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In This Issue...

Installation Support

US Army Corps of Engineers®

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LETTER FROM THE EDITOR

As the first issue for 2001, the January/February *Digest* covers a broad and important topic—Installation Support. It means different things to each of us, and so the *Digest* has tried to cover a wide range of the various topics that might interest you and help you continue to do well the jobs you have been tasked with on your installations. As our new Chief of Engineers, LTG Bob Flowers, likes to say, "You can and do make a difference."

The Installation Support section starts with a candid interview with BG Steven Hawkins, the new Director of Military Programs, on his views of how we are doing in the area of Installation Support and what to expect in the future. Other articles include updates on the Installation Support Division at Headquarters and the Installation Support Center of Expertise at Huntsville, explaining their services and giving the current phone numbers for points of contact for their multiple programs. You may want to put the latter in a safe place as many of them are new and not as readily available elsewhere. There are also two articles about Installation Support workshops that were recently conducted at Huntsville and NAD that discuss all the major issues and concerns. In addition, there are several stories on installations and districts partnering to accomplish their mission.

The Installation Management section presents two overviews of Strategic Sourcing, a recent hot topic for us, by CERL personnel and the private sector and covers the recent changes in performance-based contracting.

Make sure you find time to read the Professional Development and Training section of this *Digest*. It is packed with good ideas and valuable information. Many training opportunities abound that you may not be aware of and the *Digest* hopes to keep you informed and up-to-date by publishing and promoting as many of them as possible. Send me an e-mail if there is a particular area you would like to see covered in this section.

The inside back page features the autobiographies of BG Steven Hawkins and his Deputy Director, Mr. William A. Brown. This is a feature we plan to continue in future issues in an effort to familiarize you with our leaders, their qualifications and experience. Next month, we will showcase Ms. Kristine Allaman and Mr. George Braun, the Chief and Deputy Chief of the Installation Support Division, respectively. Again, let me know if there is someone you would like to see featured here.

The 15th Black Engineer Conference ("Developing a Capable Workforce") will take place 8-10 February at the Baltimore Convention Center again. As always, this conference is geared to recognizing America's successful Black engineers, scientists and technology leaders. With something for everyone, it consists of a career fair, professional development seminars, workshops, networking opportunities, and an awards ceremony. Look for an article in the next *Digest* (March 2001 issue) on the fifth Annual Corps Workshop held prior to the start of the conference. This workshop is open to everyone and participants can select from two tracks: "Resumes and Interviewing in the New Era" or "Becoming the Professional: Reflections in Person and on Paper."

Finally, I, and all the past members of the *Digest* staff would like to thank Ms. Susan Shugars, formerly of RPI, Inc. in Baltimore, for sharing her extraordinary design skills with the *Public Works Digest* for the past 12 years. Her many talents gradually carried the *Digest* from a simple 4-page newsletter to the 44-page professional magazine you see today, giving us many memorable covers in the process. Good luck in your new job, Susan! At the same time, we would like to welcome our new design person, Ms. Barbara Morris. We hope this will be the start of a great new partnership!

Until next time…

Alexandra K. Stakhiv

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Last summer, BG Steven Hawkins joined Corps headquarters as the Director of Military Programs. The Public Works Digest *editor recently talked to him about his views on current installation support and his future vision of installations.*

BG Hawkins touts installation support efforts

by Alexandra K. Stakhiv

BG Steven Hawkins, the new Director of Military Programs, is very proud of the fact that the Directorate of Military Programs plays a big part in bringing the power of the entire regiment of the Corps of Engineers to Army installations. "We help installations get better at what they do by providing a better working and training environment for young men and women as they discharge the duties so vital to our nation's interest," began Hawkins.

He said there are some really good things going on at our installations like the Installation Support Offices and PM Forwards. "These people work with the installations directly to bring solutions to the many problems Directorates of Public Works encounter on a daily basis," explained Hawkins. "Working in synchronization with garrison commanders and Corps of Engineer districts, they are bringing great synergies to bear with the many capabilities they represent."

According to Hawkins, another great program having a direct affect on installation support is the Barracks Modernization Program, which is about 50 percent done. "We have about $6 billion left to go and we'll have modernized all soldiers barracks to the new standard called the 1 + 1 standard, which has two soldiers living in the same area with separate bedrooms. Each soldier will have 118 square feet of living space. That's up from the 90 square feet in an earlier program about 5 or 6 years ago. The Basic Combat Training Barracks Modernization Program, which targets the soldier's first impression of military life, will soon modernize our inventory of antiquated trainee barracks.

"Yet another housing program we're working on is the Residential Communities Initiative (RCI), where we're modernizing our family quarters. We're now in the process of modernizing Fort Carson in Colorado. The J.A. Jones Company completed the first contract two months early and under cost! I had a chance to go open up this first privatized set of quarters and I can tell you first hand that Fort Carson has 64 very lovely, useable and friendly quarters and amenities."

The Corps is modernizing family quarters overseas both in Korea and the Federal republic of Germany as well as in the European Theater in Benelux and Italy, he added.

Before coming to the Corps Headquarters in Washington, D.C., Hawkins was the Deputy Chief of Staff Engineer in US Army, Europe, having oversight on all installations for everything from real estate to environmental to public works to construction. He said that in Europe they're also modernizing existing facilities and upgrading them to more modern conditions. This program was very well received by the soldiers and supported by the leadership of the Army, DoD, and Congress and is being executed by the Corps of Engineers.

The plan for family quarters in Europe is to have all the monies obligated for upgrading by the year 2010. They were right on target when Hawkins left last summer. While improving their quality of life, these housing programs also give soldiers confidence in knowing that people care about them and their families because they can see concrete results.

"There are many things," continued Hawkins, "that the Corps does that soldiers don't see. For instance, we are constantly upgrading their energy systems and working environmental issues on installations to mitigate past practices and help prevent future problems."

But he concedes that help is needed in some areas, primarily with the huge backlog of maintenance and repair--the repair and maintenance activity (RPMA). The Army uses a model called the Aim High model to identify how much money it should take to

BG Steven Hawkins

maintain the facilities that already exist, he explained. Unfortunately, there isn't enough money in the Army's budget or the DoD's budget to fully fund and recognize the model.

"If it says you should have $100 to maintain a facility this year, the model currently gives you only about $62 to $65 to do that," said Hawkins regretfully. "Because of the way the money flows in the system, whether it's at the user or installation level, you're only getting about $.50 on the dollar to maintain that same facility. This causes most installations to perform *emergency repair* only. In other words, if a system fails, you fix it. Other than that, you don't have much more money to do the things you want to do-- like put more energy-efficient glass in quarters, repaint facilities more often, landscape or provide new playgrounds for children. That money is just not in the RPMA accounts, and that's a big challenge for the Corps.

"It is the main reason we're not able to make installations as first class as we would like to see them," conceded Hawkins. "My agenda here at Military Programs, as it was in my last job, is to use the system and the

people, both in the Department of Army and the Congress, to get as many dollars as I can to support maintenance and improvement on Army facilities."

He has discussed this with the Army staff, and says they are very sensitive to the need for more repair and maintenance dollars on all installations around the world.

"At the same time," expanded Hawkins, "I've got to give credit to the DPWs for being very innovative in working with their installation commanders and staff to maximize those dollars as they get them to do the most they can with what they have.

"For example, when I was in Germany, a very talented lieutenant colonel in the 98th Area Support Group DPW came up with something called the Pride Program. They used this program to garnish RPM monies and get the commander to agree to spending them on such things as centralized trash collection. They also were able to use some of those monies to paint facilities that were not going to be renovated for another 2 to 4 years. The facilities that were still waiting to be renovated got a temporary cosmetic facelift that made soldiers feel better about themselves and their families.

"We had great luck in commanders deciding to use operational money in favor of things like the Pride Program and using it to replace roofs and gutters," said Hawkins. It took priority over everything that commanders spend their dollars on at the end of the year. Engineers were competing for dollars successfully by demonstrating the benefits to reenlistment and family satisfaction in Europe.

When asked to compare installation management in the States with overseas, Hawkins had a quick response. "Before going to Germany," he said, "I was the Chief of Staff for the 3rd Infantry Division at Fort Stewart. As part of my duties, I also wore the hat of Installation Chief of Staff, working closely with the garrison commander on strategies for making the installation better. You know what? The struggles there are comparable to Europe, the issues are about the same, and the approaches are about the same. *The end result is we are getting better and we are doing better things for soldiers, but we still need a lot of help in the area of maintenance and repair dollars to make it right.*"

Hawkins also praised Military Programs Directorate's Installation Support Division for its efforts with planning charrettes for the 1391 process. The latter is absolutely crucial to get into the POM to garner monies out of the MILCON system from Congress and make improvements on installations. Hawkins credited Ms. Kristine Allaman, Installation Support Division Chief, and her staff for making that initiative come together, as well as the PM Forwards working out of the districts and installations. "As a result," he said, "we're starting to see better plans earlier on. They get a full life-cycle all the way through the system-- resourced. Ultimately, we'll have facilities on the ground that people have worked from cradle to grave."

Kristine Allaman and her Installation Support Division as well as the rest of the Military Programs staff are also taking on another big initiative as the Army gradually transforms itself into the objective force Army.

The Headquarters recognizes that the Army is in transformation. What does that mean? "Right now we have what we call the legacy force—that's the heavy and light forces of the Cold War," explained Hawkins. "We haven't changed the formations that much. It's still a very powerful and capable Army, but we know we need to transform it, as General Shinseki said, into an Army that is lighter, faster and as lethal, if not more lethal, than the one we have now.

"They are starting to analyze how to go about transforming installations to support the objective force. We're still working with the legacy force, and many people in the field are starting to think about what an interim force would be like. Fort Lewis will have the first interim brigade combat team, and they're preparing the installation now for the first interim brigade.

"As we did our mission analyses here at Headquarters, we came up with 14 different areas the Corps of Engineers should support the Army in during this transformation period," explained Hawkins. "One of the areas that we have in our transformation plan that compliments and is nested into the Army Plan is the Engineer Annex to Transformation for the Army's Installations. We've had a lot of discussions with the Assistant Chief of Staff for Installation Management (ACSIM), MG Robert Van Antwerp, and his key people like Mr. John Nerger and Ms. Jan Menig, his deputy, as well as the Assistant Secretary of the Army for Installations and Environment, Mr. Mahlon Apgar."

Based on a recent meeting, the Chief of Engineers and Hawkins will work to ensure that the objective force has an objective Fort Future installation. "We at Headquarters are going to spend a tremendous amount of intellectual energy to look out as best we can to the year 2010 and ask ourselves what should the objective installation (Fort Future) look like," explained Hawkins. "Then we need to work back to the current time so we can start working on how to make Fort Future a reality.

The barracks we're building right now are configured for the current Legacy Army, he said. But what should the barracks configuration in relationship to the training ranges, in relationship to the community facilities, in relationship to family housing look like in Fort Future? And how do you get there from here? How do we transform the installations we have now into the installations we need to support a markedly differently configured and capable force of the objective force? The Installation Support Division is working on the answers to those questions.

Last November, Hawkins had a chance to visit Fort Lewis after the fall Seattle Conference. Spending the day with COL Graves, garrison commander, and COL Conte, the DPW, he visited McCord Air Force Base and Fort Lewis. He found an unusually good partnership existed between the district and the installation, the garrison commander and the installation commander. Remembering how the new Chief of Engineers, General Flowers, liked to quote Stephen Covey's definition of synergy, Hawkins said he realized that Fort Lewis was a perfect example of "Synergy as the fruit of thinking win-win and seeking first to understand." They weren't compromising at Fort Lewis, but creating third alternatives that were better than individual solutions. They were getting much more out of the total than the pieces that went into it.

In a few weeks, Hawkins plans to return to Fort Lewis to meet with several retired general officers to look at transforming the post into a power projection platform and its associated facilities by looking at Fort Future. "We need to do some more legwork on how to focus our efforts to not only help maintain and sustain what we have today, but also how to transition to the objective force so that we have the right facilities and the right training ranges," concluded Hawkins.

Alexandra K. Stakhiv is the editor of the Public Works Digest. PWD

HQUSACE makes installation support a priority

Kristine Allaman

The 1999 reengineering of the Corps' Directorate of Military Programs streamlined internal organizations to help improve its service to installations. Despite a staff reduction, the Directorate promised installations increased support to continuing operations and maintenance. To further that effort, the Installation Support Division was created and added to round out life cycle management of facilities.

The Installation Support Division (ISD) features staff action officers whose emphasis is on program management and oversight. ISD personnel are working hard on behalf of installations to ensure that key technical services provided by USACE have the right policy and program backup. This includes everything from master planning to business processes to engineering operations.

Kristine Allaman is the Chief of the Division and George Braun serves as the Deputy Chief. The ISD is divided into three branches, the Installation Support Policy Branch, the Planning and Real Property Branch, and the Business Systems Branch.

Headed by Mike Kishiyama, the Installation Support Policy Branch sets priorities and determines the strategic goals and objectives for the USACE Installation

INSTALLATION SUPPORT DIVISION

		Phone
CHIEF	ALLAMAN, KRISTINE	761-5763
Deputy Chief	BRAUN, GEORGE	761-5764
INSTALLATION SUPPORT POLICY BRANCH	CEMP-IS	
Chief	KISHIYAMA, MICHAEL	761-5777
Utilities Contracting and Privatization	ZAYAS, RAFAEL	761-5773
EXCOM, IMSC	ALMQUIST, PETE	761-5775
Strategic Sourcing/Outreach	REID, FRED	761-5774
CP 18, DPW Awards Program	ELDER, MILT	761-5769
DPW Worldwide Workshop, ISR	DAVIS, ED	761-5770
USACE Public Works Support/Performance Measures	KASTLE, MIKE	761-5771
Public Works Digest	STAKHIV, ALEX	761-5778
Installation Support Resource Management	NICHOLS, BOB	761-5844
Teleconferences, Knowledge Management	EMMERLING, DON	761-57
PLANNING BRANCH	CEMP-IP	
Chief	REYNOLDS, STEVE	761-5786
Master Planning; Excess Installations	ZEKERT, JERRY	761-5789
	SWOFFORD, STAN	761-0441
Commander's Course	DALEY, DICK	761-5776
Range Management	MATSUI, CLAUDE	761-5750
Range Management	GORDON VELASCO	761-8817
VISIONS, CADD/GIS	WIANT, RIK	761-5788
McKinney Act; Real Property PROSPECT Course	HOLSTE, JEFF	761-5737
Range Management	LANDGRAFF, PAUL	761-5749
Real Property Inventory, Real Property Applied Skills PROSPECT Course	EDWARDS, MIKE	761-5731
BUSINESS SYSTEMS BRANCH	CEMP-IB	
Acting Chief	BRAUN, GEORGE	761-5764
Knowledge Management Program	FULLER, DARLENE	761-5782
PAX	RICE, MIKE	761-8918
IFS	VAJDA, ANTHONY	761-5783
RPLANS, ASIP, ACTS, FPF	GRAYSON, STEWART	761-5784
CAPCES	CRAMBO, BILL	761-5781
HQRADDS, Service Contracts	OTT, JAMES	761-5848
IFS, HQEIS	KING, JERALYN	761-5550
CAPCES	ORGEL, JEFF	761-5847
HQRADDS	JACKSON, ANDREW	761-58

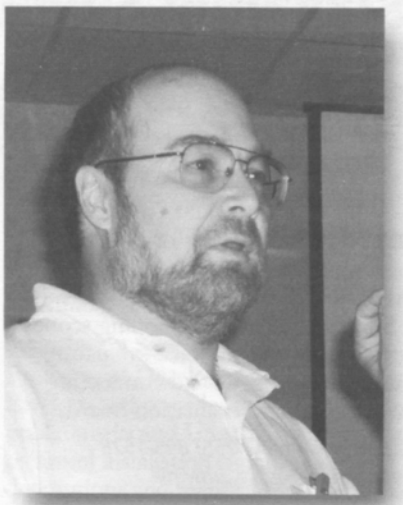
pport Program. As the Army Power rocurement/Utilities Contracting program manager, this branch develops utilities acquisition and sales policy for the entire Army and provides guidance to the Corps' MSCs on utilities privatization. It is also the proponent for the *Public Works Digest*.

The Planning and Real Property Branch, led by Steve Reynolds, is responsible for a variety of activities related to the management of Army real property including master planning, space management, real property classification, data accuracy, and use, disposition and maintenance of the real property inventory data. It is the proponent for or assists the HQDA proponent in developing policy, guidance, tools and implementation plans in areas responding to governmental initiatives like the Chief Financial Officer Act, CADD/GIS use, or "sustainable planning."

George Braun is also the current Acting Chief of the Business Systems Branch, which is the program manager for a myriad of installation support programs including

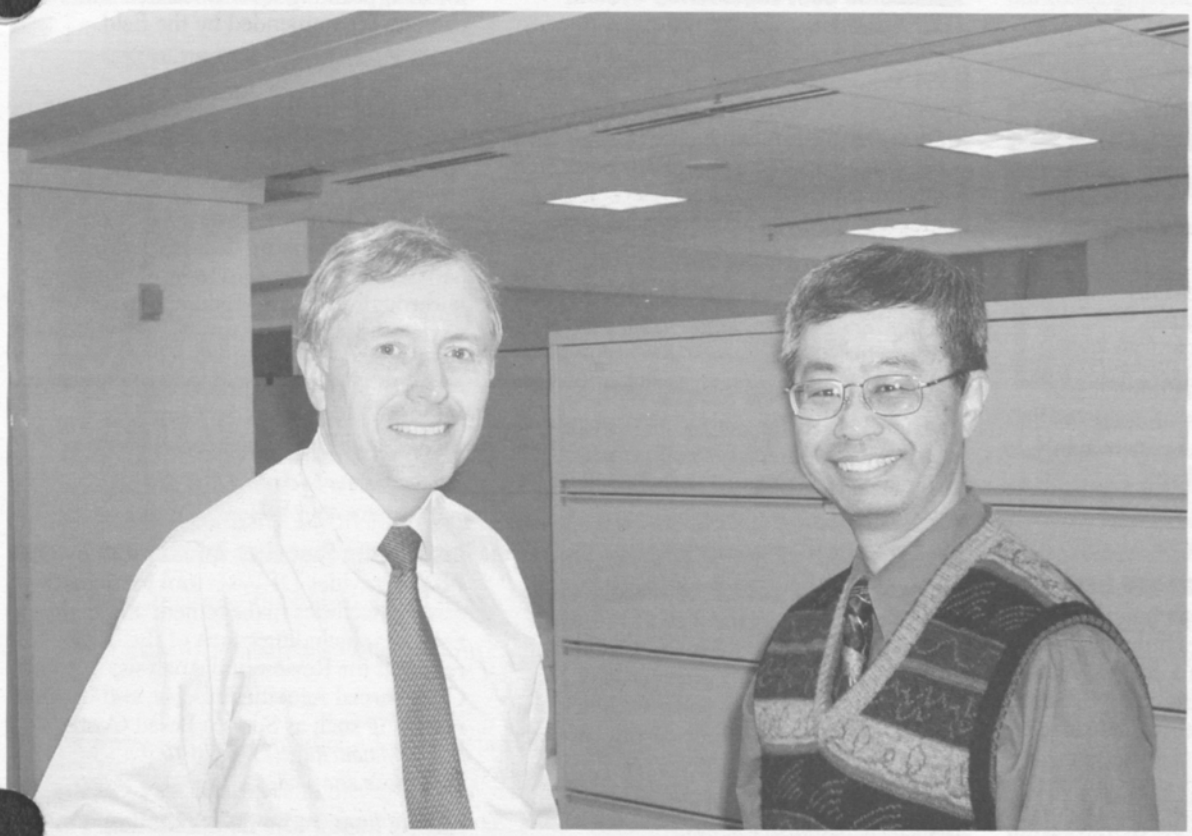
- Integrated Facilities
- System/Headquarters Integrated Facilities System (IFS/HQIFS)
- Executive Information System/Headquarters Executive Information System (EIS/HQEIS)
- Programming Administration and Execution System (PAX)
- Defense Utility Energy Reporting System/Redesigned Army DUERS Data System (DUERS/RADDS)
- Army Stationing Installation Plan/Army Criteria Tracking Systems (ASIP/ACTS)
- Facilities Planning System (FPS)
- Real Property Planning and Analysis Systems (RPLANS).

This branch is currently developing the Knowledge Management concept trying to capture the experience and expertise within our large, geographically dispersed organization as our workforce ages.



George Brown

The ISD also works with the Installation Support Offices (ISOs) set up at the Corps' divisions to regionalize and leverage support to the Army's installations. Acting as the installation's link to seamless support, the ISOs help to enhance ISD's capability to work together as a corporate team to bring life cycle and operations and maintenance expertise closer to the DPWs. While the division is primarily focused on how USACE provides support, it also works closely with the Office of the Assistant Chief of Staff for Installation Management. The Installation Support Center of Expertise at Huntsville, Alabama, fills in any gaps with more specialized assistance. PWD



teve Reynolds and Mike Kishiyama

Installation Support Center of Expertise (ISCX) delivers!

The Corps of Engineers Installation Support Center of Expertise at Huntsville Engineering and Support Center (HNC) is now firmly established. It partners with Corps Districts and Labs to provide timely and cost effective installation support in the following areas:

Utilities Privatization. Performs engineering, economic analyses and contracting actions to privatize utility plants and systems. Support includes developing scopes of work, issuing solicitations, evaluating economics of proposals and conducting source selection and evaluation boards.

POC is Bobby Harman, (256) 895-1528
bobby.d.harman@usace.army.mil

Energy Savings Performance Contracting (ESPC). Provides engineering, legal, contracting and program management for ESPC, a process in which contractors fund and provide infrastructure improvements and energy-saving equipment, and maintain them in exchange for a portion of the energy savings generated. The ESPC Quick Start Program allows installations to determine the potential for ESPC investment and cost avoidances with a minimum commitment of money ($10,000) and time.

POC is Sally Parsons, (256) 895-8233
sally.b.parsons@usace.army.mil

Boiler and Chiller Operations. Provides guidance and manages contracts that provide required boiler and chiller inspections, water quality analysis and assurance, corrosion testing and analysis, and operator training.

POC is Ed Gerstner, (256) 895-1503
edward.gerstner@usace.army.mil

ROOFER. Provides infrared roof surveys and evaluations to determine condition and develop maintenance plans. Survey results support energy programs by identifying buildings with energy leakage.

POC is Karl Thompson, (256) 895-1275
karl.s.thompson@usace.army.mil

Utilities Acquisition, Sales and Rate Interventions. Performs technical and legal reviews and approves utility services acquisition contracts with a cost exceeding $250,000 annually. Approves utility resale rates for all Army installations, and off-post and on-post sales contracts exceeding $500,000 annually. Provides intervention support in utility rate cases before federal and state regulatory bodies.

POC is Ed Gerstner, (256) 895-1503
edward.gerstner@usace.army.mil

Utility Monitoring and Control Systems (UMCS) and Electronic Security Systems (ESS). Provides cradle-to-grave services, including criteria development, site surveys, design, procurement, installation, performance testing, acceptance, monitoring and maintenance for UMCS and ESS.

POC is John A. Brown, (256) 895-1756
john.a.brown@usace.army.mil

Job Order Contracting (JOC). Provides guidance and support for the JOC program, a contracting technique that provides a flexible and responsive local capability to support facility repair requirements.

POC is Karl Thompson, (256) 895-1275
karl.s.thompson@usace.army.mil

DD Form 1391 Processor and Tri-Service Automated Cost Engineering System (TRACES). Maintains the systems, provides training and hotline support. The DD 1391 Processor, an application of the PAX system, assists users in preparing, submitting, reviewing, and archiving the DD 1391 and associated data. TRACES provides the capability to prepare cost estimates and life-cycle cost analyses.

POC for DD Form 1391 is Garry Runyans, (256) 895-1838; john.g.runyans@usace.army.mil

POC for TRACES is Jim Nichols, (256) 895-1842
james.e.nichols@usace.army.mil

Integrated Facilities System (IFS). Provides direct support to DPWs worldwide for IFS, the Army's real property automated management system.

POC is Frank Schwenk, (804) 734-2720
franklin.schwenk@usace.army.mil

Ordnance and Explosxives. Provides cradle-to-grave management of O&E programs for active and inactive ranges and training areas. Support includes identification, inventory, design, construction, clean up, closure, accountability, certification and disposal of range scrap.

POC is Glenn Earhart, (256) 895-1577
glenn.h.earhart@usace.army.mil

Ranges and Training Lands Program (RTLP). Supports modernizing, equipping, operating, and maintaining ranges and training areas. Services include land use studies, range development plans, analyses of alternatives, design, construction assistance, deployed troops support. Provides oversight and assistance for RTLP modernization projects (both OMA and MILCON).

POC is Mark Fleming, (256) 895-1535
mark.a.fleming@usace.army.mil

Explosive Safety. Provides guidance and support for the development and review of explosive site safety plans, blast resistant designs and blast effects analyses.

POC is Bill Zehrt, (256) 895-1651
William.h.zehrt@usace.army.mil

Facility Standards and Criteria. Provides current criteria and standard designs at www.hnd.usace.army.mil/techinfo/ and via the Design Repository at (256) 895-1402. TECHINFO provides a feedback system for incorporating lessons learned and changes recommended by the field.

POC is Karen Gentry, (256) 895-1524
karen.j.gentry@usace.army.mil

Headquarters Executive Information System (HQEIS). Provides MACOMs and HQDA a means for accessing existing real property data and RPMA costs. Users have the ability to look up data at Army, MACOM and installation levels, or spatially through the GIS Module. The system is a one-stop shop for Army facility data such as real property inventory, RPMA costs, ASIP, Facility Reduction Program, HQISR, MCA projects, Army leases, BRAC, and Plant Replacement Value.

POC is Deanna Erickson, (703) 428-6074
hqeis@usace.army.mil

Installation Executive Information System (IEIS). Provides DPWs a tool for accessing existing facilities management and execution data, including much of the data required for Review and Analysis, Commercial Activities studies, and upward reporting such as Service Based Costing.

POC is Miriam Ray, (757) 220-1061
ieis@usace.army.mil

Facility Repair and Rehabilitation. Fast-track, efficient design-build contracting process for facility repairs, renovations and

minor construction. Process includes performance-oriented scopes of work and contractor-prepared work plans in lieu of government-furnished designs.

POC is Stan Lee, (256) 895-1541
lawson.s.lee@usace.army.mil

Environmental. Manages and provides various environmental services focusing on studies and remediation. Services include baseline studies; design, construction, operation and maintenance of pollution abatement facilities; obtaining NEPA documentation and environmental permits; compliance audits; and support in negotiations with regulatory agencies.

POC is Bobby Starling, (256) 895-1531
bobby.h.starling@usace.army.mil

Conforming Storage Facilities. Using model designs, provides engineering, design and construction management for hazardous waste storage facilities, resulting in complete turn-key facilities.

POC is Marshall Greene, (256) 895-1464
marshall.j.greene@usace.army.mil

Facility Operation and Maintenance Engineering Enhancement (OMEE). Streamlined process that provides low-cost, quick response contracts for the operation, preventive maintenance, custodial, grounds, repair and replacement of equipment, and other facility support to installations.

POC is Doug Wilson, (256) 895-1533
douglas.h.wilson@usace.army.mil

Contingency Support. Provides technical and program management support for facilities planning and construction for OCONUS contingency operations, disaster and humanitarian relief efforts. Maintains the Theater Construction Management System (TCMS).

POC is Ed Scott, (256) 895-1781
edward.d.scott@usace.army.mil

Furniture and Furnishings. Provides centralized procurement and delivery of furniture and furnishings for MILCON and renovated barracks.

POC is Alicia Allen, (256) 895-1552
alicia.f.allen@usace.army.mil

DPW Logistics. Provides functional and technical guidance and assistance for management of the RPMA supply and equipment programs.

POC is Karl Thompson, (256) 895-1275
karl.s.Thompson@usace.army.mil

Fire Protection. Provides guidance and support for fire prevention and protection; performs Fire and Emergency Services Operational Readiness Inspections; and performs certification evaluations for child development centers.

POC is Tom Dolen, (256) 895-1287
thomas.dolen@usace.army.mil

Competitive Sourcing/A-76. Provides guidance and support for the competitive sourcing/commercial activities (CA) program.

POC is Karl Thompson, (256) 895-1275
karl.s.Thompson@usace.army.mil

Installation Support Training. The Professional Development Support Center develops and provides in-school and on-site public works and USACE managerial and technical installation support courses. Course descriptions and registration information are available at http://pdsc.usace.army.mil.

POC is Dave Palmer, (256) 895-7451
david.c.palmer@usace.army.mil

DPW Legal. Provides legal advice on public works matters.

POC is Chuck Williams, (256) 895-1140
charles.e.williams@usace.army.mil

For general information or additional support, please contact Mirko Rakigjija, Director of ISCX, (256) 895-1501 mirko.rakigjija@usace.army.mil PWD

Huntsville's MRR Program offers benefits for installations

The Corps of Engineers Facility Maintenance, Repair and Rehabilitation (MRR) Program provides a fast track, efficient contracting process for planning and execution of facility repairs, renovations and minor construction. The key to this program's success is the innovative use of existing ID/IQ service and construction contracts. Projects best suited for MRR are those over $250K, beyond the capabilities of Job Order Contracting (JOC), and having a tight budget and/or schedule requirements.

The MRR contracts are an effective alternative to the traditional AE design and Invitation-for-Bid approach. The many benefits and advantages of MRR include:

- Performance-oriented scopes of work.
- Contractor work plans in lieu of Government designs.
- Cost and time savings.
- Improved quality and customer satisfaction.

For more information, please contact Stan Lee at (256) 895-1541, e-mail: *lawson.s.lee@usace.army.mil* PWD

Environmental Support too!

Do you know that Huntsville has several contracts in place to conduct technical inspections, field investigations, and sampling and analysis, studies for water and wastewater systems? Also, permit applications for water and wastewater systems, water conservation, solid waste collection and disposal, and hazardous waste management.

If this looks like something you need, or if you would like to see if your requirement is within the scope of our contract, please contact Karl S. Thompson, (256) 895-1275 DSN 760-1275 or e-mail: karl.s.thompson@usace.army.mil PWD

Corps supports the Armed Forces

by Lou Fioto

NAD is the Corps' regional business center in the Northeast and 51 other countries. Its boundaries cover most of the Atlantic coast, including 14 states from Maine to Virginia and the District of Columbia. That is 180,000 square miles, about 5% of the U.S. NAD serves 62 million people, over 30% of the U.S. population. It supports the military in the northeastern U.S., Europe, Asia Minor, Greenland and Labrador. This includes 61 Army installations (37% of all worldwide). It supports the 1st Infantry, 1st Armored and 10th Mountain Divisions, and is the only contingency Division in the Corps, meaning it can move with the Army on short notice and support any operation. It also buys, manages, and sells land for the Army and Air Force. NAD is building roads, infrastructure and base camps to support the Army initiatives in the Balkans. It also designs, builds and maintains facilities for the U.S. Military Academy at West Point, NY. The Division leases over 600 recruiting offices for the Armed Services, the most in the Corps.

The North Atlantic Division (NAD) of the U.S. Army Corps of Engineers recently showed its deep commitment to improving support and service to the men and women in uniform when it held an Installation Support Workshop at Fort Monmouth, New Jersey. Approximately 70 Corps and Directorate of Public Works (DPW) employees and other Army customers from around the world attended the October conference. David Thomas, NAD's Installation Support Officer, and Senior Engineers Edward Subjek and Robert Wooley organized the three-day affair.

The workshop brought together senior leaders and project managers from NAD and its six Districts (including Europe District, which supports all Army and Air Force installations in Europe), MACOM and DPW Engineers supported by the Division, and project managers from other Corps Divisions.

"My goal is to take care of soldiers and their families," BG Stephen Rhoades, Division Commander, told attendees in his opening remarks. "It's a passion for me. I want NAD to be number one supporting soldiers. If it increases the quality of life for soldiers and their families, I want to do it."

The General talked about shrinking resources and increased workload and their effects on installation support, citing that the Corps is down 5,000 employees since 1995 while work has increased 20%. He stressed open communications and mutual cooperation as two keys to success for the installation support program, urging everyone to do the best they can under the circumstances.

LTC Stephen Wood, Garrison Commander, Fort Monmouth, NJ, presented his command perspective and the processes Fort Monmouth follows to plan, reduce costs, and solve problems in a resource constrained environment.

"As a former DPW and customer of the Corps," Thomas said, "I felt there was a need to bring everyone involved in installation support together to facilitate partnering, team building, and trust between the DPWs, MACOMs, and the Corps. The workshop provided a forum to understand customer needs and identify customer concerns and impressions of the Corps. From this, we can start to change the Corps so we can become a better customer service organization."

Supporting the military has always been a Corps of Engineers commitment and priority. MG Milton Hunter, Deputy Commander of the Corps and a former NAD commander, said, "The men and women of our Armed Forces are our most valuable resource. We must dedicate all of our energies to supporting them in every possible way. We must give them the best, most modern facilities in which to train, live, work, and play. We must prepare to bed down the 21st Century that is evolving through the Army Transformation. We want them to know how much we appreciate their sacrifices and that we're behind them 100% as they protect and defend our lives, our land and our liberty. They put everything on the line for us. It's the least we can do for them." He was echoing the statements of many leaders before him.

The workshop stressed sharing, cooperation and trust among all parties while striving to provide that support.

LTC Stephen Wood, Garrison Commander, Fort Monmouth, followed BG Rhoades on the workshop's first day and presented his command perspective and the processes Fort Monmouth follows to plan, reduce costs, and solve problems in a resource constrained environment.

Joe Laird, a Project Manager from the Northwestern Division in Omaha, Nebraska, served as workshop facilitator. The first day's agenda included a discussion of MACOM and DPW customer needs, problems, and constraints. This discussion set the foundation for the second and third day when workshop attendees broke into groups to discuss problems and evaluate causes and constraints. Solutions were developed, as were course of action plans to work the solutions. These activities were augmented with Corps of Engineer Installation Support briefings on capabilities, products and services available to the MACOM and installations.

Throughout the workshop, emphasis was placed on the Corps and DPW understanding each other, and on teamwork.

Participants discussed using technology and innovative approaches to improving performance and accomplishing the mission.

Problems were identified and prioritized for the workgroups to solve. Workgroups then hammered out solutions and action plans, briefed the other workgroups, adjusted them and briefed the top priority ones to BG Rhoades.

Steve Mason, Chief, Installation Support Division, TRADOC, Virginia, summed up these efforts by saying the workshop initiative and outcome "indicates the Corps is making a sincere effort to improve the service it delivers and to build upon the relationships it has with the community it serves."

LTC Jim Alty, DPW, Fort Lee, Virginia, added that the workshop attendees "focused on tackling the tough issues to improve operations and leverage capabilities. Identifying the issues up front and working them through the workshop breakout sessions was critical to the workshop's success."

Some of the main problem areas addressed by the workgroups were overall management, communication, accountability, personnel and training; IS funding strategy; contracting tools; design and construction quality; timeliness; and cost-effectiveness.

The individual workgroups were comprised of a very diverse group of attendees. David Murr, Regional Project Manager for 22nd ASG, Europe District, stated that during discussions, "the interface between the attendees and getting to understand their point of view was very beneficial in addressing and solving these problems."

Workgroup solutions to improving installation support included periodic performance reviews, co-location, partnering (within/across organizations), developmental assignments and cross training. The workgroups' output formulated a comprehensive Action Plan. Attendees are selecting and prioritizing the top five problems.

Most agreed the workshop was a huge step in trust building and should become a regular event. "NAD is to be commended for planning and hosting this Installation Support Workshop," said James Scott, Director of Public Works, Tobyhanna Army Depot, PA. "With all the management training saying get close to your customers and listen to them, it was good for everyone to get together in this workshop. We are all each other's customers. By getting together and discussing issues, we are better able to understand each other's concerns and identify solutions to problems."

"We need to take care of soldiers," BG Rhoades reminded attendees as the workshop concluded. "I appreciate your attendance and applaud your efforts. We've left some unfinished business and that bothers me. Rest assured I'm serious about making things happen and will correct and advocate the problem areas and issues identified throughout this workshop. I'm committed to supporting our Armed Forces and will do whatever it takes to do right by them."

Ed Subjek summed up the workshop by saying, "Our main goal was to improve communications between the Corps and our customers and to build trust in our partnership. We feel this was achieved. We asked customers for needs and problems, and by focusing on customer problems and issues, I believe we are perceived as better listeners than we were before the workshop. We now have a better focus on customer concerns and we are going to take care of them."

Another Installation Support Workshop is planned for next year. For more information, please click on http://www.nad.usace.army.mil/is/installationsupport.htm

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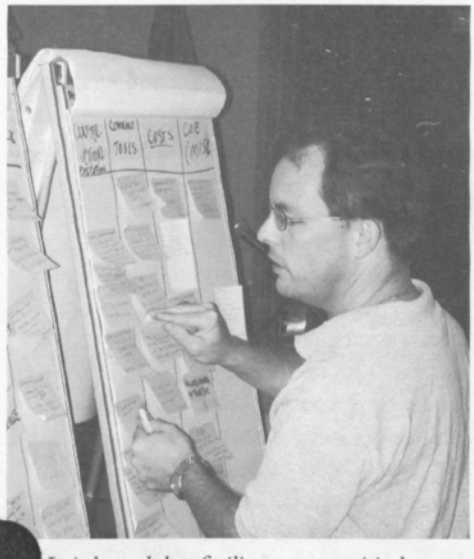


Laird, workshop facilitator, sorts critical issues provided by workshop attendees.

Workgroup prepares briefing for workshop discussion.

Installation Support Workshop features strategy and innovative contracting discussions

by Karl S. Thompson

Huntsville Center's Installation Support Center of Expertise (ISCX) hosted a workshop on 23-24 October 2000 to share and discuss ideas on installation support (IS) strategies and innovative contracting methodologies. The workshop included representatives from Corps of Engineers headquarters and divisions and the Assistant Chief of Staff for Installation Management (ACSIM).

Karl S. Thompson

Installation Support Strategy

The workshop offered both formal presentations and informal discussions. Mike Kishiyama, Chief of Installation Support Policy at HQ USACE, led discussions on various installation support topics, focusing on strategy and performance measures for installation support. Participants discussed why a USACE Strategic Plan for Installation Support is needed, what areas of policy or guidance are recommended, and how to measure IS performance.

The workshop produced an initial draft Strategic Plan, which was provided to headquarters for further development. Issues concerned the definition of installation support and the integration with ongoing USACE initiatives for strategic and outreach planning, strategic sourcing, and emerging HQDA (ACSIM) strategies.

IS Regional Management Group

Ed Irish, Installation Support Officer at South Atlantic Division (SAD), followed with a presentation on SAD's Installation Support Regional Management Group (IS RMG). The purpose of this group is to guide planning and execution of the Division's IS mission. The IS mission is to provide support to military installations in all aspects of Real Property Maintenance Activities (RPMA) program and project management from inception of an idea throughout the entire life cycle of a facility to its ultimate disposal.

The goal of the IS RMG is to improve SAD's IS Program. Irish said that the IS RMG has the following responsibilities:

- Develop, maintain and implement the SAD Military and Environmental Strategic Management Plan.
- Identify the Division's IS funding priorities.
- Serve as SAD's Installation Support Conference Steering Committee.
- Advise the SAD's Regional Management Board (RMB) on IS matters.

Membership of the group includes two representatives from SAD (Chief, Military Programs Division and Installation Support Program Manager) and two members from each of the Division's military districts (Mobile and Savannah). It also includes ad hoc members, as required.

Knowledge Management

Darlene Fuller, from USACE's Installation Support Division, led a presentation on Knowledge Management. She said that the most widely used definition for KM is that it is an integrated systematic approach to identifying, managing and sharing all of an enterprise's information assets, including databases, documents, policies, and procedures, as well as previously unarticulated/undocumented expertise and experience resident in individual workers. Simply stated, Knowledge Management is information sharing crossing numerous media, i.e., organizational, data, and human. Organizations determine how large or small their program should be based on organizational requirements.

The first day concluded with attendees indicating that "meeting customer needs" was the primary goal of installation support work.

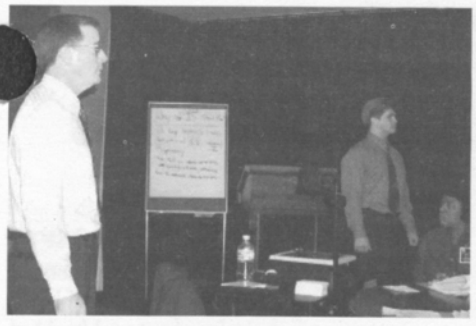
Innovative Contracting

The second day focused on presentations and discussions on contracting methods. Mirko Rakigjija, Director of the ISCX, kicked off the day by encouraging the sharing of ideas and lessons learned on innovative contracting.

The previous day's discussion concerning "meeting customer needs" proved to be an appropriate lead-in for U.S. Army Contracting Command, Europe (USACCE) Customer, Contracting and Commerce (C-3) presentation.

The co-creators of C-3, Ron Tudor, Contracts Attorney for the Southern European Task Force (SETAF), and Bill Mysliwiec, Chief of Business Operations for the Seckenheim Regional Contracting Office, began by noting that the C-3 concept was created to enhance customer satisfaction. The result was the C-3 innovative contracting concept, which has earned Vice President Gore's Hammer Award.

The process takes an average of eight weeks. A pre-solicitation synopsis is issued by the contracting office and posted in the Verlag Shawe (the German equivalent to the Commerce Business Daily) and the Solicitation Announcement Board. The



Ron Tudor, contracts attorney, Southern European Task Force, and Bill Mysliwiec, Chief, Business Operations for the Seckenheim Regional Contracting Office, present the Customer, Contracting and Commerce (C3) process.

request for technical proposals (completed on the first day into the project) is presented in a letter format, and the short non-technical project description from the customer is attached.

The most critical element at this point is the establishment (and requirement) of a site visit. A site visit is set one week into the project, with the contracting officer, customer and interested vendors coming together on-site to actually view (inspect) and discuss the project. The submission date for technical proposals is then established. "Our objective is to let the vendors tell us a better way to perform the project, rather than dictating to them how it must be done," Tudor said.

The technical proposal requires the vendor to provide project details such as the method of accomplishment, materials to be used, schedule and inspection/quality control plan. "We don't tell them how long the technical proposals must be, we just care about getting the job done. Our experience is that most of the tech proposals are limited to 5 to 10 pages," said Mysliwiec. Technical proposals normally take a two-week preparation time, and are completed three weeks into the project.

Determining the acceptability of the proposals is the next step, and the customer (or requiring activity) assists in this step. Proposals are classified as acceptable, not acceptable and reasonably susceptible of being made acceptable. Preparation of price evaluation factors also begins. Determining what submittals are necessary is also performed, along with the final completion date. This step is completed four weeks into the project.

The contracting office then prepares a Request for Proposal (RFP) for acceptable technical proposals. Such factors as life cycle maintenance costs, efficiency, time (accelerated), engineering approach, and the magnitude of work for construction project are included. There is a one-week time-span for this step, which is performed five weeks into the project. Vendor bid preparation is performed in one week or less.

The customer then assists in selection of a bid for award. When the low bid is not selected, then the customer, contracting officer and legal counsel must articulate their position for the record. The award is made by the contacting officer. The award is performed within a week, and is made eight weeks into the project.

Facility Repair and Renovation Contracting

The next presentation was by Stan Lee, Chief of the Facility Maintenance, Repair and Rehabilitation (MRR) Team at Huntsville Center. The MRR program, aka Tool Box Contracting, 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 "One Door to the Corps."

The key to its success is innovative use of Indefinite Delivery/Indefinite Quantity (ID/IQ) service/construction contracts covering all 50 states plus US territories. These contracts offer the following benefits/advantages:

- Performance-oriented scopes of work.
- Contractor-developed work plans in lieu of designs.
- Cost savings; time savings; quality.
- Best applications.

Lee stressed that MRR is best for those projects that are beyond the typical capabilities of a Job Order Contract (JOC) contractor, but which do not require a detailed design to define the work.

Facilty Operations and Maintenance Contracting

Doug Wilson, Chief of Huntsville Center's Operation and Maintenance Engineering Enhancement (OMEE) program briefed next. The OMEE program uses streamlined processes that provide low-cost, quick response contracts for the operation, preventive maintenance, custodial, grounds, repair and replacement of equipment and other facility support to medical facilities. The government provides the scope of work based on user requirements and the contractor defines the work in a Facility Operations and Maintenance Plan (FOMP) before negotiating a price.

The FOMP, which results in savings of both time and dollars, is the key to the success of this process when compared to development of Performance Work Statement (PWS) and stand-alone contract awards. The vehicles for this simplified process are ID/IQ service contracts. The contracts used are best value, multiple-award, time-and-materials or firm-fixed price task orders type that are not restricted to any geographic area. Through these flexible contracts, task orders are issued directly to the contractor.

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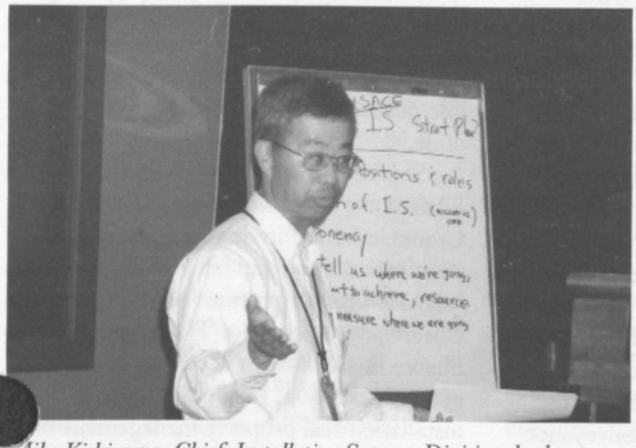


Mike Kishiyama, Chief, Installation Support Division, leads discussion on installation support strategy.

Fitzsimons Army Medical Center becomes community asset and gets new lease on life

by Liam Anselm Bickford

Omaha District played a key role in the successful closure and realignment of Fitzsimons Army Medical Center two years ahead of schedule. After years of negotiations by Corps team members, Fitzsimons will now become a community asset as a new university campus and bio-science research park operated by the University of Colorado Health Sciences Center (UCHSC).

COL Martin Fisher, Fitzsimons' former garrison commander, said the Corps' efforts have not gone unnoticed. "Due to the hard work of the Omaha District team, Fitzsimons is recognized at both Department of the Army and Department of Defense levels as the nation's model closure site," Fisher said.

A part of history

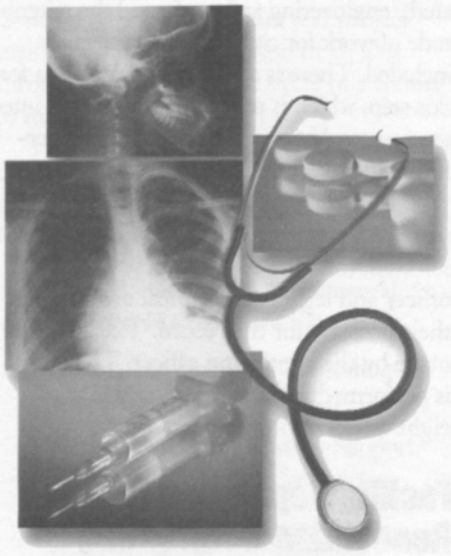
U.S. Army General Hospital No. 21 was built in Aurora, Colorado, in 1918. By 1920, it become known as Fitzsimons General Hospital, and remained so until 1950, when the name changed to Fitzsimons Army Hospital. Ten years later, it was again changed to Fitzsimons General Hospital. Today, most know it as Fitzsimons Army Medical Center, as it was called from 1974 to 1996, the year it become a garrison.

"And so it comes to this final salute," said Helen Littlejohn, a retired Army nurse who once worked at Fitzsimons. "We can't begin to estimate the number of people who've come through the gates every day starting back in 1918. The soldiers, the sailors, the airmen, and the Marines, and their families. The list could go on forever."

All had one thing in common -- taking care of the wounded. During the years, the mission expanded. "We taught. We conducted research. We trained. We went to war," said Littlejohn. "And through it all, we took care of patients. Every minute of every hour; every hour of every day, for 78 years."

On June 30, 1996, the U.S. Army Garrison, Fitzsimons closed under the Defense Base Realignment and Closure (BRAC) Act of 1990.

Remembering that day, BG John Parker, the last commander of Fitzsimons said, "My eyes were clouded and my heart was full. It seemed that at the last minute this great institution made a penultimate cry that it could not be closed or forgotten. Fitzsimons would not be entombed cold and alone. This great institution will live in



the hearts and minds of countless thousands of people who were born here, treated here, trained here, or served here."

Disposal

"The Fitzsimons disposal project has been and continues to be difficult," said Jeffrey Harp, senior realty specialist who led the base closure team. "But it is considered a real success story within the Army and among the nation's local redevelopment authorities."

Harp says the installation closed fully two years ahead of schedule and several firsts were produced for the Army -- the first Lease in Furtherance of Conveyance, the first lease in furtherance of Public Benefit Conveyance (PBC), and the first PBC on behalf of the Justice Department.

"The accomplishments to date are a direct result of cooperation and a really good working relationship between the Army, the federallyrecognized Fitzsimons Redevelopment Authority (FRA), the UCHSC, along with other private and governmental entities," said Harp.

Fitzsimons covered about 577 acres at the time of closure. All of it was to close under BRAC law except 22 acres of the existing U.S. Army Reserve enclave. The General Services Administration delegated its authority to the Army to dispose of the real estate. FRA worked with local governmental entities (state, county, and city) to come up with an overall reuse plan where the installation would be used primarily by the UCHSC for a new, expanded campus and by the FRA to develop a university-related bioscience park.

Teamwork above all

Harp said the negotiation team made the difference. "The entire team worked great together," said Harp. "The Army had firm policies in place. The Pentagon gave us specific criteria to meet or beat, and our job was to come to agreeable terms with the FRA." Harp explained that, normally, competing market forces dictate that the property goes to the highest bidder. "In this case, we had to negotiate the best deal we could for the government. We faced off with some really heavy-hitters, but everyone pulled together to get this tough job done."

Sheree Jamison formerly worked for Fitzsimons, but the Corps and the Commander at Fitzsimons realized the most experienced and talented staff would leave for greener pastures soon after the closure announcement. The District hired Sheree in an effort to keep that critical link at the installation. In addition to a crushing installation real property management workload, she stayed on top of the

Fitzsimons Army Medical Center closed on June 30, 1996, two years ahead of schedule.

timelines and kept everyone on schedule.

The negotiating team was led by Harp and included Dick Mori, an attorney with Real Estate Division, Dale Lamke, Military Section Chief in Real Estate, Charlie Nicely, the Site Supervisor at Fitzsimons and LTC Al Dunavan, the Fitzsimons JAG. These guys did a fantastic job. Each brought with them their own expertise and contributed greatly to the final negotiated product.

Harp says that while the negotiating team was credited for much of the final product (the MOA), the success of the Fitzsimons disposal project wouldn't have materialized without the tireless support from the rest of the Fitzsimons staff, their higher command (MEDCOM), USACE, the Army Base Closure Office and Army General Counsel at the Pentagon.

"When all these disposal actions were in high gear, we needed help getting all the other BRAC actions completed on time," says Harp. "Brad Terrill, an Omaha District Realty Specialist with Acquisition Branch offered to be detailed to our office to help out on many of the other ongoing BRAC actions during the Fitzsimons peak workload."

"Even with all that support, nothing gets done without funding," says Harp. "Dave Packard, the Project Integrator, was aware of all the goings on and kept us funded. He stayed on top of budget requests and made sure funds were always available."

Jamison says, "The entire reason this was a 'model closure site' was the vast amount of knowledge pulled from the entire team and their sub-teams.

Partnering with local officials also had considerable impact on the successful Fitzsimons transfer. Harp said Aurora Mayor Paul Tauer ensured re-use of site by getting the university to consider relocating from Denver to Fitzsimons. Bioscience re-use by FRA moved forward and became a reality because of the natural fit with the UCHSC campus.

Dedicated effort

The team's efforts began to show significant results in 1996 when the determination of surplus was signed and, by 1997, the redevelopment plan was prepared and adopted, and the BRAC interim lease granted. In 1998, the Economic Development Conveyance application was submitted to the Army by FRA and the PBC granted five parcels of land (88 acres) to the University of Colorado, along with the lease in furtherance.

In 1999, the Army used a Quit Claim Deed (QCD) to convey to the Fitzsimons Federal Credit Union two acres of land that were formerly leased to the credit union. That year also saw the completed memorandum of agreement for purchase; the lease to the FRA of 14.3 acres and 30.9 acres by QCD; gas and electric utilities easements granted to FRA and bills of sale executed; transfer of 6.3 acres to Aurora; a change of the Army Reserve post location on the site; telephone, fire alarm, and cable TV bills of sale and easements granted; and the final closure of Fitzsimons.

New beginning

LTG Alcide Lanoue said, "Fitzsimons' inactivation closed one chapter of the facility's history as an Army medical center, but I'm convinced that it is not the end of story of this prestigious institution. Perhaps a new, improved, facility will emerge from the process like the legendary phoenix."

Parker says Fitzsimons was originally established by the hard work and determination of the Denver civic community, which raised money for the land for the hospital in an incredible fourday fundraising drive. "The same civic determination that opened the hospital in 1918 is still alive today, and that is perhaps the most dramatic testimony to the love and respect that Fitzsimons has earned over its lifetime of caring," said Parker.

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Fort Rucker/Mobile District form partnership to upgrade historic dam

by Michael McKown

Lake Tholocco Dam, southeastern Alabama

It has been 6 long years since the soldiers of Fort Rucker, their families and the residents of southeast Alabama have enjoyed the water resources known as Lake Tholocco. This situation is now being remedied through the efforts of the Fort Rucker Command with support of the Mobile District Corps of Engineers.

The Lake Tholocco Dam is located on Claybank Creek in the Choctawhatchee-Pea River Basin on the West Side of the Fort Rucker Military Reservation near Dothan in southeast Alabama. Lake Tholocco Dam was constructed in the 1930's as a Federal Works Progress Administration project. The 680 acre lake provides outdoor recreational opportunities including fishing, swimming, boating, and skiing for Fort Rucker personnel as well as civilians throughout the area. In addition, the lake provided additional training opportunities for military personnel at Fort Rucker.

Requirements for training installations to support military activity during World War II led to establishment of Camp Rucker on land obtained from the Department of Agriculture. Lake Tholocco was within the lands the US Army developed into present day Fort Rucker and the US Army Aviation Center. Since World War II, Lake Tholocco provided recreational opportunities and training areas contributing to the overall mission of Fort Rucker.

The Lake Tholocco Dam consists of a 2400 linear foot earthen embankment with a crest width of 12 feet and heights ranging up to 45 feet. The service spillway is a concrete fixed crest ogee shaped with the crest some 50 feet long. The design criteria used by the Works Progress Administration did not meet current criteria due to inadequate hydraulic capacity as identified in the 1979 Phase I Inspection report under the National Dam Safety Program. Since the 1930's construction, the earthen "emergency" spillway was regularly overtopped and severe erosion (head cutting) had progressed from the outfall of the emergency spillway into Claybank Creek.

During 16-18 March 1990, a significant flood resulted in failure of the emergency spillway. A letter report prepared by Mobile District in June 1990 recommended raising the height of the dam and increasing the service spillway capacity. Without funding to implement the letter report recommendations, Fort Rucker

acted to repair the dam to restore the recreational facilities. US Army Combat Heavy Engineers repaired the breach in the emergency spillway back to the pre-March 1990 flood condition.

Tropical Storm Alberto during 1-4 July 1994 caused widespread flooding in southeast Alabama and southwest Georgia. The Lake Tholocco emergency spillway failed in a manner similar to the March 1990 flood. At the request of the Fort Rucker Director of Public Works, Mobile District designed repairs to the dam, preparing plans and specifications to accommodate one-half the Probable Maximum Flood (PMF) increasing the storage and spillway capacity, and raising, widening and armoring the emergency spillway.

Since the 1994 flood, Fort Rucker pursued Army Maintenance and Operations and Military Construction funding to repair the dam and re-establish the Quality of Life facilities surrounding the ...e. However, the costs required to com...ete the upgrade far exceeded funds available to Fort Rucker.

In the Spring of 1999, MG Anthony Jones, Commanding General of Fort Rucker, tasked the Mobile District to propose a less costly design alternative that would meet the new design criteria and require minimal maintenance. With the invaluable assistance of COL Kenneth Clow, Director of Public Works, Tom Sizemore, Deputy Director of Public Works and Ron Leatherwood, Chief of the O&M Division of the DPW, an alternative design was developed for consideration. That design did not modify the existing service spillway, but installed an auxiliary spillway with a collection channel in the embankment adjacent to that service spillway.

The auxiliary spillway would be of sufficient capacity to handle maximum flood flows, thereby eliminating the need for an emergency spillway. The armored channel would discharge waters directly in Claybank Creek, thus eliminating the potential for ...sion. Several types of surface coverings ...re compared and Roller Compacted Concrete placed in 1-foot thick steps was deemed to be the most cost effective.

The alternative plan was approved by the Fort Rucker Commander and plans and specifications were developed. Since funding was still a primary issue, the Command requested that the project be divided into several phases that could be awarded over multiple years, yet stand alone upon completion.

The first phase contract was awarded in the spring of 1999 to Overstreet Electric Company. It provided for the replacement of the sluice gate and motor assembly at the existing concrete service spillway and constructed a new walkway over the spillway crest.

The second phase contract provided for the construction of the new auxiliary spillway. Since the selected surfacing covering for the spillway and channel was roller compacted concrete, the inclusion of all that type of work in a single contract was most necessary to preclude the requirement of remobilizing batch plant operations.

The Mobile District Construction Area Office had an indefinite delivery order contract with Bill Harbert Construction to support Fort Rucker and the remaining amount available for use under that contract was just enough to perform this work. A task order was negotiated by Jim Hannon of the Mobile District and Greg Peterson of Bill Harbert Construction in late September 1999 after the Command staff worked very hard to secure the funding.

At 1,550 feet in length, this record setting project has the longest RCC spillway in the eastern United States and one of the longest in the country. The RCC is installed in 1-foot thick steps with width varying from 8 to 12 feet on the 1 vertical to 3 horizontal slopes on the collector ditch and 1 vertical to 6 horizontal on the spillway slope. The installation of the RCC proceeded very well with Terry Cromer of the Fort Rucker Resident Office providing construction oversight with great support from the Fort Rucker DPW staff as needed.

The elevation of the auxiliary spillway is set to discharge waters from a rainfall event of every one to two years. The spillway slope is relatively flat to lower discharge velocities and maintain the floodwater in the collection ditch. A trench filled with large diameter riprap has been placed immediately downstream of the collector ditch should the estimated tailwater levels not be realized at the time of a given event. If the area beyond the ditch is exposed to erosional velocities, the riprap will prevent damage to the backside of the ditch and ultimately to the spillway itself.

The Fort Rucker Command tasked the Mobile District with preparing the final phase 3 contract in FY 2000 for the remainder of the work. Clearing the reservoir of all trees and loose brush was a prime task of the contract. Other tasks included installing steel sheetpile coffercell drop structures capped with concrete at the end of the collector ditch, filling the breached areas of the old emergency spillway and extending the dam section across that area to high ground.

This contract was awarded to Larsen Construction Services and the work is scheduled for completion in the summer of 2001. The coffercells step down in four foot increments to dissipate the flood water discharge energy before it enters Claybank Creek. The breached area will be filled and the large area behind the dam section will be regraded and grassed for surface drainage.

The successful progression of this project represents what can be achieved with cooperation and partnership of varying organizations within the US Army in pursuit of a common goal. The reestablishment of Lake Tholocco will indeed provide additional training opportunities and the added quality of life to the soldiers stationed at Fort Rucker, their families and the surrounding community that we all are dedicated to serve.

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Beyond routine support – Kuwait ISO staff supports military exercise

By Julie Shoemaker

Support to the Army, a basic Corps of Engineers value, requires various levels of effort at different locations.

In Kuwait, the Transatlantic Programs Center Installation Support Office staff supports the Army's Director of Public Works and the Air Force Base Civil Engineer with their daily and critical mission requirements. Typical support includes maintenance and repair projects, minor construction, utility and infrastructure upgrades and base operations.

Less typical support for an ISO staff is the support for military training exercises.

"Camp Doha was preparing for a training exercise involving the need for nuclear, biological and chemical protective gear," said Maj. Christopher R. Felchlin, TAC's deputy Gulf Regional Engineer. "The intended scenario was a suspected chemical attack by a terrorist group trying to enter the Camp."

Ron Rowland, TAC's ISO chief, determined that participating in the exercise required a crash basic NBC training course for the civilian ISO team members since none of them had ever received that type training. Felchlin was summoned as instructor.

"Using the *Soldier's Manual of Common Tasks*, the manual that every Army basic trainee is given and uses, I developed a class that covered the necessary basic skills," Felchlin said.

The training was conducted the early part of June, just before the base exercise.

"I started at the beginning and taught them how to put on the protective suit including what order the various pieces went in and how to put on the protective mask in the allotted time frame," he said. "Then we moved on to some basic decontamination skills and even how to drink water while wearing the mask -- all skills found in the *Soldier's Manual*."

Military Oriented Protective Posture (MOPP) is determined in levels, with each requiring a distinct response, donning various additional pieces of the protective gear.

- MOPP1 - Over garments, pants and jacket
- MOPP2 - Over boots, blouse
- MOPP3 - Mask, hood
- MOPP4 - Gloves

When the exercise commenced, the available ISO staff participated.

"Though we were not perfect in donning the gear, we all did get it on and remained in it for the duration of the exercise -- continuing to work on projects," Felchlin said. "The staff gained firsthand knowledge for what it would be like to have to work in MOPP 4 for long periods of time, such as soldiers did during the Gulf War.

"Although we were only in MOPP 4 for one hour, the staff was glad to get out of the gear at the end of the exercise. The 104-degree heat was one contributing factor for joy," said Felchlin. "But now they all understand the importance of the basic knowledge they learned, and they have confidence that the training and experience could save their lives."

(Editor's note: Felchlin's tour in Kuwait has ended and he has relocated to another assignment. POC for ISO issues in Kuwait is Ron Rowland, ronald.w.rowland@tac01.usace.army.mil; POC for ISO issues in other areas of the Middle East, Wayne Henry, wayne.e.henry@tac01.usace.army.mil.)

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Photos by Lloyd Tickell PWD

MAJ Christopher Felchin (left) demonstrates drinking while wearing the protective mask on ISO team member, William Barna.

Members of Transatlantic Programs Center – Kuwait, Installation Support Office, participate in a MOPP 4 training exercise at Camp Doha.

Changes in Performance-Based Contracting

by James E. Hutcheson

In April of last year, the Under Secretary of Defense for Acquisition, Technology, and Logistics issued a memorandum addressing Performance-Based Services Acquisition (PBSA). In it, he directed that at a minimum 50 percent of service acquisitions, measured both in dollars and actions, are to be performance-based by the year 2005. To achieve this goal, the Secretary further directed that the military departments and the Defense Logistics Agency develop a PBSA implementation plan to increase the use of PBSA strategies within their organizations by July 2001.

In May 2000, the DOD PBSA Rapid Improvement Team, composed of representatives from all military departments and other DOD activities, issued a draft "Guidebook for PBSA in the Department of Defense." The fourth revision of this guidebook is being reviewed at this time and a final guidebook is scheduled to be published in the near future.

The PBSA approach to service contracting is altering significantly the process used for the acquisition of services. The single most significant change is in implementing commercial item acquisition procedures for the procurement of routine installation support and operation and maintenance services.

Recent changes in the Federal Acquisition Regulations have made Performance-Based Service Contracting mandatory for all services where it is feasible to do so. The new PBSA approach combines the requirements for Performance-Based Service Contracting with the use of Commercial Item acquisition procedures and makes it mandatory for most installation support service requirements. The PBSA approach to contracting brings customers, technical personnel and contracting staff together as a team for planning the acquisition.

In PBSA, government agencies are encouraged to be flexible in developing a Statement of Work (SOW), explore the commercial market place and adopt the successful practices found there that can be used. SOWs describe work in terms of "what" the required service is rather than "how" to perform the work. The SOW is now used in conjunction with new procedures for the acquisition of commercial items, which includes most of the Army's installation support service needs.

In planning the acquisition, PBSA also encourages industry involvement. After contract award, partnering agreements between government and industry can be formalized to promote mutual efforts to improve the process and align the contractor's interests with the government's.

New guidance being developed for implementation of this new approach to service contracting includes:

- Early involvement of the user of the service is essential, particularly to determine requirements and to assess competition.
- Seek industry expertise regarding performance objectives and outcomes through market research and use of draft solicitations.
- Use of performance based acquisition strategies enables the Army to adopt and rely on the commercial market place for required services.
- Define requirements in clear, concise language and focus on specific work outcomes.
- Templates are only an 80% solution. Work statements should be individually tailored to the requirement or uniquely crafted for requirements that are more complex.
- Strategies and processes for acquiring services should be tailored based on buyer/supplier experience and knowledge of risk associated with the service
- Create end-to-end process teams and support them with a knowledge management infrastructure; utilize cross-functional teams wherever possible.
- Incentives should motivate a contractor to achieve quality levels of performance consistent with economic efficiency.

PBSA contract templates have been prepared for a number of typical service contracts. The most important template is that for the SOW, which becomes the heart of any contract awarded. Mandatory requirements for a service contract SOW are minimized, limited to those that are essential for mission success. The new SOW format contains four parts:

1. Description of Services
This is a simple statement of the needs of the government and a statement of the standards of performance necessary to satisfy the mission functions addressed.

2. Requirements Summary
For each required service described in paragraph one, it identifies in simple terms the objectives to be met and the overall threshold of performance to be maintained for services to be considered as acceptable.

3. Government-Furnished Property and Services
This is a list of any government-provided property and services needed to do the work.

4. General Information
In this section, information is provided to address such topics as quality control, quality assurance, government remedies, hours of operation, security requirements for the installation, special personnel qualifications, partnering agreement, and other topics that the contractor needs to know about which may impact on service delivery.

Attachments and appendices are last in the SOW. Appendices are used to provide amplifying information needed to address such topics as estimated workload ➤

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data, maps or site plans, government furnished property and services, and other topics to support any part of the SOW.

In addition to the changes in the acquisition process, the Guidebook for PBSA addresses a new approach to contract administration, the cornerstone being partnering with the contractor. The new procedures emphasize working with the contractor to identify meaningful performance objectives and thresholds for all services delivered under the terms of the contract.

As in the past, when defects are found, reperformance by the contractor is the preferred action rather than accepting the defective service and reducing the payment. Under the PBSA approach, a new set of rules allows the government to select contractors with proven performance records. The partnership with the contractor begins even before award by working with industry to discover the best of commercial practices that may be applied to contract requirements. The government continues to work closely with the contractor both during source selection and after award to establish meaningful performance objectives and thresholds to satisfy the government's specified needs.

Once the contractor has achieved a satisfactory level of performance, the primary element of government surveillance is to continuously evaluate the contractor's control of quality. Evaluation of the contractor's quality control program is an ongoing effort, and the nature of the validation effort changes with time.

Changes occur in the service delivery environment continuously, and these changes impact on the contractor's ability to control quality. The contractor's management and labor mix changes as employees are reassigned, quit, retire, or are hired and fired to account for increases and decreases in workload. Worn and broken tools and equipment are replaced, which must be addressed in the processes and training programs underlying the contractor's service delivery efforts. Facilities also change with time, along with regulatory requirements, the availability of supplies and materials, the contractor's financial condition, and other elements.

The government measures the contractor's control of quality by establishing a performance threshold for each required service. When performance is found to be unacceptable, the government should identify the nonconformances to the contractor and require corrective action. The primary element of the government Contract Quality Assurance Program is simply to validate the contractor's quality control system and monitor contractor metrics.

PBSA is new, but it is here and it is mandatory. Some PBSA contracts are already in place, and many more are being formed for award in the near future. Some activities have not yet even been made aware of the need for change. Both contracting and technical personnel should be aware of the need for change and look for the Guidebook in the near future.

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Installation transportation engineering support

The Military Traffic Management Command Transportation Engineering Agency (MTMCTEA) is involved in an aggressive campaign to improve highway safety at Department of Defense (DOD) installations.

MTMCTEA studies show that 37,000 crashes occur annually on DOD installations, resulting in an estimated cost of over $500,000,000. Studies also show that traffic-engineering improvements could save 23 lives and prevent 265 injuries annually.

MTMCTEA, in conjunction with the Federal Highway Administration, initiated the Crash Location Enhancement Study (CrashLES) Program in FY 1999. The CrashLES Program focuses on providing DOD installations with low-cost solutions to high crash locations. MTMCTEA provides the studies at no cost to the installations. In addition to analyses of high crash locations, each study also includes a safety survey of all primary and secondary installation roadways. These surveys are extremely beneficial, as many signs, markings, signals, guardrail, and road designs do not meet minimum safety standards.

MTMCTEA is also instrumental in securing funding for roadway improvement projects resulting from the studies. In fiscal years 1999 and 2000, MTMCTEA completed studies at 52 DOD installations.

In addition to the CrashLES Program, MTMCTEA is developing a computer-based reference guide (CBR) CD-ROM for the purposes of providing fundamental traffic engineering training and guidance to DOD employees. The CBR will be a highly interactive, multimedia-training aide with modules on traffic control devices, roadside safety, intersections, gates, and parking. MTMCTEA will distribute the CBR, free of charge, to all installation traffic-engineering contacts.

MTMCTEA highway engineers stand ready to help installations with their traffic engineering concerns – especially those involving high crash locations. In addition to performing high crash location analyses and safety audits, MTMCTEA also provides many types of studies with an emphasis on low-cost improvements that are immediate or short-term and yield high benefits to their implementation costs. Generally, the studies conducted include: fatal crash analysis, traffic engineering, traffic impact (such as BRAC), access roads, force protection, and signal operations. The studies are short and have a new appearance with color photographs to illustrate conditions.

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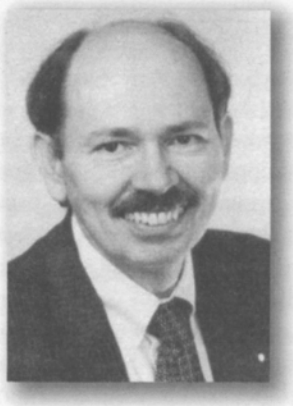
Strategic Sourcing and Business Process Reviews – Key concepts for reinventing installations

by Dave Johnson, Gary Schanche and Fred Reid



Dave Johnson

Many garrison commanders and DPWs face a major challenge in achieving the efficiencies and performance enhancements required for success in today's competitive environment of installation support. One key requirement is to continuously improve installation support through the adoption of advanced technologies and business innovations from the private sector.

In some situations, incremental improvements are not enough and installation leaders must look to achieve quantum leaps in performance. This requires a complete re-thinking of the installation support business and streamlining its business processes -- a business and process reinvention effort.

Of course, reinvention of the warfighting side of the Army is the heart of the Army Transformation that is currently a hot topic. Since the Transformation will change the needs for installation support, it provides another compelling reason for installations to re-think the installation support business. To help installations with this effort, CERL has been researching business innovations and integrating them in an overall approach.

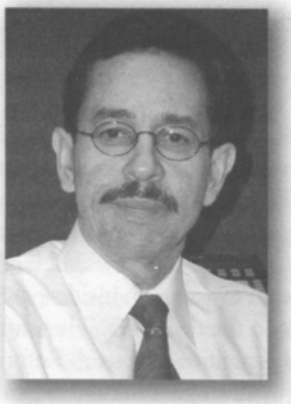
One business innovation from the private sector that is critical for military installation support is strategic sourcing. It is a concept that is well-established in the private sector and has become a dominant part of the business strategy of highly successful "new" companies like Cisco and a vital part of the new business model being adapted by "old" established companies like Ford.

The principles of strategic sourcing have been embodied in a dynamic program started in FY00 by DoD called "Strategic Sourcing." DoD established the program to provide the services more flexibility in achieving the Installation Support goals set in the DoD strategic plan (Quadrennial Defense Review or QDR) in 1997. The goals of increasing efficiency and enhancing performance are critical to the force modernization efforts as well as achieving improvements in infrastructure and quality of life.

Originally, it was planned that DoD would achieve the efficiency improvements through the commercial activities ("A-76") studies. After it appeared that the A-76 studies alone would not be sufficient to achieve the goals, DoD established the more flexible and broader Strategic Sourcing program in which the services can voluntarily participate. In the new program, the A-76 study is just one tool in the strategic sourcing toolbox.

Gary Schanche

The most important element of this program is that its flexibility enables installations to undertake a Business and Process Reinvention initiative. The program includes so-called "Business Process Reviews" in which installations can eliminate, improve and streamline processes.



Fred Reid

The program also enables installations to achieve goals through reengineering, restructuring, consolidating, adopting best business practices, applying activity-based costing/management, and eliminating obsolete functions or practices.

The concepts for this program were pilot tested at a Navy base, the Crane Naval Surface Weapons Center in Crane, Indiana. The results showed that the business and process reinvention effort could achieve more savings than typical A-76 studies and also produce improvements in execution. For example, they were able to cut response time to customer requests for critical parts from 7 days to 1 day in one area.

In addition, the results indicate that the overall process has the potential to achieve savings without the negative impact upon personnel morale and the turmoil of transition that have been associated with past A-76 studies. To put it succinctly, the Strategic Sourcing approach is much more "people-friendly" and allows installations to carefully manage key institutional knowledge assets that are vital to support the military.

What is the current status of the DoD program? Recently the Navy's program for strategic sourcing has been approved and the Navy is implementing it at all installations. The Air Force has also aggressively pursued this concept and developed a proposal for Air Force implementation. One Army MACOM, AMC, has been approved to count all Business Process Review ➤

Strategic Sourcing.....experience from the field

by Diane Shute and Lorraine Mullings

As you go through your day-to-day activities at work wondering when and if all the initiatives including A-76, consolidation, regionalization, reengineering and privatization will ever stop, it is time to recognize and accept that these initiatives are here to stay. So whether or not your organization is ready for change . . . it's coming.

Just as stockholders would ask of a publicly held corporation, the government will continue to be pressured by the taxpayers to do more with fewer resources, and just as stockholders want to know what is going on inside a corporation, so do the taxpayers. Therefore, the Federal Activities Inventory Reform (FAIR) Act requires all government organizations -- both Department of Defense(DoD) and civilian -- to publicly document the nature of the work they are performing and outline those activities that are considered commercial in nature.

DoD has been identifying its commercial activities for years and subjecting many of them to A-76 studies. This has allowed DoD to reduce support function operating budgets so that funds could be shifted from the "tail to the tooth" of military spending. Looking back, however, A-76 of commercial activities was not always the best strategic solution to achieving an organization's cost reduction goals.

Realizing that A-76 is not a universal remedy, DoD has recently released new guidance called "Strategic Sourcing," which allows organizations to take a more proactive role in determining the best solution for improving their cost and performance by giving them access to a broader range of alternatives rather than just A-76. The Strategic Sourcing approach cuts across all functions and organizations, permitting components to take a complete look at how they do business and to proactively achieve savings in all their functions and activities rather than focus only on commercial activities. The goal of Strategic Sourcing is to achieve savings by performing functions in the most efficient, cost effective manner, in other words, getting the job done using the best source - no matter what it is. And even though the intent of A-76 was never to reduce performance, the Strategic Sourcing guidance puts a greater emphasis on the balance between cost and performance.

So what can your organization do about all this? Here are three steps to take to get you in the proactive mode:

1. Update your Strategic Plan.

Does your organization have a Strategic Plan that is linked to and aligned with the larger organization's plan? If not, start working on one. It is important that all parties understand the strategic need for your function/activity. Difficult fundamental questions need to be answered including:

- Why do we exist?
- How do we contribute to the overall mission of the Army and the Department of Defense?
- Is the function still needed?....Really?
- Are we meeting customer expectations for cost and performance?
- Will the larger organization look at this function differently than we do?

These questions are best answered through a comprehensive strategic planning effort. Knowing that your mission is

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savings toward its QDR goals. Other Army MACOMS are allowed to engage in BPRs but are not yet allowed to count the savings toward QDR goals.

Another important initiative to help Army Public Works directorates is the Future DPW Functions and Operations effort led by ACSIM and supported by people from MACOMs, installations, Huntsville and CERL. The installation group has worked on several key issues related to reinvention:

- Developed a "Portrait of Future DPW."
- Devised concepts for "Reinvention of DPW Business Practices."
- Synthesized ideas for "Building Effective BASOPS teams."
- Recommended an approach to help installations "determine the true cost of doing business."
- Proposed an approach to improve strategic planning.
- Developed ideas and recommendations on key fiscal policies issues.
- Installations to retain cost savings from efficiencies.
- Repair by Replacement.
- Bona Fide Need.
- Corps of Engineers obligation of future year supervision and administrative costs in the contract year and future in-house project work.

The most important result of the entire initiative is to pioneer the approach of having a national team work together effectively on business practice reinvention ideas and ways to enhance flexibility in policies. The effectiveness of team efforts like this is vital to success in the fast-changing, competitive environment that lies ahead for installation support.

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gned with the larger organization will help you to choose the most appropriate Strategic Sourcing solution.

An example of an organization in which a Strategic Plan could have helped is an Army installation whose mission is to manufacture weapon components. While this mission is clearly a commercial activity, an A-76 study was not the best long-term solution for improving the efficiency and effectiveness of this organization. The Army had not taken into account other important attributes contributing to inefficiency such as underutilized assets, steadily decreasing workload, an aging workforce due to RIFs and the current funding structure. Only since announcing a full base A-76 study and receiving a number of unsolicited proposals from private corporations to take over the installation has the severity of these issues been recognized. If this Army installation had a clearer "line of sight" to the overall goals of the Army, a different alternative might have been considered.

Start measuring performance.

Another element in preparing your organization for the future is to fully understand your business. This starts by knowing your customers and their expectations and having clearly identified business processes, functions, activities, products and services. This may seem elementary but many organizations cannot clearly define these important business elements.

Once an organization understands these business elements, it is time to understand how well you are performing this work and the costs of performing it. It is time to create a baseline, so that as improvements are made, you can evaluate the effect on cost and performance and receive credit for the savings.

One tool used to create this baseline is an activity-based cost model. Activity-based costing (ABC) translates a traditional financial ledger into a useful tool that allows managers to see the resources consumed by a certain process or activity and how much a product or service truly costs. In addition to costing data, an ABC model incorpo- es information regarding the type of tivity, workload, and performance measures that can be used to benchmark your organization's performance. This activity information or profile establishes a baseline that will allow an organization to start making sourcing decisions with factual information.

By understanding cost and performance, organizations will be able to choose the best Strategic Sourcing alternatives for the government as well as the employees. Successful Strategic Sourcing relies on accurate cost and performance data coupled with a clear understanding of their effects on the organization's mission.

For example, another Army installation is preparing itself for the future by creating a cost and performance management system. Since this installation already has a good strategic plan in place, it initiates an activity-based costing study to begin building a system to establish a cost and performance baseline. This study will also give the installation an activity profile to benchmark its activities and perform self-assessments. The proactive steps taken by this installation will assist it in preparing for A-76, privatization, outsourcing or reengineering. As a result, the installation will have a better understanding of its operational cost and performance and be better prepared to defend resources based on their impact on performance.

3. Perform a Strategic Sourcing assessment.

Finally, organizations should proactively address these initiatives rather than wait for them to happen. Get organized immediately by identifying stakeholders and organizational customers. Review the Strategic Plan to ensure that it is truly reflective of the broader organizational mission, goals, and strategies. If the strategic plan needs adjusting, adjust it immediately. Start to examine your cost of doing business and the current performance of your organization. Perform a Strategic Sourcing assessment and identify the possible sourcing alternatives that can be considered given your organizational situation. Do not wait for someone else to tell you what your organization should be doing. The best thing your organization can do is to be proactive because to wait for change is to be unprepared for it.

Whether you are ready or not, budget constraints will continue to require the Army to achieve cost savings and increase efficiency. DoD will continue to pursue these goals through A-76 studies, outsourcing, reengineering and privatization. Choose to be proactive, examine your strategic plan and develop accurate cost data and performance measures.

Strategic Sourcing provides a tool for making better decisions regarding which activities should be announced for A-76 studies and which activities might benefit from other sourcing alternatives. Remember that Strategic Sourcing is not a way to get out of A-76-- it is a way to make better decisions regarding A-76. Start now to prepare your organization for the future.

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Measuring construction quality process from a new point of view

by Meade Stith

When the Engineer Inspector General (EIG) visited Norfolk District reviewing quality management, he asked, "How do you measure construction quality?"

The question really hit home, because I had asked the same question when I arrived on my temporary assignment from Chief, Operations Branch, to Chief, Construction Branch. I have to admit that I didn't get a very good answer when I arrived, but then, I didn't have a very good answer for the EIG either. It's not an easy question.

Most of the time, when we talk about measuring construction quality, we actually aren't measuring just the construction effort. We measure other parts of the process. Count how many modifications you had on a project and you are probably measuring the design quality and the user's understanding of the design scope rather than how the contractor is doing.

Some parts of our standard construction measures treat construction like a widget factory. In a widget factory, we can measure how many widgets we produce, the cost of widgets, and timeliness.

In much the same way, we count how many change orders our field personnel are doing. We also check to see if they are keeping up with the workload by tracking the backlog of change order paperwork. We can check to see if the contractor is on time and see if the cost of construction is increasing. The widget analogy works well for the production aspects of construction, but it's not so easy to use the widget analogy for measuring the quality of the product.

In the widget factory, we can actually measure whether the widget meets the quality requirements. If the shaft of the widget is too large or small, we reject the widget. By tracking how many widgets are bad or good, we can evaluate the performance of the manufacturing process.

We could use a widget analogy and apply tolerances to each step of the construction process and build the perfect building every time. All we would need would be a staff of thousands and a budget of millions-- not likely. Then, too, each building is unique; we aren't making widgets.

That's when I realized we needed a different point of view. What I really wanted to measure was the Quality Assurance (Q/A) process, not the finished product. For me, that was a key point. I decided to start by checking to see if our Q/A team was doing the right thing.

An important part of doing the right thing for Q/A was to check the amount of time our District Q/A personnel are actually in the field. So we tracked it for a year and found that our team was actually in the field about 25 percent of the time. At first glance that may seem low, but the team reviews drawings prior to bidding, teaches courses to contractors (Resident Management System {RMS} and Contractor Quality Control {CQC}), coordinates RMS installation, writes construction policy, reviews shop drawings, coordinates Q/A lab inspections, arranges Area Engineer conferences-- well, you get the idea.

At first, we set up a database file and our project control clerk tracked the Q/A team's effort daily. But I hate to make work, so we later simplified the tracking to just count site visits. Now we use what we have – no new systems, no new work.

In the Quality Assurance Section at the district office, we have a wealth of information. Our quality assurance engineers make site visits to every project and write a short report listing construction deficiencies and safety violations for each project visit. These reports help the on-site construction office improve quality. In the district office, we file them by calendar year.

After looking at our historical records, I decided to do a detailed review of the last three years of Q/A reports to see if we could measure changes in construction quality and Q/A process.

First, I simply counted how many site visits we made. The trend was disturbing, but not unexpected. Due to loss of personnel, our district office Q/A effort had fallen 32 percent in the last three years.

Second, I looked at deficiencies per visit to see if we could track changes in construction quality. The data showed that in 1998, our construction deficiencies per visit were 65 percent below both 1997 and 1999. Not surprisingly, we can point to specific projects that were problems in both 1997 and 1999.

Last, I looked at safety violations per visit to see what trends were there.

By comparing this information to other data that the district collects, here's what we found:

From 1997 through 1999, safety violations per visit have declined 35 percent while actual lost time accidents have declined 75 percent.

While safety violations trended down by 35 percent, COE field manpower (measured in field-person per $ placed)

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nded up by 25 percent. It is tempting to conclude that more oversight resulted in fewer lost time accidents.

The actual accident data confirmed that when we observed fewer safety violations, there were fewer accidents. This seems obvious, but this is very important because it validates our Q/A efforts. For example, if accidents were trending up while observed violations were trending down, we might conclude that our Q/A team needed training.

The review confirmed that our Q/A personnel are correctly documenting contractor problems in safety. It also reinforces the Corp's commitment to safety. Both can be valuable in court to protect field personnel and the Government from lawsuits.

The review confirmed that the number of site visits to each area office is in line with workload, however, it showed that some projects needed more attention.

The review allowed some limited comparison of Q/A personnel. For example, if you found that one of your Q/A personnel consistently found fewer violations than the others, training may be in order.

The review developed baseline trend data for follow-on review of construction quality and Q/A process.

Finally, it was easier to get a better answer than I thought. I spent less than two days doing the review, using systems already in place.

As the old saying goes, "Figures lie, and liars figure." I don't want to overstate the accuracy of the results. There are many limitations in doing the review I describe, such as changes in Q/A personnel that skew the data. The real value is what you may learn in looking at your Q/A program. In that sense, the process review may be more valuable than the statistics. It's an opportunity to examine your Q/A program from a different point of view, and sometimes, a different point of view makes all the difference.

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Deregulation of electric utilities – what it means to you

by Rich Dubicki

The deregulation of electric utilities is proceeding at a very deliberate pace all across the country. Since the program is state controlled, you can say it is progressing at fifty different rates. Knowing some of the problems associated with deregulation in other industries (the airlines are just one example we are all familiar with), one can't be blamed for harboring a small measure of skepticism about how it can help our installations.

The California experience with electricity deregulation is a sobering lesson in how not to go about deregulation. The experience in California is producing higher energy costs, shortages of supply and according to the Washington Post, a political crisis in that state. The results so far are completely opposite of what was intended and expected. The good news is that the other states are profiting from this experience, but you should watch the deregulation process as it unfolds in your state.

Despite the fact that our energy will probably cost more due to market conditions, in the long-term, deregulation should bring about more competition resulting in lower prices. Although it is premature to draw any final conclusions, reports from DOD's main energy broker, the Defense Energy Support Center (DESC), do show an interesting downward trend.

In contracts recently awarded in New Jersey under deregulation, DESC estimated a 15% cost reduction in electricity. For customers in Maine, DESC estimates it effected a 7% reduction in electricity cost. For its customers in both Pennsylvania and New Jersey in the April time frame, DESC was able to effect a 10.7% cost reduction, with the largest portion ($140,000) accruing to Army installations.

In those same two states in October, DESC saved the Army almost $600,000 under deregulation. DESC is now working solicitations for deregulated electricity in Ohio, Maryland, Delaware, New York and West Virginia and continues to monitor deregulation in all fifty states.

Deregulation won't change the basic economic law of supply and demand for electricity and other energy commodities consumed by our installations, but DESC hopes that it can take a bite out of your energy costs by taking advantage of competition. Because DESC buys in such large quantities (We're talking billions of dollars!) it can achieve economies and pass the savings down to the ultimate DOD consumer at the installation level.

DESC is also using a new E-commerce technique, called "reverse auctioning" to bring customers lower energy prices. "Reverse auctioning" is a technique where the buyer (DESC, but ultimately DOD users) goes on line with selected, qualified providers and has them bid, electronically, against each other. This differs from the usual bidding process where a sealed, final bid is offered with no knowledge of what other bidders are submitting.

This innovative technique is still new but seems to elicit more favorable prices for energy. The same technique has been used by the Navy to buy spare parts, and you may see it in use in the near future in your own Directorate of Contracting.

One final suggestion-- if you are paying a contractor to act as your energy broker, save your money for you have one already – DESC. If you want to know more about how DESC can help you, go to the DESC web site (http://www.desc.dla.mil) or call 1-800-286-7633.

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Rich Dubicki works on the Utilities Engineering Team of OACSIM's Facilities and Housing Directorate. PWD

Services to have new Guide Specifications System soon

The Military Services plan to implement a new guide specifications system in March 2001. It should be available from the Military Services web sites (Army: http://www.hnd.usace.army.mil/techinfo/gspec.htm and Navy: http://www.efdlant.navfac.navy.mil/Lantops_15/home.htm) by the end of March 2001 and on CCB disk Number 56.

The new system has the name Unified Facilities Guide Specifications (UFGS) and will replace the current construction guide specifications of the Army Corps of Engineers, the Naval Facilities Engineering Command, and the Air Force Civil Engineer Support Agency.

This action is in accordance with House Conference Report 105-247, requiring unified design guidance for the Tri-Services.

The Army has been working with the other DoD services on the new guide specifications system for some time. By making it "official," the Army is making a permanent commitment to coordinate closely with the Navy and Air Force on technical criteria. In the long run, DoD will be presenting the private sector a more consistent set of construction project specifications, and, hopefully, avoiding some of the duplication of effort we see today.

POC is Rick Dahnke, CECW-ETE, (202) 761-4125, e-mail: rick.d.dahnke@usace.army.mil PWD

Helping to provide homes for the homeless

by Jeff Holste

"Home of the Homeless!" is how Jeff Holste answers his phone these days! As the McKinney Act program manager for HQUSACE Directorate of Military Programs, Installation Support Division, he coordinates submissions from Army installations of identified excess facilities with the Department of Housing and Urban Development (HUD), the Department of Health and Human Services as well as all interested homeless providers.

The McKinney Homeless Assistance Act, mandated by Public Law 101-645, "…requires the Army to have all facilities that are identified as unutilized, underutilized or excess be screened by HUD and made available to others, including homeless providers, prior to demolition." Notification is made by publication in the Federal Register printed by the Government Printing Office (GPO). In addition, results are posted, by Army installation, in the Headquarters Executive Information System (HQEIS).

Quarterly submissions are required by Title V of the Act, and this recent fourth quarter submission consisted of over 37 installations submitting 400 checklists for 410 buildings. In addition, more than 36 installations identified 200 buildings that were demolished in compliance with the Facility Reduction Program during this quarter. These notable increases are due to the increase in funding for the Facility Reduction Program from $20 million in past years to the $100 million for this year!

This program is an Army success story mainly due to installation real property personnel's responsiveness to the public law mandated quarterly update submissions. In addition, the overall true measure of success is that no one from the Army has been found guilty of non-compliance, as all excess facilities are made available to others prior to demolition.

POC is Jeff Holste, (202)761-5737,e-mail: jeff.e.holste@.usace.army.mil

Jeff Holste works in the Planning and Real Property Branch of the Directorate of Military Programs' Installation Support Division. PWD

Installation Management Steering Committee formed

Installation and garrison commanders and managers are faced with numerous installation management challenges across multiple programs. The collective effort required to successfully support our missions, soldiers and family members is tremendous and continues to grow. To pull together an Army level strategic view of these challenges, the Installation Management Steering Committee (IMSC) was provisionally established on 25 September 2000.

The IMSC is modeled it after the successful MWR BOD and EXCOM process. The IMSC includes, as voting members, all land holding MACOMs and the Assistant Chief of Staff for Installation Management.

The primary purpose of the IMSC is to review and approve major management strategies, plans, resources, and programs pertaining to base operations support and facility management. This includes the proactive investigation of all ways and means to improve installation management and making recommendations to the senior Army leadership. Also, inform and gain decisions from senior leadership on significant installation management issues.

A number of working groups were formed from the last IMSC to address issues such as installation management strategy, standardized installation TDA documentation, human resources management, the Army Facility Strategy, Reserve Component training support, Standard Service Costing and installation baseline services.

The proponent agency for the IMSC is the Plans and Operations Division, ACSIM. Minutes from the IMSC held on 25-26 September are available on the ACSIM web page under "Hot Topics," http://www.hqda.army.mil/acsimweb/homepage.shtml

POC is Vicki Gingrich, (703) 692-9238, DSN 222, e-mail: vicki.gingrich@hqda.army.mil PWD

Help available for pavement engineers

by Mary Adolf

With just a click of the mouse, help is on the way for pavement and railroad engineers!

For designers, PCASE (Pavement-Transportation Computer Assisted Structural Engineering) software is available to help determine pavement thicknesses for both airfields and roadways using many different scenarios in minutes. For evaluators, there is software for equipment support and analysis. The software can interpret nondestructive test data for use in pavement designs and evaluations. Analysis software is also available to determine pavement life, classification numbers, allowable loads and more.

In addition to the programs that design and evaluate pavements, there are programs that give temperature data, precipitation data, frost depths, aircraft information, soil stabilization guideline, and pay adjustments. Electronic files of standard detail drawings for pavements and railroads in both Intergraph and AutoCADD are also available.

All this software is developed by the Corps of Engineers through the PCASE program and is available at www.pcase.com. If you haven't visited the site, take a look. Be sure to register on-line, and you'll be notified electronically when programs are updated, new programs are released and workshops are scheduled.

In addition to being able to download software, the PCASE web site also offers:

• *A Message Board* for users to post questions on the programs or any pavement-related issue. A response is then posted back answering the user's question. Users can check the message board to see if similar problems, questions, or solutions exist.

• *A Chat Room* for users to ask the "expert." A specific time will be set up with an "expert" available for registered PCASE users to chat on-line. A message will be sent out to users via e-mail to let them know what the featured topic is, who the expert is and when the chat room will be open for comments and questions.

• *A Document Page* listing technical documents that the programs are based on and links to the documents that are available in electronic form.

• *A Links Page* that gives a catalog of transportation related web-sites.

PCASE also offers regional workshops, providing "hands-on" training on the use and availability of the software. It also covers some of the basics of design and evaluation criteria. The workshops are 2-3 days depending on the number of programs the hosting agency would like to cover. A schedule of upcoming workshops is posted on the PCASE homepage.

PCASE users can look forward to a new version of PCASE to be released for initial testing in January 2001. The new 2.0 release of PCASE is the first major release in almost a year (1.01 was released in February), but it promises to be worth the wait. The new version has multiple enhancements over the previous version and introduces a complete redesign of the user interface. No more individual programs-- all programs will run together under one "desktop" window and each application will be represented by a toolbar button. This new format promotes data sharing, allowing the programs to share layer and traffic information.

In addition to a new look, PCASE 2.0 has added several new capabilities. There is the new "Vehicle Edit Module" that allows users to create custom vehicles for use in the design and evaluation tools. There is also a "PDF Viewer." This tool shows the actual evaluation or design manual inside the desktop window and allows the user to press "F1" for help in a software component and have the manual go to the right page for assistance.

So be sure to check out the new desktop system when it becomes available. It will include several other new tools for your convenience when designing or evaluating pavements.

For more in formation on PCASE, please contact Mary Adolf, (402) 221-7265, e-mail: mary.j.adolf@usace.army.mil or Robert Walker, USACE-ERDC, (601) 634-2145, e-mail: walkerr@wes.army.mil

Mary Adolf works at the USACE Transportation Systems Center. PWD

Web 1391 status report update

Huntsville Center, in cooperation with Corps Headquarters, has made the DD1391 Processor System available via the worldwide web. The web-enabled system is known as Web1391 and is available at http://www.webpax.net.

Functionality/modules are being fielded as programming is completed. The following items are currently available in Web1391:

• DD1391 forms for the following programs may now be prepared, edited and processed through all review channels via Web1391: Military Construction, Army (MCA), Non-Appropriated Funds (NAF), Army Family Housing (AFH), Medical Facilities (MED), Defense Logistics Agency (DLA), Commercially Financed Facilities (CFF), Base Closure, Army (BCA), Special Operations Program (SOP), Section 6 Schools (S6S), Payment-in-Kind (PIK), Defense Finance & Accounting Service (DFAS), Chemical Demilitarization (ChemD), Army and Army & Air Force Exchange Service (AAFES), Maintenance & Repair (MR), Production Base Support (PBS), Ballistic Missile Defense Organization (BMDO), National Missile Defense (NMD), Theater Missile Defense (TMD), Barracks Upgrade (BUP), and Relocatable Buildings (RB).

• All supporting documentation for items such as Planning and Design, Antiterrorism Force Protection, Provisions

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Developing installation management generalists

by Dale Shaw

Dale Shaw

There has been a lot of discussion on the best way to develop installation management (IM) personnel to assume Executive Assistant (BASOPS) positions, and if they should contain a mobility clause. These positions, which include Deputy to the Garrison Commander and Base Operations Manager, function at the installation level and perform in a deputy capacity to the garrison commander.

Professional development for future candidates will include the Sustaining Base Leadership and Management (SBLM) Program (unless the candidate has already completed a senior service school). In addition, other careerists who function within the garrison environment, as well as IM professionals at the MACOM and DA levels, should have a clear understanding of the competencies and experience that would result in a highly qualified Executive Assistant candidate.

The Office of the Assistant Chief of Staff for Installation Management (OACSIM) is the personnel proponent for Career Field 29 (Installation Management), which is limited to these positions. For years, OACSIM sorted through the perplexing issues—some policy issues—surfaced by the Executive Assistants and other IM professional personnel.

For example, past human resources initiatives did little to recognize and develop the installation management workforce as a professional team. The IM Human Resources goal became to establish a career program through which civilian professionals can develop the desired competencies, gain diverse experience to serve as installation management generalists, and to assume senior IM positions. It became clear that the optimum solution would involve the support and cooperation of many players.

The Installation Strategy for the 21st Century (1993) contained a Human Resources Goal: Build a committed, versatile installation management team capable of meeting the complexities of a constantly changing environment. OACSIM has been persistent in exploring career enhancing opportunities for the Executive Assistants. Somewhere along the way, it was determined that it's feasible to embrace the installation management professional workforce across the command levels to establish a generalist career program – which would include the Executive Assistants. An installation management generalist is defined as a civilian professional who possesses a broad-based understanding of the complexities of the IM business at each command level, and is continuously developing competencies and seeking the diverse experiences needed to assume senior IM roles/positions.

In July 2000, OACSIM convened the first Installation Management Career Workshop to review information relevant to developing installation management generalists, and to discuss the feasibility of establishing a new career program for this workforce. Approximately 25 participants--Executive Assistants, MACOM BASOPS managers, career program managers, OACSIM functional personnel and subject matter experts from the Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs) and the US Army Force Management Support Agency reviewed the workshop documentation, discussed issues, and made significant contributions over a three-day period. Named the Installation Management Career Assessment Panel, this group will review and make recommendations to OACSIM on related issues. Plans are to hold annual meetings.

While the Executive Assistant position is the senior IM civilian position at ➤

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for the Handicapped, etc., may also be prepared via Web1391.

• Additional functions available include: automatic interfaces to PC-packages (ISCE and ECONPACK); standard directory, standard and reviewers prints, and Critical Items Data Sheets; routing functions (submit, return for correction, permit); form management functions (rank, archive, delete); and special functions (create/display comments, complete signature blocks).

Other modules/functions that will be fielded as completed include: global cost update functions; custom directories; DD1390; ENG3086; Special Design Instructions; and all budget books.

Scheduled completion of the entire system was December 31, 2000.

If you would like additional information, contact the Huntsville PAX Support Team at DSN 895-1838, or e-mail: Paxspt-Huntsville@hnd01.usace.army.mil

PWD

Correction

The November/December 2000 issue of the Public Works Digest inadvertently identified the author of the article titled "Catch the PAX surf" as Michael Rice when it should have been William Crambo. We apologize for any misunderstanding this may have caused. PWD

A-E Contracting Course provides necessary training

by Michael Organek

About 75 percent of the architectural and engineering work performed by the U.S. Army Corps of Engineers (USACE) is done by commercial architect-engineer (A-E) firms under contract – between $750 million and $1 billion annually.

For this reason, it is essential that the technical and contracting personnel (team) involved in A-E contracting be very knowledgeable and skillful in the laws, regulations, procedures and elements which comprise and relate to A-E contracting, including contract planning, source selection, negotiation, award, and administration. The A-E Contracting Course (PROSPECT) offered at Huntsville was specifically designed to meet this requirement.

Contracting professionals need to assume their responsibilities as contract negotiators. The Contracting Officer or his/her designee within the Contracting Division should be the lead negotiator for A-E contracts. Contracting professionals should be selected, educated, and trained in A-E contract negotiations in order to evolve into their proper role and assignment of duties as lead negotiators for A-E contracts.

The A-E Contracting Course recognizes the qualities and responsibilities of the government negotiator, the factors which affect the negotiation conference. Emphasis is placed upon the potential pitfalls of bottom line negotiations. The course stresses the high ethical standards required of negotiators and places emphasis on the individual becoming familiar with the arts and techniques of negotiations. It also differentiates among negotiating for fixed-price contracts, indefinite- ➤

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the installation level, the other command levels are critical to executing the Army's installation management mission. OACSIM is pursuing opportunities to develop broad-based careers. A careerist aspiring to compete for Deputy Assistant Chief of Staff for Installation Management (senior DA position), Deputy Chief of Staff for Base Operations Support or Assistant Deputy Chief of Staff for Personnel and Installation Management (senior MACOM positions) vacancies should know early-on what it takes to be a well-qualified candidate.

There are 34 separate career fields in the IM environment. Future candidates for these positions should have experience in the IM roles at each command level and should have acquired more than one skill. This is the core of the installation management generalist concept.

Many initiatives are working simultaneously within OACSIM to accomplish the goal. Program execution will encompass several HQDA approval authorities. Members of the IM Career Assessment Panel and IM Steering Committee (IMSC) working groups support OACSIM in a variety of ways.

The installation management human resources outlook includes:

- *Mobility.*
- *A rotation base for CF 29 personnel and other IM generalists.*
- *A strategic plan for an IM generalist career program IAW CPMS XXI guidelines.*
- *A guideline of experience and competencies for IM generalists.*
- *IM developmental assignments.*
- *Recommended professional development and training.*
- *A system for mentoring and counseling.*

OACSIM has established a human resources home page on the ACSIM web site (http://www.hqda.army.mil/acsimweb/homepage.shtml), although many blanks are still being filled-in. Civilian employees will be able to access information on CF 29 vacancies, OACSIM vacancies, and developmental assignment opportunities throughout the installation management position structure.

In addition, there are links to other helpful web sites. Personnel interested in city management should access the International City/County Management Association (ICMA) web site, which identifies competencies and provides related information.

As OACSIM progresses in its human resources efforts, employees will be able to view the revised ACTEDS Plan and professional development opportunities. The HR Program Manager would appreciate any suggestions on how to improve the home page, should be completed by Summer 2001, and make it more useful.

OACSIM has come a long way in pursuing the HR goal, but the road to OASA(M&RA) approval of a career program for IM generalists is still full of impediments. It will take the concerted, cooperative and collaborative efforts of all affected parties to succeed. The support to date has been valuable and much appreciated.

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Dale Shaw is the HR Program Manager at OACSIM. PWD

Sustainable Design and Development training

A Tri-service group has developed a three-day Sustainable Design and Development (SDD) training course, and a team made up of USACE personnel has been using this course to train Army personnel at selected USACE Districts. DPW personnel are encouraged to take advantage of these wonderful training opportunities. ACSIM, MACOMs and/or pertinent districts will notify installations of these workshops.

Many of you have heard these latest buzzwords and are wondering what they mean. SDD is an evolving concept and process for the systematic consideration of current and future impacts of an activity, product or decision on the environment, energy use, natural resources, the economy and quality of life. Industry and government agencies continue to develop SDD criteria, checklists and scoring systems. Incorporating SDD into installation and project decisions will help integrate best building practices, technologies, energy conservation and environmental considerations into installation planning and facility projects.

In engineer terms, SDD is the design, construction, operation and reuse/removal of the built environment in an environmentally- and energy-efficient manner. It meets the needs of today without compromising the ability of future generations to meet their needs.

The following Executive Orders and related White House Task Force on Global Climate Change recommend that Federal Agencies adopt the principles and concept of SDD:

- Executive Order 12852,Presidentís Council on Sustainable Development.
- Executive Order 13101, Greening the Government through Waste Prevention, Recycling and Federal Acquisition.
- Executive Order 13123, Greening the Government through Efficient Energy Management.

The Army has established policy that the concept and principles of Sustainable Design and Development shall be incorporated into installation planning and infrastructure projects. As a result, ACSIM and USACE have been taking various actions to include SDD into infrastructure projects, guide specifications, A&E selection criteria, value engineering, and design-build contract language.

In addition, technology showcase projects are being considered to seek opportunities to infuse new technologies and innovative business practices into the planning, programming, design, contracting, construction and operations of all Facilities projects.

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David Bohl, CECW-EWS, (703) 428-7121, e-mail: david.c.bohl@usace.army.mil ;

and at ACSIM, John Scharl, DAIM-FDF-M, (703) 428-7614, e-mail: scharja@hqda.army.mil

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delivery contracts, and task orders.

"Acquisition Planning" means the process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner at a reasonable cost.

EFARS 7.103 requires Formal Acquisition Plans for Indefinite-Delivery type contracts (IDC) above $15M for all years or above $5M for any one year. This also includes any contract that extends beyond a USACE Major Subordinate Command's (MSCs) geographical boundary or is nationwide. FAR Subpart 5 requires A-E services above $10,000 to be synopsized/announced in the Commerce Business Daily (CBD).

The A-E preselection evaluation is based upon the "Architect-Engineer and Related Services Questionnaire (SF 254)," which is in essence the A-E firm's resume. The other essential factor involved in the A-E preselection evaluation is the "Architect-Engineer and Related Services Questionnaire for a Specific Project (SF 255)," which is submitted in response to a CBD synopsis and lists the A-E firm's qualifications for that particular project.

The A-E preselection and selection boards are composed of professional personnel with experience in engineering, architecture, construction, and contracting. Their selection is based upon comparing the A-E firm's qualifications using the criteria in the CBD synopsis using qualitative or quantitative methods.

The A-E Contracting Course identifies the Factual Items of the A-E proposal, such as labor rates, overhead rates, unit travel costs, and printing costs versus Judgmental Items of the A-E proposal, such as labor hours, disciplines and levels of expertise, number of drawings, and computer time.

Success in A-E contracting is the same as any other discipline. For an individual to be proficient and successful in any area requires education, experience, respective to change, and being prepared for the known and the unknown.

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Michael Organek works in the Office of the Principal Assistant Responsible for Contracting at HQUSACE. PWD

Training in Software Test and Evaluation with Metrics

Training in Software Test and Evaluation with Metrics is conducted regularly by the Army Test and Evaluation Command (ATEC). This training is for functional proponents, system managers, software developers, and others who are involved in the development or maintenance of one or more automated information systems (AIS).

The Software Metrics is a mechanism to measure and track critical issues related to the development and maintenance of an AIS.

DoD 5000.2-R, Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs, March 15, 1996, requires that AIS project managers submit a quarterly report to the Milestone Approval Authority. This report must address six issue areas concerning the AIS including cost, schedule, and functionality. This class shows how to use Software Metrics in addressing these areas properly. (Other references include DA PAM 73-7, Software Test and Evaluation Guidelines, 25 July 1997; and ER 25-1-2, Life Cycle Management of Information Systems (LCMIS), 31 August 1999.)

The Deputy Commanding General requires use of these metrics for all AISs in the Army Corps of Engineers that have a program cost of $2.5M or greater. Their use is also recommended for any Corps-wide standard AIS regardless of program cost.

A three-day training session will be conducted at the US Army Information Integration and Analysis Center, 5285 Shawnee Road, Suite 200, Alexandria, Virginia on 27 February to 1 March 2001. Tuition is free for members of the Department of Defense; however, the sending agency is responsible for the cost of travel and lodging for the student.

The training is conducted as a combination of lecture, discussion, and hands-on exercises. Students work exercises with existing metrics tools to evaluate metrics data and determine software status.

In addition to describing the Army metrics program, the course material is tailored to include other useful software T&E topics such as:

- The Practical Software Measurement (PSM) process and Guide.
- Demonstration of the DoD-recommended metrics tool, PSM Insight.
- Metrics policy for DoD-oversight systems.
- Metrics policies of other DoD and Federal agencies.
- DoD requirements for software metrics in a TEMP.
- Lessons learned from other DoD and commercial metrics programs.
- Tailoring software metrics to specific software development or maintenance efforts.
- Software measurement on programs with no formal metrics data reporting, using existing data sources and informal records.

In addition to learning about the Army metrics program, the student will receive the latest upgrade to INSIGHT, which is a PC-based automated tool designed to track the progress of an AIS project throughout its life cycle. More detailed information on these metrics may be obtained on the World Wide Web at http://www.armysoftwaremetrics.org/

Any AIS functional proponents, system managers, software developers, or anyone interested in attending this class should contact Scott Lucero, the Army Software Metrics System Administrator, at (703) 681-3823. Link to the training and class description for a copy of the class schedule and agenda. Registration for this course is already underway. Please contact the help desk to register.

POC is Rafael Pargas, (202) 761-5967 DSN 763. PWD

What do you do when...?

by Jeff Holste

What do you do when you have over 30 installation personnel who require training in DPW Real Property Management? They're also located halfway on the other side of the world in the Far East and travel funds are very limited.

What you do is call the registrar at the Professional Development Support Center (PDSC), Huntsville. They can arrange for instructors to travel from the United States to present a class onsite. And that's just what Headquarters, 19th Theater Support Command, Taegu, Korea, Eighth US Army, did last year.

Once the actual training requirement was forwarded to PDSC, a preliminary cost analysis indicated that it was far more economical for three instructors to travel from the U.S. to teach onsite than for 30 students to travel to the U.S.

The Real Property Management Course was conducted onsite in Taegu, Korea, this past August. It provided the most up-to-date information on the very broad range of Army real property management responsibilities.

Immediate benefits of this onsite class in Korea were realized in the recent submittal of the biannual Real Property Inventory. The error rate of real property records was significantly reduced compared to the previous year's submittals.

Congratulations to all 19th Theater Support Command Real Property Management graduates!

Jeff.e.Holste@usace.army.mil (202)761-5737
PDSC registrar (256) 895-7425 PWD

Real Property, Real Estate and Master Planning PROSPECT Training

by Jeff Holste

Real Property, Real Estate and Master Planning installation personnel have been busy attending several Proponent Sponsored Engineer Corps Training (PROSPECT) Program courses. HQUSACE, Military Programs, Installation Support Division's Planning and Real Property Branch serves as the technical proponent for many of these classes. With support and coordination from the USACE Professional Development Support Center (PDSC), Huntsville, Alabama, we are able to provide these courses throughout the year.

We have a very ambitious schedule planned for the upcoming year as well. For your planning purposes, following is a list of course dates, titles, and locations. Hope to see you there!

To enroll, please FAX or mail an approved DD 1556 training form to: USACE Professional Development & Support Center, ATTN: CEHR-P-RG, P0 Box 1600, Huntsville, AL 35807-4301.

Registrars:

Sherry Whitaker, (256) 895-7425; and
Jackie Moore, (256) 895-7421,
FAX: (256) 895-7469.

Training Coordinators:

Real Property Management:
Jeff Holste, (202)761-5737, DSN 763,
e-mail: jeff.e.holste@usace.army.mil

Real Property Applied Skills:
Mike Edwards, (202)761-5731, DSN 763,
e-mail: mike.j.edwardscd@usace.army.mil

Master Planning:
Jerry Zekert, (202) 761-5789, DSN 763,
e-mail: jerry.c.zekert@usace.army.mil

Real Estate:
Janice Howell, (202) 761-7423, DSN 763,
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PWD

Register now!

Are you executing your real property repair contract properly? Are you familiar with performance-based contracting? Are you using the Progress Reporting System? If you need help in these areas, the Installation Support Training Division in Huntsville, Alabama, has openings in the following course sessions:

#990-DPW JOC Basic, Session 2001-02, 1-4 May 2001, Huntsville, AL - addresses the basic policies and procedures for properly executing real property repair and minor construction using a Job Order Contracting (JOC) contract applicable to the Directorate of Public Works organization on an Army installation or community. The course is targeted to personnel assigned duties in the JOC activity within the DPW and personnel of the supporting contracting office who will be involved in the JOC contract administration. Tuition is $625 per student.

#979-DPW PBCI (Pre-Award), Session 2001-01, 14-18 May 2001, Huntsville, AL - emphasizes the regulatory requirements, policies and procedures governing the performance-based contracting (PBC) methodology. Tuition is $610 per student.

#974-DPW PBCII (Post-Award), Session 2001-01, 21-25 May 2001, Huntsville, AL - emphasizes performance-based contracting surveillance monitoring techniques including the Progress Reporting System (PRS), Quality Assurance Surveillance Plan (QASP), random sampling techniques, contract administration, and contract close-out procedures. Tuition is $610 per student.

The PBCI and PBCII courses are targeted to contracting officers, contracts specialists, facilities managers, maintenance staff, planners, estimators, and quality assurance evaluators who are or will be involved in pre-award and/or administering service contracts.
For more information about these and other courses offered by the Professional Development Support Center, Installation Support Training Division (ISTD), please go to their website: http://pdsc.usace.army.mil

POC is Joe Pickett, PDSC/ISTD Course Manager, (256) 895-7445 DSN: 760, FAX: (256) 895-7478, e-mail: joseph.c.pickett@hnd01.usace.army.mil PWD

Date		Title	Location
26 Feb -	2 Mar 01	Real Estate Basic Outgrant/Disposal	Savannah, GA
6-9	Mar 01	Real Property Management	Las Vegas, NV
19-23	Mar 01	Real Estate Acquisition	San Antonio, TX
2-6	Apr 01	Real Estate Appraisal/Leasing	Nashville, TN
7-11	May 01	Space Utilization	Huntsville, AL
7-10	May 01	Real Estate Mgmt & Disposal	Portland, OR
21-25	May 01	Real Estate Acquisition	San Antonio, TX
12-15	June 01	Real Estate Condemnation	Seattle, WA
23-26	Jul 01	Real Property Management	Huntsville, AL
13-16	Aug 01	Real Estate Planning & Control	Las Vegas, NV
4-7	Mar 02	Real Property Management	Portland, OR
22-25	Jul 02	Real Property Management	Huntsville, AL

Fort Carson prescribed fire program reduces risk, saves money

by Susan C. Galentine

Starting fires to prevent fires sounds like an odd means to an end, but it works effectively on Fort Carson. Fort Carson's Prescribed Fire Program has been charged with managing potential wildland fire in "fuels" (dry vegetation) and has been doing so successfully without incidence since 1989.

In addition to lessening the risk of wildfires and minimizing smoke impacts on the surrounding communities, conducting prescribed fires increases the amount of time soldiers can train and saves hundreds of thousands of dollars required to control wildland fires which usually damage twice the area than planned fires, said Verne Witham, Chief of Fire and Emergency Services for Fort Carson.

Prescribed fires are planned fires ignited under specific conditions. Planning fires promotes the same benefits to nature as wildfires; however, they are controlled and thereby reduce the risk to surrounding communities. One of the environmental benefits of prescribed fires includes controlled reduction of dead wood and brush thereby revitalizing soil fertility and encouraging healthy vegetation re-growth.

CPT Tom Tillman (Fort Carson Fire Department), Fort Carson's prescribed fire "Burn Boss," initiated the prescribed fire program at Fort Carson in 1986 after transferring to Fort Carson from the U.S. Department of Agriculture, where he was trained at that time in the relatively new area of prescribed fires. His objective at Fort Carson was to save training dollars by burning areas that were historically susceptible to unplanned fires due to training activities. By initiating planned fires under prescription conditions in these areas, said Tillman, military training activities stopped being shut down for extended periods of time thereby saving millions of taxpayer dollars a year.

Approximately 26,000 installation acres are scheduled for prescribed fires annually, mostly at the small and large impact training areas and a few select areas where noxious weeds are destroyed. However, only 3,000 to 10,000 acres are actually burned due to training schedule conflicts at specific sites as well as inadequate conditions to fully meet the detailed requirements of the "Go-No-Go" checklist that must be followed completely prior to initiating any planned fire on Fort Carson.

Firefighter Peter Wolf puts down foam line to prevent the spread of a prescribed fire.

The "Go-No-Go" checklist, which is part of the Fort Carson's Prescribed Fire Plan, requires confirmation of such areas as acceptable weather conditions, adequate smoke dispersion and all appropriate notifications to on- and off-post agencies. "You are doing it (prescribed fires) in a very controlled window based on 'fuel' conditions, weather and topography to achieve the desired management results," explained Tillman. "In our case it is for hazard reduction."

According to Tillman, the prescribed fire team coordinates with the installation's Directorate of Environmental Compliance and Management in applying for a permit from the Colorado Department of Public Health and Environment Air Quality Division Smoke Management Program and implements the Fort Carson Fire and Emergency Services Prescribed Fire Plan each year. The installation prescribed fire program is conducted throughout most of the year, except from November to February, when the installation complies with El Paso County guidelines and halts all planned ignitions due to air quality concerns associated with the season's frequent atmospheric inversions.

Second only to the primary goal of reducing fire hazards are air quality conditions during prescribed fires. "Air quality is a high priority for Fort Carson," said Tami Morton, DECAM Air Quality Program Manager. "We voluntarily enforce a strict smoke management program that includes not only guidelines for smoke gener-

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(continued from previous page)

ated during training activities, but just as importantly, smoke resulting from prescribed fires to ensure minimal impact to our neighbors."

Only specially trained, "Red Carded," fire fighters can participate in a prescribed fire on Fort Carson. Currently, the installation has 26 people qualified to attend to such fires, but frequently receives requests from additional qualified fire fighters from other land management agencies, in the surrounding geographical area, to assist in Fort Carson's larger burns.

Although deliberately igniting fires might make some feel uneasy about the ability to control the spread, Fort Carson has a variety of effective natural and physical ways to manage the boundaries of the fire. Often the way prescribed fires are planned, boundaries such as the roadway system and rock outcroppings are used as natural fire breaks to stop the spread of fire. If the area does not provide such natural boundaries, firefighters can improve old existing roadbeds, which would stop the fire, said Tillman. Another method is the application of a high expansion foam line similar to liquid detergent along the designated boundary. The foam acts as a repellant stopping the spread of the fire.

Fire and Colorado's dry climate can make for a combustible duo capable of untold damage if not kept in check. Fort Carson's Prescribed Fire Program has the right prescription to gain positive results from a potentially negative situation.

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Susan C. Galentine is a DECAM contributing writer. PWD

Pollution prevention through process improvements

by Richard Pilatzke and Kenyon Hunt

Fort Carson is a major U.S. Army Forces Command installation located approximately five miles south of Colorado Springs, Colorado. The installation has operated a Federally Owned Treatment Works (FOTW) since it became operational in 1942. It has an effective population equivalent of 20,000, making it comparable to many small municipal wastewater systems.

A major plant upgrade at Fort Carson was completed in December 1998. The existing two-stage trickling filter plant was replaced with a new oxidation ditch system. Prior to the new construction, cold weather discharges of ammonia to Fountain Creek were as high as 8-10 mg/l. Nitrate discharges were also high, commonly in the 20-25 mg/l range.

The new plant design included two jet-aerated oxidation ditches designed to operate in continuous aeration mode. This operation allowed an anoxic zone and an oxic zone to be maintained within the ditch simultaneously for nitrification and denitrification. After operating the plant for almost a year in continuous aeration mode, the Fort Carson plant operators switched the operation mode to plug or batch mode approximating a sequencing batch reactor.

The operators aerate the ditch for two-to-three hours, allowing conversion of ammonia to nitrate. They then turn the aerators off on the ditch for one full hour, allowing the wastewater to turn anoxic and allowing conversion of nitrate to gaseous nitrogen. This operating mode has proved to be extremely effective, with nitrogen removal of greater than 96 percent achieved in July and August of 2000. Discharge levels of ammonia were less than 0.5 mg/L in those months and nitrate discharges averaged 0.7 mg/L.

The process change in nitrification/denitrification has resulted in a net decrease of 40,000 pounds per year of nitrate discharges and 28,000 pounds of ammonia discharges to Fountain Creek and a major regional improvement of water quality within the watershed.

The team behind the startup of the new plant: Dan Golden, Chick Crosby and Richard Pilatzke.

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Army plans environmental transformation

by Cynthia Houston

Solar and geothermal energy sources, "green" bullets, and alternatively-fueled vehicles maybe commonplace on 21st-century Army installations.

Such innovations were among issues discussed at the Army Worldwide Environmental and Energy Conference held last in Atlanta, Georgia. The conference brought together Army leaders, installation managers and civilian agency representatives to discuss critical environmental and energy issues facing the Army as it transitions into the future.

Outcomes of this first-of-its-kind summit will yield marching orders for the Army's environmental campaign plan and operational directive, officials said, and will lead to the integration of environment and energy in support of new Army objectives.

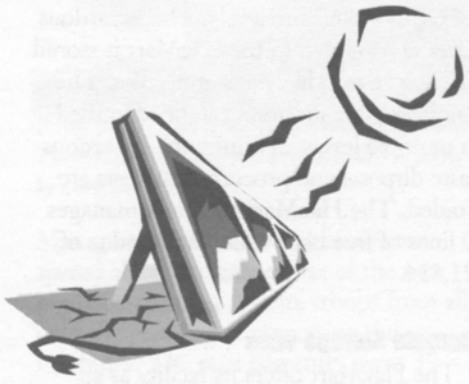
"The Army is in transformation, and we have a distinct set of goals," said Ray [illegible]k, Principal Deputy to the Assistant [illegible]retary of the Army for Installations and the Environment, addressing more than 450 Army experts on energy and environment. We're going to learn how to make our installations last through the year 2050 as well as they have served us up to the year 2000."

For the soldier and installation staff, this means learning how the Army can best regionally manage land and natural resources, create energy-efficient posts and execute sustainable range operations, officials said.

Fort Huachuca, Arizona, has been operating with solar energy for the past 20 years in the form of conventional solar hot water heaters and photovoltaics, or direct electric production from the sun. The conference allowed energy professionals like Bill Stein from the post to share knowledge learned through the years with other posts new to such energy technologies.

"Currently, Fort Huachuca is installing daylighting systems and two solar walls in our two main hangers," said Stein, the [illegible]rgy coordinator and utility sales officer [illegible]the U.S. Army Intelligence Center and Fort Huachuca. While solar panels harness the sun's energy for use at a later time, daylighting captures the intensity of the sun's brightness and distributes that 'daylight' indoors, removing the need for artificial lighting.

"As we increase the daylighting use on the fort, most people will enjoy a better work environment. Studies have shown



that people work better in daylight than with artificial light," Stein said to the conference participants.

The conference also targeted innovations in training. Many posts already have Integrated Training Area Management programs that ensure training operations include natural resource conservation practices. Others have received green bullets, the lead-free 5.56mm bullets used in small arms training. In the future, these range sustainment practices will increase.

"The Army has established two initial brigades at Fort Lewis, Washington, to facilitate the overall Army transformation," said Ted Reid, the Integrated Training Area Management program manager at Forces Command. Knowledge gained from the Lewis' brigades will address valuable environmental challenges, Reid said.

"The Training and Doctrine Command and the Fort Lewis staff are developing new warfighting and training doctrine for the transformation force," said Reid. "This will influence future range and training land requirements to accommodate new weapons systems vehicles and tactics the transformation force will use."

Others contributing in Atlanta to discussions on Army environmental initiatives were leaders from the White House Council on Environmental Quality, the Environmental Protection Agency, the Department of Energy and the U.S. Fish and Wildlife Service. Many took the time to tour alternatively-fueled vehicles, displayed to demonstrate future technologies which will cut costs and emissions for the Army's quarter of a million trucks.

Conference organizers said participants left with a clearer understanding of how to best integrate tactics for the Army environmental campaign and take on the daunting task of creating the next generation of sustainable Army installations.

Cynthia Houston works at the Army Environmental Center Public Affairs Office, Aberdeen Proving Ground, MD. PWD

Paint Center expands web site

If you haven't visited the Corps of Engineers Paint Technology Center (PTC) web page for awhile, you may want to revisit it. The PTC, located at CERL in Champaign, Illinois, recently updated and expanded its web site to include much useful information on paints and other coating systems. It now has links to relevant guide specifications, technical reports, and expert advice. Go to the CERL home page, http://www.cecer.army.mil and click on the "What's Hot" button. Or to speak with a coatings expert, call Al Beitelman at (217) 373-7237. PWD

HazMart program benefits Fort Bliss community

by Juliet A. Batalon

Under the umbrella of the Directorate of Public Works and Logistics (DPW&L), the Fort Bliss HazMart opened its doors for business in 1998. The mission of the HazMart is to provide a world-class environmental compliance program for Fort Bliss organizations and tenant activities by increasing environmental awareness through training, establishing a centralized life management of hazardous materials, and implementing new or better ways of reducing hazardous waste for the betterment of the Fort Bliss community.

The HazMart serves as the central point for storage and handling on the installation from which activities receive their hazardous materials required to complete their mission. Using an automated system called the Hazardous Substance Management System (HSMS), it tracks all hazardous materials brought onto the installation from requisition through use or disposal and compiles data for the annual Emergency Planning and Community Right-To-Know Act (EPCRA) reports that are required by EPA regulations.

The system is able to produce numerous reports such as hazardous material inventory by locations, chemicals at any given location (stored or used), and the hazardous components of a material. The data gathered could be used in a multitude of ways to provide detailed information of the installation's hazardous material activity as it relates to environmental concerns.

The HazMart currently manages a total of 356 lines with a dollar of $279,320. DPW&L ASL makes up over 50% of the managed stock at 187 lines with a value of $212,867. The remaining items managed are part of the Re-Use Center and Alternate Storage Site programs. HSMS transactions for the current year have averaged at 1255 per month.

In addition to the storage and handling of hazardous materials for DPW&L, the HazMart has established programs that have proven very beneficial for the Fort Bliss Community.

Re-Use Center (Free Issue)

The Free Issue center has proven to be one the most popular and very successful programs within the HazMart. The center accepts serviceable material from units that no longer require the items or have items in excess of their use levels. The hazardous material turned in to the HazMart is stored for re-issue to other units at no cost. The benefits of this program can be identified on multiple levels, at minimum, hazardous waste disposal and procurement costs are avoided. The HazMart currently manages 90 lines of free issue which has a value of $21,534.

Alternate Storage Sites

The HazMart offers its facility as an alternative storage site for installation activities that have difficulties with on-site storage of their hazardous materials, whether it is lack of storage space or storage facilities that are not in compliance. There are currently nine activities who participate in this program. The HazMart stores 169 lines with a dollar value of $66,452.

Fluorescent tubes and Aerosol can collection point

The HazMart houses specialized equipment which are designed to separate the hazardous components contained in spent fluorescent tubes and aerosol cans. The spent tubes and aerosol cans are turned into the Hazmart by the Fort Bliss community. Fluorescent tube collection has reached over 6,800 since inception of the program. The hazardous mercury vapor in the tube is filtered out and the remaining material (dunnage) is accumulated for disposal. The program has processed 5-55gl drums (or 3,500 lbs) of dunnage. Spent aerosol cans are processed in a similar manner. The residue from the cans is collected and placed in separate drums. Approximately 30 gallons of paint and 15 gallons of lubricant have been collected through this process. This program is conducted in conjunction with the Directorate of Environment.

Shelf Life Extension Program

HazMart personnel have assisted numerous activities on the installation in correctly identifying and extending the shelf life of hazardous materials. Statistics identify that a large percentage of hazardous waste sent for disposal has been due to shelf life expiration. The HazMart has been able to extend the shelf life of hazardous materiel over the past two years at a procurement cost savings of $84,259 and avoided sending 99,291 lbs for hazardous waste disposal and estimated disposal costs of $337,036.

Household Hazardous Waste and Material Turn in Site (HHHW)

Established in July 2000 as a three month pilot project, the successful results and overwhelmingly positive response from the Fort Bliss Community has resulted in the Household Hazardous Waste Program becoming a permanent fixture at the HazMart facility. In the first three months

COST AVOIDANCE FEBRUARY 1998 to 2000

Procurement Cost Avoidance	$284,618
HW Cost Avoidance Disposal	$1,138,472
Hazardous Waste Disposal Avoidance (lbs)	298,778 lbs

Environmentally-friendly cleaning for small arms

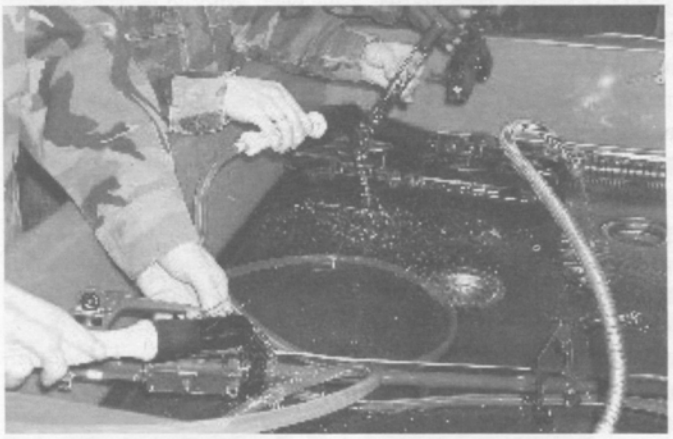
by K. Kelly O'Neill and Richard H. Pilatzke

A safe, yet effective cleaning agent for small arms is a constant concern of the ordnance community.

Traditional weapons cleaning solvents have been a concern for the environmental community for years. Soldiers at Fort Carson now have an effective, safer method for cleaning their weapons that also reduces the amount of hazardous chemicals that require disposal.

The new method is a weapons cleaning system that is similar to a vehicle parts cleaner, but is specifically designed for small arms, with a pump, a sprayer, dual flow-through brushes and presoak baskets. The solvent used for this system has a low vapor pressure to control volatile organic compound (VOC) emissions, is non-carcinogenic, does not contain chemicals listed by the Emergency Planning and Community Right-To-Know Act (EPCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or the Resource Conservation and Recovery Act (RCRA), and worker exposure is not regulated by the Occupational Safety and Health Act (OSHA).

Originally, a pilot study was initiated by Fort Carson's Directorate of Environmental Compliance and Management (DECAM), but as word spread about the ease of use of the new weapons-cleaning system, troops from all over the post began requesting the machines. The post currently owns 39 weapons cleaners.



The environmentally-friendly weapons cleaning system purchased by Fort Carson.

The new weapons cleaners proved not only to have environmental benefits, but efficiency benefits as well. Average cleaning times for nearly all weapons used with the new system was usually one-tenth less than the traditional Spray and Wipe cleaning method. Cost reduction in man-hours for one weapons cleaner in a 600 troop company with eight cleanings per year reduces labor by 18,000 hours, providing for a 17 day payback for the initial purchase of the machine and solvent.

Other advantages to the new weapons cleaning system are lowered human exposure to hazardous chemical, improved troop morale, and reduction of the smell that traditional solvents have. Due to the numerous beneflts of the new machine and solvent, soldiers are providing maintenance on the machines and as word spreads, the machines are being used extensively throughout the post.

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(continued from previous page)

of its existence, the program collected over 1,400 lbs of hazardous waste and materials which totaled of approximately $2,000; re-issued over $500 worth of material; and disposed of 900 lbs of hazardous waste in the proper environmental manner. This innovative program was created in cooperation with DPW&L and DOE to provide the Fort Bliss community the opportunity to rid their homes of household hazardous waste and material in a safe and environmentally responsible manner. The first of its type to be established on an Army installation, this program encompasses both the collection of household hazardous wastes and provides a central issue point for the re-use of household hazardous materials.

In addition to the programs detailed, the HazMart also manages (1) Authorization for Local Purchase of Hazardous Materials; (2) Centralized MSDS Facility; (3) Resource on Hazardous Material Policies & Guideline; (4) Alternative Use Sizes of Hazardous Materials; and (5) Environmentally friendly Material Substitutes. The HazMart is constantly in the process of implementing new programs.

The success of the HazMart program is measured by numerous factors which can be attributed, but not limited to hazardous waste disposal and material procurement cost avoidance. As the chart indicates, the benefits of a HazMart program are self evident in the numbers. However, the accomplishments of the program should not only be measured in terms of dollar value savings but more importantly in the increasing levels of environmental awareness and responsibilities. The increase in the latter will inevitably increase the former. The continual support of the HazMart program will ensure that the installation's goals on hazardous material management and the environment are met and eventually surpassed.

For more information on the HazMart, please contact Timothy McCarthy at (915) 568-0317 or e-mail: mccarthyt@bliss.army.mil

Juliet A. Batalon is a contractor at Fort Bliss.

PWD

Army lead and asbestos hazard management

by Jim Routson

The Army is firmly committed to the principals of readiness through health, quality facilities for quality soldiers, preservation of the environment, and compliance with federal laws and regulations.The Army supports these principals by providing Commanders with the tools and information needed to protect our facilities workers from lead and asbestos.

Part II of the FY00 Installation Status Report provides Commanders with a means to report compliance with important environmental requirements. An analysis of this latest information shows that some Army installations still need to complete lead and asbestos hazard surveys and to establish or complete appropriate hazard management plans.

In the last several Fiscal Years, workers who may have been exposed to asbestos have reached settlements with the Army for Environmental Differential Pay totaling nearly $80,000,000. In addition, the unexpected presence of lead and asbestos during execution of major repair or renovation projects has often resulted in substantial cost increases for project modifications. This additional demand on reduced Army funding can be avoided if installations know the location and condition of these hazardous materials in Army facilities and use this information in developing and implementing quality hazard management plans and project designs.

Commanders are urged to increase their emphasis and to commit the resources in manpower and funding necessary to establish and sustain quality lead and asbestos hazard management programs. The readiness of our soldiers and the health of their families and workers depend upon this commitment.

Please visit the new ACSIM lead and asbestos web site for more information on Army services, policies, technical guidance, and tools at http://www.hqda.army.mil/acsimweb/fd/policy/facenglea.htm.

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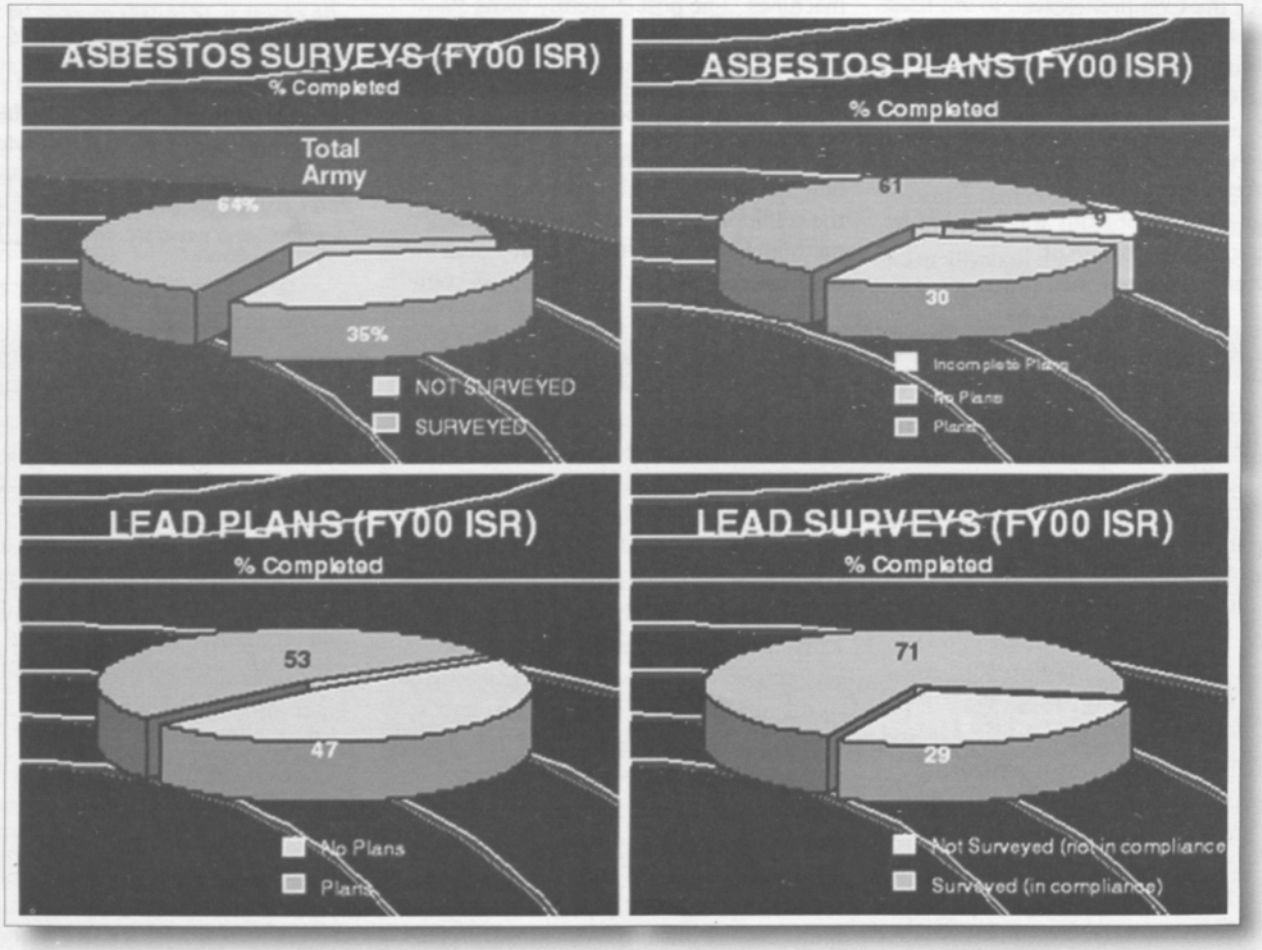

Blastox reduces costs for lead paint removal

by Susan Drozdz and Gordon Cohen

An additive for abrasive blast media can render lead-based paint waste chemically non-leachable and reduce paint removal costs by up to 30 percent. The product, marketed by TDJ Group under the trade name Blastox®, transforms conventional blast media into an "engineered abrasive" that chemically stabilizes the lead content upon mixture with water, making the blast waste suitable for disposal in a regular landfill.

U.S. consumer protection laws prohibit the use of lead-pigmented coatings in all applications that would put children at risk of direct exposure. However, lead-based paints are not banned from industrial and civil engineering structures, and although its use is declining, it is still preferred for such applications because of its superior coating, penetration, and corrosion-resistance. Moreover, lead coatings on buildings applied prior to the 1978 ban often still ...e the paint on surfaces.

Lead-based paints are relatively inexpensive to apply because they do not require a high degree of surface preparation as do lead-free coatings based on zinc powder and other materials. But lead-based coatings must be removed once they have begun to fail, either to prepare the substrate for recoating or to entirely replace the existing coating with a lead-free system. In either case the preferred removal method is abrasive blasting. This process generates a large amount of lead-contaminated waste which previously had to be disposed of in a special type of landfill for hazardous waste -- at a premium price.

Blastox® is a calcium silicate-based cementitious material. A research collaboration between the Engineer Research and Development Center's Construction Engineering Research Laboratory (CERL), TDJ, EPA, Army Environmental Center and others has proven Blastox® safe for use on DoD structures. Its composition is designed to exploit known chemical reactions between calcium silicate materials and ...d. In the presence of water, the spent ...t media (the mixture of abrasive materi..., Blastox®, and lead-based paint solids) undergoes chemical reactions and changes in physical properties occur that reduce the leachability of the lead in the final solid waste residue.

Environmental hazards of lead paint disposal can be reduced with engineered abrasives... and so can project costs.

The calcium silicates dissociate to create carbonates and hydroxides, which raises the pH of the solution to a range of 10.0 – 11.3. This change in pH both promotes the hydration reaction that transforms the waste-containing solution to a cementitious solid and falls within the range at which lead pigments are least soluble.

When the hydration reaction is complete, the chemically immobilized lead is physically encapsulated in a solid cement-like matrix. The physical properties of this solid mass reinforce the chemical immobilization of the lead mainly by preventing water from percolating through the waste material.

CERL conducted a series of X-ray diffraction, X-ray fluorescence, energy-dispersive spectroscopy, and scanning electron microscopy studies to verify the chemistry of the Blastox® material and the stabilized waste residue. The studies validated the manufacturer's claim that Blastox® reduces lead waste leachability to levels considered non-hazardous by EPA.

After completion of the laboratory experiments, a series of field tests was conducted at five Army installations to evaluate the usability and productivity of this technology in the "real world." Those tests, and thousands of third-party paint-removal projects since that time, clearly demonstrate that Blastox® can be applied in the same way as any other conventional blast medium using stock abrasive blasting equipment. The product can be applied in either dry or wet blasting modes, and it has no negative impact on process productivity.

Blastox® is distributed exclusively by TDJ, which holds the patent. The principal distribution channel is through commercial blast media blenders, who prepare the engineered abrasive according to the manufacturer's specifications. The engineered abrasive is produced by adding 15 – 25 weight percent of Blastox® to a conventional abrasive medium such as mineral slag or silica sand.

The major benefit of using this engineered abrasive for lead-paint removal is realized in terms of waste disposal cost savings. Although first costs for the engineered abrasive are slightly higher than for conventional abrasives, these costs are easily recovered in total project cost savings. In the Army field demonstrations, lower disposal costs saved the projects an average of 30% over conventional removal.

No disadvantages specifically related to the use of Blastox® have been observed. However, it must be noted that paint removal with the engineered abrasive shares the same disadvantages of abrasive blasting in general: the process generates lead-contaminated dust and still requires the same kinds of containment structures and worker protection normally required on abrasive blasting operations.

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Susan Drozdz is a researcher in CERL's Facilities Division. She serves as Army representative on a DoD committee to mitigate lead-based paint. Gordon Cohen is a writer-editor in the ERDC Information Technology Laboratory. PWD

New developments improve the ATTACC methodology

by Alan Anderson and Kim Michaels

Installation training land managers now have improved tools to help them maintain a balance between training load and the ecological health of their training areas. The U.S. Army Environmental Center (USAEC) teamed with the U.S. Army Engineering Research Development Center (ERDC) to enhance techniques for estimating and avoiding soil erosion – a key issue in achieving Land Rehabilitation and Maintenance and Training Requirements Integration objectives within the Army's Integrated Training Area Management (ITAM) program.

The new methods provide techniques to calculate Revised Universal Soil Loss Equation (RUSLE) topographic and vegetative cover factors for improved Army Training and Testing Area Carrying Capacity (ATTACC) estimates.

ITAM managers work to achieve realistic training areas by inventorying and monitoring land condition, integrating training requirements with carrying capacity, teaching users to minimize adverse impacts, and providing for land rehabilitation and maintenance (LRAM).

The ITAM Program is the Army's formal strategy for focusing on sustained use of training and testing lands. ATTACC is the standard ITAM methodology for estimating training land carrying capacity. ATTACC supports the Training Requirements Integration (TRI) component of the ITAM Program to more effectively estimate training land carrying capacity, the amount of training that land can sustain based on usage, condition and maintenance. ATTACC also provides a means for estimating LRAM costs based on future training requirements.

ATTACC measures land condition in terms of erosion status, the ratio of predicted erosion rates to tolerable rates. Land managers estimate erosion rates using the RUSLE, which accounts for an area's cli-

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Repaired site.

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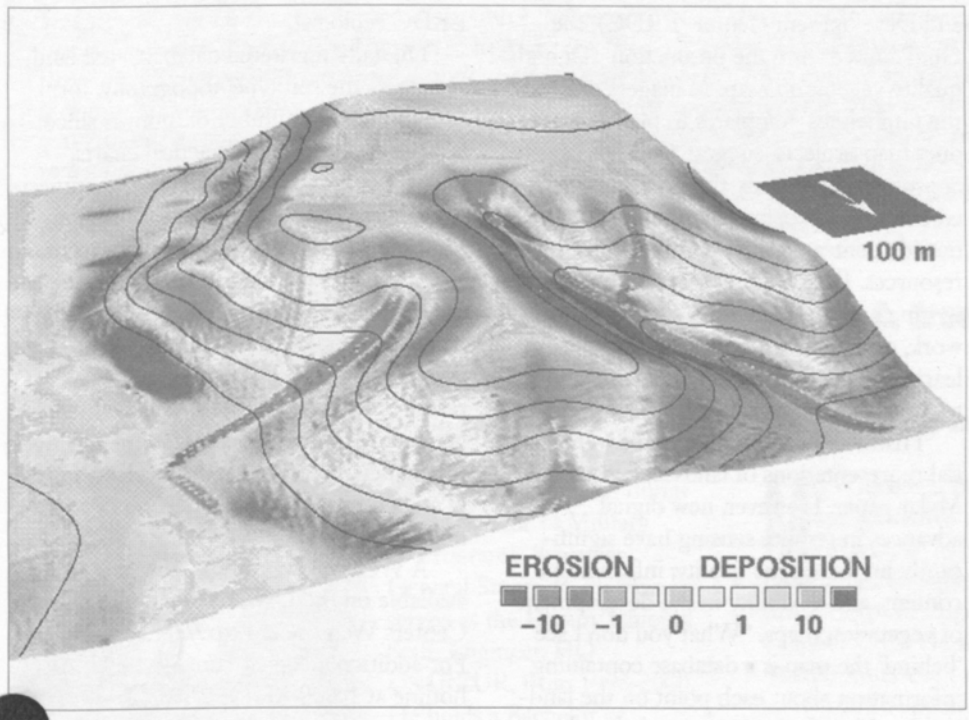

...licted erosion.

mate, soil erodibility, topography, vegetative cover and conservation support practices. Originally developed for agricultural applications, installations found that the RUSLE does not adequately account for complex vegetation and topography typically found on military lands.

Improved Topographic Factor

Researchers improved the RUSLE to allow installations to better predict erosion and sediment deposition in areas of complex topography. The approach uses digital elevation models to estimate slopes and upslope contributing areas to more accurately model erosion processes. USAEC and ERDC documented the topography factor protocol they developed in a report titled Validation of Enhancements to the Universal Soil Loss Equation Topographic Factor using 137Cesium. The report recommends that the improved topographic ...tor replace the factor currently used by the ATTACC methodology.

Gordon Weith, U.S. Army Training Support Center, who oversees the ATTACC user group, noted that the approach "is an improvement" and "provides [installations with] another alternative to derive the LS factor. A more accurate erosion estimate can help the user design and select erosion control practices."

Improved Cover-Factor Extrapolation Protocol

Traditional approaches for estimating vegetative cover assume a relatively uniform cover more typically found in agricultural settings. Land managers say that this simplified view of Army lands results in carrying capacity being overestimated in some areas and underestimated in other areas. The cover factor protocol addresses this shortcoming by using readily available remotely sensed imagery and field survey data to provide accurate, cost-effective estimates of vegetative cover across training areas. The protocol takes users through steps such as ground surveys, satellite image analysis, vegetation index calculation and regression analysis. Protocol users can now estimate vegetative cover at each individual data element in a satellite image – and improve their ability to predict erosion.

USAEC and ERDC documented the cover factor protocol in An Improved Method for Spatial Extrapolation of Vegetative Cover Estimates (USLE/RUSLE C Factor) Using LCTA and Remotely Sensed Imagery. In his review of the report, Weith commented that the method "is an improvement of our current methods for estimating vegetative cover ... and should improve the accuracy of the output from RUSLE."

Electronic copies of the reports are available through the USAEC Web site at http://aec.army.mil/prod/usaec/et/conserv/lbcc.htm. Additional information on the ATTACC program can be found on the ITAM home page at http://www.army-itam.com/main.htm.

Alan Andersen works at ERDC and Kim Michaels is USAEC's conservation technology program manager. PWD

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USAEC develops vegetation mapping guidelines

by Kim Michaels

New Army vegetation maps are needed for a wide variety of purposes related to land use planning, mission objectives and field support. Military land managers rely on vegetation maps and related information to maximize long-term land use and maintain readiness.

Basic vegetation characteristics, landscape features, plant inventory, geographical distribution, species composition, and community descriptors are critical to maintaining and managing lands.

To help installation managers execute a vegetation-mapping project, the U.S. Army Environmental Center has sponsored the development of the Guidelines for Mapping Vegetation on Army Installations. The Guidelines provide a systematic approach that steps the reader through the mapping process by establishing objectives, identifying available resources, determining specifications and operating within budget restrictions.

Designed by the Engineer Research and Development Center (ERDC), the Guidelines ensure the production of a high quality vegetation map. Managers can use the Guidelines' templates to plan and conduct map projects, suggest methods of approach and identify the pros and cons of conducting a project using inhouse staff, an outside contractor or a combination of resources. Determining map accuracy, writing and implementing statements of work, case study examples and lessons learned make this document a management tool worth using.

Historically, vegetation maps were spatial representations of landscape grids on Mylar paper. However, new digital advances in remote sensing have significantly improved the quality, information content, and flexibility in the development of vegetation maps. "What you don't see 'behind' the map is a database containing information about each point on the landscape, with information recorded at the finest level of detail," said Jean O'Neil, an ERDC ecologist.

Digitally registered databases tell land managers the soil type, topography, form of training, and number of months since last use and last burn. Practical charts, tables, figures and graphs from the numerical data are readily available for distribution to other managers and field personnel.

Specialists working in land management, vegetation management, fish and wildlife, threatened and endangered species, pest management, cultural resources, public relations, safety, emergency, and planning organizations all find it beneficial to share databases electronically and customize maps to meet individual mission objectives.

A Web version of the Guidelines is available on the U.S. Army Environmental Centers Web site at http://aec.army.mil. For additional copies, contact the USAEC hotline at 1-800-872-3845. PWD

Evaporative composting toilets – P2 in sanitation options

by Richard Pilatzke

Fort Carson is home to 15,000 active-duty Army troops and their dependents. Recreational facilities on the base are a high priority and offer all users a chance to enjoy recreational activities in an attractive outdoor setting. Adequate toilet facilities are an integral part of recreational activities and Fort Carson's Ironhorse Park had vault toilets that were rather objectionable to the olfactory senses.

The solution that Fort Carson chose for this problem is a classic example of pollution prevention--odorless, almost completely waterless evaporative composting toilets. Fort Carson installed evaporative composting toilets in the park in late 1995 and they have performed very well.

These toilets are almost completely waterless (five gallons of water per day) and are remarkably odorless. They have a 200 cubic foot composting chamber filled with wood shavings. The unit evaporates all liquids and composts the solids over a year-long composting cycle. The compost can be bagged and landfilled. The toilets are designed specifically for high-use recreational facilities and the four toilets at Fort Carson can handle 123,000 uses per year. If these toilets were standard water-equipped devices, they would use about 200,000 gallons of water per year and generate more than 220,000 gallons of wastewater. One of the toilets at the park is powered by a grid of solar cells that provide all the energy needed to operate the unit

Evaporative vault toilets, a slightly different system, have been installed at the Fort Carson golf course. These systems have a large fan evaporator and use no compost. They are odorless evaporative vault toilets. They are solar-powered and are used by both golfers and people using a nearby running track.

POC is Richard H. Pilatzke, (719) 526-1730, e-mail: pilatzker@carson-exch1.army.mil PW

Who's Who at HQ

The U.S. Army Corps of Engineers' Directorate of Military Programs is currently located along with the rest of Corps Headquarters on the third floor of the GAO Building at 441 G Street in Washington, DC. It is comprised of four divisions: the Interagency and International Services Division, the Environmental Division, the Installation Support Division and the Programs Management Division, as well as the Special Missions Office located at Fort Belvoir, Virginia. The directorate's mission is to provide engineering, construction, and environmental management services for the Army, Air Force, other assigned U.S. government agencies and foreign governments. With a budget of $7.1 billion, its functions include MILCON design and construction; environmental remediation; facilities planning, operation and maintenance support; and real estate acquisition, management and disposal. BG Steven Hawkins became the Director of Military Programs in August 2000. Mr. William A. Brown continues as Deputy Director of Military Programs. Below are their biographies.

Brigadier General Steven R. Hawkins

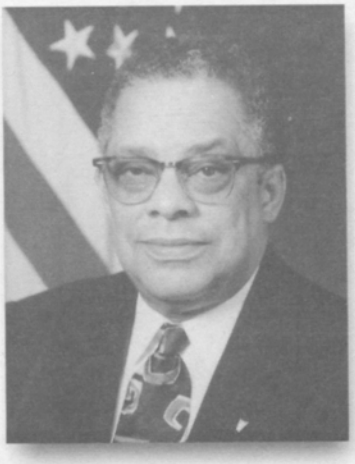
Director of Military Programs

Prior to assuming his duties as Director of Military Programs, Brigadier General Steven R. Hawkins served as the Deputy Chief of Staff, Engineer, HQ USAREUR, from 1998-2000. He holds a Bachelor of Science degree from Utah State University and a Master of Science degree from North Carolina State University, and is a graduate of the Engineer Officer Advanced Course, the U.S. Army Command and General Staff College, and the Air War College.

BG Hawkins began his military career as a distinguished military graduate, receiving a commission as a Regular Army second lieutenant. Following initial entry training at the Engineer Officer Basic Course, Fort Belvoir, Virginia, and airborne training at Fort Benning, Georgia, he was assigned to a wide variety of troop and staff positions. Highlights of his career include Company Commander and Operations Officer, 4th Engineer Battalion (Combat) (Mechanized), 4th Infantry Division, Fort Carson, Colorado, 1977-80; Deputy Area Engineer, Eastern Area Office, Riyadh District, Middle East Division, U.S. Army Corps of Engineers, Jubail, Saudi Arabia, 1982-84; Executive Officer, 9th Engineer Battalion (Combat) (Mechanized), 7th Engineer Brigade (Combat), VII Corps, Germany, 1987-89; senior Combat Engineer Trainer, Operations Group, National Training Center, Fort Irwin, California, 1993-95; and Chief of Staff of the 3rd Infantry Division (Mechanized) at Fort Stewart and Kuwait, 1997-98.

Among his many awards and decorations are the Legion of Merit (2OLC); Meritorious Service Medal (4 OLC); Bronze Star; Overseas Service Ribbon (6 awards); Armed Forces Expeditionary Medal; Saudi Arabia Kuwait Liberation Medal; German Armed Forces Honor Cross (Silver), and the Valorous Unit Award.

BG Hawkins is married to the former Kathryn Bartley and they have one son, Paul. PWD



William A. Brown Sr., P.E., HAIA

Deputy Director of Military Programs

Mr. William A. Brown Sr. was appointed as Deputy Director of Military Programs, Headquarters, U. S. Army Corps of Engineers, in October 1997. He is the first African American career civil servant to be appointed a member of the Senior Executive Service in the field of engineering in the Department of Defense.

Previously, Mr. Brown served as Chief of the Program Management Division, Acting Chief of the Construction Division and Acting Chief of the Environmental Division and in a variety of positions with the Air Force Civil Engineer and with architectural firms in Ohio, Virginia, Maryland and New York. He also served on active duty as an officer with the U.S. Army Corps of Engineers at Fort Belvoir, Virginia, and in the Reserves with the 487th Combat Engineer Battalion, at Fort Thomas, Kentucky.

A 1963 architectural engineering graduate of Hampton Institute in Virginia, Mr. Brown has also completed the Federal Executive Institute, the George Washington University Contemporary Executive Development Program and the Harvard University Program for Senior Managers in Government. He is a Registered Professional Engineer and the senior civilian executive responsible for recruitment and career development of all engineers and scientists employed worldwide by the U.S. Army.

Among Mr. Brown's many awards and honors are the SES Meritorious Presidential Rank Award, a Distinguished Black Marylanders Award and the year 2000 Black Engineer of the Year Award for Professional Achievement in Government as well as the Air Force Award for Meritorious Civilian Service, the Air Force Civilian Engineer of the Year Award and the Air Force Award for Design Excellence.

He is married to Dr. Jacqueline F. Brown and they have three children: Whitney, an engineer, William Jr., a surgeon, and LT Wade Brown, a West Point graduate. PWD

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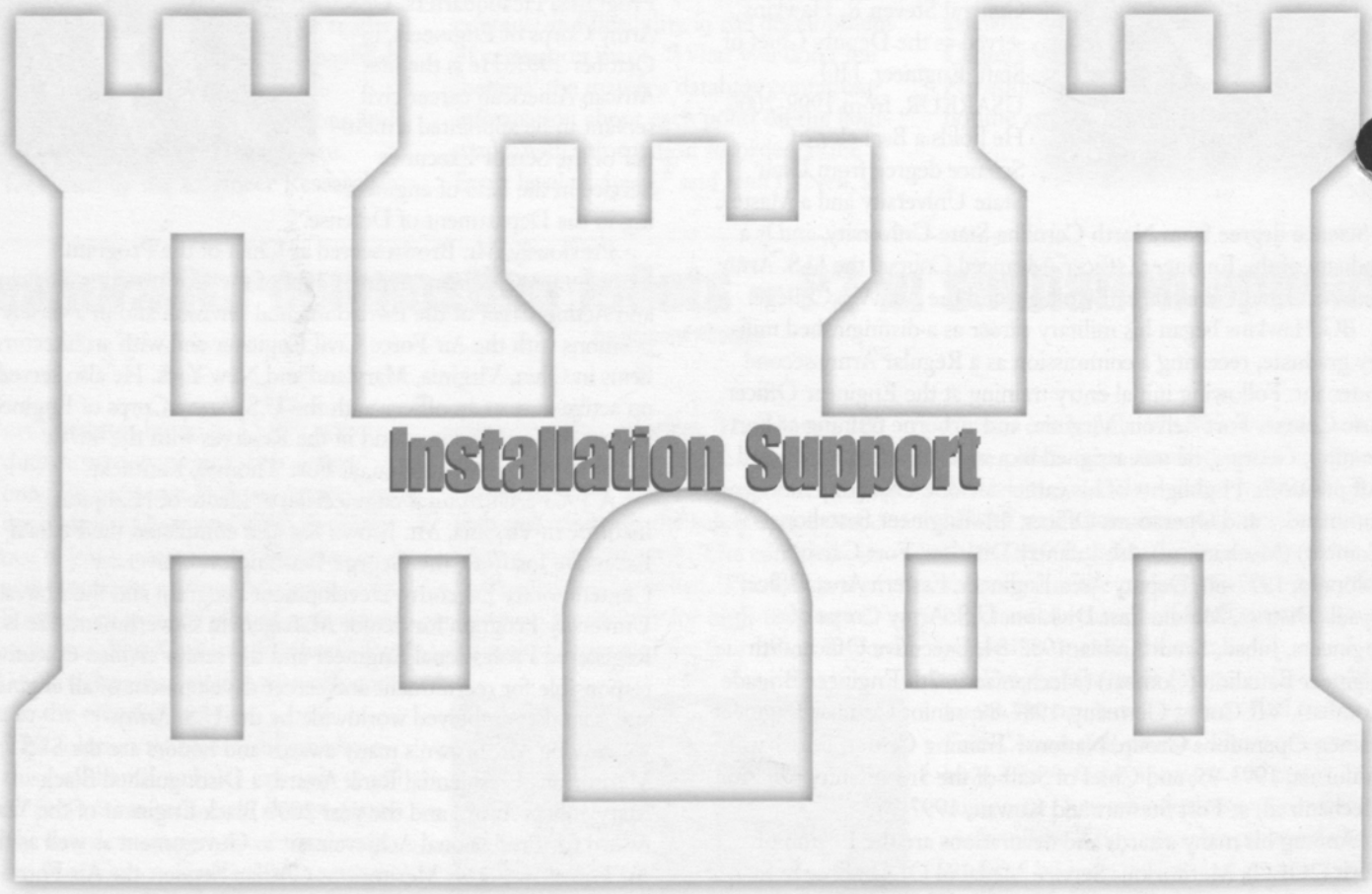

Installation Support