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**US Army Corps
of Engineers
New England District**

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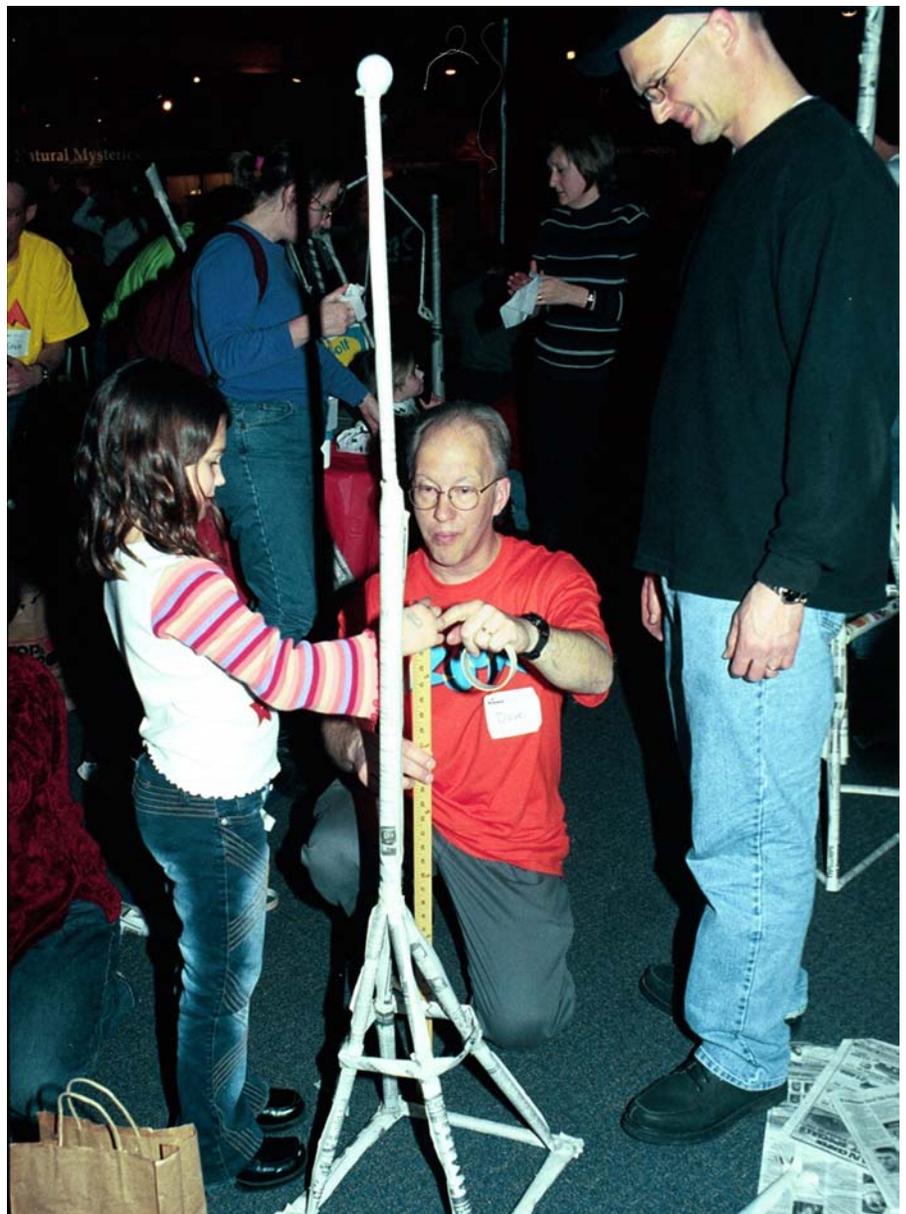
Yankee Engineer

March 2003

Engineers show children how to 'ZOOM Into Engineering'

Engineers from the New England District got a unique chance to touch the lives of thousands of children who are interested in how things work when they participated in WGBH's "ZOOM Into Engineering," program held at the Museum of Science in Boston, Mass., Feb. 22. National Engineers Week and WGBH, the producers of the children's television show, ZOOM™, collaborated to create "ZOOM Into Engineering."

"As the nation's premier engineering organization, the U.S. Army Corps of Engineers welcomes the opportunity to introduce children to the engineering field," said Col. Thomas Koning, District Engineer. "We hope that by showing youngsters that engineering can be a fun and rewarding career, they may
(Continued on page 4)



Engineer Dave Larsen (center) gets help building a Golf Tower during the 'ZOOM Into Engineering' event at the Museum of Science in Boston.
Photo by C.J. Allen

Yankee Voices

Joshua Levesque
Con/Ops



Sympathy

...to **Wendy Hilbrunner**, Safety Office, on the passing of her mother, **Diane Ransom**, Feb. 10.

Welcome

John Astley, Counsel
Katarzyna Chelkowska, Eng/Plng
Charles Farris, Regulatory
Sheila Holt, Eng/Plng
Mark Lombardo, Con/Ops
Margaret Lorenzo, Real Estate
Barbara Newman, Eng/Plng
Michael Remy, Eng/Plng
Jason Robinson, Con/Ops

Words worth repeating

Don't let anything keep you from struggling and seeking to be a decent, striving human being. It is where you are headed not where you are from that will determine where you end up.

- **Marian Wright Edelman**,
Founder of the Children's Defense Fund

Elementary School Teacher says 'thanks'

We are pleased to acknowledge your generous donation of computer equipment to our school. The budget allows for annual replacement of some dated computers and printers, and incremental growth in the inventory of computers available for instruction. This said, much of our inventory is more than six years old, limited in application and too dated to maintain.

Donations such as yours expand access to technology beyond our current resources. Please know that you have made a valuable contribution to our school.

James G. McAuliffe, Ed.D.
Principal, Harvard Elementary School

(Editor's note: This letter was sent by the Principal of Harvard Elementary School to Bill Mahan, Logistics. After first making the donated goods available to other Corps activities on 'ALLOGPOCS,' Logistics donated 23 pieces of computer equipment to the school on behalf of the District.)

District 'ZOOMs Into Engineering'

Thank you again for all your big smiles, helpful tips, and unwavering enthusiasm during Saturday's "ZOOM Into Engineering" event! We could not have done it without you! Thanks to you, kids went home with smiles on their faces, hoop gliders and hovercrafts in their bags, and an appreciation for engineering! I saw many budding engineers in the crowd. Well done!

I hope you were able to take it easy on Sunday, as I'm sure there were some sore backs from stooping to talk with the young ones, sore arms from pumping up balloons, and sore knees from kneeling as you helped families with their golf towers. Heck, your mouth might even be sore from smiling all day!

I've already touched base with the museum staff. They were thrilled with the event and seem eager to keep the tradition going! Initial reports are that the event boosted attendance records substantially.

I enjoyed working with all of you, and hope that you will be open to joining us in the future for similar events. Again, thank you for helping kids to think like engineers - making a design, testing it, redesigning, and testing again. We couldn't have asked for more!

Susan Buckey
WGBH ZOOM Outreach Coordinator

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Commander's Corner:

Is Fiscal Year 2003 Normal?

by Col. Thomas L. Koning
District Engineer



What an unusual year FY 2003 has been – and it is not even half over! From surviving a harsh winter, to watching every penny under the Continuing Resolution Authority (CRA), to deploying co-workers, to increasing FPCON levels, to supporting the global war on terrorism, this fiscal year has been anything but normal. I am proud of the way the District has handled every challenge and come out winners.

Of those items I noted above, perhaps the CRA has impacted the operations of the District the most. Fortunately on Feb. 20, the President signed the 2003 Omnibus Bill and we are back to normal. Of course it is hard to define normal, but for the New England District, it means we have fully funded accounts for General Investigations and Construction, General, and an increased Operations and Maintenance account.

The Omnibus Bill also included language about the future state of the Corps initiatives. Specifically the bill stated, “none of the funds appropriated in this act, or any other act, shall be used to study or implement any plans privatizing, divesting or transferring of any Civil Works mission, functions, or responsibilities for the U.S. Army Corps of Engineers to other governmental agencies without the specific direction in a subsequent act of Congress.”

This means that no FY2003 funds may be used for the Third Wave initiative. The Third Wave initiative was intended to focus the Army on its core competencies and to support the competitive sourcing initiative of the president’s management agenda. Most of you have seen the debate in the papers about if the Civil Works mission is really a core requirement of USACE.

Pundits have argued that our responsibilities in the areas of water resources management, environmental protection and restoration, infrastructure development, planning, and regulatory functions were NOT core requirements necessary to the engineering support to the U.S. Army.

From my perspective, I believe the pundits short change the value of the almost 228-years of service that the Corps

has provided to this nation. They dismiss the value of the skills sets --developed by the employees of this District and of the entire Corps developed through the execution of their daily Civil Works mission -- that can be brought to bear in the service of the nation during times of crisis.

Lastly, they underestimate the value of the checks and balances, the keystone of our governmental system, in having public servants (governmental oversight) providing integrity to the oversight of federal expenditures. The Corps leadership firmly believes that USACE and its highly skilled cadre of employees provide critical and superior service to the nation that no one else can provide.

Having said that, the wording of the Omnibus Bill does not prevent USACE from transforming itself into a more

'The Corps leadership firmly believes that USACE and its highly skilled cadre of employees provide critical and superior service to the nation that no one else can provide.'

- Col. Thomas Koning, District Engineer

efficient business organization. Again, there have been a lot of news reports about Secretary Rumsfeld’s and Secretary White’s efforts to find better ways to get the department and nation’s work done captured under the title of Competitive Sourcing.

For USACE, many of the overarching goals have already been accomplished. We are a smaller Corps than we were in the past. We already contract out 100 percent of our construction operations and over 50 percent of our engineering operations. We already have seen a substantial increase in productivity by our partnerships in the federal, state, local and private sectors. Can we get better? Of course, and the Corps is always looking to become better.

As Maj. Gen. Griffin described in the February 2003 issue of the Engineer Update, the Corps is moving ahead with its own plan to look at reviewing 1,300 positions this year for competitive sourcing. These are spaces -- not faces; not functions; not mission areas; and, not core responsibilities. Remember, competitive sourcing means that we investigate if the private sector can do it better, it does not necessarily mean we lose the spaces.

As cited in the President’s Management Agenda (PMA),

Continued on page 15



Thousands of children participated in the WGBH event.

Photos by C.J. Allen



Richalie Griffith helps a child to fly her hoop glider.

Engineers show children how to 'ZOOM Into Engineering' at Museum of Science

(Continued from page 1)

someday consider a future career in engineering and look at working with our agency."

About 12,000 people attended the event. Engineers guided children through activities that included building a hoop glider, super golf tower, and a hovercraft.

The engineers seemed as enthusiastic about the event as the children. "The event was really fun," said Richalie Griffith. "There were so many kids and they all wanted to try everything, some multiple times."

After making one or all of the projects, the children were able to take their creations home with them. "Our future young engineers expressed their creativity in the hovercraft design and hoop glider events," said Mike Tuttle. "I was not involved in the Golf Tower activity, but some of the tower designs were unbelievable and structurally sound."

"A combination of ZOOM's fun, kid-tested activities with the opportunity to interact with real engineers, "ZOOM Into Engineering" takes kids in



Dave Larsen measures a golf tower.



Richalie Griffith gets a balloon ready for a hovercraft.



Mike Tuttle (left) instructs a child while Bob Russo (right) looks on.



Engineers of the future patiently wait in line to test out their projects.

grades two through six to a new level—learning from role models how ZOOM's science activities apply in the real world,” said Susan Buckey, ZOOM Outreach Coordinator.

“It’s nice to work with kids,” said Paul Howard. “I worked at the hoop glider table where a few of the kids really got into it and created some fascinating aircraft.”

In an effort to reach older students, the New England District also participated in a career night at the Sheraton Boston Hotel presented by the Engineering Center.

The National Society of Professional Engineers founded National Engineers Week in 1951. The event, sponsored by more than 100 engineering, scientific, educational societies and major corporations, is dedicated to increasing public awareness and appreciation of engineers, and encouraging pre-college interest in science, technology, and engineering.

National Engineers Week is celebrated annually by thousands of engineers, engineering students, teachers, and leaders in government and business.



Mike Tuttle demonstrates how a project should fly during the event.



Bob Russo helps a youngster put together his hoop glider.



Paul Howard is surrounded by children eager to construct a project.



Steve Umbrell cheers on a child as she tries out her hoop glider.



Jim Hachigian closely supervises a future engineer as she builds her hoop glider.

Congratulations

...to **Bob Essex**, Engineering/Planning, and his wife, **Cathy**, on the birth of their daughter, **Elsie Violet**, Jan. 24. She joins her sister, **Barbara**, in the family circle.

...to **Farrell McMillan**, Engineering/Planning, who was selected by the WE Committee as the Employee of the Month for February. Farrell received the award for, "his excellent leadership as the Deputy Director of Construction/Operations Division in 2002."

...to the Cape Cod Canal Electronic-Electrical Section Team (**Peter J. Antonini, Geoffrey M. Steuerwald, David M. Bergh, David A. Gove, Thomas J. Greenway**) for being selected as the WE Committee's Team of the Month for February. The team received the honor for their support of the Cape Cod Canal Marine Traffic Controller Section.

...to **Lauren Boročaner** (Programs/Project Management) and her husband, **Jay**, on the birth of their daughter, **Julia Frances**, Feb. 21. Julia joins her sister **Elizabeth** in the family circle.

...to **Deborah Acone**, Construction/Operations, on publishing an article in, "New England's Environment." The article is entitled, "Case Study: Dewatering of Contaminated fine-grained Sediment Using Geotextiles," and can be seen online by clicking <http://www.vironews.com>. The article is under "Feature Articles."

Hecker Named New USACE Homeland Security Chief

Lt. Gen. Robert Flowers, Chief of Engineers, announced the appointment of Mr. Edward Hecker to the new Senior Executive Service (SES) position of Chief, Homeland Security Office in the Directorate of Civil Works at the Corps headquarters. Hecker assumed his new position Feb. 9.

Hecker had previously been chief of the Civil Emergency Management Branch at Corps headquarters for 10 years. He has now been named to head the new homeland security office, which Flowers established to deal with potential threats to USACE facilities. "I know Ed will do a great job in carrying out this mission of vital importance to our nation's security," said Flowers in announcing Hecker's appointment.

The USACE Homeland Security Office is responsible for USACE civil emergency management and critical infrastructure protection programs. In addition, Hecker is charged with working with elements of the new U.S. Department of Homeland Security, and the Army and Defense Departments to coordinate USACE support to the over-

all Homeland Security mission.

Hecker said he has two immediate priorities for his new position. "We need, first, to identify the individual and independent homeland security elements, initiatives and programs that are ongoing throughout the Corps, and organize them into a coordinated program framework. Secondly, we need to establish a dialog with our customers, stakeholders and partners to get their views on where USACE needs to focus its homeland security efforts."

A Baltimore native, Hecker has worked at USACE headquarters since August 1991. He had a previous headquarters assignment from 1982-87. In between, he was chief of Emergency Management for the USACE South Pacific Division in San Francisco.

He is a graduate of Johns Hopkins University, with a degree in civil engineering.

Hecker and his wife are the parents of three grown children and have one grandchild.

(USACE Press Release. Photo by F.T. Eyre)



Edward Hecker, Chief, Homeland Security Office

Field Force Engineering: What is the Base Camp Development Team?

Individually they are engineers, systems analysts, security specialists, park rangers and other District professionals – together they form a unique team that supports the Corps' worldwide contingency missions. They make up the District's Field Force Engineering (FFE) Base Camp Development Team (BDT).

So what is the BDT? The Base Development Team is a District-based team that is tasked to support the Military Contingency Program, which is one of the missions of the U.S. Army Corps of Engineers. The BDT provides installation-level master planning and facilities design expertise for intermediate staging bases, base camps, forward operating bases, and displaced civilian camps. The District is currently recruiting for a second team and a non-deployable team.

Thirteen people currently make up the District's BDT. BDTs consist of an architect/master planner, a geotechnical engineer; a civil engineer, an electrical engineer, an environmental engineer, a mechanical engineer, a structural engineer, and a cost engineer; a CADD technician; an information management technician and team support coordinator (support work such as security, logistics, etc).

"There are many advantages to joining the BDT," said Farrell McMillan, Base Camp Development Team Leader. "The first is the personal satisfaction that you are serving your country and making a difference. You are also a part of a team that works on exciting and challenging missions that have a direct, positive impact on our Armed Forces stationed overseas. Also, there is a formal incentive given to those who sign up and an additional signing bonus that is given once you get your passport, pass a physical exam, and are approved by the District Engineer to be a part of the team. Team members wear U.S. Army Battle Dress Uniforms (BDUs) with a patch that identifies them as DA civilians. BDT members do

not carry firearms."

Being part of the BDT isn't just wearing a set of BDUs. Similar to responding to domestic disasters, members of the BDT are called to a mission at a moment's notice and are ready to go wherever they are required. Work hours are also similar to those that are worked during an emergency operation, which could be 24/7, long days, or normal work days just to complete the mission.

Formal FFE training can take anywhere from two days to two weeks, depending on the training requirements, with the remainder of the training performed on the job. The training is located in various places around the North Atlantic Division, or at Fort Benning, Ga. The BDT can be deployed overseas, but are not sent to the front lines of battle. Not all of the missions are deployable – four out of the five missions completed by the District BDT were performed within the Dis-

trict. One reason for the completed missions being accomplished here is the "reach back" capability of the BDT, Europe, and other Corps districts. Employees who sign up to join the BDT are committed only for one year, and sign an annual statement of agreement to recommit.

Members of the BDT gathered for a pizza lunch to celebrate the one-year anniversary, the success of four completed missions, to take a team photo and to receive an update on real world missions. The members of the BDT wore their BDUs to make sure that they fit properly and that they conformed to U.S. Army regulations.

Serving your country, participating in an adventure, and being part of an exciting team -- does this sound like something you would want to take part in? Interested employees should express their desire through their supervisory chain, and then contact Farrell McMillan, Lt. Col. Brian Green, or Dave Schafer.



Photo by Mark McInerney

The New England District Base Camp Development Team.

Lewis and Clark



The Lewis & Clark Bicentennial Has Begun

By Rick Magee

On a frigid Saturday, Jan. 18, the Lewis and Clark Bicentennial officially began at Charlottesville, Va. Kick-off ceremonies were held on the West Lawn of Monticello on the 200th Anniversary of the day that President Jefferson sent a secret letter to Congress asking for authorization to send an Army mission to explore across the continent all the way to the Pacific Ocean, mostly across what was then foreign territory.

This first signature event of the bicentennial was organized by the Monticello Foundation and the University of Virginia. Its underlying theme was that Thomas Jefferson had an enormous impact on the westward expansion of the United States. Events were held at the main university campus in Charlottesville, at Monticello, and at several other locations.

The Monticello site displayed reproductions and original items from Lewis and Clark. Clark's compass, one of his journals, and four of the herbarium sheets were displayed in the library. Elsewhere were the air rifle and a hand tinted copy of Clark's map of the west. Most spectacularly, the main entrance hall had become again Jefferson's Indian Hall, and contained items carefully made by modern Mandan and Hidatsa students using techniques of their ancestors of 200 years ago.



Photo provided by Rick Magee

Park Ranger Rick Magee doing program from a discovery box for school children in Charlottesville, Va.

The Corps of Engineers had a presence at several of the venues. Corps rangers were greeters at Corps II, a traveling multimedia exhibit managed by the National Park Service. Craig Rockwell from Walla Walla District and Rick Magee each did programs in the Tent of Many Voices. The Corps of Engineers had a display of period artifacts and our Discovery Box in the exhibit hall. In fact, we were complemented on having one of the few exhibits that was about the Corps of Discovery rather than about increasing tourism or selling products.

We spent four days in school. The Corps of Engineers teamed up with Friends of the Frontier Army Museum of Fort Leavenworth, Kan., to present programs in local schools. The Friends is a group of reenactors who have carefully replicated the uniforms and skills of enlisted members of the Corps of Discovery. These programs, the only educational outreach of the signature event, generated 6,560 significant interpretive contacts in four days. We were busy, but the interest of the students and their teachers made it worthwhile.

Tim Bischoff, Corps Ranger at Rend Lake in Illinois, commented that participating in the programs in Charlottesville was great. "It was a great experience to do something like this at a national level with the quality of people that we got to work with, real experts on Lewis and Clark," he said.

The highlight of my week was spent sitting in a folding chair huddled under a blanket on top of Jefferson's little mountain. How cold was it? It was so cold that Amy Mossett, raised on the Mandan Hidatsa and Arikara Reservation of North Dakota, stated that she was cold. Although the festivities were long, the speeches were not memorable, the temperature barely above 20 degrees, the warming tent crowded, and the cocoa tepid, it was still a thrill to sit looking at Jefferson's superb house, and to be part of the beginning of the Bicentennial of the Lewis and Clark Expedition.

Harris is keynote speaker at Black History celebration

The Equal Employment Office and the Black Employment Program held an event that celebrated Black History Month Feb. 25 in the theatre.

Bruce Harris, historical consultant for the Minute Man National Historical Park and the Thoreau Institute at Walden Woods served as the keynote speaker. The 2003 national theme for the observance is, "The Souls of Black Folk: Centennial Reflections."

Col. Thomas Koning, District Engineer began the celebration by welcoming the audience. Crystal Gardner followed Col. Koning by leading the

audience in singing the National Anthem and in singing, "Lift Every Voice."

William McIntyre, Black Employment Program Manager introduced the guest speaker. Mr. Harris gave his presentation, which revolved around this year's theme, dressed in period costume.

After Mr. Harris' remarks, Col. Koning presented him with a Bunker Hill plaque in appreciation for participating in the event.

The celebration ended with the audience singing, "One Love." A reception with samples of ethnic food

followed the presentation.

Mr. Harris is the education/historical consultant for the Minute Man National Historical Park and the Thoreau Institute at Walden Woods. His occupation allows him to combine his skills as a performer and former teacher to build education programs for students.

Mr. Harris studied voice and theatre at Westminster Choir College, Temple University and the McCarter Theatre at Princeton University.

After an internship at the Walnut Street Theatre in Philadelphia, Pa., he worked as an actor and director's assistant for the Princeton Repertory Company. In addition, Mr. Harris is a classical vocalist and has performed with the Westminster Choir, the New Jersey Symphony and the Boston Lyric Opera.

The keynote speaker has studied business at the Wharton School of Business in its entrepreneurial program. He runs a small business in which he takes students from all over the country to participate in onsite educational programs.

Mr. Harris is an avid sailor and is involved in programming for the Freedom Schooner "Amistad."



Bruce Harris gives his presentation in period garb.

Photo by Brian Murphy

District awards contract for Rhode Island restoration project

by Timothy Dugan
Public Affairs

The New England District has awarded Charter Environmental, Inc., a \$1.5 million contract for the Lonsdale Drive-In Environmental Restoration in Lincoln, R.I.

Charter Environmental, of Chelsea, Mass., was awarded the contract on Jan. 30, with a bid of \$1,591,386.76. The project includes construction at the abandoned Lonsdale Drive-In under authority of Section 206, Aquatic Ecosystem Restoration Program.

The Rhode Island Department of

Environmental Management (RIDEM) is the non-Federal sponsor and is cost-sharing 35 percent of the work.

"The work entails removal of about 15 acres of asphalt, demolishing of a movie screen, speaker stands and other associated features, excavation of approximately 60,000 cubic yards of material, placement of organic-rich topsoil, and revegetation of wetlands and uplands," said Project Manager Duban Montoya. "Some of the excavated material will be kept on-site, graded to provide a natural, aesthetically pleasing landscape with rolling hills."

Existing forested riparian habitat

along the river would be preserved as much as possible.

"About seven acres of wetlands would be connected to the Blackstone River," Montoya said. "In addition, about 13 acres of the riparian buffer/grassland habitat would be created."

The proposed work will provide shelter to waterfowl and habitat for declining grassland bird species. Scattered trees and shrubs will be planted to provide shelter and nesting habitat for songbirds.

Construction is expected to start in March 2003, with two growing seasons under contract performance.

WE Committee delivers Valentine's Day treats during annual event



The WE Committee sponsored a Valentine's Day cookie delivery service for District employees who wanted to surprise a significant other, friend, or fellow co-worker with a special Valentine's Day treat.

For a small fee to cover the cost of the treat, members of the WE Committee delivered over 50 cookies on Valentine's Day morning, Feb. 14.

"WE decided not to make a profit from the proceeds," said WE Committee member Mike Tuttle. "It was gratifying to deliver the Valentine's Day cookies to individuals who did not expect it."

The Valentine's Day treats seemed to brighten the day of those who received them. "I told my husband NOT to get me a cookie," said Tanya Williams. "When Chris (Godfrey) gave it to me, I originally thought it was from him. It was quite a lovely gesture."

Employees also bought cookies to bring home to their loved ones. "I got the cookie for my wife Betty," said Forrest

Knowles. "She was really surprised."

In addition to the cookie delivery, the WE Committee also sold special Valentine's Day cards. This is the second year that the WE Committee has offered delivered treats for Valentine's Day and is fast becoming an annual tradition. "It adds a certain nostalgic festivity to the day," added Tanya. "It is rather reminiscent of childhood when one received the surprise Valentine card from the cutest boy in the village."

"I think the cookie delivery program is a great idea," said Forrest. "It's kind of a nice treat when one is so busy with projects, deadlines, etc."

The Cupids who delivered the cookies were WE Committee Chair Christine Godfrey, and committee members Marilyn Ortiz and Mike Tuttle.



Top: Chris Godfrey delivers a Valentine cookie to Tanya Williams. Above: Marilyn Ortiz and Chris Godfrey sort out the yummy treats for delivery.

District project manager nominated for Air Force Award

The U.S. Air Force honored one of the Corps of Engineers New England District project managers during a ceremony held at Concord Park, March 7.

Ken Paton of the District's Military Programs and Project Management Office received a special recognition plaque and was nominated to represent the Air Force Materiel Command for their FY03 Air Force Civilian Project Manager of the Year in the Design Agent Category. Ken received the honor for leading a 50-person design team for a \$35.7 million renovation project for the acquisition management facility at Hanscom Air Force Base, Mass.

Col. Darrell D. Jones, Wing Commander, presented Ken with the award in the Gridley Conference Room. Col. Thomas L. Koning, New England District Commander, and Col. David T. Peters, Support Group Commander, also took part in the ceremony. "From the start, Ken set a positive tone, which opened communication among management, design professionals and customers during design charrettes and value-engineering meetings," read the nomination submitted



(from left) Col. Darrell Jones, Ken Paton, Col. Thomas Koning, and Col David Peters, during the ceremony.

was selected for the award. In addition to the support from the District, there has also been remarkable cooperation from the people at the Hanscom Base Civil Engineering office. To all these folks, I am very grateful."

In addition to the work performed at Hanscom Air Force Base, Ken is also the project manager for various military projects at the U.S. Army Soldier Systems Center in Natick, Mass. He began his career with the U.S. Army Corps of Engineers in February 1986. Prior to that, he was employed for six years in the Department of Public Works Engineering Office at the former Fort Devens in Ayer, Mass.

by the U.S. Air Force. "He fostered team interaction and ensured collaboration among members during design of all three phases of the project."

According to Ken, the nomination is both an honor and a surprise. "I am extremely proud to accept this award on behalf of the District," he said. "However, I want to defer the credit to all the outstanding people at New England District that have supported the renovation of Building 1614 at Hanscom AFB. The efforts of those individuals are the true reason that I

Gallery member Herbert Whittemore remembered

A distinguished member of the New England District's retirement community has died. Mr. Herbert A. Whittemore, retired Chief, Structural Section, Engineering Division and member of the District's Distinguished Civilian Gallery passed away Feb. 8.

According to Mr. Whittemore's gallery citation, he was the Chief of the Structural Section at the time of his retirement in 1970.

During his years with the Corps of Engineers, he was a strong proponent of implementing new technology.

He was so innovative that he used one of the first computers on the market for the design of the floodwalls at Ansonia-Derby and Derby Local Protection Projects. He was also involved with the New Bedford and Fox Point hurricane barriers.

"He enjoyed great respect from his peers, subordinates, and supervisors alike

and his outstanding leadership contributed in great measure to the development of many fine young structural engineers," read the citation.

Mr. Whittemore was featured in the September 1998 edition of the Yankee Engineer's "Where Are They Now?" During an interview, Mr. Whittemore said that he had fond memories working for the Corps. "I have always considered that the Corps of Engineers was just about the greatest engineering organization there is," he said. "I was never sorry that I spent my career with them."

The Distinguished Civilian Gallery member began his career with the Corps in New England in April 1936 as a structural engineer. He held a Bachelor of Science degree in civil engineering and was a member of NARFE and the Rotary Club. He is survived by his wife, Muriel, his sons, Dwight and Russell, and his grandchildren.



Mr. Herbert Whittemore



As the center span lowers to meet the adjoining railroad tracks, counterweights in each tower rise.

Photos provided by Cape Cod Canal

On Track with the Cape Cod Canal's Railroad Bridge Rehabilitation Project

by **Samantha Mirabella**
Park Ranger, Cape Cod Canal

March 2, 2003, and 89 days to go. That's how long the U.S. Army Corps of Engineers has to complete the current portion of the \$25.5 million rehabilitation project of the Cape Cod Canal's Vertical Lift Railroad Bridge. Constructed in 1935, this is the bridge's first major renovation.

The Railroad Bridge, owned by the U.S. Army Corps of Engineers, straddles the Cape Cod Canal in the town of Bourne in southeastern Massachusetts. The bridge is one of the longest operational vertical lift railroad bridges in the world. The 544-foot long center span, constructed of 2,200 tons of steel, is normally seen suspended between two towers 135 feet above mean high water. When a train needs to cross the Canal, the span, activated by a 1935 vintage control board and four 150-horsepower

electric motors, is lowered to meet the adjoining tracks. The movement takes approximately two and one half minutes. The bridge moves in a similar fashion to the weights and pulley system found in old style windows. As the span is lowered, a concrete-filled, steel counterweight in each tower raises. Each of the 1,100-ton counterweights is attached to the center span by forty 2-ton steel cables. The cables, 10 each, wrap over 16-foot diameter sheaves (wheels). There are four sheaves that sit more than 200 feet above sea level in the top of each tower.

Since the spring of 2001, when work began, the bridge has been receiving some long overdue attention. The Railroad Bridge Rehabilitation Project is a two-phase project. The Phase I contract was awarded to Odyssey Contracting from Houston, Pa., at a cost of \$13.4 million. The major components of Phase I, including the replacement of steel members, sandblasting and repainting

the bridge, have been completed. Other components, including the replacement of windows and upper span locks and touchups on the paint will be done this year.

The most complicated and demanding part of the bridge rehabilitation, the bulk of Phase II's tasks, began March 2. This includes replacing the entire operating and electrical system, the counterweight cables, the tracks and railroad ties, and the bearings and trunnions (shafts) on the sheaves. Even though this type of work would normally be a six- to eight-month project, the contractor, Cianbro from Maine, must complete this work in 90 consecutive days.

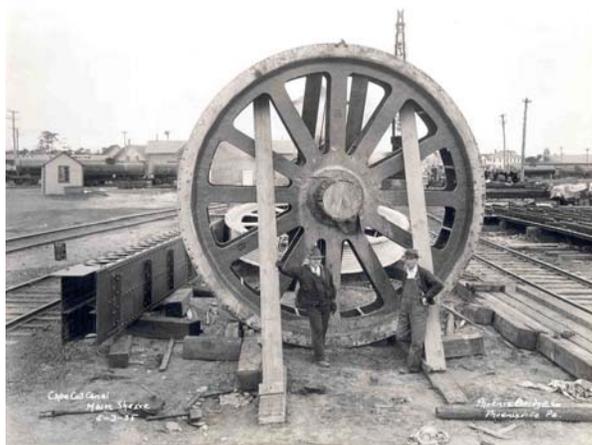
The Corps negotiated the time frame with Bay Colony Railroad, the bridge's operators. The majority of Cape Cod's municipal solid waste is sent off Cape to a waste-to-energy facility on trains that utilize the bridge on average four times a day, six days a week. The bridge offers the only rail access to or from

Cape Cod. To complete the work in Phase II, the bridge span must be locked in the up position, rendering it unusable. The costs associated with trucking the waste off the Cape will be partially compensated by the Corps.

The span, whose tracks and railroad ties were removed on March 2 and March 3, will be supported in the up position by two columns on each side. These columns are essentially steel frames that will sit on the steel weight bearing plates on the concrete piers that the towers sit on.

The columns will be constructed to compensate for the estimated additional inch that each tower will lean away from the span as the weight burden is removed from the towers.

Next, weight can be taken off of the cables by jacking up and supporting the counterweights on steel frames. The cables, which were replaced in the early 1970s, have over time stretched an estimated 20 inches. The original cables that were on the bridge from 1935 to the 1970s were also estimated to have stretched approximately 20 inches. So, Cianbro will use four 400-ton hydraulic jacks to elevate each of the two 1,100-ton weights 36 inches higher than their current level, 12 inches at a time, to bring



All eight sheaves used in the bridge today are the originals as seen in this 1935 photograph.

them back to near original specifications.

The steel frames, each about 40 tons, will be slid into place using a crane barge. The frames will need to be attached to the column legs of the towers as well as the approach span. Removing all the weights from the towers will cause them to become unstable in high winds. But, by attaching the frames to the column legs, their weight plus the counterweights sitting on top of them will keep the towers stable.

When the current cables are removed, 80 in all, the eight sheaves can be removed. To complete this task, a Manitowic 4100 Ringer Crane with a 285-foot boom will be used. The crane

sits upon a barge secured to newly-installed mooring dolphins at the foot of the bridge. The crane will remove the 35-ton sheaves one at a time to a newly constructed building, also at the base of the bridge. There, Cianbro will remove the lead paint by sandblasting them and then prime them. Each sheave will be trucked to a machine shop 20 miles away in New Bedford. Due to their massive size, a frame was specially made to support them at the required angle for transport. The machine shop will remove and replace the old trunnions and bearings.

At the same time all of these tasks are accomplished, the operation system will be updated. Much of the operating equipment used until now are the original 1935 vintage components. Cianbro will install all new bridge controls and power, as well as new drive motors.

When all of this is completed, it should be the end of May, and the Railroad Bridge will be fully operational once again.

As the rehabilitation project comes to an end, the bridge will not be the only noticed improvement. The Buzzards Bay Recreation Area, a highly visited area located at the west end of the Canal's North Service Road in the heart of downtown Buzzards Bay, has a new public rest room facility. The facility was constructed as part of the Phase I contract. Additionally, the recreation area will receive improvements in landscaping, new benches and bike racks, and the parking lot will be redesigned and paved.

The success of these contracts has been largely due to the skilled planning, hard work, and teamwork of Resident Engineer Frank Fedele and the South Central Resident Office, Project Engineer Larry Davis at the Cape Cod Canal Field Office, Project Manager Greg Buteau in Concord, and hired gun (inspector) and retired USACE Area Engineer Frank Vilkas of Nobis Engineering, Inc.

Estimated completion of all contract requirements is Oct. 30, 2003.



Crane barges at the base of the recently painted Vertical Lift Railroad Bridge located Cape Cod Canal, Bourne, Mass.

Engineers monitor water, snow levels to regulate Corps dams to minimize downstream impacts

by Timothy Dugan
Public Affairs

Hydraulic engineers from the U.S. Army Corps of Engineers are monitoring the water levels in the region's major rivers and the depth of snow cover throughout the region to regulate Corps dams and to minimize downstream impacts from the New England District headquarters in Concord, Mass.

"The engineers in our Reservoir Control Center are especially busy now receiving reports from our field personnel on the water content and depths of snow on the ground across New England," said Paul Marinelli, chief of the Reservoir Control Center. "We also are receiving frequent data from our 'eye in the sky' on the levels and flow of water in major rivers – the Geostationary Operational Environmental Satellite (GOES)."

New England District has been using GOES-08 (also known as GOES east), launched in April 1994 with advanced weather imagery, as its data collection satellite. The District data collection platforms monitor pool, tailwater and river levels, rainfall, and air temperature, recording data every 15 minutes.

By collecting information about river stages and flows and their increases and decreases from 90 data collection platforms over time, the hydrologists can effectively regulate the Corps dams to minimize impacts downstream. "This system assists us in deciding when to close or throttle back water flow through our network of 35 dams to provide the maximum flood damage prevention benefits to downstream areas," Marinelli said.

Through the use of logs and computer charts and close coordination with the National Weather Service's River Forecast Center, significant water movement can be identified, examined and predicted.

Each winter, the engineers compile bi-weekly summaries

of snow depths and their water equivalents from 93 key locations with the Connecticut, Merrimack, Thames, Housatonic and Blackstone river basins. With the information, engineers make calculations to determine snow density and comparisons are then made to averages based on over more than three decades of such readings.

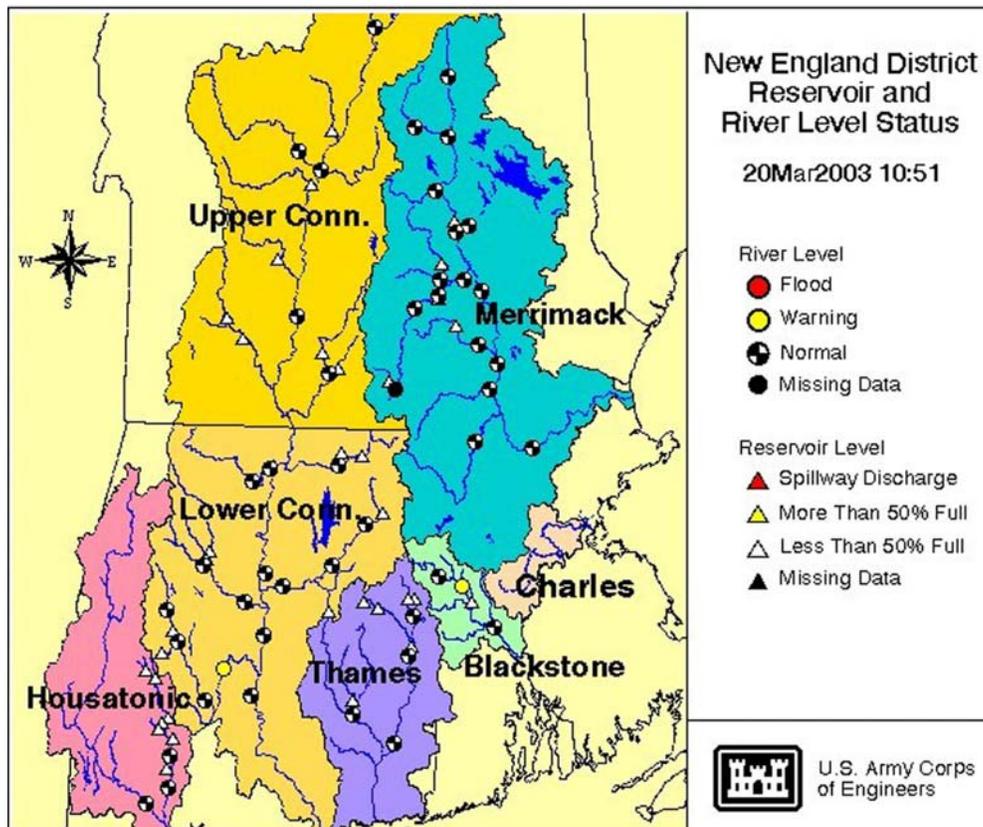
The U.S. Army Corps of Engineers has designed a system of flood

damage prevention projects which includes 35 flood control dams, 100 local protection projects, and five hurricane barriers in New England. A total of 31 of 35 reservoir projects, and two of five hurricane barriers are operated and maintained by the Corps, while the remaining projects are operated and maintained by local interests.

Cumulative flood control damages prevented for all projects through Sept. 30, 2002 are more than \$2.89 billion.

New England District operates and maintains 10 of 31 reservoirs for flood control only. Another 17 are operated primarily for flood control, and seasonally for recreational activities. The remaining four reservoirs are operated as multipurpose projects, including flood control, water supply, recreation, non-Federal hydropower, and fishery storage.

Streamflow and other data are available online by visiting the Corps of Engineers website at <http://www.nae.usace.army.mil>. Select "water conditions and levels" or go directly to <http://www.nae.usace.army.mil/waterres/index.html>.



Historic resources meeting held on MBTA proposed Greenbush line commuter rail project

by Timothy Dugan
Public Affairs

A meeting to review the Massachusetts Bay Transportation Authority's (MBTA) status report on potential historic resources impacts for the proposed Greenbush Line Commuter Rail Project was held Feb. 5, 2003 in the Hingham Town Hall, Hingham, Mass.

The meeting provided an opportunity for the permitting agencies involved and members of the public to discuss the Section 106 Programmatic Agreement and the potential historic resource impacts for the proposed commuter rail project. MBTA made a short presentation.

The MBTA is seeking a U.S. Army Corps of Engineers permit to place fill material within a total of 7.81 acres of wetlands and waterways for the construction of the Greenbush Old Colony Railroad commuter line through the Towns of Braintree, Weymouth, Hingham, Cohasset, and Scituate, Mass.

The public comment period for the Corps permit was extended through April 25.

The project will include installing about 18 miles of rail line and seven new commuter rail stations and an end of the line layover facility. Total permanent and temporary wetlands and waterway

impacts within Corps jurisdiction of the proposed work include 3.41 acres of permanent impact to wetlands, 4.02 acres of temporary impacts to wetlands, 0.082 acres of permanent impact to waterways, and 0.30 acres of temporary impacts to waterways.

In April 1997, the MBTA first submitted a permit application for this proposed work and a public notice was issued on May 6, 1997. The MBTA subsequently has modified the project and submitted a revised permit application that is the subject of this current review. The MBTA has developed a Wetland Mitigation Plan to replace lost wetlands functions and values of areas impacted by the project.

The application for the federal permit was filed with the Corps of Engineers under Section 404 of the Clean Water Act, which regulates the discharge of dredged or fill material in U.S. waters, and Section 10 of the Rivers and Harbors Act of 1899, which provides for federal regulation of any work in, or affecting navigable waters of the United States.

Additional information is available by contacting permit manager Ted Lento (theodore.m.lento@usace.army.mil) at the U.S. Army Corps of Engineers, New England District, Regulatory Division, 696 Virginia Road, Concord, MA 01742-2751.

Timothy Hays named Corps of Engineers Command Librarian

Timothy P. Hays of the New England District's Information Management Division has been named the USACE Command Librarian.

He succeeds Carol L. McMillin of the Engineer Research and Development Center as the U.S. Army Corps of Engineers Command Librarian for the

Corps' 41 technical libraries.

The Command Librarian provides common/Corps-wide operational advice/guidance to librarians and serves as the Corps representative to Army, Federal, and non-Federal library groups for the collective U.S. Army Corps of Engineers Technical Library Program.

Is Fiscal 2003 Normal?

(Continued from page 3)

there have been very successful competitions won by in-house organizations that have resulted in considerable savings to the federal government. This success is largely due to the commitment and team efforts of the entire effected workforce in providing quality government services effectively, efficiently and at a cost that is accountable. What our New England District workforce already does each and everyday and we will continue to improve upon in the months to come.

You can read the entire PMA at <http://www.whitehouse.gov/omb/budget/fy2002/mgmt.pdf>

Lt. Gen. Flowers says that the workforce of the Corps is his number one priority and he is committed to keeping you informed. You can read the latest information and Maj. Gen. Griffin's complete article at: www.hq.usace.army.mil/cepa/compsource/compsource.htm.

I hope this removes some of the uncertainty concerning the future makeup and direction of the Corps. The District is being proactive to understand and learn all we can about competitive sourcing. Buz McDonald, Kim Kaminski-Donaher and Bud Taylor have all attended off-site training programs so they can best support you as the process moves along. And if you have concerns, please don't hesitate to ask. In the meantime, there is one thing that each of you can do to affect the future of the Corps. That is to do our absolute best every day, to provide our products and services to the people whom we serve.

Dredging up the past . . .



Joe Bocchino (far right) makes a presentation to John Anderson while Buz McDonald looks on during John's retirement luncheon in this December 1999 photo.

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