

Public Works

DIGEST

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This Issue: **Annual Report Summaries**

Annual Report Summaries	3
Installation Management	22
Installation Successes	24
Awards	33
Professional Development	38
Who's Who	40

U.S. ARMY INSTALLATION MANAGEMENT COMMAND

IMIGOM



Steelworkers work on the vierendeel truss section, the largest section of the atrium roof, at the National Geospatial-Intelligence Agency New Campus East project at Fort Belvoir, Va., one of a record number of Army projects under construction in 2009. Photo by Marc Barnes, Belvoir Integration Office, U.S. Army Corps of Engineers

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Annual Report Summaries



- 3 Looking back over my tenure: Installation Management Command always rose to challenges, *by Lt. Gen. Robert Wilson, U.S. Army Retired*
- 5 BUILDING STRONG Military Programs, *by Lt. Gen. Robert L. Van Antwerp*
- 6 Year of research to ensure water sustainability, *by Laura Curvey*
- 8 Huntsville Center missions surpass \$1 billion in FY 2009, *by Charles Ford*
- 13 Public Works Technical Bulletins take on installation issues, *by Dana Finney*
- 14 Army Hawaii Environmental Division's year in review, *by Alvin Char*
- 15 Europe District delivers again in 2005, *by Justin Ward*
- 16 Oahu Army Natural Resources Program looks back on a year of challenges, innovation, firsts, *by Candace Russo*
- 18 Fort Hood Public Works improves quality of life, *by Christine Wells*
- 19 Army master planning: Making good installations great communities, *by Jerry Zekert*
- 20 Environmental Community of Practice focuses on customers, *by Candice Walters*

Installation Management



- 22 Delivering usable building information, *by E. William East*
- 23 Bulletin offers hydraulic erosion control products guidance, *by Neils Svendsen*

Installation Successes



- 24 Fort Hood partners with local communities on sustainability, *by Christine Luciano*
- 25 Seattle District builds park to honor fallen Soldiers at Fort Lewis, *by Andrea Takash*
- 27 Fort Carson among first to have gate infrastructure upgraded, *by Debra Valine*
- 28 Hunter Army Airfield rediscovers lost cemeteries, *by Brian K. Greer*
- 30 Fort Irwin's summer energy awareness pays off, *by Hossam Kassab*
- 32 Removing Family housing clears way for Moffett Field improvements, *by Debra Valine*
- 33 Fort Belvoir center earns first military LEED-NC Platinum, *by Joy Lutes*

Awards



- 34 Fire and Emergency Services workers gather, honor awardees, *by Robert P. Avsec*
- 36 Army Hawaii housing partnership honored with green award, *by Ann Wharton*
- 37 Corps receives value engineering award, *by Bernard Tate and Jeff Hooghouse*

Professional Development



- 38 BUILDING STRONG – Career Program 18, *by Lt. Gen Robert L. Van Antwerp*
- 39 Army holds energy manager training, *by David Purcell*

Who's Who



- 40 Kons in charge of facilities work for Corps' stimulus program, *by Mary Beth Thompson*
- 41 Crambo keeps track of stimulus projects, *by Mary Beth Thompson*
- 42 Lynch takes charge of Installation Management Command
- 43 Slockblower to replace Tyler



Looking back over my tenure: Installation Management Command always rose to challenges

by Lt. Gen Robert Wilson, U.S. Army Retired

I feel like an engineer. Three and an half years ago, I took on the position of the assistant chief of staff for installation management, and, in that time, you made the Army successful in planning, programming and executing the largest and most complicated facility construction, restoration and modernization programs the Army has ever seen.

Note the word programs. That's multiple programs, not just one. You have made us all look good.

Base Realignment and Closure

BRAC was the first of these programs we were charged to execute, and you were able to squeeze a \$40 billion true facility requirement into a \$9 billion budget. The Army is getting:

- new schoolhouses at Forts Lee, Va.; Benning, Ga.; Sill, Okla.; and Sam Houston, Texas;
- new Armed Forces Reserve Centers across the country;
- new brigade facilities at Forts Bliss, Texas; Carson, Colo.; Riley, Kan.; and Knox, Ky.;
- new labs at Aberdeen Proving Ground and Edgewood Arsenal, Md.; and
- new office complexes at Forts Bragg, N.C.; Knox; Belvoir, Va.; Meade, Md.; and Redstone Arsenal, Ala.

These are all being executed on time, within budget and to modern sustainable standards. Excellent job!

Grow-the Army

In February 2007, the president announced and Congress supported a permanent Army growth of 65,000 Soldiers. We were given an incredibly short two months to develop the full set of facility requirement and Military Construction Army projects to accommodate this growth.

By the end of March 2007, you had come through with projects needed for five



Lt. Gen. Robert Wilson,
U.S. Army retired. Photo by
Monica King

new brigade combat teams at Forts Bliss, Carson and at Stewart, Ga., a herculean effort on its own, and projects for small units across the country that account for 30 percent of the Army growth — our combat support units. These combat support projects came in all shapes and sizes, had to be integrated into existing facility plans and had to be customized for each location.

Again, you came through and had all MCA 1391s prepared to meet a congressional deadline of the end of March 2007 to provide the discrete project list. These projects are well under way and are another quantum leap forward in the modernization of our facility inventories.

Warriors in Transition

The BRAC and Army Growth programs were barely put together when, in mid-2007, the Walter Reed incident focused national attention on our wounded warriors. We learned the hard way of a growing population of wounded warriors who needed specialized facilities and needed them quickly.

You brilliantly put together, from scratch, all new facility condition and construction standards for existing and new facilities. You put together and executed \$200 million of Restoration

Acronyms and Abbreviations

BRAC	Base Realignment and Closure
MCA	Military Construction Army
OMA	Operations and Maintenance, Army

and Modernization projects to turn existing facilities into interim barracks, Soldier and Family Assistance Centers, and operational facilities for our Warriors in Transition and their loved ones.

You then, starting from nothing and in less than one year, developed a complete MCA buyout program that I was able to defend to Army and Department of Defense leadership and which was fully supported by Congress. All of these are either under construction or about to



Steamfitter James Chandler cuts a steel chillwater pipe at the site of the Fort Belvoir (Va.) Community Hospital, a BRAC project that will provide a 120-bed, state-of-the-art facility. Photo by Marc Barnes, Belvoir Integration Office, U.S. Army Corps of Engineers



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be appropriated. As a result, we will soon have a whole new class of facilities on our installations — the Warrior in Transition campuses.

Barracks

Simultaneously, you were putting together a plan to modernize our facilities for basic and advanced individual training barracks, also known as trainee barracks. The Army plan in early 2007 would have modernized this inventory by 2020, but that was far too long. We were directed by the vice chief of staff of the Army to accelerate the plan so that it was fully funded no later than 2015 and do so within available resourcing.

You came through with an ingenious mix of BRAC, Grow-the-Army and normal Military Construction funds integrated with an aggressive Operations and Maintenance Army-funded Restoration and Modernization program. Your staffs developed plans to fully modernize some older barracks and



Barracks are under construction at Fort Benning, Ga. Photo by F.T. Eyre, Headquarters, U.S. Army Corps of Engineers

mitigated more than \$3 billion of MCA costs. This plan was approved, is halfway completed and is another great success story.

While in the midst of planning for our Wounded Warriors and Trainee Barracks programs, the condition of some of our aged permanent party barracks bubbled to the top of leader attention, particularly at Fort Bragg. We have a large inventory of permanent party barracks scheduled for demolition in the next three to five years, but they must remain occupied, and we must sustain them until they are demolished.

In addition, we have a very large inventory of enduring barracks built in the late '70s and early '80s known as Volunteer Army, or VOLAR, barracks that are experiencing severe mold and moisture problems and must be modernized. Funding for sustainment of the former and restoration of the latter has been a challenge to the Army.

Congress has helped by providing \$1.5 billion directly for work in existing barracks and, again, you have come through and are delivering two new programs. The first program is the First Sergeant's Barracks Initiative, which ensures the quality management and sustainment of every occupied barracks. The second is a program to completely restore the VOLAR barracks, solving the mold and moisture problem, and ensuring the sustainability of our inventory for at least 30 more years. Both programs are well underway and tracking to complete success.

Stimulus

Next, and most recently, came the American Recovery and Reinvestment Act, more commonly referred to as the stimulus. We were given two weeks to



Construction is under way on a Warriors In Transition campus at Fort Riley, Kansas. Photo by Robert G. Dye, Kansas City District, U.S. Army Corps of Engineers

develop an investment strategy and a project list for \$2.1 billion of stimulus funds, the lion's share of which is \$1.5 billion for OMA Sustainment, Restoration and Modernization projects.

You put together a very high quality list that not only achieves the administration goal to create and save jobs but also invests in reducing our massive restoration backlog while simultaneously making significant energy investments. Again, well done!

You delivered

Special thanks to Don LaRocque, chief of IMCOM's Public Works, a stalwart in Public Works. No one is more professional or more dedicated to our Soldiers than he.

Over and over and over again, you have come through with the right projects at the right locations at the right time. It's been an exciting and highly productive few years. Thank you again for all the great work you do on behalf of and for our Soldiers and families.

I am proud to have worked beside so many dedicated and talented engineers!

Lt. Gen. Robert Wilson retired Nov. 2 as the assistant chief of staff for installation management and commanding general, Installation Management Command.





BUILDING STRONG Military Programs

by Lt. Gen. Robert L. Van Antwerp

The U.S. Army Corps of Engineers' Military Programs Directorate is at the peak of an unprecedented workload. We are truly making history with the depth and breadth of this program — and that was before the American Recovery and Reinvestment Act. But more importantly, we are building strong for our warfighters and our military families, while transforming to more efficient business practices, kicking it up a notch in environmental stewardship and serving an integral role in Overseas Contingency Operations.

We already had responsibility for the largest military construction boom since World War II, but along came the ARRA, and our program quickly became — well, extraordinary. And we are surpassing every goal we set for ourselves in trying to meet the demands of our great nation as we help spur economic recovery, create jobs and get at some desperately needed operations and maintenance for our infrastructure.

The USACE team, our customers and our contractors refused to let the demands of fiscal year 2009's challenging operational tempo stand in the way of success. We awarded 97 percent of our planned programs for Army and other Department of Defense customers for a total of 518 Military Construction and Base Realignment and Closure projects with a program amount of \$17 billion. (Editor's note: See "MILCON awarded in FY 2009" box for details.)

The ARRA funds are quickly being awarded — faster than we projected, even. By the end of FY 2009, we had awarded



Lt. Gen. Robert L. Van Antwerp
Photo by F.T. Eyre

399 Military Programs ARRA projects against a commitment of 384. The big winners in this are our Army customers, for whom we awarded 204 projects against our commitment of 180. That money is building schools, day-care centers, barracks and office sites for the hardest working servicemembers in the world and their families.

The current fiscal year is shaping up to be another challenging one. FY 2010 will see more than \$9 billion programmed for execution.

During the past few years, we've transformed our MILCON business process to yield benefits in the execution of the Army major construction program. The standardization of processes and facilities, as well as the adoption of private sector best practices are key to our success. The Army has moved away from overly prescriptive requirements to performance-based criteria as well as moving from design-build acquisition to adapt-build facilities. USACE, through its eight Centers of Standardization, is developing standard designs, or criteria, for the Army's 43 standard facility types. This is the first step in the development of adapt-build models using Building Informational Modeling.

In FY 2010, USACE will start moving from design-build facility delivery to adapt-build for mission facilities such as company operations and tactical equipment maintenance facilities, as well as dining

facilities. Delivery of permanent party barracks will continue to be accomplished using design-build until at least FY 2012.

We executed about \$3 billion in operations and maintenance requirements, and more than \$9 million in installations support funds in direct support of Army installations and other Installation Management Command customers. We also provided \$600 million in real estate support through our Real Estate Community of Practice.

Through the use of industry best practices, performance standards and contractor innovation, the Fort Carson, Colo., Brigade Headquarters achieved Leadership in Energy and Environmental Design Gold status and won a *White House Closing-the-Circle Award* for sustainable design. A Community Emergency Service Center at Fort Bragg, N.C., will be LEED Platinum when construction is completed. LEED Silver is the current Army standard, but we don't just meet the minimum requirement we surpass it, and then some!

By using LEED's nationally accepted, whole-building approach to sustainable, green design, we are improving energy efficiency, lowering life-cycle costs and reducing environmental impacts. Our work in support of sustainability is not simple. We are concerned about the sustainability of the cleanups we conduct and about the sustainability of our projects in relation to the protection of endangered species, forestry management, invasive species control, energy conservation and pollution prevention. We are concerned about the sustainability of the Army's training ranges and about ensuring the sustainability of our contingency operations by protecting our Soldiers from environmental hazards during those operations. USACE's support to ensuring clean water, sanitation and waste management directly impacts the health of our Soldiers and the Army's ability to sustain the mission.

In FY 2009, the Corps accomplished nearly \$1.3 billion in reimbursable

Acronyms and Abbreviations	
ARRA	American Recovery and Reinvestment Act
BRAC	Base Realignment and Closure
DoD	Department of Defense
FY	fiscal year
LEED	Leadership in Energy and Environmental Design
MILCON	Military Construction
OCO	Overseas Contingency Operations
USACE	U.S. Army Corps of Engineers



Year of research to ensure water sustainability

by Larua Curvey

As global populations increase, growing fresh water demand, along with the effects of climate change, has begun to limit the normal replenishment processes for this essential but undervalued resource. The U.S. Army Engineer Research and Development Center set out to understand the important factors that contribute to both the water supply and the demand affecting U.S. Army installations, while exploring new ways to conserve and reuse the water already available.

Acronyms and Abbreviations

CERL	Construction Engineering Research Laboratory
ERDC	Engineer Research and Development Center
FY	fiscal year

Modeling the future

Several water studies were initiated during fiscal year 2009 by the Center for the Advancement of Sustainability Innovations, which is located at ERDC's Construction Engineering Research Laboratory, Champaign, Ill. One of the center's technical focus areas is sustainable water resources. Some ongoing projects involve regional water sustainability assessments that focus on Army installations slated to grow and their vulnerability to climate change.

These regional assessments aim at developing methodologies to determine water demand estimates and water supply for the next 30 years. The estimates are built from models that forecast potential water balances in a region using scenarios that take into account growing populations,

decreasing water supply and increased installation use.

Regional studies recognize that even water-efficient installations can be affected by factors outside the fence line. CERL researchers are also attempting to understand physical, political and social factors that contribute to water demand and supply. Sustainability assessments have been completed for Forts Bliss, Texas, and Bragg, N.C. Additional assessments are being conducted on 10 continental U.S. Army installations and at three in Germany, Italy and South Korea.

Conservation and reuse

CERL has been involved for many years in identifying technologies and opportunities to apply water conservation and reuse. A long-standing success

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environmental requirements, including \$253 million for environmental quality work, of which \$177 million was in support of Army garrisons. We also awarded \$291 million in the Formerly Used Defense Sites Program. We are indeed building a strong, sustainable environment for future generations.

Support to the OCO effort continues to be our top priority. To date, that

support has encompassed about 7,500 projects in Iraq and Afghanistan worth more than \$18.4 billion and involved the deployments of more than 10,000 of our civilian teammates. (Editor's note: See "All Awards in Iraq and Afghanistan" box for details.) I am very proud of all our many Corps employees who have voluntarily served in support of OCO.

Clearly, our mission is far from complete, but I am confident our energetic team is ready to meet the challenges of FY 2010. This year we'll move toward an adapt-build approach to construction, with our centers adapting standard designs for a specific location. We'll continue to embrace technology like Building Information Modeling tools for planning, design, construction

and life-cycle building management. And we'll get closer to our goal of recycling 90 percent of building materials.

I am reminded by our team every day that working on a military installation is like no other job site. We see first-hand the strong military communities built and sustained by your professionalism and dedication. And we'll continue to help you ensure the quality of life of our Soldiers and their families is commensurate with the incredible sacrifice they are making on behalf of our nation.

Lt. Gen. Robert L. Van Antwerp is the chief of engineers and the commanding general of the U.S. Army Corps of Engineers.

MILCON awarded in FY 2009

Type	Projects	Amount
Army MILCON	217	\$5.9 billion
Army BRAC	76	\$3.3 billion
Army Awarded Total	293	\$9.2 billion
Air Force	93	\$1.6 billion
Air Force BRAC	34	\$676 million
DoD BRAC	11	\$2.4 billion
Other DoD customers	53	\$2.8 billion
Other awarded total	187	\$7.5 billion
ARRA of 2009	34	\$366 million
Awarded grand total	518	\$17 billion

All Awards in Iraq, Afghanistan

Location	Total to date (including FY 2010)	2008	2009	2010
Iraq	\$11.3 billion	\$1.9 billion	\$760 million	\$169 million
Afghanistan	\$7.1 billion	\$1.4 billion	\$2.4 billion	\$2.5 billion



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story is the lab's development of the central vehicle wash facility. As of FY 2009, central vehicle wash facilities recycle about 2.5 billion gallons of water per year for the Army.

Researchers have also published guidance on water-efficient installations that is being updated and expanded as a series of Public Works Technical Bulletins.

One bulletin will explore potential uses for gray water — the water produced by bathing and laundry — at Army installations while offering guidance for use, examples and discussion of pros and cons. A second bulletin will focus on rainwater harvesting opportunities and techniques that will help promote quality of life while preserving and enhancing existing water resources.

Recently started projects include development of another bulletin and a “how-to” guide on methods of water conservation that offers the pros and cons of different technologies acceptable for installations.

The bulletin will offer guidance on procedures, techniques and technologies, adapting and adopting what is available from a variety of sources to be usable for Army applications. Examples include improvements in heating and cooling, irrigation and landscaping, fixtures, facility operation, and dining and medical facilities. The how-to guide will offer options to help installations to determine their own potentials for water conservation.



Lake Mead is the largest reservoir in the U.S. and provides water to Nellis Air Force Base, Nev., among other communities. It is currently at 43 percent capacity and may become unusable for nearby Las Vegas as early as 2010. Photo courtesy of Wikipedia Commons


For another beginning project, sponsored by the Army Environmental Policy Institute, researchers are investigating water reuse to define the state of the art, assess how widely these methods are being used at Army installations and provide background information as a document to assist decision makers with potential policy changes.

Other water projects at CERL focus on current Army installation conservation practices and further exploration of new conservation technologies. A comprehensive guide is being prepared to offer methods to improve installation water

efficiency based on a variety of criteria, including regional and mission-specific factors.

Future projects aim to go beyond planning to provide assessment tools, decision matrices and total water management guides for installation use.

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Laura Curvey is a research assistant for installation water sustainability assessments, ERDC-CERL 

Helpful resources for water management

Proceedings of the Military Applications for Emerging Water Use Technologies Workshop, ERDC/CERL TR-09-12, by Richard J. Scholze, Gary L. Gerdes, William D. Goran, John Hall, Kurt Preston, Mal McLeod, David Sheets and Richard Sustich

Army Installations Water Sustainability Assessment, ERDC/CERL TR-09-38, September 2009, by Elisabeth M. Jenicek, Natalie R.D. Myers, Donald F. Fournier, Kevin Miller, MeLena Hessel, Rebecca Carroll and Ryan Holmes

National Water Sustainability Analysis: A Characterization of U.S. Watershed Health, AFC 09-Draft, by Natalie R.D. Myers, Elisabeth M. Jenicek and Donald F. Fournier



Huntsville Center missions surpass \$1 billion in FY 2009

by Charles Ford

Contracts for installation support projects awarded by the U.S. Army Engineering and Support Center, Huntsville, Ala., in fiscal year 2009 totaled an impressive \$1.09 billion, up from \$991 million last fiscal year and \$608 million the year before.

Huntsville Center is the U.S. Army Corps of Engineers' Installation Support Center of Expertise. Its project managers partner with Corps districts; Directorates of Public Works; Headquarters, Installation Management Command; and other federal agencies on projects.

Army Metering Program

Purpose – To comply with the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007, advanced meters, known as smart meters, are being installed on about 6,800 Army, Army Reserve and Army National Guard facilities to monitor and electronically report consumption of electricity, natural gas, steam and water.

The meter data will be electronically transmitted to a central database called the Meter Data Management System that will give energy managers the means to identify excessive energy use, waste and inefficiencies at the facility level. The MDMS will access facility data such as

square footage, functional use and type of construction from the Real Property Inventory to pair with meter readings. The insights gained are expected to spawn corrective actions that can be remonitored by the MDMS to verify the energy savings achieved.

FY 2009 – Fifty-four IMCOM garrisons, six Army Materiel Command garrisons, one USAR garrison and 105 USAR sites were awarded. Of those, 28 garrisons are complete, although metering of facilities beyond the program minimum is being pursued by most garrisons. About 2,850 electric and 650 natural gas meters were installed, putting the Army ahead of schedule.

The MDMS software and system administration contract was awarded, the system was approved for adoption into the Army domain of information systems, and the Defense Information Assurance Certification and Accreditation Program certification is on track for January completion.

Future – MDMS pilot demonstrations at Forts Lee, Va., Carson, Colo., and Stewart, Ga., are planned before the end of December. Connectivity of the MDMS to previously metered garrisons will follow. The goals are 49 garrisons online and software user training sessions by FY 2010 end.

Metering will continue for continental U.S. and overseas garrisons and USAR sites. Metering of Army National Guard facilities will begin if funding permits.

Energy Savings Performance Contracting

Purpose – This program delivers energy-reducing capital improvements that the garrison is unable to purchase outright. If the project can demonstrate energy cost savings greater than the

construction-plus-finance cost over a period of fewer than 25 years, an ESPC can provide the ability to pay over time at a fee no greater than the actual energy cost savings resulting from the project.

Headquarters, IMCOM, centrally funds Huntsville Center efforts to provide this service to garrisons. More than \$380 million in private-sector-financed infrastructure improvements have been constructed at 20 Army installations since FY 2000. Energy savings total about \$40 million per year.

FY 2009 – An ESPC project awarded at Aberdeen Proving Ground, Md., encompasses \$10.2 million in heating, ventilation and air conditioning renovations; window replacements; and steam system rehabilitation with a payback of 11 years. At Fort Bliss, Texas, an ESPC is providing \$9.4 million worth of lighting upgrades, lighting occupancy sensors, electric motor replacements, wall insulation, solar thermal system or domestic hot water systems, and solar photovoltaic systems with a payback of 23 years.

Future – Projects are planned at Camps Yongson, Humphreys and Daegu in Korea; the U.S. Military Academy, West Point, N.Y.; Fort Buchanan, Puerto Rico; the Detroit Arsenal, Mich.; and another at Aberdeen Proving Ground. Demand for ESPC is expected to increase.

Energy Engineering and Analysis Program

Purpose – This program, centrally funded by IMCOM, provides energy audits of installations. A team of subject matter experts from Huntsville Center, the Construction Engineering Research Laboratory, the Department of Energy and contractors identify and develop energy conservation measures and assist Directorates of Public Works in selecting the appropriate execution strategies.

The EEAP provides the appropriate project documentation, e.g., DD 1391s, data for input into IMCOM's Project



These advanced meters, part of the Army Metering Program, capture electricity and natural gas consumption at Redstone Arsenal, Ala. Photo by Patrick Holmes, Johnston Controls Huntsville



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Priority System, the scope of work for ESPC opportunities, life-cycle project cost estimates and energy savings payback analyses. One year later, the EEAP team evaluates progress and assists where needed.

FY 2009 – Energy audits were completed at 24 installations; 2,083 energy conservation measures were found with \$111 million per year energy savings and an average payback of fewer than four years; and 53 Energy Conservation Investment Program project DD 1391s were completed. A template to facilitate ECIP project DD1391 creation and to prevent omission of mandatory information that could jeopardize project funding approval was developed.

Future – Increased involvement in ECIP projects and assistance to energy and water conservation master plans are expected in FY 2010. Planning is under way to double the number of energy audits.

Resource Efficiency Manager Program

Purpose – This program places resource efficiency managers, who are energy expert consultants, at Army garrisons to help them meet energy goals by finding, developing and employing energy conservation measures and renewable energy projects. IMCOM funds the first year of REM services, and the garrison funds the subsequent year options.

REMs have identified energy savings opportunities as much as 10 times their annual salary cost and can provide valuable assistance in utilizing all energy project funding streams. If the REM does not produce a positive return on investment, his or her contract is not be renewed.

FY 2009 – Huntsville Center awarded a national REM, indefinite delivery-indefinite quantity, multiple-award task-order contract consisting of five contractors with a \$40 million ceiling. Initial REM costs have since fallen by about 20 percent

primarily due to competition among these best-in-industry contractors. The new contract includes ambitious measurable metrics.

REMS were placed at central energy plants at the Presidio of Monterey, Calif., and Forts Bragg, N.C., Hamilton, N.Y., and Benning, Ga. Expiring contracts were replaced using the new REM IDIQ at Forts Irwin, Calif., Sam Houston, Texas and Bragg.

Future – More than 30 other garrisons have requested an REM. Huntsville Center is awaiting IMCOM's decision on the FY 2010 program budget.

Commercial Utilities Program

Purpose – This centrally funded program ensures utilities are purchased using the best terms and rates available, and utilities are resold to garrison tenants in compliance with policies and regulations at fair rates. The Army averages six utility rate hearings annually at which utility companies seek rate increases from 3 to 12 percent. The CUP provides a consultant to represent the Army as an expert witness at these hearings, helping to avoid or minimize increases. The CUP also assists garrisons in reviewing utility billings to ensure the proper rates are being applied and to catch other kinds of errors.

The program has achieved savings and cost avoidances totaling more than \$103 million since 2004.

FY 2009 – The CUP saved the Army about \$12.5 million by intervening in three rate increase filings at a cost of \$962,000, thus producing an \$11.5 million return on investment. Three more filings are under review.

The program also discovered billing errors resulting in a \$3.5 million credit from Western Administration Power Authority for McAlester Army Ammunition Plant and Fort Sill, Okla. The CUP identified \$10 million in under-collected reimbursements from tenants at six garrisons. Utility procurement

Acronyms and Abbreviations	
ACP	Access Control Point
AIE	Automated Installation Entry
ARRA	American Recovery and Reinvestment Act
ASFS	Army Stationing Facilities Support
COS	Center of Standardization
CUP	Commercial Utilities Program
DoD	Department of Defense
ECIP	Energy Conservation Investment Program
ECM	energy conservation measures
EEAP	Energy Engineering Analysis Program
ESPC	Energy Savings Performance Contracts
ESS	Electronic Security Systems Program
FRP	Facilities Reduction Program
FRR	Facilities Repair and Renewal
FY	fiscal year
IDIQ	indefinite delivery-indefinite quantity
IMCOM	Installation Management Command
IMMSS	Integrated Modular Medical Support Systems
MATOC	multiple award task order contract
MILCON	Military Construction
MDMS	Meter Data Management System
MRR	Medical Repair and Renewal
OACSIM	Office of the Assistant Chief of Staff for Installation Management
O&M	operations and maintenance
OMEE	Operations and Maintenance Engineering Enhancement Program
REM	resource efficiency managers
RTLTP	Ranges and Training Land Program
UMSC	Utility Monitoring and Control Systems
USAR	U.S. Army Reserve

assessments for garrisons in Korea, Okinawa and Japan were completed, pending final reports. The program also assisted the Corps' Pacific Ocean Division with utilities privatization issues and Fort Irwin in negotiations for its water and wastewater treatment plant privatization project.

Future – In early FY 2010, the program will perform a cost-of-service study for electric and natural gas for the Status of Forces Agreement Utilities Subcommittee and the Korea Ministry of Strategy and Finance. Rate increase intervention efforts for Fort Leonard Wood, Mo., will continue. As rate ceilings expire in many states, more utility rate increase interventions are anticipated. ➤



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Army Stationing Facilities Support

Purpose – ASFS coordinates facilities requirements analyses and leads planning charrettes for Army installations that will move more than 140,000 personnel over the next four years. ASFS also provides IMCOM with centralized programmatic support for master planning and Military Construction programming. Support includes managing program resources, normalizing costs associated with requirements analyses, planning charrettes, and Office of the Assistant Chief of Staff for Installation Management- and IMCOM-directed studies.

FY 2009 – ASFS provided economic analyses for 811 relocatable facilities at six installations, including lease and buy analyses and source-of-funding determinations for Corps districts and installations, and putting together relocatable facility request packages. ASFS provided planning products tasked by IMCOM, including infrastructure assessments, preparation of area development guides and development of specific facility type analyses.

MILCON Transformation Center of Standardization

Purpose – The facilities to support a larger Army organized according to Army modular concepts are critical to the success of the Grow the Army program. Huntsville Center leads COS efforts for 17 facility types and is working with proponents to develop Army standards for physical fitness facilities; fire stations; consolidated fire, safety and security facilities; and Soldier family support centers.

FY 2009 – The COS, in partnership with geographic Corps districts, awarded more than \$221.3 million of MILCON in direct support of this strategic initiative. The COS responded to the five-fold increase in its workload and managed the award of 25 child development centers, physical fitness facilities, and fire and emergency services centers.

To aid planning and programming of future facilities, the COS also prepared template DD 1391s, available through the Programming Administration and Execution processor, for Army Community Service centers, physical fitness facilities, youth centers and fire stations.

Future – Template DD 1391s for child development centers and consolidated fire, safety and security facilities are going through final coordination. The COS is refining standard designs for each facility, writing standard request-for-proposal language and, in partnership with geographic districts, is working to award nine projects in FY 2010.

Ranges and Training Land Program

Purpose – The RTLTP provides program management and engineering support to the Army's Range Modernization Program, which consists of more than 250 Army, USAR and National Guard projects. Support includes establishing engineering criteria and standard designs, initial planning and site selection, facilitating planning charrettes and preparing MILCON programming documentation. RTLTP provides programmatic oversight and technical support to Corps districts responsible for design and construction of

range projects.

Project assessments evaluate the project from these functional areas: training capability, surface danger zone capability, constructability and standard design compliance, National Environmental Policy Act, telecommunications infrastructure and unexploded ordnance.

Facilities Reduction/Demolition Program

Purpose – The Facilities Reduction Program, centrally funded by OACSIM and IMCOM, removes excess facilities that undermine justification for new facility construction, waste energy and operations and maintenance dollars. (Editor's note: See story on page 30.)

The two most important FRP metrics are cost per square foot and percent diversion. OACSIM policy recommends a minimum of 50 percent of a demolished building's weight be diverted from landfill wherever economical. By maximizing recycling, grinding concrete for engineered fill and aggregate for other uses, the FRP team has achieved an average diversion rate of 71 percent, including those few facilities for which 50 percent diversion could not be economically achieved. ➤



A crusher grinds building debris so it can be recycled for other uses as part of the FRP. Photo by Debra Valine



(continued from previous page)

FY 2009 – The FRP obligated about \$48.1 million for excess facility removal or demolition totaling 3.97 million square feet, a significant increase over FY 2008's \$31 million, the previous high water mark for the program. An influx of new federal customers, such as NASA, the Defense Logistics Agency and the U.S. Air Force, joined the Army and Army Reserve for Huntsville Center's demolition expertise and best value contracting capability.

Total diversion was 150,000 tons. Huntsville Center also awarded the first of four new regional MATOCs.

Future – The remaining regional MATOCs are to be awarded by the end of the first quarter FY 2010. Each region will have four to five of the industry's best demolition contractors that will compete for demolition projects over the next five years. The total programmatic contract capacity is \$240 million. The FRP team is also developing additional contracts for performing asbestos-containing and other regulated material surveys.

Access Control Point Program

Purpose – The ACP Program, centrally funded by the Office of the Provost Marshal General through the Product Manager for Force Protection Systems, provides the installed equipment needed to make entry gates at Army installations comply with Army standards. (*Editor's note: See story on page 27.*)

FY 2009 – The ACP Program awarded more than 300 contract actions totaling more than \$106 million for the design and installation of physical and electronic security systems at 85 continental U.S. and overseas garrisons. Included was the Automated Installation Entry system, which provides an electronic vehicle and personnel entry control system designed to minimize manpower costs and vet vehicle and operator credentials against an active database.

ACP security upgrades were completed

at five garrisons: Letterkenny Army Depot, Pa., Fort Campbell, Ky., Military Ocean Terminal Sunny Point, S.C., Fort Carson, and Bluegrass Army Depot, Ky. Twenty-six other garrisons are in the execution phase.

Designs for active vehicle barriers and site preparation for future fielding of AIE systems for 412 in-bound lanes were completed for 181 ACPs at 45 garrisons. In addition, contracts for security upgrades to include vehicle barriers were awarded at 36 European garrisons.

AIE installation was completed at Letterkenny. The AIE design was completed for Fort Campbell and is under way at Military Ocean Terminal Sunny Point. Modifications to bring previously installed vehicle barriers up to current Army standards were implemented at seven garrisons.

Future – Project starts, including AIE site preparation, will continue during FY 2010 at a slower pace due to reduced funding. Planning is under way to obtain regional contracts and centralized funding for the maintenance of the installed ACP equipment.

Utility Monitoring and Control Systems Program

Purpose – The UMCS Program supports customers at multiple Army garrisons, Department of Defense and other federal agencies.

FY 2009 – UMCS awarded about 430 utility monitoring and control systems contracts for \$170 million to push total current workload to an average of 550 projects with a contract value of almost



The ACP Program enabled security upgrades at a Fort Carson gate.
Photo by Gary Daniel, Shearer and Associates

\$450 million.

Furniture Program

Purpose – The Furniture Program manages the procurement and delivery of furniture and furnishings for new and renovated barracks and administrative facilities. The program uses standardized and efficient processes, including electronic ordering.

FY 2009 – Huntsville Center procured barracks furniture for 56,795 Soldier living spaces and 374 administrative buildings.

Integrated Modular Medical Support Systems

Purpose – The IMMSS program provides furniture systems for U.S. Army medical facilities. IMMSS systems are modular, reusable, reconfigurable furniture systems that meet medical facility codes and standards, and provide finishes that integrate with the Army's interior design standard for medical facilities. Other services include design, reconfiguration and restoration of existing systems, maintenance, clinical analysis, fabric panel replacement, inventory and product orientation training.

FY 2009 – IMMSS awarded 322 orders, valued at \$24.6 million, for more than ➤



(continued from previous page)

100 different facilities. This quantity was a 38 percent increase in task orders and 15 percent in obligations over FY 2008. Using innovative contracting techniques, these orders totaled \$1.06 million below the planned budgets.

The largest customers included Forts Lewis, Wash., Sam Houston, Carson, and Bliss, Walter Reed Army Medical Center, D.C., and facilities in Germany and Korea. Orders at 24 other installations were also completed.

Future – Work is under way to establish contracts for systems furniture requirements for the next five years for the current missions in existing facilities, as well as initial outfitting and transition for new medical facilities. These contracts should be in place by January. Huntsville Center also anticipates expanding the program in the next year to provide nonsystems, or “loose,” furniture for medical facilities.

Medical Repair and Renewal Program

Purpose – The MRR Program provides a fast, efficient method for design and execution of all types of medical facility repairs, renovations and minor construction projects. MRR provides program and project management, engineering, contracting and construction support to

DoD and non-DoD agencies.

FY 2009 – The program is managing more than \$516 million in awarded medical facility repair and renovation projects for the U.S. Army Medical Command, the Air Force, the Navy and the Department of Veterans Affairs. MRR awarded more than \$130 million of these projects in FY 2009, including \$34 million in Wounded, Ill and Injured-funded projects and about \$28 million in American Recovery and Reinvestment Act projects.

Future – The MRR Program began FY 2010 by awarding additional ARRA projects and will be assisting the Corps’ Southwestern Division with executing a large hospital renovation project at Fort Bliss.

Facilities Repair and Renewal Program

Purpose – The FRR Program offers a fast track efficient method for design and execution of all types of facility repairs, renovations and minor construction. This program is available to all districts and their customers as part of the Corps’ “one-door-to-the-Corps” policy. The key to the program’s success is innovative use of IDIQ service and construction contracts covering all 50 states plus U.S. territories.

The FRR Program has two execution strategies. The architect-engineer IDIQ service contracts provide a wide range of support including designs, studies, investigations, surveying and mapping, tests and planning. The design-build IDIQ construction contracts are MATOC contracts with design-build capabilities.

FY 2009 – FRR awarded more than \$130 million in repair, renewal and construction contracts, of which \$83 million were ARRA projects. There were

33 new awards, 20 of which covered 35 ARRA projects, including facilities repairs, paving and construction of visitors’ centers.

Operations and Maintenance Engineering Enhancement Program

Purpose – OMEE was established to provide O&M services for DoD Medical Treatment Facilities. The program awards task orders to qualified medical maintenance contractors under OMEE IDIQ contracts. Support includes preventive maintenance, corrective maintenance, minor renovation projects, grounds maintenance, pest management, equipment inventories, condition assessments, aseptic management services and biomedical equipment maintenance.

FY 2009 – Currently, OMEE provides O&M services for 35 Army, Navy and Air Force medical centers for an annual value of \$76 million.

Electronic Security Systems Program

Purpose – The ESS Program supports customers at Army garrisons worldwide, the National Guard Bureau, Marine Forces Reserve, Department of Homeland Security, DoD and other federal agencies

FY 2009 – ESS awarded about 162 electronic security system contract actions for \$48.7 million to push the total current workload to an average of 140 projects with a contract value of about \$120 million.

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Furniture in a Fort Bliss barracks was placed there through Huntsville Center’s Furniture Program. Photo by Alicia Allen



Public Works Technical Bulletins take on installation issues

by Dana Finney

During fiscal year 2009, the Army Corps of Engineers continued to provide directors of Public Works and Corps Districts with useful, hands-on guidance, assistance and technology tips by releasing eight new Public Works Technical Bulletins. The latest PWTBs tackle environmental issues such as wastewater effluent reuse, selecting the right seeds for revegetating eroded lands and alternatives to chlorine disinfection.

The entire collection of PWTBs can be downloaded from the Whole Building Design Guide web site. Navigate to this site easily through either the Construction Engineering Research Laboratory web site or Engineering Knowledge Online's public pages. At <http://www.cecer.army.mil>, scroll down for the PWTBs link, and at <https://eko.usace.army.mil>, it's under Quick Links on the right.

Below is a summary of PWTBs published in 2009.

PWTB 200-1-60, *Best Practices for Archaeological Site Monitoring* provides guidance for cultural resource managers and others who need to develop a strategy for tracking archaeological sites that may qualify for the National Historic Preservation Registry. It reviews several monitoring protocols and best practices are described in general terms to allow tailoring to local conditions.

PWTB 200-1-61, *An Evaluation of Field Test Kits for Environmental Sampling* identifies some off-the-shelf field test kits and discusses their effectiveness in identifying contaminants. It provides guidance for appropriate uses of these products and describes the limitations of this type of field measurement.

PWTB 200-1-62, *Low Impact Development for Sustainable Installations: Stormwater Design and Planning Guidance for Development within Army Training*

Areas addresses stormwater management and nonpoint source pollution control through small, cost-effective features known as integrated management practices.

PWTB 200-1-63, *Alternatives to Chlorine Disinfection at the Fort Bragg, N.C., Drinking Water Treatment Plant* makes available results of a study conducted at Fort Bragg to evaluate alternatives to the current practice of using chlorine to disinfect drinking water, for other Directorates of Public Works' situational awareness. Mixed oxidant treatment ranked first among the options tested.

PWTB 200-1-64, *Wastewater Effluent Reuse at Fort Bragg – Feasibility Study* presents results of a study conducted at Fort Bragg to explore different methods of reusing wastewater treatment plant effluent. Other installations could potentially benefit from the findings.

PWTB 200-1-65, *Proper Selection of Hydroseeding Mixtures and Components to Promote Rapid Revegetation of Disturbed Department of Defense Lands* provides guidance for selecting and applying hydromulch products used in hydraulically applied erosion control methods. (*Editor's note: See story on page 23.*)


PWTB 200-2-65, *Floristic Quality Assessments* describes a quick, easy, objective and widely accepted method to evaluate the ecological condition of a site based on its native floristic quality. Calculations use existing data sets.

PWTB 200-3-56, *Erosion Assessments: Training Load Optimization for Environmental and Economic Considerations* describes steps developed by CERL to quantify and rank eroded areas at Camp Atterbury, Ind. The study led to alternative processes that take into account training loads, environmental conditions and land maintenance costs.



Land managers at Fort Bragg, N.C., apply a hydraulic erosion control product with a hydroseeder at the post's land-clearing and inert debris landfill. Engineer Research and Development Center photo

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Acronyms and Abbreviations

CERL	Construction Engineering Research Library
PWTB	Public Works Technical Bulletin



Army Hawaii Environmental Division's year in review

by Alvin Char

From closing out a decade-long environmental impact statement to winning awards for innovative achievements in protecting, preserving and supporting the community, the past year has been a busy one for U.S. Army Garrison Hawaii's Directorate of Public Works, Environmental Division.

Natural Resource Program earns award

Army conservation efforts across Oahu gained national exposure March 19, when the U.S. Fish and Wildlife Service presented USAG Hawaii with its 2008 *Military Conservation Partner Award*. The occasion marked the second time in the award's five-year history that the Army in Hawaii was chosen out of all the Department of Defense's installations. USAG Pohakuloa won in 2006.

"This is a great honor and a great tribute to the many, many employees at the garrison who work extremely hard and are very passionate about preserving and protecting our natural resources," said Col. Matthew Margotta, USAG Hawaii commander. "An award of this significance doesn't happen because of the efforts of a few; it takes buy-in, dedication and, most importantly, action from a variety of sources."

The award brings to the forefront work that often happens behind the scenes — many times in remote areas like cliff faces, mountaintops and thick forests. The award also recognizes the garrison's significant contributions to environmental conservation, achieved in large part through cooperation and partnership.

Michelle Mansker, chief of Natural Resources, and I accepted the award at the North American Wildlife and Natural Resources conference in Arlington, Va., on behalf of the garrison.

Acronyms and Abbreviations

DPW	Directorate of Public Works
QRP	Qualified Recycling Program
USAG	U.S. Army Garrison

Recycling program donates proceeds

The Qualified Recycling Program handled more than 805,000 pounds of recyclable material at its Army Recycling Center on Schofield Barracks, generating more than \$99,500 that was donated to the Directorate of Family and Morale, Welfare and Recreation programs. The donation reimbursed the directorate for monies spent on the annual Fourth of July celebration hosted by the garrison, as well as events scheduled later in the year.

The QRP earns money from the sale of recyclable materials, monies that are credited to the installation. The program diverts or recovers recyclable materials from the installation's waste streams and identifies, segregates and maintains or enhances the marketability of diverted materials.

"I am especially proud of this accomplishment because it represents the first of what I hope to be many donations that will benefit the morale and welfare of our warfighters," said Rufus Guillory, program manager, Solid Waste/Recycling/Pollution Prevention program.

Army releases Makua decision

The Army announced its Record of Decision for the Makua Military Reservation Environmental Impact Statement July 16.

The environmental assessment process began in 2001 and analyzes the environmental consequences of returning to live-fire training at Makua for active Army, Marine Corps and Hawaii Army National Guard units. After various delays, which included a prescribed burn in 2003 that became out of control, the notice of availability of the environmental impact statement and the record of decision were signed by Maj. Gen. Raymond Mason, the



Jane Beachy, Ecosystem Restoration Program manager, Oahu Army Natural Resource Program, rappels in the Waianae Mountains to monitor the endangered plant *Sanicula mariversa*. Photo courtesy of Oahu Army Natural Resource Program

deciding official, culminating an almost decade long process.

"This MMR Environmental Impact Statement was a very thorough and publicly open process," said Mason, who is the senior commander, U.S. Army Hawaii. "We've reached the best decision that allows our Soldiers and small units to train locally and reduces their time away from families, all the while ensuring the Army continues to protect the precious environment entrusted to us."

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Europe District delivers again in 2009

by Justin Ward

With more than \$1.2 billion in total turnover for the year, the U.S. Army Corps of Engineers Europe District delivered engineering excellence on projects large and small to customers across Europe and Africa. To execute the massive amount of work, the district workforce grew roughly 25 percent and became more efficient by standardizing its business processes, eliminating redundant systems and hiring the smartest, most highly-motivated and qualified personnel.

The district also integrated future-oriented engineering tools and standards like Building Information Modeling, Leadership in Energy and Environmental Design and the USACE Quality Management System, positioning itself to deliver more effective, more enduring and more sustainable solutions to its strategic partners now and in the future.

Of the \$1.2 billion in turnover, construction awards comprised \$648 million, including \$252 million in Military Construction for Army and Air Force family housing units, forward operating sites in Eastern Europe, and training and operations facilities. Each project supported the stationing requirements for U.S. military partners in Europe and improved the quality of life for warfighters and their families.

Nonmilitary construction projects totaled \$396 million — a 26 percent increase from 2008 — including almost \$200 million in upgrades to various lodging and administrative facilities, airfields, child development centers, warehouses and utility infrastructure; more than \$125 million in small- and medium-sized renovations and planning work for garrison Directorates of Public Works; and roughly \$30 million for environmental surveys and services throughout Europe.

Most illustrative of the district's work

Acronyms and Abbreviations

USACE	U.S. Army Corps of Engineers
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After 20 months of construction, the much-anticipated Army lodge opened on Chievres, Belgium, in June, replacing the leased Hotel Le Maisières and saving the Army close to \$2 million a year. Photo by Justin Ward

in 2009, however, was the construction placement. The district turned over 44 major facilities and 100 small- and medium-sized renovation projects, totaling about \$586 million, to customers this year. These projects included barracks, vehicle maintenance facilities, company operation facilities, and battalion and brigade headquarters facilities in Grafenwoehr, Germany; an Army lodge in Chievres, Belgium; the first C-130J aircraft hangar in Europe at Ramstein Air Base, Germany; a consolidated communications facility in Turkey; the only official border crossing station between Georgia and Russia; and miscellaneous military facilities on bases across Europe, Israel and Mali.

Elsewhere abroad

Other new challenges on the district's frontiers included \$8.5 million in security and law enforcement projects in Georgia, \$6.3 million in humanitarian assistance projects in the Caucasus, Balkans

and Africa, and a host of other invaluable projects in five countries on the African continent.

Europe District staff also deployed 9 percent of all government civilians to support contingency operations in the Middle East, including 11 employees to Operation Iraqi Freedom and 12 employees to Operation Enduring Freedom in Afghanistan.

Europe District's own seven-person Forward Engineering Support Team also deployed to Kandahar, Afghanistan, to support engineer planning efforts at forward operating bases in Afghanistan. In one of the most landmark engineering missions in the history of Operation Enduring Freedom, the team conducted base camp reconnaissance, master planning and design to support the large increase in U.S. and coalition forces in southern Afghanistan.

Over the course of the deployment, ➤



An aerial photo captures Forward Operating Base Leatherneck, Afghanistan, just after construction completion in April. The base, nestled on roughly 3,000 acres, was designed to support an initial population of 10,000 with a permanent population of 20,000 troops. U.S. Army photo



Oahu Army Natural Resources Program looks back on a year of challenges, innovation, firsts

by Candace Russo

Some might think conservationists get excited about strange things — a snail clinging to a leaf, a single flower bud, a new rat-trap design. Moreover, trekking through mud, mosquitoes and oppressive heat while searching for that snail or checking that trap may not appeal to the masses.

Yet, the passion, dedication and hard work of a field conservationist are rivaled by few other professions. This conviction enables the 55 staff members of the Oahu Army Natural Resources Program, part of U.S. Army Garrison Hawaii, to overcome challenges, create innovative solutions and celebrate firsts.

Since 1995, the OANRP staff has managed endangered species on Army lands, which are home to almost 80 percent of the total endangered species found on the island of Oahu, including plants, tree snails and forest birds. To accomplish this, OANRP staff ventures to the mountain ranges of Oahu on an almost daily basis to control threats such as invasive weeds, pigs, goats and rats.

OANRP staff also monitors endangered species' health, surveys species ranges and, in the case of 53 managed plant species, facilitates collection of seeds and stems used to grow new plants. These plant seedlings are cared for in nurseries, in order

to store genetic material and to reintroduce them back into the wild.

For the OANRP, 2009's planting activities stopped almost before they started when a halt was called to all endangered plant reintroductions after the discovery of nonnative, alien snails on many of the plants in the nurseries. Because one of the alien species found was a carnivorous snail, the very last thing staff wanted to do was inadvertently introduce any of these alien snails into the forest where so much hard work is put into protecting endangered tree snails.

Solving this snail dilemma involved several months of experimentation and communication with other horticulturists to determine the most efficient and effective way to eradicate these alien snails. After hot water treatments, different pesticide recipes and loads of salt, the problem was solved.

Currently, the legs of all nursery benches sit in containers filled with salt, a natural snail deterrent, and an effective pesticide drench is used when needed.

The rest of the solution to the nursery snail problem is found stuffed in the refrigerator at the OANRP base yard: bags and bags of lettuce. Common romaine lettuce is an effective snail attractant. Several pieces of lettuce are placed on the

Acronyms and Abbreviations

OANRP	Oahu Army Natural Resources Program
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soil surface of every plant and covered with a small plastic pot to retain moisture.

These "lettuce baits" are checked weekly for the presence of snails, a process that can be accomplished much quicker than the original method, which included examining the entire surface of the plant, the pot and the soil inside the pot. If a plant is found to be "snail-free" for eight weeks, it is cleared for planting into the wild.

This situation speaks to the importance of a clean nursery environment and highlights the dedication of OANRP horticulturists to protect these endangered species.

Following the nursery snail challenge, spirits were drastically lifted when several field crews returned from work trips with news of "firsts."

In the spring, a new endangered snail population was discovered high in Oahu's Koolau mountain range. After torrential winter rains, several endangered Hawaiian coots were found in an ephemeral wetland at Dillingham Military Reservation in northwestern Oahu. In the summer, a new endangered hibiscus population and a new endangered gardenia site were discovered.

Summer also kicked off the

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the engineer team hustled out more than 350 designs and specifications, scopes of work and estimates for the design package. Within six industrious months, it finished overall master plans for the expansions of three large brigade or division forward operating bases, five battalion forward operating bases and five company outposts, the design for which eventually became the theater design standard.

Also on the district's frontier were the continued support to manage the construction of \$100 million in forward operating site facilities for the U.S. Army Europe-led Task Force-East initiative in Romania and Bulgaria, and another \$100 million in projects requested by Israel to help it maintain its qualitative military edge over other countries in the region.

The district delivered all this to the delight of its strategic partners, proving

once again that the Europe District is the organization of choice when solving tough military engineering challenges and delivering engineering excellence to customers across Europe.

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establishment of the largest rat-trap-grid in Hawaii. Because rats munch on everything from endangered tree snails to bird eggs and endangered fruits, the rat is one of the largest threats to the endangered species managed by the OANRP.

In cooperation with government conservation workers from New Zealand, 400 specially designed rat traps were built and installed in a grid-formation — a trap every 12 meters — at a forest site in western Oahu. This rat-trap grid dovetails with other research and rat control efforts occurring in the same forest as part of the OANRP's management activities.

Possibly the most exciting “first” came in the form of evidence of endangered plant management success. One of the plants managed by the OANRP, a type of lobelia called *Cyanea superba*, was extinct in the wild, the last known plant having died in the mid-1990s.

Prior to this event, OANRP staff



Seemingly simple, this rat-trap is specially designed to increase the effectiveness of a standard snap-trap in the forest. The traps are used to control rats, one of the largest threats to endangered plants, tree snails and birds on Oahu. Photo courtesy of OANRP

collected fruit and grew seedlings of *C. superba* in its nurseries and reintroduced these seedlings into the forest.

From these reintroduced plants, more than 200 mature plants developed, and in 2009, the very first wild-produced — created and growing on their own — seedlings were discovered.

Hundreds of these new seedlings carpeted the forest floor beneath the reintroduced plants. OANRP staff is working to control slugs around these seedlings and continues to monitor the seedlings with high hopes that they will become the next generation of *C. superba*.

Following this good news, OANRP staff witnessed the first-ever flowering of a reintroduced endangered loulu palm tree. Not only does this signify the beginning of a new generation of loulu palms, it also provides critical information to Hawaiian conservationists about the timing of flower production in reintroduced palms, thus helping the success of future reintroductions.

Perhaps fitting for the past year of exciting events, the OANRP was also awarded the *Military Conservation Partner Award* by the U.S. Fish and Wildlife Service. The OANRP celebrated the award by hosting an open house to thank all the people involved, including cooperating agencies, organizations and numerous volunteers whose support continually helps make the program a success. Guests toured the new Natural Resources base yard and native plant interpretive garden at Schofield Barracks, Hawaii, while sharing the latest developments in endangered species conservation on Oahu.



The ultimate goal when out-planting endangered plants in the wild is to have them reproduce on their own, so these wild-born seedlings of out-planted *Cyanea superba*, an extinct plant reintroduced into the wild by OANRP conservationists, are a welcome sight. Photo courtesy of OANRP

Discussions about seedling discoveries and rat traps elicited excitement for all — the sign of true conservationists.

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Fort Hood Public Works improves quality of life

by Christine Wells

Fiscal year 2009 was an eventful and incomparable year at Fort Hood Directorate of Public Works. Progress to improve the quality-of-life for Soldiers and families is evident by the great work the DPW is doing for the installation.

American Recovery and Reinvestment Act

The ARRA, i.e., the “stimulus,” infused \$67 million into Fort Hood’s infrastructure. The Transportation Infrastructure Program will benefit from the influx of stimulus funding with \$3 million of airfield repairs and \$2 million of bridge and dam repairs.

Repairs to division and brigade headquarters facilities were among the approved list of projects to be funded by the stimulus dollars. Approved energy projects included repairing failing mechanical equipment and replacement of outdated chillers and boilers. An additional \$12 million Military Construction for Army stimulus funding for a child development center will decrease the deficit of child care facilities on post.

Barracks

Renovations to VOLAR Barracks, so named for the Voluntary Army, were at the forefront of the mission. The DPW received more than \$100 million of sustainment dollars from Installation Management Command for VOLAR barracks renovation contracts to accelerate quality-of-life improvements for single Soldiers.

The renovation projects include comprehensive mold, moisture and vapor control for 13 barrack facilities as well as a central energy plant. The renovations were awarded to a local contractor and will take about 18 months to complete.



A brigade headquarters undergoes repairs thanks to the influx of ARRA funding Photos by William T. Harned, DPW, Fort Hood

Furniture

Initial-issue and replacement furniture funding kicked into high gear this year to support 21 renovated facilities and three MCA projects. More than \$3.5 million dollars of furniture was acquired to ensure that all new and renovated facilities received new and quality furniture in time for occupancy.

Utilities Privatization

IMCOM funded eight initial capital upgrade projects on the Utilities Privatization contract. Funding of more than \$1 million allows the contractor to complete all year 1 and year 2 initial capital upgrade projects required by the contract.

Projects include the development of water and wastewater hydraulic models, replacement of piping in select elevated water storage tanks, the installation of a Supervisory Control and Data Acquisition

system and associated flow meters, the installation of flow meters at primary sewage lift stations and the installation of new chlorine analyzers. This funding will ensure the success of the installation’s mission by both maintaining the quality of the potable water delivered to Soldiers and their families and guaranteeing generated wastewater is pumped and treated in compliance with state regulations.

Fort Hood Medical Center

The largest single construction project ever to take place at Fort Hood, estimated at \$927 million, was approved with a combination of stimulus and supplemental funding for phases I and II of the Fort Hood Medical Center MCA project. This aggressively pursued project will replace the existing hospital built in 1965. The medical center will include primary care clinics, a general surgery and an emergency department, medical surgery center and intensive care units.

The foresight to approve both phases before award will save the government more than \$100 million in construction costs and three years of construction time while avoiding split activities within the medical center.

Sustainment, Restoration and Modernization

The FY 2009 construction surge has been unlike any before with more than \$215 million programmed for execution in Sustainment, Restoration and Modernization. The improvements to Fort Hood’s infrastructure will continue to ➤



VOLAR barracks like this one will be renovated at Fort Hood as quality of life improvement for single Soldiers.

Acronyms and Abbreviations	
ARRA	American Recover and Reinvestment Act
DPW	Directorate of Public Works
FY	fiscal year
IMCOM	Installation Management Command
MCA	Military Construction, Army



Army master planning: Making good installations great communities

by Jerry Zekert

The Master Planning Community of Practice can be proud of its tremendous achievements in broadening the understanding and proficiency of master planning throughout the Army in 2009. Through enhanced professional development, broadened awareness and increased funding, the community of practice produced much positive change.

The year provided a recommitment to the foundations of planning and to establishing visionary planning principles for long-term installation development. It witnessed the Army relooking at planning practices, embracing “the best of the breed” in those practices and understanding the opportunities for transforming from good to great communities. It saw a surge in enrollment in the Planning Professional

Development program as well as a record turnout in the annual Master Planning Symposium. Further, 2009 saw significant increases in resourcing planning initiatives from installations.

As 2009 started, the planning community began to understand what the impacts of good planning are to the long-term vitality of our installations. Large, sprawling solutions consume significant acreage and compress already limited land for range and training areas. Further, the people who live and work on installations are interested in a new type of community. Soldiers, families and civilians want to work in great places where walking is treasured, natural light in workplaces is embraced, and family members do not have to rely on their automobiles to get to schools, work and play.

The efforts in sustainable planning and development at both Fort Belvoir, Va., and recently at Fort Lewis, Wash., demonstrate these principles and have changed the paradigm of planning for the Army on the whole.

During each session of the Precommand Course, garrison leaders are provided more than six hours of planning training. They are not only given an

obtaining funding, and supply and contracting personnel awarding the contracts, not to mention the senior leaders who were fully engaged in articulating Fort Hood’s shortfalls.

The DPW now welcomes the FY 2010 challenge of accommodating all the ongoing construction.

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During a field trip, a master planning class visits a mixed use site in Portland, Ore. Photos by Jerry Zekert

overview of the planning process and their role as champions of the process, but they are also provided an opportunity to participate in a hands-on planning exercise, so they can understand how a neighborhood plan is developed. They come out of the session wanting to meet one of their most important challenges — creating the long-term visions for their installations.

The results have been oft-heard stories about garrison commanders’ improved interest in planning, about them talking to their staffs about the role of sustainable planning principles in creating great communities, and about visibly improved investment by installations in planning.

The U.S. Army Corps of Engineers Master Planning Support Team consists of master planning leaders from each geographic division, as well as the centers and labs, that help provide planning support worldwide. Their program reports reflect a vibrant planning program that provides a broad spectrum of planning services including programming planning efforts, requirement analyses, area development plans, visioning sessions and facilitating charrettes with stakeholders.

Final numbers were not yet in at press time, but by midyear 2009, more than \$70 million of planning support had been given. This is huge — a sure reflection



The recommendations of an Advanced Master Planning class are displayed on paper.

(continued from previous page)

provide upgraded facilities and improve the quality of life for Soldiers and families.

Credit for this extraordinary year can be widely spread among maintenance personnel and military units identifying and elevating requirements, master planners analyzing existing and programmed infrastructure assets, engineers and technicians developing scopes of work and cost estimates, resource managers prioritizing and

Acronyms and Abbreviations

USACE U.S. Army Corps of Engineers



Environmental Community of Practice focuses on customers

by Candice Walters

From sustainability to revitalizing the Environmental Community of Practice Steering Committee, environmental professionals within the U.S. Army Corps of Engineers have been raising the bar. The Corps of Engineers took on several major initiatives this past year to reinforce its standing as the nation's environmental engineer.

Establishing national and regional environmental listening and exchange workshops was one of the recommendations identified under the USACE Environmental Transformation initiative that began in January 2008 and is almost completed now at the end of 2009. The transformation process was designed to help the Corps put a renewed focus on

sustaining technical capability to deliver quality environmental services and products to its customers.

The first of these listening exchanges was conducted in March as part of the Army Environmental Cleanup Workshop in San Antonio, Texas, to solicit feedback from some of its customers. As a result of those sessions, the Corps has adopted several changes in how it does business to be more responsive to its customers' needs.

"We need to listen — to constituents, stakeholders, customers," said James B. Balocki, the new chief of the E-CoP, who came to the position in July. "They should drive what we do. We should also be observant of the environment around us, to see what has changed and what

Acronyms and Abbreviations	
E-CoP	Environmental Community of Practice
USACE	U.S. Army Corps of Engineers

has not. We have to be responsive to that change, because this is how we enable our customers to accomplish their missions."

Balocki is poised to translate what the community hears from its customers, stakeholders and others into action.

"We are a resource for anyone inside or outside the Army family and anywhere environmental solutions are sought," he said. "We're all about enabling the sharing and transfer of information."

One area where sharing information is extremely important is among the members of the Contract Acquisition Working Group that has been

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that our leaders are investing in planning, are seeing the value of the process and the resulting products, and are seeing the role of planning in guiding an effective, responsive Military Construction program.

The quality of the work is nationally recognized for its depth, excellence and professionalism. The American Planning Association presented several *Federal Planning Division Awards* recognizing the Installation Management Command-USACE team in implementing one of the leading programs within the Department of Defense.

Good installation planning starts with good planning personnel, well taught in the practices of master planning. Our Master Planning Professional Development program is second to none within the federal government. There are four courses, starting with Real Property Master Planning, now being taught for its 30th year; Advanced Master Planning, which provides training in advanced planning techniques; Master Planning Applied Skills, a new class that improves understanding of requirements

analysis and stationing; and Master Planning Visualization, a class dedicated to understanding how visualization techniques can be used to portray planning recommendations effectively.

The classes are offered worldwide to more than 300 students. In 2009, the first joint Army-Navy Advanced Master Planning class was taught in Japan. Two one-day planning workshops for USACE and installation offices interested in a broad understanding of planning were also hosted in 2009.

The classes are open to the entire planning community and are accredited by the American Institute of Certified Planners for certification maintenance units. All USACE planning workshops, courses and annual symposium are fully accredited by the American Institute of Certified Planners of the American Planning Association.

The annual Planning Symposium, hosted by USACE, provides a great opportunity for the Army planning community to come together to discuss planning issues and share good techniques. This year, a record gathering of more than 125 planners attended the

symposium in Minneapolis. Furthermore, the Army Reserve Master Planning community joined the symposium and hosted its own functional session as well. The next symposium is scheduled for April 6-7 in New Orleans. Contact the author at the POC information listed below for more information.

The future of the Army's Master Planning program is bright, and there are new opportunities ahead in 2010. The Office of the Assistant Chief of Staff for Installation Management is in the final processes of updating Army Regulation 210-20, Master Planning for Army Installations. This update will adjust Army installation master planning policy to formally recognize that it is the Army's intent to embrace the fundamentals of sustainable planning and compact development while providing a nimble system able to meet rapidly changing Army mission needs.

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developing the annual five-year National Environmental Acquisition Strategy Plan. This USACE team has been consolidating regional plans so a workload and contract capacity analysis can be performed and recommendations can be made for future contracting strategies at both regional and national levels.

The working group recently met with the Corps' Atlanta, Dallas and Winchester principal assistants responsible for contracting to discuss the acquisition strategy plan and what tools can be developed to expedite environmental acquisitions. These efforts will reduce procurement time and costs for Corps districts and their customers.

When it comes to sustainability, the Corps is working with military installations to conserve energy by constructing renewable energy systems, such as Sacramento District adding solar panels to 12 buildings at Tooele Army Depot, Utah, to significantly reduce heating costs. The project, which is scheduled for completion in the spring, uses technology that has been successful at Fort Drum, N.Y., and Fort Carson, Colo. The district also is tapping into natural energy sources to build a geothermal energy plant at Hawthorne Army Depot in Nevada, and working with the U.S. Navy to build a similar plant at China Lake Naval Weapons Station in California.

At Fort Gordon, Ga., Savannah District engineers are continuing to convert buildings from traditional energy systems to deep-well geothermal heat pump systems.

And, at Fort Irwin, Calif., Baltimore District engineers, in cooperation with the Clark Energy Group and Acciona Solar Power, have launched the Department of Defense's largest solar energy project with the Oct. 15 signing of a Memorandum of Agreement for an Enhanced Use Lease. This landmark renewable lease calls for developing more than 500 megawatts of

solar power across multiple plants to be completed between 2013 and 2022. In total, the 21-square-mile project will be capable of generating 1,250 gigawatt-hours of clean, nonpolluting electricity for Fort Irwin.

As part of the transformation of the Corps reimbursable environmental programs, the E-CoP Steering Committee has been revitalized to make it more relevant to the more than 6,000 environmental professionals within the Corps. From the Corps' standpoint, the Steering Committee is leading the USACE environmental transformation to improved customer care and focus on ensuring that USACE is adapting as its customers wants and needs change.

Originally formed in 2004, the steering committee, led by Christine Godfrey, deputy chief of the E-CoP, represents a cross-section of environmental professionals within the Corps, including members from Corps divisions, the Institute of Water Resources, the Engineer Research and Development Center, the Environmental and Munitions Center of Expertise and from Headquarters — both Civil Works and Military Programs.

"It has a good balance of people throughout all the environmental areas of the Corps who have lots of interest and energy," Godfrey said. "Through the community of practice, people who have information and knowledge can reach out and share it with people who need it. It's really about helping people communicate skills and competencies across the whole agency, and beyond as well.

"We want to look back next year and see how we've created a stronger community," she said.

The E-CoP Steering Committee has established four subcommittees to address its main focus areas of Relationships (internal and external), Communication Tools, Competency and Career, and



New dorms at Wright Patterson Air Force Base, Dayton, Ohio, Built by USACE, offer energy savings and elevated covered walkways help keep the elements away.



A worker installs photovoltaic solar panels on Bldg. 1350 at Fort Sam Houston, Texas. Photos courtesy of USACE Public Affairs

Relating Current Issues to the Corps' Environmental Operating Principles.

From its sustainability efforts to ensuring that it is meeting its customers' needs, the USACE environmental program is creating opportunities to positively impact the quality of life and promote economic development in America's communities while sustaining the natural resources our nation and Armed Forces require.

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Delivering usable building information

by E. William East

To provide any type of automated retrieval of construction documents, the boxes of paper delivered to the owner when a building is completed must be entered into the system manually. Since this is labor-intensive, it rarely happens, which means facility engineers have to search through those boxes whenever some piece of information, like a part number, is needed.

There must be a better way

The U.S. Army Engineer Research and Development Center has been working hard in fiscal year 2009 to make sense of how installation Public Works offices can make use of Building Information Modeling technology to solve this dilemma.

Given the difference between actual practice today and the gee-whiz three-dimensional fly-through demonstrations given by BIM vendors, it's no wonder that there is a lot of head-scratching going on about BIM. Discussions of BIM have sometimes focused on such topics as the value of one piece of BIM software over another and whether the contractor builds to BIM. These discussions may provide answers, but they do not improve the state of the facility manager's life in any meaningful way.

The right questions are: *"What information do facility managers need?"* and *"How do they get the needed information?"*

To answer the first question, ERDC cataloged examples of time spent double-keying information that had been created by designers, builders and commission agents — or hunting for lost information.

Acronyms and Abbreviations	
BIM	Building Information Modeling
CERL	Construction Engineering Research Library
COBie	Construction Operations Building information exchange
DPW	Directorate of Public Works
ERDC	Engineer Research and Development Center
FY	fiscal year

Most facility managers are familiar with large pallets of paper in a boiler room.

One particularly forward-thinking project manager reported that she had pulled boxes of information with the intention of using them, but the boxes sat under her desk, unopened, for three years after occupants had moved into the building in question. Her office moved several times in those three years, and the boxes were moved, too, still waiting to be entered into the installation's maintenance management system.

That situation means that when some building component fails, someone has to sift through boxes of documentation to find the part number and vendor for ordering the replacement, and hope that the search doesn't uncover a scheduled maintenance requirement that wasn't done, thus voiding the warranty. One facility manager reported it took two days to find the information needed to specify a replacement commissary trash compactor.

ERDC's Construction Engineering Research Laboratory identified a few of the most important sets of accurate, real-time information that facility managers need and that are currently buried inside paper documents, including:

- equipment lists;
- names of replacement parts suppliers;
- names of warranty contractors;
- types of lubricant needed for equipment;
- manufacturers' preventive maintenance schedules;
- isometric piping diagrams; and
- lists of rooms, wall coverings, lighting and floor coverings.

The amazing thing is that this information is already required in all types of design and construction contracts

from Military Construction to minor construction and local renovation contracts. So, if the facility delivery process already generates this information, why aren't Directorates of Public Works able to use it? The answer is that the information is not delivered in a user-friendly format. It is sitting in those boxes of paper and binders delivered at the end of the project.

The easy part

Starting in 2005, CERL led a series of industrywide teams to help facility managers get the information they need in a format they can use. The process that the teams followed aimed to:

- identify the set of information required to eliminate wasted handling costs;
- determine how much of that information is currently required in contracts;
- develop an open exchange format to allow the information to be reused in current contracts;
- work with software vendors to implement the exchange format; and
- publish the result.

The resulting specification is called COBie — the Construction Operations Building information exchange format. COBie requirements are published on the Whole Building Design Guide web ➤



Lyle Fogg, Fort Lewis, Wash., shows a typical project's turnover equipment lists and specifications. COBie puts an end to paper deliverables and provides accurate, as-built data. Photo by Beth Brucker



Bulletin offers hydraulic erosion control products guidance

by Niels Svendsen

The Corps of Engineers has published a Public Works Technical Bulletin that will help installation land managers select and apply hydraulic erosion control products on training lands and other areas. PWTB 200-1-65, *Proper Selection of Hydroseeding Mixtures and Components to Promote Rapid Revegetation of Disturbed Department of Defense Lands*, is available for download at http://www.wbdg.org/cdb/ARMYCOE/PWTB/pwtb_200_1_65.pdf.

HECPs can replace or supplement conventional methods of establishing vegetation as effective, easily applied

alternatives. HECPs control soil erosion before the establishment of more permanent vegetation, promote rapid vegetation growth, increase moisture retention and allow planting of sites with limited access.

While HECPs can be extremely useful, they are quite costly, ranging on average from \$1,500 to \$3,000 per acre on a site without vegetation. Such high costs leave little room for error and demand successful establishment of vegetation with the first application. A thorough knowledge of HECP components and criteria for proper placement will minimize cost, reduce soil erosion and promote rapid vegetation.

When a need for hydromulching has been identified, the mixture or slurry ratios must be selected. Factors influencing the

mixture ratio include soil structure and texture, slope angle and slope length, the environment surrounding the site, weather conditions, duration of HECP installation and product cost. In addition, soil additives may be necessary to encourage rapid revegetation if soil conditions are poor. With so many variables to consider, it can be difficult to formulate a hydromulch mixture for a specific site.

Another consideration for HECPs is the application of product to the desired site. The application process is as critical as choosing the mulch components. A hydroseeder is used to apply the mulch slurry.

Hydroseeders come in varying sizes with different pumps and agitation methods. The pump system used to apply the

Acronyms and Abbreviations	
HECP	hydraulic erosion control product
PWTB	Public Works Technical Bulletin

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site, www.wbdg.org/resources/cobie.php.

Commercial software compliance was demonstrated publicly in July 2008 at the National Academy of Sciences and in March at the National Facilities Maintenance and Technologies Convention. Based on these successes, an international demonstration and certification is slated for December at the National Institute of Building Sciences Annual Convention in Washington, D.C.

COBie is an information exchange format that can take several forms. It may be in the format used by BIM software programs; it can be handled in an XML file; it can even look like a spreadsheet or Adobe PDF file. The ability to translate among these different formats is important since the majority of contractors and Public Works centers will never need to use design-BIM software.

What they need is the output from BIM in a format they can use — a spreadsheet fits the bill. Of course, any commercial software can, and some have, directly incorporated COBie into their products to support construction and

computerized maintenance and asset management.

Initial efforts to incorporate COBie into the Army's General Fund Enterprise Building System have also been taken. By using COBie to capture building information as it is generated, managers can have all of the information they need at their fingertips, eliminating the time and frustration of searching through paper documents and increasing productivity.

The hard part

The research community often says, "The technology is the easy part." For a well defined problem, a qualified, motivated development team and sufficient time and resources, history has shown that virtually any technical problem has a solution. In terms of COBie, this is absolutely true.

So, what is the "hard part"? The hard part is helping DPWs learn about COBie and bring it into the mainstream of their business processes. The only way COBie can help is if facility owners request COBie deliverables instead of boxes of paper that have to be manually entered

into the system or remain in the boiler room years after occupants have moved into the building.

In federal service, it is easy to repeat the same process over and over again once procedures and standard forms are printed, even when it is a mistake. The perfect example is the continued expectation that the delivery of boxes of paper at the end of a construction project will help to manage the building.

The technical solution is available; what is required now is that stakeholders overcome organizational inertia and make a change.

Here is a COBie challenge to facility managers: eliminate wasted effort associated with construction handover documents on every new project coming online by FY 2011. During FY 2010, CERL looks forward to helping the Army rise to and meet this challenge.

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Fort Hood partners with local communities on sustainability

by Christine Luciano

Fort Hood, Texas, and its neighboring communities are wrestling with a regional approach to sustainability. The Cen-Tex Sustainable Communities Partnership was launched at Fort Hood's Earth Fest April 24 with the signing of a memorandum of understanding with nearby communities and began discussion of sustainability for Central Texas at a meeting in September.

"Surrounding communities have an impact on regional initiatives, and that is why Fort Hood's partnerships and relationships with our communities are important," said Col. Bill Hill, Fort Hood garrison commander. "The Army is committed to sustainability and protecting the environment, and as a commander, I am, too."

"Fort Hood is a leader in the environment, and together as a region, we can do better," Hill said,


The initiative is a community partnership that involves Fort Hood, Killeen, Copperas Cove, Harker Heights and Gatesville planning goals that have long-term environmental, economic and social benefits for the region. At the

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mixture depends on the viscosity of the mulch slurry.

The two most common methods of agitation are mechanical and jet propulsion. Mechanical agitation has been found to be far more effective, as it is able to keep heavy particles suspended in the slurry. The size of the hydroseeder is chosen based on how accessible the site is and where the nearest water source is located.

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Niels Svendsen is a researcher, Construction Engineering Research Laboratory, U.S. Army Engineer Research and Development Center. 

September meeting, city managers, planners, the Fort Hood garrison commander and environmental professionals met for two days to develop an approach to promote sustainable development, growth and living in Central Texas.

"This is the first sustainability initiative in the region specifically around a military installation," said Randy Doyle, environmental support team supervisor for Fort Hood, at the September meeting. "Each community can share their knowledge in sustainability, and together, we can make some great things happen."

Kevin Palmer, director of the Center for Sustainable Solutions, shared his experience in sustainability, providing examples of sustainable communities and how sustainable practices can transform the region.

"Sustainability is about optimization through economics, in an environment that citizens want to live in, and social quality of life," said Palmer. "It is about viewing those systems and how they work, planning goals and projects, making decisions, educating the public, marketing and implementation of all human endeavors."

"Sustainability isn't a sprint. It's a marathon," Palmer said.

Each community shared its goals and green initiatives. Some goals overlapped and aligned among Fort Hood and the surrounding communities.

Kenneth Bouchard, city planner for Harker Heights, explained that the city is working with the Lions Club to create a community garden on city-owned property, a farmers market for locally grown produce, Leadership in Energy and Environmental Design certification for new and updated public buildings, alternative energy retrofits, impervious surface opportunities, sensitive areas identification and protection, and sustainable development ordinances.

"Sustainability is about education and



City managers, planners and environmental professionals identify strengths, weaknesses, opportunities and threats in the region during an exercise at the Cen-Tex Sustainable Communities Partnership September meeting. Photo by Christine Luciano

how it will impact citizens, developers, policies, capital improvement and politics," said Bouchard. "There are some constraints, like annexations laws, traditional zoning and subdivision ordinances and independent master planning at the city level. Harker Heights' goal is to lower taxpayer costs, add value to improve city services without compromise, improve quality of life, plan for the future and provide citizens with a good reason to live here."

Andrea Gardner, city manager for Copperas Cove, said the city has invested in an effluent water system at the golf course that saves 250,000 gallons of potable water a day, reduced the city's utility use by 2.5 percent each year and plans to employ a paperless system by 2020. However, there are some buy-in challenges from the community. ➤

Acronyms and Abbreviations

SWOT	strengths, weaknesses, opportunities and threats
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Seattle District builds park to honor fallen Soldiers at Fort Lewis

by Andrea Takash

Rolling, lush hills and soaring evergreen trees dot the landscape of an inconspicuous park at Fort Lewis, Wash. This terrain represents more than just a new park at the bustling Army installation. Memorial Park honors Fort Lewis Soldiers who died in recent Overseas Contingency Operations.

With a tight deadline and limited budget, the U.S. Army Corps of Engineers, Seattle District, swiftly built a quality park that will serve as both a memorial and a recreation site.

Karen Peterson, Seattle District project manager, received the initial plans for the park in November from the Fort Lewis Directorate of Public Works. With an estimated cost of nearly twice the available budget, the DPW tasked Seattle District with modifying the design to meet available funding.

After careful consideration, the district's project delivery team determined that the project was economically viable, and the

DPW asked Seattle District to build the park.

"The request was received in February with a required completion date of May 22," said John Reid, Seattle District's Northwest Area Office lead for contract administration. "We only had three months to assemble a contract that would convert more than four acres of bare property into a memorial park, and our budget was capped at \$750,000."

Working in close partnership with the DPW, Seattle District modified the design, which had been prepared by Site Workshop LLC for Fort Lewis, to meet budget constraints. The



In just three months, Seattle District turned this four-acre bare property into a park that serves as a recreation site and memorial to Fort Lewis Soldiers killed in Overseas Contingency Operations. Photo courtesy of Fort Lewis

Acronyms and Abbreviations

DPW	Directorate of Public Works
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district awarded a contract March 12 to Frontier Systems Integrators LLC of Fife, Wash., and construction began March 23.

"We started with a bare piece of property that used to be a vehicle maintenance area

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"The financial constraints of sustainability filter down to the education of citizens," Gardner said. "Some do not like spending the initial costs of a project that can save the city money and resources for the long term. But it is important for us to work together and educate the region."

Palmer emphasized that sustainability is more than a green concept and that it is also economical and social.

"The goal is to do more with what we have," Palmer said. "Did a shortage of stones change the Stone Age? No. We need to change the way we view resources — their use for the long term — and change the way we solve problems."

Palmer conducted an exercise to identify the strengths, weaknesses, opportunities and threats in the region. The identified SWOTs were divided into

the areas of quality of life, infrastructure, natural resources, financial presence, products, hazardous outputs, food systems, transportation systems, jobs and land-use planning. As the partnership works on sustainability issues, it will use the SWOT method to develop potential targets for regional and sustainable solutions.

Long-term planning for sustainable development will take time, coordination and collaboration.

This regional planning effort will establish long-term goals that respect the cultural heritage of the region and its residents while offering services to provide a high quality of life; ensuring material resources — natural, agricultural and man-made; promoting sustainable development and land use; creating efficient transportation systems; and enhancing economic development that fuels a thriving, desirable community now

and into the future.

"I would ask our communities to collaborate and help change the culture in our region," said Doyle. "Through our partnership, we can work together to have consistent green ordinances and policies. We should come out of this partnership with a license to steal and share our green ideas."

The Cen-Tex Sustainable Communities Partnership will host a goal-setting workshop Jan. 27-29 at the Killeen Civic and Conference Center. The workshop will be open to community stakeholders to help develop an action plan to achieve regional sustainability.

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in the 1920s,” Reid said. “To make a park setting, we stripped the entire four acres. But instead of hauling the old grass off site, we placed the grass under large mounds that now make up the parks gently rolling terrain.”

Once the crews cleared the area, the team needed an additional 7,000 yards of fill to complete the mounds and 3,500 yards of topsoil.

“As an alternative to purchasing the fill and topsoil, DPW provided the team black, unsuitable soil from its Lincoln Pit,” Reid said. “We were able to use this for our fill and screen the additional required quantity to produce our own topsoil. This saved the project approximately \$56,000.”

The DPW recycled 15,000 pounds of asphalt and 3,620 pounds of concrete. The park also boasts water saving features.

“For the irrigation system, I made sure a rain sensor was provided to prevent the sprinklers from running while it is raining,” Reid said. “We also installed dry wells strategically throughout the park to prevent any water from going off site.”

Reid focused his attention on the excellence of the work throughout the project.

“To me, the most important aspect of this project was making sure it looked good when we turned it over,” Reid said. “I wanted to ensure the quality of workmanship in this park met the expectations of all visitors.”

The team knew they faced a challenge with meeting the May 22 deadline, but Gene Scott, Seattle District’s project lead for Memorial Park, gives much of the credit for the rapid execution and timely completion to the contractor.

“A good contractor is the most important part of every successful project,” Scott said. “Frontier had a good team assigned to Memorial Park. All the right people were assembled, and the results speak for

themselves. This time, the three defining elements of a project — cost, time and quality — fell perfectly into place.”

Francesco Tortorici, project manager for Frontier Systems Integrators, attributes the project’s success to a true partnership.

“It was a great partnership between Bob Piranio [the Corps’ quality assurance representative], John Reid and Gene Scott,” Tortorici said. “Their coordination with the Directorate of Public Works, military units and us made things run smoothly. Everyone pulled in the same direction to go above and beyond.”

In only three months, all of the pieces came together, and the partners shared the joy of turning over a park that will eventually be home to the memorials for 17 Fort Lewis and McChord units.

“The Corps, teamed with Frontier Systems Integrators, constructed and delivered Memorial Park on time and on budget,” said Randy Hanna, deputy director of Fort Lewis’ DPW. “Memorial Park will feature the consolidation of all combat memorials from across the installation.

“A park like this on the installation has been long overdue and has been well received by all who have had a chance to



The completed park’s irrigation system automatically shuts off when it rains. Photo by Andrea Takash

visit it during the construction phase,” Hanna said.

“The park was designed as a place of peace and solitude, which may offer some level of closure for family members as well as Soldiers.”

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Fort Carson among first to have gate infrastructure upgraded

by Debra Valine

Visitors entering Fort Carson, Colo., may notice the access control points have been upgraded with new barriers, guard booths and support structures. What they won't notice is the upgrade to the infrastructure that will support an Automated Installation Entry system that will provide enhanced electronic security for the installation.

This is one of the biggest projects so far for the U.S. Army Engineering and Support Center, Huntsville's Access Control Point Program. Projects to upgrade ACPs at Fort Campbell, Ky., and Military Ocean Terminal Sunny Point, N.C., are also complete. The upgrades are necessary to install security components that will improve the process of vetting credentials for all who enter military installations.

Huntsville Center project managers are working with 49 continental U.S. and 36 European garrisons to provide designs to upgrade the physical security at 191 ACPs affecting 425 lanes. Forty-eight CONUS garrisons will have designs that will allow installation of the AIE system, and at least 30 will have equipment installation.

The upgraded infrastructure and enhanced electronic security measures are in response to the Sept. 11 terrorist attacks. The efforts are executed in conjunction with the priorities established by the Office of the Provost Marshal General and as directed by the Army's Product Manager for Force Protection Systems, which selected the Huntsville Center to plan and manage this gate upgrade initiative, including survey, design, purchase and installation of ACP equipment at all Army installations.

The \$7.4 million project at Fort Carson upgraded barriers and installed new guard booths and equipment buildings at six ACPs, upgraded the electrical systems to accommodate the future AIE system

and installed active vehicle barriers at three of the six gates.

"This is one of the biggest projects we have done to date, and it's the most complex because of the gates and the number of lanes," said Michael Norton, ACP program manager at Huntsville Center. "The challenge was to get the work done while trying to maintain traffic throughput.

"This project enhances security at a big post," he said. "Fort Carson is a Power Projection Platform. With BRAC [Base Realignment and Closure] and GTA [Grow the Army], Fort Carson is in the process of growing by nearly 10,000 Soldiers. The six ACPs will help with security. The gates look great, but it is more than looking great. It is doing important things to provide security for the installation."

The ACP program's charter allows for upgrades to be made only to the existing lane structure and some supporting infrastructure at an installation.

"Many installations are finding they do not have enough lanes at the gates to support the increased traffic flow," Norton said. "Garrisons are growing. Our program is only allowed to touch what is there now. We can add some supporting infrastructure, but we cannot add additional lanes to an existing ACP. So, we can only provide a partial solution."

The contract for the Fort Carson project was awarded Sept. 6, 2007, to LVW Electronics of Colorado Springs, Colo.

"The equipment we installed was to the Army ACP standard" said Gary Daniel, with Shearer and Associates, who provided technical engineering support for the project. "The standard suite includes 15 items."

The Fort Carson project was completed



At Fort Carson, Colo., upgraded barriers and new guard booths are part of the ACP project. Photo by Gary Daniel

July 30, three weeks ahead of schedule. Officials at Fort Carson agree the project went well. Installing the infrastructure makes the gates ready for the second part of this effort, installation of the AIE system.

"Right now there is no change in how individuals are allowed access to Fort Carson," said Jake Jacob, deputy director for Emergency Services. "They came in and did all the pre-work — that is all done. The only major improvement is the anti-vehicle barriers, and those are a great addition to our force protection measures."

Other ongoing ACP projects include Letterkenny Army Depot, Pa., which is almost finished; Fort Lewis, Wash., which is nearing completion; Redstone Arsenal, Ala.; Fort Rucker, Ala.; Bluegrass Army Depot, Ky.; Aberdeen Proving Ground, Md.; Fort Stewart, Ga.; Fort Gordon, Ga.; Fort Huachuca, Ariz.; and Fort Belvoir, Va., to name just a few.

"This is great work the Corps of Engineers is doing," Norton said. "In the end, we will have much more secure garrisons for our Soldiers, their families and civilians who work and live there."

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Acronyms and Abbreviations

ACP	access control point
AIE	automated installation entry
CONUS	continental United States



Hunter Army Airfield rediscovers lost cemeteries

by Brian K. Greer

Hunter Army Airfield in Savannah, Ga., made important archaeological discoveries over the last three years through the unearthing of not just one, but two forgotten cemeteries.

In August 2006, during excavation for a fiber-optic utility line in the heart of the airfield's cantonment, construction workers unexpectedly encountered several bones. Work on the utility trench ceased while the installation's Criminal Investigation Division ensured the bones were not part of a crime scene. The installation's archaeologist determined that the bones were human and were the remains of one individual buried in a coffin.

To avoid the possibility of disturbing any other graves while completing the utility trench, a ground penetrating radar unit was used to guide the remaining digging. The GPR revealed additional suspected graves. Work was again halted, and the Directorate of Public Works initiated a larger radar sweep of the surrounding area. The location that was examined consisted of two boulevards, a paved parking lot and several grassy medians — the last places one would expect to find a lost cemetery, but extensive radar sweeps of the location suggested the potential for a significant number of burials.

Realizing that the initial single burial uncovered might be part of a much larger unknown cemetery, DPW contracted the services of New South Associates Inc. in partnership with the Army Corps of Engineers. The goal was to determine the size and origin of the cemetery. The parking lot and boulevards had been in existence for more than 50 years, and previous archaeological surveys conducted nearby had encountered no signs of a cemetery.

Throughout this process, the installation coordinated with the Georgia State Historic Preservation Office and the Advisory Council on Historic Places in accordance with laws and regulations on inadvertent discoveries of archaeological sites and human burials.

Through coordination, close monitoring by staff archaeologists and carefully avoiding suspected graves revealed by the GPR, the installation was able to successfully complete the fiber-optic cable without disturbing other remains.

A cemetery lying beneath asphalt and concrete created a challenge for the mortuary archaeologists. The first order of business was to remove the overlying obstructions. Two acres of parking lot and road were carefully removed, monitored by archaeologists to ensure no burials were damaged. Then, the underlying sandy soil was gently stripped away inch by inch. It was not until just inches above each burial that the evidence of a grave showed. After weeks of careful machine excavation and hand shoveling by archaeologists, a total of 37 burials had been uncovered.

A sampling of the burials was examined to determine their condition and potential for eligibility in the National Register of Historic Places as a cemetery of significance. It was concluded that the site was an African American cemetery dating from the 1880s to the 1910s. The condition of the burials indicated a high

Acronyms and Abbreviations	
GPR	ground penetrating radar
NRHP	National Register of Historic Places
SHPO	State Historic Preservation Office

level of preservation, which made the cemetery a likely potential candidate for the NRHP.

Who were these folks buried in the cemetery? Examination of installation documents and historic maps did not provide any clues. Since the area was planned for further development, it was critical to try to learn who these people may have been. Newspaper announcements, television interviews and public meetings were held requesting information pertaining to this lost cemetery, but no one came forward. Although this cemetery was only about 100 years old, it appeared the memory of its existence had faded completely.

After efforts to solicit comments from the public, consultation with the SHPO and through an Environmental Assessment, it was determined that the best course of action was to archaeologically excavate the cemetery and respectfully reinter the burials within Belmont Cemetery, which had been established on the installation in 1951 as a reinterment cemetery when the Army encountered several unmarked graves during the expansion of the airfield.

Future upgrades to the road and parking lot associated with the construction of a new barracks complex nearby and constant noise from the lightline across the street were factors contributing to the decision. The Army entered into a Memorandum of Agreement with the Georgia SHPO to mitigate the adverse effects of relocation of this NRHP-eligible cemetery.

The regulatory process was completed, and the mortuary archaeologists began the long task of hand excavating and mapping each grave. Over the next several weeks, they carefully recovered all grave materials. Every item



An 1889 map, discovered during a document search in Savannah, depicts "Negro Cemetery." Photos courtesy of New South Associates Inc.



(continued from previous page)



New South Associates Inc. team member Andrew Belcourt's shovel skims a burial feature taking care not to disturb the remains that lie beneath.

was measured and photographed to document the only clues to the identities of the buried people. The archaeologists transferred the entire contents of each coffin, including the coffin fragments themselves, to secure mortuary caskets for future reburial.

Meanwhile, on the other side of the installation, another cemetery was being investigated. During the 1950s and 1970s, several burials had been encountered during construction of an exercise course. The remains had been excavated and moved to Belmont Cemetery. In 1994, during upgrades to the exercise course, an additional burial was found. Work halted, and those remains were also moved to the Belmont Cemetery.

Due to the number of burials encountered, the installation initiated a GPR survey of the exercise field in 1995. Several anomalies were identified as potential graves, and a sampling of these was excavated. No additional graves

were encountered, and it was believed that the likelihood for additional burials was very low. However, a small portion of the exercise field had not been sampled due to large oak trees and other obstacles. With mortuary archaeologists and an available radar unit already on site, the installation decided to examine this area.

Initially, this second look indicated only a small number of potential graves. All suspected graves were examined archaeologically, and it was not until the very last radar anomalies were examined that a single grave was encountered. As a matter of procedure, a 20-foot area around this grave was excavated to ensure no other graves had been missed. This 20-foot expansion eventually led to the removal of almost an acre of topsoil to expose the boundaries of another lost cemetery. After all exploratory work was done, an additional 385 burials were recovered from this missing portion of the 1995 radar survey.

During the investigation of this second cemetery, an extensive document search in Savannah finally revealed a single map from 1889 that labeled the area as a "Negro Cemetery." That information, coupled with the examination of the skeletal remains and the age of coffin materials led to the determination that this second cemetery was an African American cemetery dating from the same time period as the first cemetery, the 1880s to the 1910s.

Similar to the first cemetery, the remains were relatively well preserved and held the potential to provide significant information about a segment of the Savannah population that had gone virtually unrecorded. Consequently, this cemetery



An unusual collection of nine sets of eyeglasses were uncovered from a single burial.

was also deemed historically significant and underwent the same regulatory processes as the first one. The decision was made to respectfully move this cemetery to a more peaceful setting in the Belmont Cemetery.

During Black History Month in February, the installation coordinated a rededication ceremony for both cemeteries presided over by the garrison commander and chaplain. Members of the community attended the event.

Research continues on the information collected during the excavations and also to find the names of the individuals buried in the two cemeteries. From this research, historians will shed light on the lives of African American citizens during the post-emancipation era in Savannah. Although the dead can not speak, their remains speak volumes about how the living cared for them.

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Brian K. Greer is an archaeologist and Cultural Resources program manager, Directorate of Public Works, Fort Stewart, Ga.





Fort Irwin's summer energy awareness pays off

by Hossam Kassab

Fort Irwin, Calif., reduced its electrical consumption while benefiting its pocketbook this past summer through partnership with the local utility, Southern California Edison. Fort Irwin boosted its participation in SCE's Demand Bidding Program and initiated the Summer Discount Plan, two of nine SCE demand-side and supply-side management programs that reduce the installation's electrical consumption and monthly utility bills.

Operation Battle Blackout

The post participates in SCE's Demand Bidding Program, which offers billing credit to large commercial customers who voluntarily reduce their electrical load between the hours of noon and 8 p.m. on days when a "demand bidding event" is called. To increase participation in the program and help avert local and regional blackouts, Fort Irwin created Operation Battle Blackout, an installationwide energy awareness program that encourages personnel to voluntarily reduce electrical demand during critical peak events.

DBEs typically occur on extremely hot days when air conditioning is in heavy use

throughout the region. There is no penalty from SCE if Fort Irwin is unable to meet an energy reduction request, so the request is a win-win situation for both the Army and SCE without negative consequences — other than paying a higher-than-it-could-have-been electric bill at the end of the month.

From June to September, Fort Irwin participated in 15 DBEs, resulting in a billing credit of \$52,000, and avoided electricity costs of about \$1.7 million. Considering Fort Irwin's average annual electrical bill is \$10.5 million, this is a savings of 16.7 percent for only 15 days of effort.

How did Fort Irwin do it? On days when SCE notified Fort Irwin of a DBE, Operation Battle Blackout went into effect. A memo from the garrison commander's office was immediately e-mailed to installation personnel requesting all nonessential electrical equipment be either turned down or off. For example, the Directorate of Public Works participated by turning off the majority of overhead lights in DPW facilities, increasing temperature settings on air conditioning

Acronyms and Abbreviations	
DBE	demand bidding event
DPW	Directorate of Public Works
PLP	Participating Load Pilot program
SCE	Southern California Edison

units and turning off computer monitors at 4 p.m. as personnel left for the day.

Fort Irwin's response to each DBE shows a significant portion of the installation made efforts to comply, especially during the last two events. In seven out of 15 events, the actual consumption was less than the target amount.

Next summer, Fort Irwin plans to further increase this success rate by including additional conservation measures for personnel to implement in the Operation Battle Blackout memos and by having the DPW resource efficiency manager speak at the garrison commander's staff meeting to invite even more awareness and participation.

Summer Discount Plan

Fort Irwin also participates in SCE's Summer Discount Plan, through which, at no cost to the post, SCE provided

Demand Bidding Program Result For Fort Irwin Summer 2009

Event	Baseline	Target	Actual	Savings	CREDIT	
1	75,084	72,834	68,040	7,044	\$1,125	
2	195,036	188,786	194,580	456	\$1,125	Total avoided saving is 139,992 Kw
3	195,036	188,786	173,448	21,588	\$3,125	
4	195,036	188,786	195,264	-228	\$3,125	Total avoided saving is \$1,707,902.40
5	195,036	188,786	194,580	456	\$3,125	
6	193,512	187,262	195,264	-1,752	\$3,125	
7	193,512	187,262	190,080	3,432	\$3,125	
8	203,820	197,570	188,784	15,036	\$5,532	Total credit to monthly utility bill is \$52,783
9	203,820	197,570	199,332	4,488	\$2,244	
10	203,820	197,570	192,456	11,364	\$4,948	
11	203,820	197,570	193,644	10,176	\$4,266	
12	203,820	197,570	197,532	6,288	\$2,844	
13	203,820	197,570	198,180	5,640	\$2,766	
14	203,820	197,570	177,516	26,304	\$6,058	
15	193,320	187,070	163,620	29,700	\$6,250	
Average	190,821	184,837	181,488	9,333	52,783	

The chart shows Fort Irwin's baseline electrical consumption, the target consumption for each event and the actual consumption for each event. Graphic by Hossam Kassab



(continued from previous page)



Cycling devices on air conditioners in housing units allow Fort Irwin to receive credits on summer electric bills in exchange for permitting the utility to periodically turn off the air conditioners. Photo by Hossam Kassab

and installed cycling devices on more than 3,000 central air conditioners in on-post housing. Fort Irwin receives a credit on summer season electric bills in exchange for permitting SCE to periodically turn off, or “cycle,” air conditioners.

In the summer of 2009, Fort Irwin received more than \$100,000 in billing credit, and not one resident called to complain that his or her air conditioning wasn't performing.

Other Fort Irwin-SCE energy programs

These savings show the positive results of the partnership between Fort Irwin and SCE on these two programs. But there are other SCE energy-saving programs in which Fort Irwin participates:

Agricultural Energy Efficiency Program

Fort Irwin receives energy cash credits by using energy-efficient pumps recommended by SCE. SCE's Hydraulic Pump Test Products and Services division provides free pump testing and incentives that support increased energy efficiency, reduced costs and improved system reliability. SCE incorporates the latest in fluid flow and electronics measurement instrumentation to test Fort Irwin's pumps annually.

California Solar Initiative

The California Solar Initiative is a part of the state's \$3.3 billion Million Solar Roofs program. California has set a goal to create 3,000 megawatts of new, solar-produced electricity by 2017, moving the state toward a cleaner energy future while helping to lower the cost of going solar.

Express Energy Efficiency

Express Energy Efficiency offers Fort Irwin generous cash rebates toward the purchase and installation of qualified equipment that improves the energy efficiency of facilities. Designed specifically to help replace existing equipment with new high-efficiency equipment, the program offers rebates for either new or leased equipment within program parameters. Qualifying equipment includes lighting, air conditioning, food service equipment, refrigeration, agricultural equipment and premium efficiency motors.

Participating Load Pilot

The PLP uses the Summer Discount Program's air conditioning cycling switches as “pseudo-generators” that create “megawatts” that can be sold to the California wholesale power market. The PLP's goal is to determine whether the pseudo-generator concept can provide an electricity resource that is just as reliable as a conventional power plant. As California's reliance on intermittent renewable power, like wind, grows, clean, efficient pseudo-resources like the PLP could become a cheap, reliable mechanism for keeping the lights on.

Savings by Design

SCE encourages high-performance nonresidential building design and construction by offering:

- design assistance, which provides information and analysis tailored to the needs of Fort Irwin projects to help design the most efficient buildings possible;
- owner incentives, which assist with

offsetting the costs of energy-efficient buildings; and

- design team incentives that reward designers who meet ambitious energy-efficiency targets.

Stand Performance Contract

The Standard Performance Contract program offers financial incentives to offset the capital costs of installing new high-efficiency equipment or systems. Examples include common retrofits like lighting; heating, ventilation and air conditioning systems; and refrigeration upgrades; or more specialized process improvements and customized equipment replacements. Retrofit or new equipment installations are eligible. Incentives are based on the type of measure installed, the kilowatt-hours saved and the kilowatt demand reduction over a 12-month period. Applicants are eligible to receive up to 50 percent of the total project costs.

Utility Energy Service Contract

The Utility Energy Service Contract is a government-authorized vehicle for federal customers to enter into contracts with local utilities on an established source basis to expedite and facilitate the implementation of cost-effective energy and water conservation measures.

Fort Irwin's strong alliance with SCE benefits the Army, the installation, the community and the state.

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Hossam Kassab is the resource efficiency manager, DPW, Fort Irwin.



Removing family housing clears way for Moffett Field improvements

by Debra Valine

Taking down 47 excess Army family housing units at Moffett Field, Calif., paves the way for the Army Reserve and National Guard to build a new joint center and a park. The nearly \$2.6 million Facilities Reduction Program project took only 70 days from start to finish, with standard demolition work being performed by Bhate Associates and Ferma Corporation.

Not only was the site cleared, but only 10 percent of the demolition debris was taken to a landfill. Ninety percent of the old structures was recycled. The Army recommendation is 50 percent diversion from landfill. Recycled items included washers, copper, steel and asphalt among others. Concrete was being crushed on site.

The FRP is part of the U.S. Army Engineering and Support Center, Huntsville's Installation Support Center of Expertise. The program performs facilities removal work for all the military services as well as NASA and other federal government agencies.

The standard demolition included nearly 450,000 square feet of excess family housing units and other structures, such as baseball dugouts and picnic areas, at a cost of \$6.50 per square foot, which is well below the average of \$8-12 per square foot, said Mindy Shelton, an FRP project manager.

"Moffett is a huge success story for FRP," Shelton said. "Not only is it a home run with the low price per square foot and the high diversion rate, the removal eliminates the expense involved in maintaining empty housing units, and demolishing them makes room for a beautiful park. This project has benefitted

the Army, the installation, and now with the new park, it will also benefit local families."

Moffett Field now belongs to Ames Research Center, NASA. The former military site was closed by a Base Realignment and Closure 1995 action. Some of the housing was 30-35 years old and no longer needed.

"Unfortunately, BRAC is a reality that affects so many installations, so if FRP can inexpensively clear out the old to make way for the future, then I am honored to be a part of the effort," Shelton said.

Huntsville's FRP can perform this removal work at greatly reduced prices by using the FRP Tool Kit. Based on past experience and the formula in the tool kit, contractors bidding on the projects are able to be more accurate and less expensive with costs.

The larger the amount of square footage to be removed, the lower the cost tends to be as well, Shelton said.

"To date, this is the largest project executed by FRP in terms of square footage," said Thad Stripling, FRP program manager.

"I am very happy with the work that has been done out there," said Jeff Michels, chief of the Housing Branch, Installation Management Command West Region, the project customer. "It has gone very well, we got a straight price, and the work happened on a good timeline."

IMCOM had been paying half a million dollars annually for caretaker services on empty housing for at least the past three years, Michels said. He credited Stripling and the FRP with removing the housing units cheaper, faster and easier than other alternatives.

"We did have a challenge with the asbestos," Michels said. "During the initial project development, the sampling survey



Gregorio Pena (left), Ferma Corp., Mindy Shelton, Huntsville Center, and Milton Dozier, Bhate Associates, watch a backhoe crunch debris at Moffett Field. Photo by Debra Valine

underestimated the amount of and cost for the abatement. When the initial bids came in, they were significantly higher than expected. Thad, working with the contractor, was able to use the local subcontractors, keeping the costs at or below the original estimates."

In 2004, IMCOM assigned management of the Operations and Maintenance, Army and Army Family Housing Facility Demolition program to the Huntsville Center. Huntsville Center centrally manages these programs with execution accomplished through installations, Corps districts and Huntsville Center product delivery teams. In 2008, the FRP began providing facility removal support to NASA and the Defense Logistics Agency.

In fiscal years 2004 through 2008, the OMA program removed 7.7 million square feet of excess facility inventory. In FYs 2005 through 2008, 930,000 square feet of excess Army family housing was removed.

"This year, FRP has had \$54-55 million come in," Stripling said. "Last year, FRP executed \$30 million in projects. Air Force has been our biggest customer this year, sending us \$18 million. We have been performing this work at about half their budgeted prices. The Defense Logistics Agency is another big customer.

"We also have another project



Acronyms and Abbreviations	
BRAC	Base Realignment and Closure
FRP	Facilities Reduction Program
FY	fiscal year
IMCOM	Installation Management Command
OMA	Operations and Maintenance, Army



Fort Belvoir center earns first military LEED-NC Platinum

by Joy Lutes

The U.S. Green Building Council named the Fairfax Village Neighborhood Center at Fort Belvoir, Va., as the first military project ever to achieve a Leadership in Energy and Environmental Design for New Construction Platinum certification.

The neighborhood center is part of a public-private partnership between Clark Realty Capital and the Department of the Army to develop, rehabilitate and construct 2,070 homes on 576 acres at Fort Belvoir.

The fourth of five community centers to be built at Fort Belvoir, the Fairfax Village Neighborhood Center sets a new standard for green building on military installations. The project's eco-friendly features include a native and adapted species butterfly garden, a recycled playground and energy-saving components such as a geothermal heat system, photovoltaic solar panels and efficient lighting controls.

The building also ensures a healthy environment for residents with advanced indoor air quality management systems and low volatile organic compound materials such as paint, carpet and sealants.

Overall, the neighborhood center achieves 70 percent reduction in energy and 43 percent water savings over traditional buildings of its kind.

All of the project's sustainable features are highlighted through an innovative program aimed to educate residents

and future generations about environmental sustainability.

"We hope that the Fairfax Village Neighborhood Center will serve as an educational tool and amenity for the children at Fort Belvoir, as well as a new benchmark for sustainable facilities on other military installations," said Casey Nolan, development executive at Clark Realty Capital.

Fort Belvoir has earned numerous green awards for previous development and construction projects, including the *Greater Washington Green Business Award*, the *Virginia Sustainable Building Award* and *Outstanding Federal Planning Project*.

The Fairfax Village Neighborhood Center is the first project in the military and the second in the state to achieve LEED-NC Platinum certification. The neighborhood center also earned the *Fairfax County Environmental Excellence* award.

"This LEED certification demonstrates tremendous green building leadership by Clark and the Army," said Rick Fedrizzi, president, CEO and founding chair of USGBC. "The urgency of USGBC's mission has challenged the industry to move faster and reach further than ever before, and the Fairfax Village Neighborhood Center serves as a prime



This Fort Belvoir neighborhood center earned LEED-NC Platinum certification. Photo courtesy of USGBC

example with just how much we can accomplish."

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From a Clark Realty Capital press release.



(continued from previous page)

coming up at NASA Langley Research Center and Langley Air Force Base, where we will remove four NASA wind tunnel complexes. That is a \$5-6 million project," Stripling said.

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Debra Valine is the chief, Public Affairs, U.S. Army Engineering and Support Center, Huntsville.

Acronyms and Abbreviations

LEED-NC	Leadership in Energy and Environmental Design for New Construction
USGBC	U.S. Green Building Council

Call for ARTICLES

The January/February 2010 issue of the

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Deadline is Dec 14

Submit articles to mary.b.thompson@usace.army.mil 202-761-0022



Fire and Emergency Services workers gather, honor awardees

by Robert P. Avsec

Who protects the Army? Military and civilian firefighters who staff the Army's Fire and Emergency Services Departments worldwide, that's who. What do they protect? They protect the lives and property of Soldiers, military families and civilian employees — and the material assets of the Army — on Army installations worldwide against the ravages of hostile fires and other emergency events, e.g., hazardous material releases, motor vehicle crashes and aircraft crashes. Twenty-four hours a day, seven days a week, the dedicated men and women of the Army's Fire & ES commit themselves to the motto of the Army's Installation Management Command: Sustain, Support

and Defend.

Many of those Fire & ES professionals and Army leaders came together at the 16th Annual Department of Defense Fire and Emergency Services Training Conference in Dallas Aug. 24-28 as part of their efforts to become even better at the jobs that they do. The conference brings together Fire & ES personnel from across DoD to network, share information on emerging trends in the Fire & ES world and recognize achievements.

At the opening session, Brig. Gen. Dennis E. Rogers, IMCOM G-3 and director of Facilities and the National Capital Region, delivered remarks that conveyed his support for the mission of Army Fire & ES departments.

The general spoke of the critical services that Fire & ES departments provide and stressed the important role that those services play in maintaining a quality of life that is commensurate with the service that Army family members render to the country. He concluded by

Acronyms and Abbreviations	
DoD	Department of Defense
Fire & ES	Fire and Emergency Services
IMCOM	Installation Management Command
USAG	United States Army Garrison

challenging those present to continually improve their abilities, even during the fiscal challenges of today's operating environment.

Retired Army Capt. Paul W. "Bud" Bucha, a recipient of the Medal of Honor for his service in Vietnam, delivered a stirring address to the attendees on the importance of consistent and compassionate leadership as they work to accomplish the Army's mission. His humbling personal story of how he overcame challenges and adversities in his Army career and how that led to the event in which his courage and leadership saved the lives under his command moved many in the audience.

At the awards luncheon, Bruce Park, Installation Service Logistics, Department of Army, along with Rogers and Bucha presented the Department of the Army and Defense Logistics Agency Fire & ES Awards.

The recipients were selected from nominations for each of the award categories that had been submitted by IMCOM regions for calendar year 2008. ➤



Toxii Station Fire & ES, Small Fire Department of the Year
Photos courtesy of Fire & Es Branch, Emergency Services Division, IMCOM



Fort Lewis Fire & ES, Large Fire Department of the Year



Fort Sam Houston Fire & ES, Fire Prevention Program of the Year



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The 2008 award recipients and runners-up are:

Small Fire Department of the Year – Torii Station (Okinawa) Fire & ES

Runner-up – Fort Sam Houston (Texas) Fire & ES

Large Fire Department of the Year – Fort Lewis (Wash.) Fire & ES

Runner-up – U.S. Army Garrison Japan Fire & ES

Fire Prevention Program of the Year – Fort Sam Houston (Texas) Fire & ES

Runner-up – USAG Yongsan (Korea) Fire & ES

Civilian Fire Fighter of the Year – Shane Crutcher, Fort Knox (Ky.) Fire & ES

Runner-up – Jeffrey Coffey, Fort Lewis Fire & ES

Military Fire Fighter of the Year – Spc. Michael Fleming, Fort Leonard Wood (Mo.) Fire & ES

Runner-up – Spc. Joshua Tabucbuc, Fort Rucker (Ala.) Fire & ES

Civilian Fire Officer of the Year – John Erichsen, Fort Monmouth (N.J.) Fire & ES

Runner-up – Peter Wolf, Fort Carson (Colo.) Fire & ES



Shane Crutcher, Civilian Fire Fighter of the Year



Spc. Michael Fleming, Military Fire Fighter of the Year



Asst. Chief Michael Orr, Capt. Randy Chambers, Capt. Louis Montoya, and Firefighters Thomas Devlin, Cheston Souza, William Toll and Bart Kimber, of Fort Carson Fire & ES, Heroism Award

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Staff Sgt. Christopher Harris, Fire Service Instructor of the Year

Military Fire Officer of the Year – Staff Sgt. Jack Bradstreet, Fort Rucker Fire & ES

Fire Service Instructor of the Year – Staff Sgt. Christopher Harris, Louis F. Garland DoD Fire Academy

Heroism Award – Asst. Chief Michael Orr, Capt. Randy Chambers, Capt. Louis Montoya, and Firefighters Thomas Devlin, Cheston Souza, William Toll and Bart Kimber, Fort Carson Fire & ES

Runners-up – Firefighters John Smith and Steven Larue, Fort Drum (N.Y.) Fire & ES

The conference concluded with the Annual DoD Fire & ES Awards Banquet, one of the highlights of the gathering, where the 2008 individual and group award recipients from each DoD organization vied for the DoD award in their respective categories. Although the Army put forth very impressive individuals and organizations, the Air Force and Navy garnered the majority of the awards presented this year.

But wait until next year.



John Erichsen, Civilian Fire Officer of the Year



Staff Sgt. Jack Bradstreet, Military Fire Officer of the Year



Army Hawaii housing partnership honored with green award

by Ann Wharton

A rmy Hawaii Family Housing was awarded the 2009 *Most Innovative Community Project of the Year* for its green building efforts at what will be one of the largest solar-powered communities in the world.

The Association of Defense Communities presented the award Aug. 4 to AHFH, a partnership between developer Actus Lend Lease and the U.S. Army, at its annual conference in Boston. The award recognizes an active or base redevelopment community that has launched a specific project or initiative of any size that represents a significant innovation or a new approach for dealing with an issue common to other defense communities and that is a significant advancement to current best practices.

AHFH was recognized for its work connected to the U.S. Green Building Council's Leadership in Energy and Environmental Design green building rating system, as well as the development of the Zero Energy Home pilot program.

"When you have a garrison energy bill that's in the tens of millions of dollars a year like we do, you simply can't afford not to look for ways to save money and conserve resources," said Col. Matthew Margotta, commander, U.S. Army Garrison Hawaii. "Thanks to our partnership and these sustainable housing initiatives, we're taking significant steps toward reducing our energy consumption, and, hopefully, our successes serve as inspirations to others."

A LEED for Homes Gold pilot at Schofield Barracks was launched last year and has since received its official certification by meeting rigorous design and construction standards. AHFH also broke ground in July



The Simpson-Wisser neighborhood at Fort Shafter, which is part of the U.S. Green Building Council's LEED for Neighborhood Development pilot, is one reason AHFH received an award. Photo by Mark Brown, AHFH

2008 at Fort Shafter's Simpson-Wisser neighborhood, which is part of a national pilot — LEED for Neighborhood Development — which is seeking to establish green building standards for neighborhood development that currently do not exist. The first homes are expected to be completed later this year.


At AHFH's Aliamanu Military Reservation community, a Zero Energy Home pilot got underway in 2008. The goal is to design and construct a home that will use only the energy it produces. Photovoltaic and solar hot water systems are the energy sources. Design features that contribute to reducing energy needs include high-efficiency systems for wall insulation, air conditioning, water heating, lighting, and even washers and dryers. Data, including information about the energy-use habits of residents in the home, is being collected.

"I'm pleased our team's commitment to creating sustainable homes for our families is receiving such important recognition," said AHFH project

director Claire Johnston. "The award is a testament to the successful collaboration taking place within the AHFH partnership, that is helping us realize our goals to reduce energy consumption and provide healthier, more sustainable communities for our military families."

The AHFH partnership agreement includes a 10-year initial development period to develop, design and construct 5,388 new homes, renovate more than 2,500 existing homes and build nine new community centers. In addition, AHFH will provide asset, property and maintenance management through 2054.

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Ann Wharton is the communications director, AHFH, U.S. Army Garrison Hawaii. 

Acronyms and Abbreviations	
AHFH	Army Hawaii Family Housing
LEED	Leadership in Energy and Environmental Design



Corps receives value engineering award

by Bernard Tate and Jeff Hooghouse

The U.S. Army Corps of Engineers has been honored for excellence in value engineering. The Society of American Value Engineers International presented a *Golden Shears Award* to the USACE value engineering program for cost-effective stewardship of taxpayer resources.

USACE joined 11 other federal agencies that received the award Sept. 17 at a reception in the Cannon House Office Building in Washington, D.C.

Maj. Gen. Don Riley, USACE deputy commander, accepted the award presented by David Wilson, president of SAVE International.

"I am terrifically proud of our value engineering team," Riley said. "I'd like to thank Jeff Hooghouse, our chief of Value Management and Value Engineering, and Mike Holt, our retired value engineering chief, who is also with us today. And, of course, we owe it all to the 50-plus value engineers in the field who work hard every day to make our missions a success. Essays!"

Value engineering is a method for reducing costs, increasing productivity and improving quality. By analyzing functions of an item or process, a value engineering team is able to determine the best relationship between cost and worth to ensure that the owner understands the life-cycle cost implications of his or her decisions.

USACE was recognized for putting into practice one of the most diverse Value Engineering and Value Management programs in the world. More than \$300 million in net value engineering savings were documented in 2008, contributing to a five-year total of almost \$1.4 billion.


USACE leadership directed 14 value management studies to develop alternatives that increase execution. Accepted alternatives have allowed USACE to execute more than five times its previously normal workload, with each project being



(From left) Fred McAuley, Jacksonville District; James Weber, Louisville District; Carole Rankin, Louisville District; Maj. Gen. Don Riley, USACE deputy commander; Pat Rivers, chief, Programs Integration Division; Jeff Hooghouse, chief, Value Management and Value Engineering; and David Pezza, deputy chief, Engineering and Construction; proudly display USACE's Golden Shears Award. Photo by Kaveh Sardari

awarded quicker and with an initial cost reduction per facility of 15 percent.

POC is Jeff Hooghouse, 202-761-5533, Jeffery.T.Hooghouse@usace.army.mil.

Jeff Hooghouse, AIA, is chief, Value Management and Value Engineering, and Bernard Tate is editor of Engineer Update; Headquarters USACE. 

Acronyms and Abbreviations	
SAVE	Society of American Value Engineers
USACE	U.S. Army Corps of Engineers

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BUILDING STRONG – Career Program 18

by Lt. Gen Robert L. Van Antwerp

As we approach the end of the calendar year, I would like to take a few moments to look back on some of the accomplishments that have occurred within CP-18 in its journey from Good to Great. These actions didn't happen through happenstance or luck. They are the direct result of the dedicated efforts of career program professionals accepting the call to action required to execute the CP-18 mission: *Recruit, develop and retain a relevant, ready, diverse and technically proficient workforce to meet the needs of the Army and the nation.*

The three supporting CP-18 goals provide a ready framework to highlight some of these accomplishments in building a strong career program.

Goal 1

Recruit the best talent to serve as technical experts and leaders of the future – Last year we saw a significant increase in the number of CP-18 Department of Army interns. By aggressively recruiting both DA and local interns early in the year, we were able to leverage an opportunity in the fourth quarter to bring our total of new DA interns for FY 2009 to 464, a new pool and academy record!

In addition, we awarded 19 new Science, Mathematics and Research for Transformation scholarships to future interns and are now aggressively developing the candidate pool award of FY 2010 SMART scholarships.

Members of the career program are also actively engaged in helping build the long-term deep bench for Science, Technology, Engineering and Mathematics talent to meet the critical future needs of the nation. Our flagship effort in this area is being lead by the South Pacific Division, Los Angeles District. The district is managing a Department of Defense-sponsored pilot initiative, called STEM-Up, in the Boyle Heights area of East Los Angeles to connect its 80,000 residents through a comprehensive community solution to create the awareness, inspiration, motivation and skills required to pursue

careers in STEM.

Goal 2

Develop a diverse world-class workforce with a reputation for technical and leadership excellence – Currently we have more than 30 participants in the CP-18 Leadership Development Program.

We also published professional development maps for 13 of our top 30 populated series as tools to guide workforce and individual development and have a plan to complete all 30 within the next 22 months. These maps are tied to the Master Intern Training Plan and the Master Training Plan and are used to identify individual training needs and guide career development from the intern level to Senior Executive Service.

Goal 3

Create an exciting and challenging career experience that enables lifetime learning, and rewards technical and leadership excellence; retain the best as the employer of choice – This year, we established the CP-18 Proponency Office. Its efforts have been invaluable in establishing new guidelines and criteria to refocus our efforts on development of the Army workforce.

Through the Proponency Office's hard work, our FY 2010 Army Civilian Training, Education and Development System funding was increased almost 100 percent, truly an amazing accomplishment. A communication plan was developed and implemented resulting in our first newsletter.

Web site visitors are staying longer



Lt. Gen. Robert L. Van Antwerp
Photo by F.T. Eyre

and using tools and information being provided through coordination with our many CP-18 activity career program managers who are actively engaged in leadership of the career program. This year, we also recognized excellence in the career program by presenting awards at the CP-18 Training Workshop to the ACPM journeyman and senior journeyman of the year.

The accomplishments this year in recruitment, training and retention lay the foundation for our ongoing journey to GREAT. This disciplined action has provided us the ability to build a career program to last and requires us to continue to aggressively recruit the right people, at both the intern and journeymen levels, with the right skills and at the right time to meet both current and future requirements. Getting the right people in the right seat on the bus is the cornerstone of all GREAT organizations.

This approach also requires us to leverage our professional development maps to build individual knowledge, skills and experience one career program member at a time. This goal requires focused time and effort by each member of the career program to manage his or her own career with the advice, assistance and counsel of coaches, mentors, ➤

Acronyms and Abbreviations	
ACPM	activity career program manager
CP-18	Career Program 18, Engineers and Scientists - Resources and Construction
DA	Department of Army
FY	fiscal year
SMART	Science, Mathematics and Research for Transformation
STEM	Science, Technology, Engineering and Mathematics



Army holds energy manager training

by David Purcell

The Office of Assistant Chief of Staff for Installation Management, in coordination with Headquarters, Installation Management Command, held its annual Army Energy Manager Training Workshop Aug. 13-14 in Providence, R.I., at the conclusion of the GovEnergy 2009 Conference and Trade Show.

More than 150 Army and other federal agency staff members participated in this year's workshop, including Army energy managers and resource efficiency managers from more than 50 Army installations.

Craig E. College, deputy ACSIM, opened the workshop. College provided a perspective on energy, discussing key drivers, emerging issues and a way ahead for the Army Energy Program in fiscal year 2010.

In his remarks, College said that the Army continues to reduce energy and expand commitment to use renewable sources. In FY 2008, the Army reduced consumption by 10.4 percent, compared to the statutory goal of 9 percent.

The January 2009 *Army Energy Security Implementation Strategy* put into place

(continued from previous page)

supervisors and ACPMs.

Success doesn't happen by itself. It takes the right tools, the right attitude, the right process and most importantly — the right people. So I thank each of you for all your efforts and your time to ensure that CP-18 continues to meet the needs of the Army and the nation. Together — with disciplined people, thought and action — we will implement our strategy of recruit, train and retain the workforce required for Greatness.

Building Strong – CP 18!

Lt. Gen. Robert L. Van Antwerp is chief of engineers, commanding general of the U.S. Army Corps of Engineers and the functional chief of CP-18.

strategic goals and approaches to establish secure and reliable energy for installations and combat forces. Despite conservation efforts, the utilities budget continues to grow due to rapidly escalating energy prices.

Shawn Walsh, director for energy security policy, Office of the Assistant Secretary of the Army for Installations and Environment, also spoke about the *Army Energy Security Implementation Strategy*. Walsh emphasized the five energy security

goals:

- reduce energy consumption;
- increase energy efficiency across platforms and facilities
- increase use of renewable/alternative energy;
- assure access to sufficient energy supplies; and
- reduce adverse impacts on the environment.

Other workshop topics included updates on policies and requirements for metering, energy efficiency and water conservation, renewable energy goals, project funding and financing, energy security planning, and new and emerging technologies.

Updates were provided on major Army programs, including net-zero energy installations, the Army Power and Energy Initiative, the Army Energy and Water Reporting System, the Energy Engineering Analysis Program and the Installation Technology Transition Program.

In addition to College and Walsh,



Don Jubasz (right) of the Defense Logistics Agency, former Army Energy and Utility Branch chief, thanks David Purcell, OACSIM, for mementos of his time with OACSIM presented to him during the Army Energy Manager Training Workshop in August. Photo by Terry Shoemaker, Pacific Northwest National Laboratory

this year's workshop included presenters from the U.S. Army Corps of Engineers, the Construction Engineering Research Laboratory, the National Guard Bureau, Army Medical Command, Army Material Command, Army Reserve Command, the Army Contracting Agency, the General Accountability Office, U.S. Army Audit Agency, Pacific Northwest National Laboratory, Concurrent Technologies Corporation, and the Army and Air Force Exchange Service.

The agenda, copies of the presentations, and photos are available at <http://army-energy.hqda.pentagon.mil/training/training2009.asp>.

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David Purcell is the acting branch chief, Army Energy and Utility team, Facilities Policy Division, OACSIM.

Acronyms and Abbreviations

ACSIM	assistant chief of staff for installation management
OACSIM	Office of the Assistant Chief of Staff for Installation Management



Kons in charge of facilities work for Corps' stimulus program

by Mary Beth Thompson

On a momentous day in November 1989, Jack Kons watched as the infamous wall that had divided East Berlin from West Berlin for 28 years came down. Kons, an engineer then working with the Directorate of Public Works at Hohenfels, Germany, knew that the dismantling of the wall was symbolic of more than easier travel between East and West. The world had changed.

Kons decided it was time for a personal change as well. He had been living and working in Germany for eight years, first as an intern at the Ansbach DPW, then at the Garmisch DPW and finally at the Hohenfels DPW.

"You have to look at economic trends — where future jobs are, where the future business will be," he said, discussing career decisions.

"After [the wall came down], there was so much change going on with the Army in Europe — the drawdown, the shrinking and everything — that I made a decision to return to the states," he said.

Kons moved to the DPW at Fort Huachuca, Ariz., and a year later to the Bureau of Indian Affairs in Gallup, N.M., where he worked in facilities management for Navajo schools and dormitories in a three-state area. From there, Kons returned to work for the Army starting as the deputy director of Public Works at the White Sands Missile Range, N.M., where he worked for about 12 years.

In 2007, change on the horizon again prompted a move to Fort Belvoir, Va., to work on the \$3.5 billion Base Realignment and Closure effort there. Kons, working for the U.S. Army Corps of Engineers' New York District, managed the project called "BRAC 133" for Washington Headquarter Services that will relocate 6,500 employees from leased space in Northern Virginia to Fort Belvoir.

He transferred to Headquarters, USACE, in Washington, D.C., last January and was almost immediately assigned to

the quickly developing American Recovery and Reinvestment Act. Kons soon became the Corps' national account manager for the ARRA Facilities Sustainment, Restoration and Modernization program.

"We didn't know how much demand there would be for our services to execute the FSRM program and projects," Kons said.

Early on, USACE expected only about \$100 million to \$200 million in projects, he said. However, that perception quickly changed. USACE involvement in FSRM escalated by summer to \$1.26 billion invested in 699 projects. By Sept. 30, the Corps' FSRM totals were \$1.29 billion in 718 ARRA projects for Army, Army National Guard, Army Reserves, Air Force and TRICARE Management Activity.

USACE is an agency that can design and execute these projects within the two-year timeline and, more importantly, can handle a large quantity of projects and dollars, Kons said.

"There aren't too many government agencies that can take on projects across the 50 United States and Puerto Rico, and promise total project management from funding to construction completion," he said.

"It's become a real showcase program, to say the least," Kons said.

One of the key factors of ARRA is applying transparency to the program. Weekly reports are de rigueur. Every project is tracked daily in the Corps' project management and financial management systems.

"What you see in our systems, you will eventually see at *Recovery.gov*," he said.



Jack Kons
Photo by Mary Beth Thompson

"There's accountability to the taxpayer, to private construction contractors, and later on, we know that with time, we will have a lot of oversight, as well, of our program by government auditors."

Kons went on to list the questions to which auditors would likely seek answers.

"Did we execute what we were funded for? Did we get the best value for the dollar? Did we put people to work? Did we record all those results?"

In addition, administrative interest in ARRA extends literally to the top of the chain of command.

"It's a program with visibility from the president on down," he said. "The program oversight is done by the vice president."

From Kons' viewpoint as the Corps' FSRM national account manager, the whole picture — not just parts of it — is visible. He likes that he can see the entire process, and he finds the program's fast pace and high visibility both enjoyable and challenging.

Kons views the current climate as a window of opportunity for installations to rehab facilities. He has worked for the federal government for 27 years and has seen the almost rhythmic highs and lows of funding. ARRA is an extraordinary high.

"We worked through some very good times with a lot of money, and we

Acronyms and Abbreviations	
ARRA	American Recovery and Reinvestment Act
BRAC	Base Realignment and Closure
DPW	Directorate of Public Works
FSRM	Facilities Sustainment, Restoration and Modernization
USACE	U.S. Army Corps of Engineers



Crambo keeps track of stimulus projects

by Mary Beth Thompson

Automation — friend or foe? That is the question. According to reemployed annuitant Bill Crambo, there is more than one answer. Crambo managed the Construction Appropriations Programming Control and Execution System, known as CAPCES, before he retired. He returned in July to work on the American Recovery and Reinvestment Act program with Jack Kons, the Corps' national account manager for the ARRA Facilities Sustainment, Restoration and Modernization program.

Computer systems give us a world of information and ability at our fingertips. Software and systems process and track huge quantities of information. If there is a problem with this way of doing business, it stems from the sophistication of the systems. Or, looking at it another way, perhaps the systems are not sophisticated enough.

“Often software is vastly over-complicated and short in sophistication or, in today’s terminology, intelligence,” Crambo, said. “The challenge today, as it was 30 years ago, continues to stem from getting separate systems to ‘talk’ to one another intelligently, in order to maximize interoperability, reduce redundancy and increase the relevance and currency of information across the enterprise.

“I am an advocate of making systems easier to use at all levels of the business, wherever people happen to work on a

given day,” he said.

Crambo’s automation skills were developed during an engineering career. He earned a bachelor’s degree in civil engineering from The Pennsylvania State University. His first federal job was as a junior engineer in training at the U.S. Army Corps of Engineers’ Baltimore District. He was assigned to the Harry Diamond Labs Area Office, which was overseeing the construction of a new campus at Beltsville, Md., and later worked in the Baltimore District’s Navigation Branch.

He went to Saudi Arabia for a year, working in Al Batin District as a contract administrator, negotiating contracts and change orders. He returned to the United States, working at Fort Meade, Md., and then at the Military District of Washington, where he served as the buildings and grounds engineer.

The Assistant Chief of Engineers Office, Program Planning Division, at Headquarters, USACE, was Crambo’s next move. Unlike his relatively short stints at his earlier locations, he worked there for nearly 28 years, retiring in 2008. It is there that he became very involved in automation.

“In the early ’80s, I became the manager of CAPCES,” Crambo said. “For the most part, the duties of the job remained the same even though the



Bill Crambo
Photo by Jack Kons

Acronyms and Abbreviations	
ARRA	American Recovery and Reinvestment Act
CAPCES	Construction Appropriations Programming Control and Execution System
FSRM	Facilities Sustainment, Restoration and Modernization
USACE	U.S. Army Corps of Engineers

information technology portions of the job evolved, so it seemed like it became fresh every so often,” he said.

Crambo had been happily enjoying retirement when he got the call to come back to work at Headquarters, USACE. With his automation background, he is especially qualified to help handle the voluminous data and reporting requirements of the ARRA program. He keeps daily track of obligations — ➤

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worked through some very lean times with little money,” he said about his federal career. “Now, it’s nice. We’re back with ARRA, and we’re trying to find the ways to move it out to the field and execute as much as possible as quickly as possible.

“When these windows come along — fortunately about every five to 10 years — when they happen, you have to be ready to execute,” Kons said. “The lean years are the planning years for the years when

you get funded well. If you go through the lean years without planning, you won’t be ready for the good years. Planning a program means you are always ready to execute.”

Kons first federal job was as a student intern engineer with the Bureau of Reclamation. He earned a bachelor’s degree in geological engineering and a master’s degree in business administration from the University of Arizona, and became a licensed professional civil engineer in the State of Minnesota. After

a few years working in the private sector, he was selected for the intern position in Ansbach and has worked for the government since.

“It’s great to be able to work for your federal government, the Department of Army,” Kons said. “I believe that I’ve had impact everywhere I’ve worked and have added value in everything I’ve done.”

Mary Beth Thompson is the managing editor, *Public Works Digest*.





Lynch takes charge of Installation Management Command

Lt. Gen. Rick Lynch became the assistant chief of staff for installation management and commander of the U.S. Army Installation Management Command Nov. 2 in a ceremony on Fort Myer, Va. Lynch took over for the retiring Lt. Gen. Robert Wilson, ACSIM since June 2006 and commander of IMCOM since the establishment of the organization in October 2006.

Gen. George W. Casey, Army chief of staff, passed the colors from Wilson to Lynch.

Joining Lynch was Command Sgt. Maj. Neil Ciotola, who assumed the responsibilities of IMCOM command sergeant major and senior enlisted advisor to the ACSIM. Ciotola takes over from Command Sgt. Maj. John M. Gaines Jr.

Lynch and Ciotola come to IMCOM

Headquarters in Alexandria, Va., from Fort Hood, Texas, where Lynch served as commanding general and Ciotola the command sergeant major of III Corps and Fort Hood.

A graduate of the U.S. Military Academy at West Point, N.Y., Lynch was commissioned as a regular Army engineer officer. As an engineer, he commanded both a combat engineer company and a mobile assault bridge company. He later branch transferred to Armor.

As an armor field grade officer, he was assigned to 11th Armored Cavalry Regiment where he served as S3 (Operations) for the 1st Squadron and later as the regimental executive officer. Lynch commanded 1st Battalion, 8th Cavalry Regiment (Mustangs), 1st Cavalry Division, Fort Hood.

Upon graduation from the U.S. Army War College, he commanded the 1st Brigade, 4th Infantry Division (Mechanized). After brigade command,



Lt. Gen. Rick Lynch, then commander of III Corps and Fort Hood, speaks to a group gathered at the post. Photo by Michael Heckman, Fort Hood Sentinel

he was assigned to the Joint Advanced Warfighting Program where he worked joint concept development and joint experimentation.

Lynch attended the Massachusetts

Acronyms and Abbreviations

ACSIM	assistant chief of staff for installation management
IMCOM	Installation Management Command

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financial commitments — and manages several reports, including the FSRM feed to the weekly report that is sent up the chain to the Departments of Army and Air Force, the Army National Guard and Reserve, and the Department of Defense Tricare Management Agency. These entities report to the Office of the Secretary of Defense, which, in turn, reports the information to the Office of the Vice President.

“It is almost like the clearinghouse here at Headquarters for all of the data coming up from the Corps, so we can get it to people outside the Corps,” he said.

Providing up-to-date and accurate data is critical, he said.

“It’s all part of transparency, where we have to report all the obligations, which then get in to *Recovery.gov*, so

anybody can go look at the progress of this program,” Crambo said. “The importance of getting data into the automation systems correctly and quickly is vital. It’s going to be seen; children will be looking at it on *Recovery.gov* in school.”

The high visibility of the program brings intense scrutiny. The smallest detail that may be routine to those who commonly deal with project management can prompt many questions, and those questions must be answered.

These reporting and scrutiny challenges may be time and resource consumers, but they are just a part of the process that leads to an important result: keeping not only the leadership informed but also keeping the American taxpayers informed about where and

how the ARRA funding is being spent.

At a recent White House ARRA event, Crambo heard Vice President Joe Biden, and Govs. Martin O’Malley of Maryland and Arnold Schwarzenegger of California speak.

“They stressed that through transparency in the ARRA program, the America public can identify projects in their city or county or neighborhood, and personally verify that we are getting the job done and that people are working at the site,” he said. “By protecting the taxpayer investment, we are earning back their trust.

“This is unprecedented in the federal government,” Crambo said. “It is a very interesting and rewarding to be part of this program and to be part of positive solutions.”

Mary Beth Thompson is the managing editor, Public Works Digest.



New IMCOM commander shares views, priorities

by Dennis K. Bohannon

Are we doing the right things? Are we doing things right? What are we missing?" are questions that are resonating through the mind of Lt. Gen. Rick Lynch, the new assistant chief of staff for installation management and commanding general of the Installation Management Command. At the IMCOM Garrison Commanders' Conference in Baltimore on his first full day in command, Lynch dove deep into what he called, "Asking the right questions."

His first fundamental question was "Are we doing the right things?" He said that if an action fits within the commander's intent, the answer is likely "yes."

His second question was, "Are we doing

things right?" He said we must increase efficiencies.

"What are we missing?" He said we need to periodically take a step back and think about what else we should be doing that is not already being done.

"The road to success is: one — surround yourself with confident people and delegate; two — look down, not up; worry about those working for you, not catering to those above you; three — never compete with sister units; share best practices; four — have fun," Lynch said.

He is excited about joining ACSIM and IMCOM, he said. He had reaped the benefits of all their hard work at Fort Stewart, Ga., and at Fort Hood, Texas,

Acronyms and Abbreviations	
ACSIM	assistant chief of staff for installation management
IMCOM	Installation Management Command

where he previously commanded. But, he noted, he is a warrior. He is honored to wear the titles of the ACSIM and commanding general, IMCOM, but he is most proud of the titles of husband and father, titles he will carry long after he retires from the Army.

He also titled himself "the family-first general."

A native of Ohio, his parents were blue-collar shift workers at his hometown paper mill. He went to work at the age of 13 and applied to West Point simply because he could not otherwise afford a college education.

"[After graduation,] all I wanted to do was command a battalion. I did that," Lynch said. "The Army was a job; then it became a profession; today it is a passion."

"My passion is taking care of Soldiers and families," Lynch said, adding that Sarah, his wife of more than 27 years, shares the same passion.

"Sarah will travel everywhere I go," Lynch said. "She will focus on families. I'm the commanding general. When we visit installations, Sarah will get information I could never get. She will be another set of eyes and ears. We will focus on fulfilling the Family Covenant. We will focus on the family."

"We spend too much time fixing broken Soldiers and families and not enough time giving them a break," Lynch said. His mission, his priority is all about finding the right balance between work, family, health and fun.

"Taking care of Soldiers and family — that's my passion."

Dennis K. Bohannon is director, Strategic Communications, ACSIM and IMCOM.



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Institute of Technology where he obtained a master's degree in mechanical engineering focusing on robotics. He used that education as the robotics project officer in the Directorate of Combat Development at the Armor Center and later as the Armor Center's chief of Force Development.

Lynch's flag assignments include assistant division commander (Support), 4th Infantry Division (Mechanized), Fort Hood, and assistant chief of staff for operations, later chief of staff, Kosovo Force. He also served as deputy chief of staff for operations at Allied Joint Force Command, Naples. While there, Lynch commanded the Deployable Joint Task Force of the NATO Response Force.

Prior to assuming command of the 3d Infantry Division, Lynch was the deputy chief of staff for strategic effects and the spokesperson for the Multinational Force Iraq. He assumed command of the 3d Infantry Marine Division and Fort Stewart and Hunter Army Airfield, Ga., on June 13, 2006. In early 2007, the division headquarters and subordinate brigade combat teams deployed to

Iraq, where Lynch assumed command of Multi-National Division-Center in Baghdad on April 1, 2007.

He was most recently assigned as the commanding general of III Corps and Fort Hood from July 18, 2008 until September.

His awards and decorations include the Defense Superior Service Medal (with Oak Leaf Cluster), Distinguished Service Medal, Legion of Merit (with Oak Leaf Cluster), Soldier's Medal, Bronze Star Medal (with Oak Leaf Cluster), Defense Meritorious Service Medal, Meritorious Service Medal (four Oak Leaf Clusters), Joint Service Commendation Medal, Army Commendation Medal (three Oak Leaf Clusters), and Army Achievement Medal (with Oak Leaf Cluster). He has also been awarded the Parachutist's Badge and the Joint Chiefs of Staff Identification Badge.

Lynch was born and raised in Hamilton, Ohio, but has spent the majority of his adult life in Texas.

From an Installation Management Command news release.



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U.S. ARMY INSTALLATION MANAGEMENT COMMAND

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