

Yankee Engineer

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Building Strong



Nacala Dam Rehabilitation
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Yankee Voices

Furlough pay calculator released for federal workers

Federal workers now have a convenient way to calculate their loss in pay if planned furloughs of about 800,000 Defense Department civilians take effect.

Stars and Stripes has posted a furlough pay calculator in spreadsheet format that allows federal workers to plug in their hourly pay wage, along with several possible deductions. It automatically calculates the expected 20 percent pay cut they will absorb if Congress and the President do not agree stop \$85 billion in across-the-board spending cuts from happening on Friday.

"Keep in mind that is not an official pay scale and only estimates how much your pay will change," according to a base statement announcing the spreadsheet. "Also, the furlough is not set and may not happen."

The furloughs, which can legally begin 45 days after the notification to Congress, would save \$4 billion to \$5 billion, DOD comptroller Robert Hale said Wednesday.

The Stars and Stripes online furlough calculator is accessible at <http://www.stripes.com/news/sequestration/furlough-calculator>. (Stars & Stripes)

Sequestration

As you are aware, sequestration went into effect on Friday, March 1st. Over the past several years, we have faced a lack of predictability and flexibility in our budget cycle and a series of cuts. This fiscal year alone, we face the potential of at least an \$18 billion dollar shortfall in our Operations and Maintenance accounts, due to the combined impacts of sequestration, the continuing resolution and contingency funding. These are the funds that allow us to support operations, maintain readiness and pay our civilian workforce.

While our attention here in Washington is on the fiscal situation and the difficult decisions that will shape our force into the future, we need you to remain focused on the fundamentals: develop your Soldiers, Civilians and our future Army leaders; conduct tough, realistic mission-focused training; maintain and account for your equipment; be good stewards of your resources; and sustain the high level of esprit de corps in your organization.

Our top priority is to ensure that our forces defending the homeland, those in Afghanistan and Korea, and those next to deploy and rotate into theater, have the resources required to execute their missions. We also recognize that along with risks to readiness, sequestration will also bring particular hardship to our Civilian workforce.

We will share information through official Army channels on the impacts of sequestration as soon as it becomes available. You can also expect your Army leadership to visit major installations in the months ahead to facilitate a dialogue and listen to your concerns and those of your Family members.

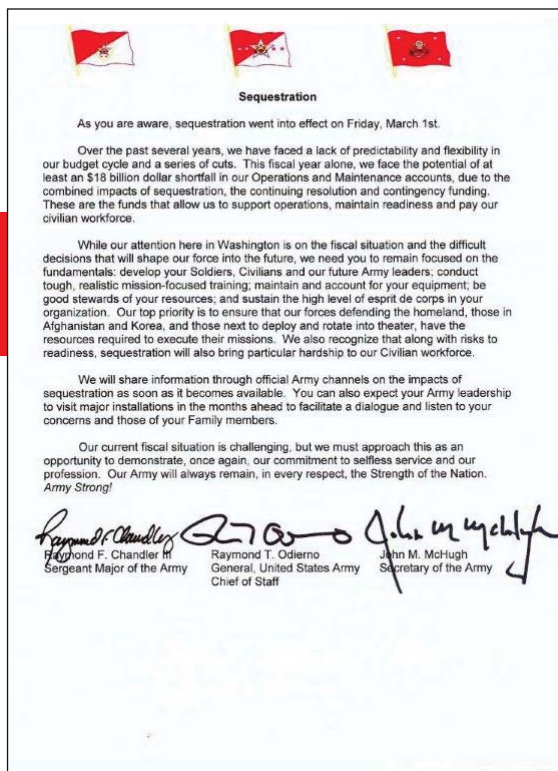
Our current fiscal situation is challenging, but we must approach this as an opportunity to demonstrate, once again, our commitment to selfless service and our profession. Our Army will always remain, in every respect, the Strength of the Nation.

Army Strong!

John M. McHugh
Secretary of the Army

Raymond T. Odierno
General, United States Army
Chief of Staff

Raymond F. Chandler III
Sergeant Major of the Army



Commander's Corner:

Tough Times Call For Tough People, a Resilient Workforce, and a Strong Team!

by Col. Charles P. Samaris
District Commander



"Resilience is that ineffable quality that allows some people to be knocked down by life and come back stronger than ever. Rather than letting failure overcome them and drain their resolve, they find a way to rise from the ashes. Psychologists have identified some of the factors that make someone resilient, among them a positive attitude, optimism, the

ability to regulate emotions, and the ability to see failure as a form of helpful feedback. Even after a misfortune, blessed with such an outlook, resilient people are able to change course and soldier on."

~ Psychology Today (<http://www.psychologytoday.com/basics/resilience>)

New England Team,

For you Bill Murray fans out there, you may recall this dialog from Ghostbusters: "...this city is headed for a disaster of biblical proportions... Old Testament, real wrath-of-God type stuff... Fire and brimstone coming down from the sky... Forty years of darkness... The dead rising from the grave... Human sacrifice! Dogs and cats, living together! Mass hysteria!"

Hmmm... Sounds a lot like fiscal cliffs, budget cuts, airplanes falling from the sky, furloughs... Armageddon! Well, not quite. But the nation, and all of us, are facing a few stressors... call them tough times, if you'd like. Not the first time... won't be the last.

During our relatively short national history we've weathered many struggles: the fight for independence, civil war, depression, world wars, recession, terrorist attacks, to name a few. Each time, we've emerged from adversity stronger, tougher, more unified. And, I don't see that changing... now or ever.

Americans, if nothing else, are resilient. Resilience is a hot topic in our government and our Army. Why? Recently, we've been through two fairly long, contentious conflicts. We've trudged through economic downturn, with inconsistent fits of recovery. Bottom line: Americans are exhausted. And when we're chronically exhausted, bad things happen. That's why it's so important to strengthen

resilience in ourselves, our families, and our workforce!

What is resilience? The American Psychological Association (APA) states that, "Resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats, or even significant sources of stress, such as family and relationship problems, serious health problems, or workplace and financial stressors. It means "bouncing back" from difficult experiences."

APA adds "Research has shown that resilience is ordinary, not extraordinary. People commonly demonstrate resilience. Being resilient does not mean that a person doesn't experience difficulty or distress. In fact, the road to resilience is likely to involve considerable emotional distress. Resilience is not a trait that people either have or do not have. It involves behaviors, thoughts, and actions that can be learned and developed in anyone."

The APA website is a GREAT resource! They offer a great article titled "10 Ways to Build Resilience" (<http://www.apa.org/helpcenter/road-resilience.aspx>). My four favorites are...

Accept that change is a part of living. Certain goals may no longer be attainable as a result of adverse situations. Accepting circumstances that cannot be changed can help you focus on circumstances that you can alter.

Keep things in perspective. Even when facing very painful events, try to consider the stressful situation in a broader context and keep a long-term perspective. Avoid blowing the event out of proportion.

Take decisive actions. Act on adverse situations as much as you can. Take decisive actions, rather than detaching completely from problems and stresses and wishing they would just go away.

Take care of yourself. Pay attention to your own needs and feelings. Engage in activities that you enjoy and find relaxing. Exercise regularly. Taking care of yourself helps to keep your mind and body primed to deal with situations that require resilience.

In this issue of the YANKEE ENGINEER, you'll read about some great projects and great people. At the foundation of all completed projects, OCONUS SME support, dive operations, and post-storm recovery is a competent, confident, resilient workforce capable of overcoming any challenge through adaptable, positive energy. YOU set that standard!

Essayons!

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Aerial view of the construction at the Nacala Dam in Mozambique, Africa.

Photo courtesy of WBHO Construction.

Nacala Dam Rehabilitation Team travels to Africa for site visit

Work on the Nacala Dam Rehabilitation Project in Mozambique, Africa is ongoing. Members of the Nacala Dam Team traveled to Maputo, Mozambique to conduct site evaluations and meet with the extended team of Millennium Challenge Corporation (MCC), consultant Jeffares & Green and South African contractor WBHO Construction, Jan. 25-30. The goal of the rehabilitation project, once complete, is to provide clean drinking water to the port city of Nacala. The District is providing design and construction quality assurance on the project. The Nacala Dam is located on the Muecula River, about 30 kilometers upstream from Nacala. It serves as the primary water source for the city. Construction on the dam was completed in 1975. Problems with the dam started in 1982 when the dam embankment was overtopped for 10 hours due to a spillway gate failure.

"The objective of the site visit was to evaluate the progress of the Nacala Dam project and review any emerging

program management issues that might impact schedule, cost or quality," said team member Patrick Blumeris, Hydraulic Engineer.

Blumeris, accompanied by team member Siamac Vaghar, Dam Specialist, evaluated the progress and quality of work that was completed

during the time of their visit. While there, the team conducted many reviews and assessments to identify any possible risks or major project components as well as practical alternatives and to deal with any emerging and unresolved issues.

Blumeris and Vaghar walked the



Photo by Patrick Blumeris

Construction of the Nacala Dam Road and Road Bridge.



Contractor carves out a trench as part of the Nacala Dam Rehabilitation Project.

Photo by Patrick Blumeris

entire site and observed construction operations; examined rock cores and laboratory test data; reviewed concrete spillway placement progress; observed the vertical drain excavation and sand placement in the chimney filter on the downstream side of the core; observed progress at various locations between Nacala Port and the Nacala Dam at which the water treatment, pipeline and distribution contracting team has stored materials and were working.

Rehabilitating the dam is going to be about a \$26 million project. Work includes moving the existing National Road N12 off the embankment crest, to a new embankment downstream of the dam wall.

By removing the national road from the dam crest, the crest width can be narrowed by about 5.5 meters (18 feet). The dam embankment can then be raised by 4 meters (13 feet)

by making the slopes of the dam faces steeper (about 1:2) and minimizing the expansion in the footprint of the dam on the ground.

The impervious dam core will also be raised to within one meter of the crest level. The downstream face will be widened by the addition of a gravel aggregate layer, and by the inclusion of a mid-slope berm.

Internal sand filters will be installed on the downstream side of the core, connecting to a gravel drain that will link into a surface drain running along the berm to allow for any seepage through the dam to be safely collected. A new toe drain will be incorporated into the downstream face, which will connect into seepage detection weirs at specified intervals so the dam's performance can be monitored. "Since the goal of this dam is to hold a permanent pool of water, we want to be

sure we can monitor how much seeps through the dam and is lost to future consumption," said Blumeris.

The Nacala Dam Rehabilitation Project team concluded after their recent visit that the quality of work in general remains satisfactory. Members of the team may return to the construction site in either April or May to coincide with the end of placement of fill (core) for the raising of the dam, construction of drains and weirs at the downstream toe of the dam, and progress on the spillway crest concrete placement.

On the next trip the team may test the equipment at the pump station and see the opening of the new road.

The design work for the Nacala Dam Rehabilitation project was finished in fall of 2010. Construction work is currently scheduled to be completed in June.



Photo by Brian Murphy

Members of the U.S. Air Force, Col. Charles Samaris (second from right) and Joe Spangenberg cut the ribbon on the new facility during the ceremony.

District, Air Force celebrate completion of mental health addition

Col. Charles Samaris, New England District Commander, joined Col. JR Weilacher, Commander 66th Air Base Group, and other U.S. Air Force representatives in cutting the ribbon on Hanscom Air Force Base's new mental health clinic addition, Feb. 13. The ceremony took place inside the new facility.

Work on the addition included the design and construction of a single story 4,000-square-foot mental health clinic addition to the existing building 1900. The addition provides an exterior covered patient entry for extra privacy, while also providing an internal connection to the existing building.

"The 66th Medical Support Squadron and the Mental Health Flight offer a broad spectrum of critical services — especially important today as America cares for a force that has endured over a decade of persistent conflict," said Col. Samaris. "This new mental

health facility adds yet another arrow to their quiver."

Col. Weilacher expressed his appreciation for the facility and its patients. "This day is not about the facility itself, but the people it will serve," he said. "Fourteen people will service thousands of patients from all branches of service from a seven-state area."

Col. Samaris praised contractor Watermark Environmental of Lowell, Mass., for delivering a quality product, as well as the 66th Air Base Group and the 66th Medical Squadron for their participation in the design-build process that, "insured delivery of the right facility with the right capability."

The \$2.8 million design-build contract was awarded to Watermark Environmental on Dec. 23, 2011, with construction beginning on May 1, 2012. The project was completed this past January.

Other speakers at the ribbon cut-

ting were Master of Ceremonies, Capt. Michael Oetjens; Col. Frank Glenn, Commander, 66th Medical Support Squadron and Joe Spangenberg, Watermark Environmental.

In addition to the speakers, Lt. Gen. C.D. Moore, Commander, Air Force Life Cycle Management Center; Maj. Gen. Craig Olsen, Program Executive Officer for Command Central, Communications, Intelligence and Networks Directorate and Maj. Aaron Potter, Mental Health Commander, assisted in officially cutting the ribbon.

Other participants in the ceremony included Airman 1st Class Ashley Cook, U.S. Air Force Band of Liberty who sang the National Anthem and Chaplain Michael Orton, who gave the invocation. New England District representatives who attended the ribbon cutting ceremony were Ruth Cormier and James Conway, both from Construction Division.



Facade work on the outside of Building 2 at the Veterans Administration Hospital in Bedford, Mass.

Photo by Jennifer Flanagan

District completes hospital 'Facelift' for Veterans Administration

The New England District and its contractor recently completed a much needed facelift to Building #2 at the Veterans Administration hospital, also known as The Edith Nourse Rogers Memorial Veterans Hospital, in Bedford, Mass.

"The façade rehabilitation work of the most deteriorated locations of Building #2 included miscellaneous cast stone repairs of baluster, cornice, banding, cartouche, and front entry way to include dowels and anchors as necessary to complete the work," said New England District Project Manager Jennifer Flanagan. "Work also included

100 percent repointing and cleaning of the brick and cast stone at specified facades of Building #2, proper removal and disposal of hazardous materials; and removal of PCB-contaminated masonry substrate."

According to Flanagan, incidental work included installing a bird fence, sealants and flashing as required. Some of the buildings located at the hospital were built as early as the 1920's. Atlantic Defense Constructors, LLC from Westbrook, Maine, was awarded the contract and given the Notice to Proceed on Nov. 15, 2011. The majority of the masonry work, which

totaled about \$780,000 with user-requested changes, was completed at the end of December 2012. The New England District is currently renovating Wards 78F and 78G for an inpatient psychiatric ward and renovating Ward 2C for a hospice ward.

The team members who joined Flanagan on this project were Jim Doucakis, Debbie Acone and Nick Skianes. "The team did a wonderful job working with a new small, disadvantaged business, coordinating with the VA team, especially for the front entry work, and complying with EPA on remediating hazardous materials," said Flanagan.

New Engineer Dive Team Kept Whirlwind Pace in 2012

New England's John Winkelman joins team for Italy mission

By Richard A. Benoit
Portland District

Four countries, three continents, eight cities and towns and two islands; this hectic schedule is that of the newly formed USACE Forward Response Dive and Survey Team (FRDST) during its 2012 inaugural season.

By the end of the year, the team and its members, including New England District's Coastal Engineer John Winkelman, traveled more than 50,000

miles executing six separate underwater and two survey missions, the last being a wharf / bridge inspection at the U.S. Army Garrison Camp Darby in Livorno, Italy.

"When people heard we went to Italy for diving they instantly assumed we were in the crystal clear Mediterranean," said Winkelman, musing about the team's work site in Livorno Canal. "I had to correct more than a few people on that ... We could have been diving

in the Hudson River. We were actually diving in a glorified drainage canal."

In addition to his dive duties checking the structural integrity of Camp Darby's Tombolo Dock, Winkelman and the team performed above-water bridge inspections.

Aside from Winkelman, members of the Camp Darby FRDST team included Adam Hamm of Buffalo District, Dan Meyers of Honolulu District and Geraldo Velazquez, team lead for bridge inspections from the Engineer Research and Development Center (ERDC) in Vicksburg, Miss.

"It was great working with divers from different districts and with different backgrounds," said Hamm, who served as a diver and report writer on 2012 missions to Naha Port, Okinawa, Japan in September and Camp Darby. "Everyone was very professional and it was great networking and meeting other divers."

"Yeah, you can say we've been just a little bit busy," said FRDST Program Manager Rick Benoit. "However, it's been a labor of love getting the program off the ground to the point where we are working underwater wherever and whenever we are needed."

Originally scheduled to lead the mission, Benoit was deployed at the last minute by HQUSACE to New Jersey in support of the USACE Hurricane Sandy relief mission as a member of the debris PRT.

Overseas missions are in collaboration with the USACE Cold Regions Engineer Research and Development Center of Hanover, N.H. to provide structural inspections and surveys of ports and waterfront facilities managed by the Army's Installation Management Command (IMCOM). Funded by the Army Transportation Infrastructure



Photo by Dan Meyers

John Winkelman, New England District, and Gerardo Velazquez, ERDC, Vicksburg (standing) assist USACE Forward Response Dive Team teammate Adam Hamm, Buffalo District, during their deployment to Camp Darby, Livorno, Italy.



Photo provided by Ed Gawarecki

Dive crew at Busan, South Korea. From left to right: Ed Gawarecki (LRB), Todd Manny (NPP), Shanon Chader (LRB), Republic of Korea soldier and Kyle Tanner (LRN).

Inspection Program (ATIIP), which is managed by Kevin Haskins of ERDC, the team also inspected ships berthing, wharfs, seawalls and landing ramps at Akizuki, Hiro and Kure, Japan in June 2012; Okinawa's Naha Port, as well as Pier 8, Busan, South Korea. In all, there are 15 Army installations with waterfront facilities requiring inspections at least once every four years. "The (Camp Darby) dive team was great. I fully enjoyed working with everyone," said Winkelman. "I would work with (the Camp Darby) team again in a second."

Additionally, Winkelman is also a member of the Buffalo Regional Dive Team and facilitated similar stateside inspections in 2011 at Ft. McNair in Washington D.C. and Ft. Belvoir, Virginia.

Conceived shortly after arriving in Portland District six years ago from the U.S. Coast Guard Training Center in Cape May, NJ, the team Benoit envisioned did not see action until January of 2012. That mission was jointly

facilitated utilizing USACE divers from Portland and San Francisco as well as from the Navy Dive Locker in Bangor, Wash., was ironically, an emergency operation to assist the U.S. Coast Guard at Station Coe Bay.

Since its inception, the Forward Response team has worked with divers, dive supervisors and surveyors from throughout USACE, including New England, Buffalo, Portland, Philadelphia, Nashville, San Francisco and Honolulu.

According to Benoit, three major developments allowed the FRDST team to materialize as it has: the hiring of Portland Deputy District Dive Coordinator Todd Manny; collaboration with ERDC to serve as its dive and dive safety officer; and participation of USACE-certified divers from throughout the Corps.

"Without a doubt, working with Todd as well as John helped us move forward with this program," said Benoit. "Engaging guys like Todd and John was

truly the final piece to the realization of this exceptional dive team."

Manny, a retired U.S. Navy Senior Chief brings to USACE Portland and the NRDST 22 years of military experience as a first class and saturation diver as well as operational expertise with remotely operated vehicles, underwater robotics and cameras known as ROV's.

"We have an exceptional dive program made up of very dedicated people including John," says Manny who joined the Portland District in 2009. "Together we've been able to safely and efficiently accomplish a lot of good work for the benefit of USACE as well as other military and federal agencies."

During 12 days in October, Manny and Benoit led a team of seven to Busan, South Korea, where a bottom SONAR survey as well as a surface and below-water inspection to check the structural integrity of Pier 8 berthing and seawall was performed.

This inspection was truly an international, multi-agency effort as the bottom survey was performed by Portland District specialists Allen Stewart and Lee Loomis, along with divers Chader, Gawarecki and Kyle Tanner of Nashville District. Moreover, the dive team was escorted daily by a boat crew of four South Korean Soldiers while the U.S. Navy's Military Sealift Command and Army's 837th Transportation Battalion provided logistics.

"In working with Rick and his team, I have been amazed by their persistence to get the job done," said Haskins. "All inspections have been completed on time and well under budget. In the first OCONUS inspection alone Rick and his team saved my program one third the estimated cost. While each OCONUS effort has many unknowns, not only has Rick realistically anticipated these in the planning phase, he has done an outstanding job to mitigate new issues quickly and effectively."

Corps of Engineers provides permit information, procedures for winter storm damage repairs in aftermath of Blizzard of 2013

By Timothy Dugan
Public Affairs

The Blizzard of 2013 (Nemo) caused wind damage, flooding and coastal storm damage to residents, businesses, and communities within the New England states. It is anticipated that some owners of damaged property will want to conduct repair activities in the near future. The New England District issued a notice to remind property owners of the U.S. Army Corps of Engineers permit requirements for repairs proposed within the six state New England region.

The Corps has Federal jurisdiction over activities that include dredging or construction in or over navigable waters of the U. S., certain excavation activities and the placement of dredged or fill material into waters of the U. S. (including wetlands), and work affecting the course, location, condition or capacity of such areas.

Such activities may require a Department of the Army permit. Waters of the U.S. also include intermittent streams, natural drainage courses, and wetlands that meet applicable Federal criteria, regardless of their size.

In general, if an activity has been permitted and has sustained damage due to a storm, the permit holder is authorized to return the project to its pre-damaged, permitted state.

Two of the Corps' main permitting authorities are Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act authorizes the Corps to regulate structures and work in navigable waters of the U.S. Section 404 of the Clean Water Act authorizes the Corps to regulate the discharge of dredged or fill material into all waters of the U.S., including wetlands.

Discharge of fill material includes: placement of fill that is necessary to the construction of any structure or impoundment requiring rock, sand, dirt or other material for its construction; site-development fills for recreational, industrial, commercial, residential or other uses; causeways or road fills, dams and dikes; artificial islands; property protection and/or reclamation devices, such as riprap, groins, seawalls, breakwaters, and revetments; beach nourishment; levees; fill for structures, such as sewage treatment facilities, intake and outfall pipes associated with power plants, and subaqueous utility lines; and artificial reefs.

If a person intends to undertake any repair work in

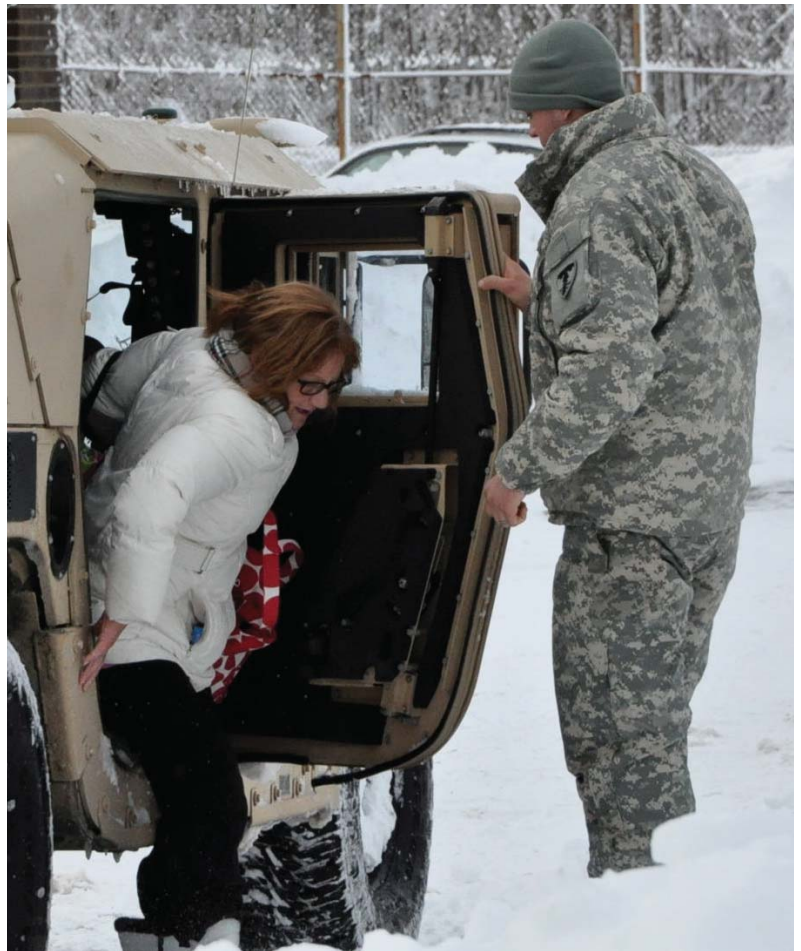


Photo by SSgt. Megan Bumeister, RI National Guard
The Rhode Island National Guard worked with state and local organizations to assist residents in the aftermath of Nemo.

waters of the U. S. under the authorization of a general permit, thoroughly review the terms and conditions of the general permit and note that some activities require written authorization prior to commencement of work.

The general permits apply only to Department of the Army regulatory programs. In cases where proposed work does not qualify for a general permit, and the situation would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action is not undertaken within a time period less than the normal time needed to process a permit application under standard procedures, the District can process an application for a permit under emergency procedures.

For additional information on Corps permit requirements, call the Corps Regulatory Division at (978) 318- 8335 or (978) 318-8338 or visit the website at <http://www.nae.usace.army.mil/Missions/Regulatory.aspx>.



ROTC Cadets listen to Col. Charles Samaris give a briefing on the Corps of Engineers and Army Leadership.

Photo by Brian Murphy

District Commander gives lessons on leadership, Corps of Engineers

Col. Charles Samaris, New England District Commander, met with about a dozen ROTC Cadets from the University of New Hampshire and the Massachusetts Institute of Technology in Boston, Mass., to get a feel for what it would be like to be an officer in the U.S. Army Corps of Engineers.

The Cadets met with the District Commander, Feb. 15., in the Gridley Conference Room at Concord Park Headquarters. The goal of the visit was to have the Cadets gain an appreciation

for the Engineer Regiment, The Corps of Engineers, and the opportunities that could be available to them as Engineer Officers.

During the meeting, Col. Samaris gave an overview of the missions of the Corps of Engineers, specifically the North Atlantic Division and the New England District. Immediately following that briefing, Col. Samaris spoke with the Cadets about the fundamentals of Army Leadership with a strong emphasis on the importance of Army Values.



Col. Charles Samaris (left standing) with the ROTC Cadets from UNH and MIT.

Canal Bridge Alert Updates

The New England District has updated its Bridge Alerts page for the Bourne and Sagamore Bridges over the Cape Cod Canal. If you have bookmarked this page previously, please bookmark the new page at: www.nae.usace.army.mil/Missions/Recreation/CapeCodCanal/BridgeAlerts.aspx

We hope this will make getting Bridge Alerts even easier in the future. The Corps will continue to use Facebook at www.facebook.com/CorpsNewEngland and Twitter at <http://twitter.com/CorpsNewEngland> to give updates to the bridge work, or its other activities in New England.

Sympathy

... to Regulatory retiree **Susan Mehigan** on the passing of her husband, **John Mehigan**, Jan. 30. Mr. Mehigan was a Veteran who served in the U.S. Marine Corps. ... to the family of Real Estate retiree **Roger Parker**, who passed away Feb. 20. Mr. Parker was a Budget Analyst for Real Estate Division for 40 years before retiring. He was also a U.S. Army Veteran, serving in the Korean War.

Words worth repeating

"Be courteous to all, but intimate with few, and let those few be well tried before you give them your confidence."

- **George Washington**

Dredging up the past



Bobby Byrne congratulates Bob Gauvreau and his wife, Pat, on Gavreau's retirement party held at the Officer's Club, Hanscom Air Force Base, Feb. 9, 2001.

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