
IHS Regular (AB 01-584)	$ 75,000
Projects and Funding Sources (Phase 2):	
2003 EPA Clean Water Grant (AB-03-E72)	$ 740,000
Projects and Funding Sources (Phase 3):	
IHS Regular (AB 04-R39)	$ 800,000
Projects and Funding Sources (Phase 4):	
BIA (AB 05-S01)	$ 700,000
IHS Regular (AB 06-R59)	$ 175,000
2006 EPA Clean Water Grant (AB-06-R59)	$ 525,000
Projects and Funding Sources (Phase 5):	
Oglala Sioux (Lakota) Housing (AB 07-D02)	$ 100,000
2007 EPA Clean Water Grant (AB-07-D02)	$ 731,000
Projects and Funding Sources (Phase 6):	
USDA/Rural Development Loan (AB 09-D20)	$ 319,000
USDA/Rural Development Grant (AB-09-D20)	$ 964,228
Total Phases 1 through 6	$5,129,228

Various Funding Agencies and amounts for the Pine Ridge Wastewater Treatment Facility & Wetlands

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Tribal Set Aside, EPA-Region 8 contributed $1,996,000 in grants. The Bureau of Indian Affairs contributed $700,000 on behalf of the agency and the school, the Oglala Sioux (Lakota) Housing contributed $100,000 on behalf of the various HUD homes throughout Pine Ridge village, and the IHS contributed $1,050,000. In addition, the Tribe was able to secure a loan/grant totaling $1,283,228 from the South Dakota USDA/Rural Development Area Office to be used under Phase 6 for a total project funding of $5,129,228.

Phases 2 through 6 involved the design and construction of a multi-configured wastewater treatment and wetlands facility including: three primary cells with 15-foot deep fermentation pits, totaling 11 acres in area, two secondary treatment cells totaling 37.44 acres in area, and four shallow wetland cells totaling 33 acres in area, for a total high water level treatment capacity of 81 acres, lined with native lean clay from the project area.

Construction of the wastewater treatment facility included: 123 acres stripped and grubbed, over 721,000 cubic yards of excavation, almost 13,000 tons of 9-inch quarry stone rip rap, 40,000 square yards of geotextile fabric, 10,075 linear feet of fencing, 7,420 linear feet of 12-, 10-, and 8-inch PVC transfer piping, 66 acres of grass seeding, 145 tons of mulch, 4,700 linear feet of graveled access road, 6 concrete manholes, 3 distribution boxes, 2 flow control structures with "Thirsty Ducks®", and one flow measurement control structure to regulate and measure discharge. The work was completed by Red Lake Builders using federal procure-

Completed Renovation of the Pine Ridge Sewage Lift Station.

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ment in November 2008.

In addition to the construction of the new wastewater treatment and wetlands facility, the old sewage lift station was renovated to include new pump controls with electrical wiring, piping and valves, two 125 HP submersible pumps, each capable of pumping 800 gallons per minute at 245 feet TDH, a new concrete slab to support a 2 Ton jib crane to pull the pumps out of the lift station, and 8,925 linear feet of 12-inch PVC sewer force main connecting the sewage lift station to the new wastewater treatment facility and wetlands. This work was completed by O'Bryan Contracting using federal procurement in January 2008.

The new facilities provide sufficient design capacity for a 20-year future growth for an anticipated population of 9,000 and a projected future average daily flow of 590,000 gallons per day. The fermentation pits are designed to accept 0.17 pounds BOD/capita-day. A 150 day retention volume in the two secondary cells provide for winter storage. The wetlands are designed with three depth zones each and a design hydraulic loading rate of 25,000 gpd/acre. Discharge from the wetlands is not expected to occur until two years after startup with a discharge rate at design capacity of 500 gpm. The 12-inch sewer force main was sized for a future

Aerial View of the Pine Ridge Wastewater Treatment Facility & Wetlands located southwest of Pine Ridge Village (December 7, 2008), Pine Ridge Indian Reservation, South Dakota. (Photo courtesy of Anthony G. Kathol, P.E., IHS Project Engineer).

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maximum pumping capacity of 1220 gpm. Remaining work to be completed includes: installation of a sewage grinder and ventilation duct work within the lift station, removal of the temporary trash basket, purchase of a 125 HP stand-by submersible pump for the Tribe's utility department, proper abandonment of the old lagoon system, and inspecting, jetting, and replacement of sections of the Pine Ridge Village old sewage collection system.

Challenges on the project included obtaining large volumes of water from White Clay Dam to meet compaction requirements, obtaining a mining permit through the Tribe for the use of the onsite clay to construct the wastewater treatment facility and wetlands, and by-pass pumping of the sewage from Pine Ridge Village through a portable diesel pumping system that was brought to the job site while the sewage lift station was shut down while it was being renovated. Other challenges included maintaining OSHA safety requirements throughout the duration of both jobs, weather delays, and maintaining communication to the Tribe throughout the duration of the project.

The completion of the Pine Ridge Sewer Improvements Project was a priority for the Aberdeen Area IHS during FY2008. The use of the integrated wastewater treatment concept and wetlands technology in the design of the Pine Ridge Wastewater Treatment and Wetlands Facility will serve as a prototype for future Aberdeen Area IHS sewer improvement projects.

The most wasted of all days is one without laughter.
~e.e. cummings

You might be an Engineer If ……

- You order pizza over the internet and pay for it with your home banking software.
- In college, you thought "Spring Break" was a metal failure.
- You can't write unless the paper has both horizontal and vertical lines.
- The salespeople at BestBuy can't answer any of your questions.
- You have ever owned a calculator with no equals key and knows what RPN stands for.
- You thought the real heroes of "Apollo 13" were the mission controllers.
- You've already calculated how much you make per second.
- Your significant other says that the way you dress is no reflection on them.

Highlights from National Engineers Week

PHS engineers celebrated National Engineers Week by recognizing several outstanding engineers at a breakfast on February 19, 2009, held at the Uniformed Services University of the Health Sciences in Bethesda, Maryland. Later that day, the Federal Engineer of the Year (FEYA) was named by the National Society of Professional Engineers (NSPE) at a luncheon in Washington, D.C.

Approximately 50 PHS engineers gathered for the Engineer Awards Breakfast to celebrate the achievements of agency engineers and to name the PHS Engineer of the Year and the Engineer Responder of the Year. Also awarded was the inaugural RADM Jerrold M. Michael Award to recognize a U.S. Public Health Service Engineer or Architect who has demonstrated outstanding leadership and dedication to the education, training and/or mentoring of present and future PHS engineers. The guest speaker at this year's event was CAPT Jerry Farrell (USN, ret.) who spoke about the Commissioned Officers Association's continual efforts to support and promote the Corps, especially in the face of the current lack of permanent leadership within the Department of Health and Human Services. Also honored this year was Dr. Bob Wolff, P.E., Executive Director, SAME, for his many years of support for PHS engineers.

The following people were named as 2008 Agency Engineers of the Year, four of whom were also recognized in the Top Ten Finalists for the FEYA presented by NSPE. For information on the FEYA winner and other finalists, please visit http://www.nspe.org/InterestGroups/PEG/Resources/AwardsAndScholarships/feya.html.

PHS and NIH Engineer of the Year – Farhad Memarzadeh, Ph.D., P.E.
National Institutes of Health, Office of Research Facilities, Division of Technical Resources, Bethesda, MD

PHS Engineer of the Year
From left to right: Tony Clifford, Chief Engineer, NIH; Dr. Memarzadeh, NIH; RADM Barror

An internationally recognized expert on biomedical research laboratories, Dr. Memarzadeh conducted pioneering research using advanced numerical analysis to study different aspects of infection transmission, including the interaction between the human cough and the building ventilation system. This process involved Advanced Numeric Modeling, generating over 12 million data points, combined with the empirical meas-

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urements of actual patient coughs, including particle velocity, trajectory and the gradient pressure displacement as a result of the cough. Using this data, Dr. Memarzadeh optimized building ventilation systems to simultaneously improve energy efficiency and infection control.

Dr. Memarzadeh has also created several advanced and comprehensive engineering software packages for air pollution control such as from Medical, Pathological and Hazardous Waste Incinerator Combustion and Waste Heat Recovery Boiler. He was also the recipient of the National Institutes of Health Director's Award for "exceptional research efforts resulting in practical approaches to reducing airborne transmission of infectious agents," in July 2008.

Dr. Memarzadeh was named one of the Top Ten Finalists for the NSPE FEYA.

CDC Engineer of the Year –
LCDR Jennifer Caparoso, P.E.
Centers for Disease Control and Prevention, Office of Health and Safety, Atlanta, GA

LCDR Caparoso ensured that CDC's incinerators, boilers, and emergency generators were operated and maintained in accordance with stringent, non-attainment area conditions specified in detailed air emissions permits. She also directed the corrective actions to preclude harm to local water sources following a 3, 000 gallon fuel release from a breached tank. LCDR Caparoso developed the sampling plan, determined the extent of contamination, identified local water resources of potential impact, initiated corrective actions and supervised site closure. Additionally, she led the remediation of a former CDC property contaminated with chlorinated pesticides, identifying an emerging chemical oxidation technology based on the site conditions. Her actions safeguarded a sensitive neighboring wetland area.

EPA Engineer of the Year –
CDR Andy Smith, P.E.
U.S. Environmental Protection Agency, Region 10, Office of Environmental Cleanup/Emergency Response Unit, Portland, OR

In his role as an On-Scene Coordinator for the USEPA, CDR Smith recently oversaw the cleanup of 18,000 gallons of diesel to a storm drain and surrounding soil. Last May, he served on the USS Boxer for a humanitarian health mission to Guatemala and El Salvador. He was the officer-in-charge for a "Preventive Medicine" team that assessed municipal landfills, drinking wells, food handling, and vector control. In 2007, he served as the principle planner for Region 10 to the TOPOFF 4 venue in Portland, Oregon. The scenario for this national full-scale exercise was the detonation of "dirty bombs" in Guam, Phoenix, and Portland. He also served four tours in areas hit by Hurricanes Katrina and Rita; twice working as a safety officer for HAZMAT cleanup, once directing a division of three task forces, and once assisting evacuees themselves.

FDA Engineer of the Year
(Commissioned Corps) – CDR Sean Boyd
Food and Drug Administration, Center of Devices and Radiological Health, Division of Mammography Quality and Radiation Programs, Rockville, MD

CDR Boyd worked to develop and implement a 5-year plan to ensure the success of FDA's mission to protect the public from all forms of hazardous or unnecessary radiation emitted by regulated electronic products by setting goals oriented toward maximizing

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public health impact with limited program resources. He oversaw complex enforcement actions, including one against the largest microwave oven manufacturer in the world, requiring strong technical knowledge and interpersonal skills to achieve compliance and accurately characterize the public health risk. CDR Boyd also championed several projects to modernize FDA's Radiological Health electronic systems and document control. These projects allow regulated industry to download software to prepare electronic submissions in place of paper documents, creating a paperless document control system for all submissions.

FDA Engineer of the Year (Civil Servant) – Terry Woods, Ph.D., P.E.
Food and Drug Administration, Center of Devices and Radiological Health, Office of Science and Engineering Laboratories, Rockville, MD

Dr. Woods is the lead expert within the FDA on the Magnetic Resonance Imaging (MRI) compatibility requirements for all medical devices. In this capacity, Dr. Woods ensures there is a clear safety profile for all medical equipment or implants that might be seen in an MRI suite. She works internally with FDA reviewers, with implant and MRI manufacturers to evaluate testing, guidance and standards. Dr. Woods has been instrumental in identifying and managing the risks associated with unanticipated interactions during an MRI, such as interactions with metal implants or equipment nearby the patient that can cause injury and even death. She was tasked by the American Society for Testing and Materials (ASTM) to lead the development of compatibility standards for MRI. To that end, she engendered the cooperation of an international group including major imager and device manufacturers, clinicians, and researchers. Dr. Woods wrote the first safety standard and led the development of four more published standards addressing the principle safety issues of MRI. All were formally recognized by FDA and are under consideration for adoption as global standards.

Dr. Woods was named one of the Top Ten Finalists for the NSPE FEYA.

IHS Engineer of the Year – CDR Michael Stover, P.E.
Indian Health Service, Sanitation Facilities Construction Branch, Eastern Arizona District Office, Phoenix, AZ

Over the past three years, CDR Stover has managed and designed the White Mountain Apache Tribe's (WMAT) highest priority sanitation facility project. This surface water treatment facility (SWTF) will divert 2 million gallons per day of river water and treat it via conventional treatment processes in accordance with the Safe Drinking Water Act to serve 10,000 residents of the Fort Apache Indian Reservation. CDR Stover directly performed approximately 80% of the technical design including conceptual identification of facilities, calculations, construction drawing preparation and design. He directly managed 100% of the technical project management activities that included development of competitive solicitation processes for selection of consultants and equipment manufactures for design of the river diversion structure, booster station, treatment building, electrical controls, and manufacturer's treatment equipment. CDR Stover's design innovatively integrated a raw water settling pond with rainfall harvesting and recycling of filer backwash water, increasing the overall efficiency of the SWTF, and providing for the highest level of redundancy and future capacity opportunity.

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CDR Stover was named one of the Top Ten Finalists for the NSPE FEYA.

NPS Engineer of the Year – LCDR Nathan Epling, P.E.
Department of the Interior, National Park Service, Asheville, NC

LCDR Epling has an uncommonly wide range of responsibilities covering a diverse range of engineering and project management activities for the Blue Ridge Parkway. He as responsibility for nearly all park-related water and wastewater project design and construction, provides a comprehensive inspection program for water and wastewater systems in addition to the dam inspection program in collaboration with the Bureau of Reclamation, serves on the park's NEPA/NHPA compliance team, provides design reviews of all major park construction projects, and assists the regional Public Health Consultant in conducting concession operations inspections. He demonstrated innovative engineering work in the design of a sewage drip drainfield activated sludge treatment to ensure proper wastewater treatment in a sensitive natural environment. The park chief of maintenance has praised the impact LCDR Epling has made on the efficiency of the park facility maintenance operation.

LCDR Epling was named one of the Top Ten Finalists for the NSPE FEYA.

Office of the Secretary Engineer of the Year – CDR Charles Cote
Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response, Region 6, Dallas, TX

CDR Cote managed development of the Federal Medical Station (FMS) program for Louisiana. He was responsible for working with State and local leaders to evaluate each of the three sites proposed in Louisiana for suitability to house these FMS'. The assessments included an evaluation of access and egress for equipment and population, infrastructure stability and support to meet the established requirements of the FMS equipment cache, and development of the layout design, command and control, and legal access by Federal care providers and patients to the facility. CDR Cote then crafted MOUs for each site to secure their use, developed and disseminated an Incident Command Structure and operational parameters for each site, and finally, developed and presented the Louisiana FMS operational guide to medical staff as they arrived in theatre during the Federal response to Hurricane Gustav in 2008.

Also recognized were:

Engineer Responder of the Year – CAPT James Ludington, P.E.
Indian Health Service, Office of Environmental Health and Engineering, Division of Sanitation Facilities Construction, Rockville, MD

CAPT Ludington was selected to lead two, five-person teams of experts to address the contamination of wells and other flood-related public health issues caused by storms, tornadoes, and flooding in southern Wisconsin last June. The team performed assessments, took samples, disinfected wells, made adjustments or took corrective actions to fix defects, and documented findings. CAPT Ludington was responsible for completing formal reports and documenting all surveys. In total, the two teams performed 1,043 home visits, collected 154 water samples, disinfected 45 wells, provided water sampling kits to 679 homes, completed 73 emergency public information flood damage and public

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health assessments, and completed 251 environmental health assessments. CAPT Ludington's teams received formal recognition from the Wisconsin State Health Officer, the Department of Health and Human Services Region 5 Director, the State Environmental Health Bureau Director, and FEMA.

RADM Jerrold M. Michael Award – CDR Nelson Mix, P.E.
U.S. Environmental Protection Agency, Office of Water, Water Security Division, Washington, DC

For seven years, CDR Mix planned and coordinated EPA's On-Scene Coordinator (OSC) Readiness Training, an annual event similar to Engineer Category Day, which is attended by 300-500 professionals. He also initiated a protocol between EPA's Office of Emergency Management and the Office of Force Readiness and Deployment to annually invite 10 PHS officers to attend the training. CDR Mix has been a formal mentor to 2 PHS engineers and has been an advocate of a PHS/Engineers Reading List. Additionally, he has served as a member of the National Board of the Society of American Military Engineers (SAME) from 2004 to 2006. He has served as the SAME Washington, DC Post Gala Protocol Chair, Vice President, and Post President from 2006-2008 where he helped the Washington, DC Post partner with programs that provide continuing education for registered engineers. He has been instrumental in helping the Post generate scholarship donations from its sustaining membership. In the past three years, the Post was able to award over $90,000 in scholarships to over 35 engineering and architect students.

For more pictures from the Engineers' Breakfast including photos of all award recipients, please visit http://albums.phanfare.com/dccoa/3546371 and click on "Breakfast Event."

Recognition of Bob Wolff, Ph.D., P.E., Executive Director, SAME, by RADM Barror

Quiz

Are you a Cliff Clavin??? … If you're like most engineers, you've got a lot of factoids stored away in that brain. See if you can answer the following questions — the first two people to do so will receive one of the new PHS Engineer coins. Email your answers to CDR Peter Nachod at Peter.Nachod@ihs.gov

1. Is a Z3 a fighter plane, a road vehicle or a vitamin?

2. How many square chains in an acre?

3. Who was the first chief engineer of the USPHS Commissioned Corps?

4. What does "ASCII" stand for?

5. In what year was the Engineer Professional Advisory Committee established?

6. Name the two U.S. President's who are degreed engineers?

7. Which of the following famous people does NOT have an engineering degree?

a. Dolph Lundgren
b. Montell Williams
c. Yassar Arafat
d. Robin Williams

8. Who is generally regarded as the inventor of the gasoline-powered automobile?

a. Ransom Olds
b. Henry Ford
c. Karl Benz
d. Rudolf Diesel

9. Who invented dynamite?

10. Where is the tallest man made structure in the world?
a. Dubai
b. Blanchard, S.D.
c. Chicago
d. Toronto

Engineer Category Day at the 2009 COF Conference

Each year, the tremendous work done by the USPHS civil servants and commissioned officers to promote, protect and advance the health and safety of the our Nation and around the world gets showcased at the week-long U.S. Public Health Service Scientific and Training Symposium sponsored by the Commissioned Officers Foundation. The theme of the 2009 Symposium is ***"Leading a Strong Public Health Workforce for a Healthy America."*** The meeting, June 1-4 in Atlanta, Georgia, will address a broad range of emerging trends, research break-throughs and critical issues in public health.

Category Day, a day for each of the eleven categories of the Commissioned Corps to spotlight their individual professions, will be held on Tuesday, June 2. The Engineer Category has prepared an agenda around the theme of *"PHS Engineers: Leaders in Creating a Healthy and Sustainable Environment for America."*

The morning will start with three presentations discussing the future of engineers in the United States government, industry and education. Our Chief Engineer, **RADM Richard Barror**, will present on:

- ✦ How the goals of the new administration will impact PHS and PHS engineers
- ✦ The roles of PHS engineers in the public health workforce, especially as it relates to the National Response Framework and National Infrastructure Protection Plan
- ✦ New pathways for PHS engineer career development in HHS and outside of HHS
- ✦ Reflections on the PHS engineer category - past, present, and future

Keynote speaker, **Brigadier General Joseph Schroedel**, South Atlantic Division Commander, United States Army Corps of Engineers (USACE), will give an assessment of leadership and recruiting challenges faced by the engineering profession in America. BG Schroedel will:

- ✦ Provide an assessment of the future of engineers in government and the United States
- ✦ Discuss the next generation of engineers and how the U.S., including the PHS, can recruit them
- ✦ Highlight the leadership challenges that face the U.S. government, industry, and education

The third presenter of the morning is **CAPT Anthony Zimmer**, presently detailed to the U.S. Environmental Protection Agency. The mission of the EPA is to "protect human health and the environment" and represents a natural fit for PHS officers. EPA employs 17,000 people across the country, including its headquarters in Washington, DC, 10 regional offices, and over 12 laboratories. Today, there are roughly 75 Corps officers within the EPA, compared to 242 in 1985. Recent efforts, especially by our Chief Engineer, have served to reintroduce the Commissioned Corps to the EPA and demonstrate the benefits of hiring officers. The focus of this presentation is to present the many facets of the EPA mission, including their strong emergency response mission, and its potential appeal to COs interested in a future reassignment.

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The second half of the morning focus on engineer emergency response and emerging technologies. **CAPT David Apanian** and **CDR Nelson Mix** will co-present on the National Response Framework as it relates to the water sector and the link between the EPA, USACE and the PHS. Under the National Response Framework, EPA, USACE and DHHS each lead the Hazardous Materials, Public Works, and Health and Medical Emergency Support Functions, respectively. Each entity also is a support agency to the other two, in each of their respective leads. With the EPA being tasked to lead water security, and the new MOU between DHHS and USACE, PHS officers are increasingly finding opportunities to diversify and enrich their careers outside of the Department. This presentation will also discuss significant milestones that have been achieved in improving water security.

The second presentation on emergency response will be given by **CAPT Kenneth Martinez**. CAPT Martinez is the Deputy Director, Division of Surveillance, Hazard Evaluations, and Field Studies of the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention in Cincinnati, Ohio. His presentation will cover protecting public health through exposure characterization during an emergency response.

Rounding out the morning presentations will be two on emerging technologies. **CDR James Foto** will speak on a compact and portable digitally controlled device for testing materials for therapeutic footwear. Currently, little or no practical decision-making data is available to the foot-care provider regarding the selection of orthotic materials used in therapeutic footwear. A real-time cyclical compression testing device and custom user interface combine to make an evaluation tool useful for testing how pressure distribution of inshoe materials change over time in therapeutic footwear for those with peripheral neuropathy at risk of foot injury.

CDR Stephen Bolan will present a demonstration of the Rural Alaska Housing Sanitation Inventory (RAHSI). This GIS based system allows the users via the www to access the real time images of many villages in rural Alaska. The system graphically shows level of service to each home for water, sewer, and solid waste using symbols and colors. The data in the RAHSI system has been used to show that providing homes with water and sewer services does help reduce disease in the home and community.

The Engineer Category Day Award Ceremony will take place during lunch and will include a visit by the Surgeon General and, if time permits, RADM Barror will open the floor to a question and answer session.

The theme of the afternoon presentations will center around engineering outreach." **LT Kurt Kesteloot** will educate us on the rapidly growing non-governmental organization, Engineers Without Borders (EWB). EWB provides prospective members the opportunity to become involved in projects of all different types. The projects take place domestically or internationally in developing countries, thus offering a chance for USPHS officers to contribute what they know in either setting. Any experience a USPHS officer has from work or from participation in a humanitarian mission brings useful knowledge to EWB projects and experiences obtained from EWB projects bring useful information back to the officer's work in the PHS.

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Following that, **CAPT Rick Gelting** will present on water, sanitation and hygiene interventions in lower income countries that are often constrained by resources and limited capacity challenges. Lessons learned from the work of CDC's Global Water, Sanitation and Hygiene Team in this area will be presented, with special attention to factors that may be useful to engineers working on such projects in an outreach capacity, such as through programs like Engineers Without Borders.

The second half of the afternoon will be an interactive panel sessions on the topic of USPHS engineers responding for America. The panel includes: **CAPT Sven Rodenbeck, CAPT Mick Cote, CAPT Dan Beck, and CDR Scott Helgeson**. These officers were involved in the various deployments that USPHS engineers served on during 2008. The panel will discuss and field questions from the audience on what occurred on these deployments and look to the 2009 deployments and beyond.

The day will conclude with a presentation on the Engineer Professional Advisory Committee given by the present Chair, CDR John Longstaff and a closing by RADM Barror.

The Engineer Category Day event provides engineers with the opportunity to increase their skills and knowledge in a setting that allows for networking with fellow engineers. We hope to see you in Atlanta!

Engineer Category Day is planned and carried out each year by the USPHS Scientific and Training Symposium EPAC subcommittee. The members of the subcommittee for the 2009 Engineer Category Day are: LT Kurt Kesteloot, LT Christian Guess, LCDR Duane Hammond, LCDR Ed Zechmann, CDR Ed Dieser, CDR David Johnson, CDR Charles Hayden (vice-chair), and CAPT Steven Bosiljevac (chair).

The 2010 Engineer Category Day venue has not been announced but that does not mean you should not be thinking about next year's Symposium. Planning for the 2010 Engineer Category Day will begin around August of this year. If you are interested in working on the subcommittee or would consider presenting, please contact CDR Charles Hayden (charles.hayden@cdc.hhs.gov) who will chair the planning subcommittee for 2010.

New Engineer Officers

The EPAC would like to acknowledge the following engineer officers who have received commissions since March 2008. The EPAC welcomes each of you and hopes you will enjoy a long and prosperous career in the PHS. To those who are new to the Corps — and even those who have been around for a while — please take some time to read through the Welcome Package posted on the Engineers' website, http://www.usphsengineers.org/careerdevelopment/EPAC%20Welcome%20Package.pdf. It contains a prioritized list of tasks new officers should focus their efforts on within the first 30/60/90/120 days after being Called to Active Duty. The Welcome Package is a one-stop shopping tool for information on everything from uniforms to promotion to military benefits. We think you will find it very helpful!

Rank	Last	First	OPDIV	Duty Station
LTJG	Amadasu	Omobogie	IHS	Kayenta, AZ
LTJG	Anderson	Kenneth	IHS	Ashland, WI
LTJG	Bahr	Jolisa	IHS	Rhinelander, WI
LTJG	Barrackman	Kyle	PSC	Lakewood, CO
LT	Bingley	Kevin	IHS	Anchorage, AK
LCDR	Boland	Michael	IHS	Aberdeen, SD
LT	Braddock	Lynn	FDA	Rockville, MD
LT	Brown	Leonard	IHS	Sparks, NV
LT	Butler	John	IHS	Sault Ste. Marie, MI
LTJG	Carter	James	IHS	Tuba City, AZ
LTJG	Chowdhury	Atiq	FDA	Rockville, MD
LT	Costello	Ryan	ATSDR	Arlington, VA
LT	Davis	Tanya	IHS	Tucson, AZ
LCDR	Ebert	James	PSC	Stone Mountain, GA
LTJG	Fehrman	Christopher	IHS	Anchorage, AK
LTJG	Felter	Marcus	IHS	Polacca, AZ
LTJG	Ferrara	Steven	FDA	Boston, MA
LTJG	Gant	Shawn	IHS	Spokane, WA
LT	Gooen	Tara	FDA	Silver Spring, MD
LT	Hardy	Paul	FDA	Rockville, MD
LTJG	Madman	Gary	IHS	Browning, MT
LTJG	Mergenthaler	Matthew	IHS	Fresno, CA
LT	Mitchell	Peter	IHS	Polacca, AZ
LTJG	Ngatha	George	FDA	Rockville, MD
LTJG	Nguyen	QuynhNhu	FDA	Rockville, MD
LTJG	Palo	Matthew	FDA	Jamaica, NY
LTJG	Ram	Rahul	FDA	Rockville, MD
LT	Redsteer	Sandra	IHS	Bremerton, WA
LT	Reed	Martin	IHS	Billings, MT
LT	Roberts	Michael	IHS	Anchorage, AK
LCDR	Schulte	Luke	IHS	Sacramento, CA
LT	Tidwell	Steven	IHS	Bremerton, WA

Meet the 2009 EPAC

RADM Richard Barror FDA Office of the Commissioner, Rockville, MD. Besides being the Chief Professional Officer for the Engineer Category and Chair of the CPO Board, RADM Barror is Director of Regulatory Affairs for the FDA Office of Orphan Product Development, program administrator of medical devices for small patient populations. In his spare time, he enjoys hiking, fishing, photography, and supporting his children's activities.

CDR John Longstaff, P.E. IHS, Office of Environmental Health and Engineering, Department of Facilities Planning and Construction, Facilities Engineering National Program Manager/Senior Engineer Consultant, Rockville, MD. John compiles and analyzes data from numerous sources to establish priorities for new hospital and health center construction for the IHS nationwide. He does volunteer work with the Civil Air Patrol as a search and rescue aircrew member, and in his spare time enjoys flying small airplanes, SCUBA, reading, and spending time with his adorable wife and troublesome daughter. *2009 EPAC Chair*

CAPT David M. Apanian, P.E. EPA, Regional Office, Atlanta, GA. Dave is responsible for coordinating water sector homeland security and emergency response activities at the regional level and is engaged in development of national programs and policies. Prior to his detail with EPA, Dave served at the Centers for Disease Control and Prevention for 7 years, and spent 11 years with the Indian Health Service in several states.

CAPT Dan Beck Office of Force Readiness and Deployment, Office of the Surgeon General, Rockville, MD. Dan is the Deputy Director, OFRD, and is responsible for promoting the response readiness of all PHS officers. OFRD also manages the training and deployment of the USPHS Commissioned Corps response teams. *Emergency Preparedness Subcommittee Co-Chair*

CAPT Steven Bosiljevac, P.E. National Park Service, Pacific West Region, Facility Management, Oakland, CA. Steven is the regional civil engineer in the Oakland office responsible for CE design both in-house and by consultants, lead COR for regional CE IDIQ contracts, and regional CE technical consultant. He balances work with family activities and reading. *Public Health Engineering Practices Subcommittee Chair and USPHS Scientific and Training Symposium Planning Chair*

LT Brad Cunningham FDA, CDRH, Division of Ophthalmic, ENT and Neuro Devices, Rockville, MD. Brad reviews and leads clinical investigations of ophthalmic implants to ensure that all cleared and approved medical devices in the implantable ophthalmic arena are safe and effective. He also serves as the division signatory and branch expert for glaucoma devices and is the technical expert to the ANSI Glaucoma Devices working group for CDRH. Outside of work, he enjoys exercising, working on his house and cars, photography, and enjoying any leisure time with his wife and daughter.

CDR Mary Dahl, P.E. IHS, Sanitation Facilities Construction program, District Engineer, Rhinelander, WI. The Rhinelander District provides engineering services for water, wastewater, and solid waste water projects to Tribes in Wisconsin and Michigan. Besides her work, CDR Dahl enjoys cross-country

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skiing, playing piano, and walks with her husband and puppy dog. *Career Development Subcommittee Chair*

LT Roger Dahozy IHS, Fort Defiance Indian Hospital, Navajo Indian Reservation, AZ. Roger is the Director of Support Operations overseeing the maintenance and safety of a 255,000 square foot hospital, over 300 government housing units, and two remote health clinics in his Service Unit. He is also responsible for all new construction and renovations for his facility, and is the Incident Commander for his regional location. Roger enjoys being very active, with weight-lifting and running being his major hobbies. *Recruitment and Retention Subcommittee Chair*

CDR Edward Dieser, P.E. CDC, Environmental Protection Section, Atlanta, GA. Ed focuses on improving the stewardship and sustainability of CDC through EMS. Job one outside the office is being a good husband and father. He enjoys skiing and SCUBA diving, and is an avid student of leadership. *Emergency Preparedness Subcommittee Co-Chair*

LCDR Duane Hammond, P.E. CDC/NIOSH, Division of Applied Research and Technology, Cincinnati, OH. Duane is a mechanical engineer, conducting laboratory and field studies to prevent worker exposures to chemical, biological, radiological, and physical hazards. He enjoys soccer, snowboarding, and running.

CDR Chuck Hayden, P.E. CDC/NIOSH, Division of Physical Science and Engineering, Cincinnati, OH. Chuck is a research mechanical engineer, providing technical expertise in the measurement and control of noise in the workplace, assisting in national standards development and revision, and providing noise level information to end users of machinery/equipment. He enjoys attending college and pro sporting events, camping, attending community festivals, and spending time with his four daughters and grandson.

LT Kimberly Love FDA, CDRH, OSB, Division of Postmarket Surveillance, Engineering Science, Rockville, MD. Kim is a product evaluation analyst who ensures the continued safety and effectiveness of anesthesiology, respiratory, and radiology medical devices after they have reached the marketplace. In her spare time, she volunteers as an EMT-B at Arundel 7 Volunteer Fire Department and enjoys community sports such as swimming, softball, and kickball. *EPAC Recorder*

CDR Michael MarcAurele, P.E. IHS, Alaska Native Tribal Health Consortium, Division of Environmental Health & Engineering, Department of Engineering Services, Anchorage, AK. Mike is a Senior Design Engineer, responsible for the production of engineering plans and the supervision and mentoring of Assistant and Associate engineers. He enjoys time with his family, playing the saxophone, playing hockey, and fishing.

CDR Peter Nachod, P.E. IHS, Rockville, MD. As a Sr. Facility Design Consultant, CDR Nachod is the national program manager for all new IHS healthcare construction in the Aberdeen, Nashville and Navajo Areas. He monitors the progress of projects in these Areas to ensure timely completion of planning and design milestones in order to meet budget cycle deadlines, construction season limitations and other administrative and construction related constraints. Peter also oversees the IHS Post Occupancy Evaluation program nationwide. He enjoys spending every minute of his free time with his wife, Kristine, and his three sons. *Information Subcommittee Chair*

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Mr. Vijay Nathan NIH, Office of Research Facilities, Bethesda, MD. Vijay is a Senior Mechanical Engineer responsible for providing technical support and facility stewardship of the 4.5 million square-feet Clinical Center Complex and assisting with compliance efforts for The Joint Commission Environment-of -Care requirements. He has previous private-sector experience in mechanical design, energy-efficiency projects, construction management and healthcare facility management.

LT Vivian Iskander Porter IHS, Division of Sanitation Facilities Construction, Rockville, MD. Vivian is a staff engineer for the program which provides sanitation facilities for Native American homes. In her spare time, Vivian spends time with her family, catches up on her latest Netflix movie, and plans trips to warm weather (preferably near a beach).

LCDR Jennifer Proctor, P.E. National Park Service, Dam Safety and Transportation program., Washington, DC. Jen is responsible for national policy development and project management for program specific priorities for dam and transportation safety initiatives. In her spare time, she enjoys argentine tango dancing with her husband, yoga, cooking, and outdoor activities with her dog, Coffee.

LCDR Varsha B. Savalia FDA, CDRH, Office of Communication, Education and Radiation Products, Rockville, MD. Varsha is a compliance officer/ regulatory affairs officer monitoring sunlamps and sunlamps products, mercury vapor lamps, ultrasound devices, and radiological health imports products. She enjoys travelling, shopping, beach and reading. *Awards Subcommittee Chair*

CDR Jim Simpson FDA, CDRH, Office of Science and Engineering Laboratories, Silver Spring, MD. Jim serves as a project manager on several projects supporting over 200 scientists and engineers. One of his most critical roles is that of project coordinator for the Office's Science Prioritization Process (SPP), an annual evaluation of 75 plus research projects for their technical, public health and regulatory effectiveness in meeting Center's mission. Jim and his wife, Bridget, have two sons, one daughter and reside in Gaithersburg, Maryland.

CDR Hilda Scharen FDA, Center for Drug Evaluation and Research (CDER), Office of the Chief of Staff, Senior Program Manager, Silver Spring, MD. Hilda plans and manages high profile workgroups and committees related to the Center's priorities in the areas of: international activities, policy, and executive operations process improvement. In addition, she manages the Center's programmatic budget requests from Congress, OMB, and HHS. She enjoys golf, traveling, and spending time with her family. *Rules Subcommittee Chair*

CDR Emil P. Wang FDA, CDRH, Office of Compliance, Rockville, MD. Emil is a case expert who reviews all administrative and enforcement actions (e.g., Warning and Untitled Letters, seizures, injunctions, civil money penalties) to ensure that they are legally supportable and consistent with Agency policy. He also provides case input in support of governmental investigations. He enjoys traveling and cooking. *Mentoring Subcommittee Chair*

Dear Readers,

The *Machinatores Vitae* newsletter team would like to express appreciation for your support of this news media. After a slight break in publication, we are back stronger than ever and hope to keep your attention for years to come.

For those new to the newsletter, this publication was developed to bring you stories and highlights on what's going on within the engineering community — from spotlighting the accomplishments of fellow engineers, to reporting on the wide array of engineering projects within our diverse agencies, to discussing trends in engineering. We hope to promote recognition of career and personal accomplishments, share experiences, and distribute professionally-related information. Our vision has not changed: to promote esprit de corps among our profession!

Machinatores Vitae is a publication of the EPAC, but we need help in bringing you the stories you want to read. A major difficulty is getting suitable articles for publication. The writing staff can only see a bit of the big world that is public health engineering. There are numerous accomplishments even within our readership that remain unknown except in the relatively small circles around you. If you have not presented at a national meeting, the likelihood is that no one outside of your agency, or possibly even Office, ever heard about your pet project that you nearly exhausted yourself completing. Here is your chance to shine!

Please consider submitting an article for an upcoming issue or let us know when you or a colleague have reached a milestone, been recognized for an accomplishment, or have an experience to share. If you are an accomplished writer, send something along that is already polished. If you don't feel like a Hemingway or Dickinson, just send enough detail so the writing team can take hold of it and build the story for you.

All ideas are welcomed. Remember that we do not have to solely focus on work going on within the PHS. Let us know if you hear of new technologies or applications, or just find an interesting story from the outside world. The rule of thumb is that if you as an engineer are interested in it, then others will be too!

Send your thoughts, suggestions, or a brief synopsis of a proposed article to the newsletter editors at epac@usphsengineers.org.

The ***Machinatores Vitae*** is published quarterly and posted on the USPHS Engineer Professional Advisory Committee website. The next issue of the newsletter will be published in July 2000. The deadline for submitting articles is June 15, 2009.

If you have suggestions or comments about the newsletter, or would like to submit an article, please contact the editors at epac@usphsengineers.org.

Editors: CDR Jennifer Mosser, CDR Peter Nachod
Technical Coordinator: CDR Ramsey Hawasly