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# Public Works

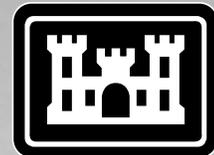
## Digest

Volume XIII, No. 2

March 2001

*In This Issue...*

## Housing



US Army Corps  
of Engineers®





## US Army Corps of Engineers®

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## LETTER FROM THE EDITOR



**B**elieve it or not, this started out as a small issue, meant only to cover one month-- March. Despite my best efforts to contain it, it mushroomed into 40 pages. Part of the blame falls on the Internet. Now that most articles and photos are submitted to me by e-mail, I don't get them late, but on time or even early. I also now have a POC in each of the Military Programs Divisions, as well as one for ACSIM, who scout out and screen many of the articles you read. Their invaluable assistance has given me the extra time needed to write, edit and coordinate lead stories. Ergo, more articles and photos, on time, add up to bigger and better *Public Works Digests*.

Over the years, our *Digest* distribution list has expanded beyond Army DEHs/DPWs to include garrison commanders, DoD energy managers, environmental coordinators, Reserve, Navy and Air Force personnel as well as private industry members with an interest in Army facilities management. If you would like to be added to the *Digest* distribution list, please call or send me an e-mail. Similarly, if there is a change in your address or you want your name deleted, it is up to you to notify me. Beginning with this issue, we will be mailing requests for more than one copy of the *Digest* by *media mail* instead of *first-class* mail. This should only take two to three days longer but will cost much less.

In this our traditional Housing issue, we cover a wide range of housing issues. Ms. Suzanne Harrison presents an update on the Barracks Modernization Program, to include Whole Barracks Renewal and Barracks Upgrade, while Mr. Larry Wright explains the Army Family Housing Master Plan and Ms. Wendy Schmidt introduces the Army's Facility Strategy. The Professional Housing Management Association met for the 13th time in January, and Ms. Marlene Naranjit has submitted a brief overview, with Mr. Rodney Brown summarizing the Army Day portion. In addition, there are some interesting articles about "house recycling" at Redstone Arsenal, the use of innovative contracts at Schofield Barracks and in Europe, and everything you ever wanted to know about the ISR.

The 5th Annual Corps Workshop was held in February at the Baltimore Convention Center, as a prelude to the 15th Black Engineer of the Year Award Conference. We were all saddened to hear that due to medical reasons Mr. William A. Brown, Deputy Director for Military Programs, would not be attending this year's workshop. He was sorely missed. In the USACE section, you will find a synopsis of the presentation made by MG Milton Hunter, Deputy Chief of Engineers, as well as a brief overview of the major happenings and presentations. The photos will give you a good idea of the networking and mentoring that come out of this valuable workshop.

Finally, the inside back cover of this issue features the biographies of Ms. Kristine Allaman, Chief of the Installation Support Division, and Mr. George Braun, Deputy Chief. While they both share many years of experience dealing with public works, you will see that their career paths were very different. Next month, the *Digest* will introduce you to Mr. Michael Kishiyama and Mr. Steve Reynolds, branch chiefs in the Installation Support Division.

Until next time...

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PWD



## Army committed to improving housing and barracks

by Suzanne Harrison

Providing excellent enlisted single-soldier housing and barracks complex facilities is one of the linchpins of improving the well being of our military personnel. Revitalization and modernization are the cornerstones to our vision of improved housing. We must revitalize in a systematic way to repair, upgrade or replace our barracks facilities, as well as the supporting infrastructure, to modern standards.

The Assistant Chief of Staff for Installation Management (ACSIM) has developed two programs within the Barracks Modernization Program to focus the scarce resources to obtain the greatest benefit. They are the Whole Barracks Renewal Program (WBRP) and Barracks Upgrade Program (BUP).

The WBRP is a Military Construction, Army (MCA) funded program primarily for construction of new barracks, administration and support facilities. BUP is a Headquarters Army centrally managed and funded Operation and Maintenance, Army (OMA) real property maintenance program predominately for major renovations of Voluntary Army (VOLAR) 1970s era barracks and other barracks where it is more cost effective to renovate to the DoD 1+1 barracks standard versus replacement.

Under the 1 + 1 standard concept, two soldiers (private to specialist) are assigned to a module containing two living/sleeping rooms, each with a walk-in closet. They share a common bath and kitchen-type service area. Non-commissioned officers (NCOs) are entitled to one entire module. While encouraging individuality, the design of the Army's 1 + 1 barracks allows for unit integrity and promotes the development of camaraderie as an important part of the Army culture.

Modernization of enlisted barracks to house permanent-party single soldiers continues to be the Army's highest priority in the (MCA) appropriation. Since 1994, the Army's barracks program has seen significant increases in MCA appropriations to fund replacement or deficit construction. The Army has also budgeted significant



*The Army's approach to barracks modernization is building brigade or equivalent size complexes.*

funding in OMA, starting in fiscal year 1998, for upgrade of existing buildings. The Congress has added Quality of Life Enhancement, Defense (QOLE, D) funds starting in fiscal year 1997 to help fund our upgrade program.

From fiscal years 1994 through 2008, the Army has programmed over nine billion dollars in MCA and OMA funds to complete funding by the fiscal year 2008. By the end of fiscal year 2001, with OSD, Army Leadership and Congressional funding and support, sixty-eight percent of single soldiers housing will have been funded to the 1 + 1 or equivalent standard in the United States, Europe and Korea. This equates to over 94,000 permanent-party soldiers being funded to the 1 + 1 standard over fiscal years 1994-2001.

Complementing both the MCA and BUP programs, is the Headquarters Army centrally managed and funded initial issue furnishings program. All newly renovated or constructed barracks are equipped with

new and modern furnishings. Acquisition of new furnishings is planned and accomplished in concert with the facility construction schedules so that delivery of the new furnishings coincides with the beneficial occupancy date and soldiers have new furnishings upon assignment to the new or renovated barracks.

The Army's approach to barracks modernization is building brigade or equivalent size complexes. The brigade complexes contain soldier barracks, soldier community buildings (SCB), company operations, brigade/battalion HQs, dining facilities and increased parking, landscaping and recreational/open space. Barracks buildings are constructed separate from administrative facilities. Adjoining SCB buildings contain expanded laundry room, dayrooms/recreation rooms, mail area, common kitchen, bulk storage and charge of quarters (CQ).

In light of the huge commitment for this program, the Army initiated a comprehensive barracks mid-program review. Over the



last year, the review has produced a program-wide value management report; value engineering reports for specific projects; anti-terrorism and force protection report; sustainable design report; two pilot design-build solicitations; and a comprehensive survey of over 2,000 soldiers, 300 unit leaders, and 100 public works personnel. The report offers a new holistic barracks strategy that emphasizes greater use of industry standards, increased soldier amenities, operational flexibility, economical life cycle cost, and innovative acquisition.

In August 2000, with support of the Sergeant Major of the Army and the Army Research Institute, the ACSIM conducted the detailed barracks modernization survey of personnel who live and work in the new barracks complexes constructed to the 1 + 1 standard. Ten installations were surveyed in

the United States to include Forts Bragg, Benning, Bliss, Carson, Eustis, Huachuca, Hood, Lewis, Rucker and Schofield Barracks. The object was to solicit feedback from various perspectives on new barracks complexes that had been occupied for at least six months.

The August 2000 survey indicated an overall satisfaction with current construction designs, soldiers and leaders support both larger barracks rooms and expanded service areas in the modules. It also indicated additional storage space in all facilities is an issue that needs to be addressed in future designs. Directorate of Public Works personnel also identified the need to provide adequate base operation maintenance and repair funding to maintain the new facilities.

The Army is committed to providing 1 + 1 barracks complexes to improve soldier

well-being by providing adequate single soldier enlisted housing worldwide. Continuous evaluation of the allocation of scarce resources and design standards keeps the program on track to provide the barracks complexes needed to sustain a viable Army. The Department of Defense and Army Leadership, and Congressional funding support of the Barracks Modernization Program promulgates the ability to provide quality housing and furnishings to all enlisted single soldiers in the United States, Europe and Korea by fiscal year 2008.

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*New brigade headquarters (left) and new battalion headquarters (right), 593rd Combat Support Group, at Fort Lewis, Washington.*



# Army Family Housing Master Plan—a long-range investment

by Larry W. Wright

The Army Family Housing Master Plan (FHMP) was created in response to a congressional directive requiring each Service to submit a plan demonstrating how they intend to meet the Secretary of Defense's goal to eliminate all inadequate housing by FY 10. The Army submitted its first FHMP to the Congress in June 2000 and will annually update it to reflect changes in conditions, investment strategies, costs, and priorities.

Our traditional methods of managing, operating, acquiring, and revitalizing family housing have not adequately addressed the critical housing needs of America's soldiers and their families. Current and anticipated appropriated funding levels for family housing are insufficient to revitalize and maintain the existing stock or, eliminate the deficit. Over 70 percent of our family housing units are defined as inadequate—either they need replacement, or major renovation or repair. The Army's investment requirement to eliminate all inadequate units is estimated at \$6 billion.

The FHMP provides a long-range investment plan that supports the Secretary of Defense's three-prong initiative to improve family housing. This initiative eliminates out-of-pocket housing expenses for soldiers living in private houses in the United States, increases the use of housing privatization, and continues reliance on traditional military construction for revitalizing Army owned housing.

The FHMP has four major components:

- 1) Prioritization plan that outlines how each Army installation was prioritized based on fixing the worst first.
- 2) Privatization plan that includes 4 pilot sites and 16 additional privatization candidates.
- 3) Allocation plan that provides the funds required to revitalize, operate, and maintain the remaining government-owned units and the funds needed to support privatization.
- 4) Transition plan that shows the logical

progression of units from inadequate to adequate by year.

As outlined in the FHMP, the Army has developed an aggressive privatization program utilizing the Military Housing Privatization Initiative (MHPI) Act the Congress granted in 1996 and recently extended until December 2004. These authorities allow the Military Services to leverage appropriated housing funds and assets to attract private-sector capital and expertise to operate, manage, maintain, and build housing. By the end of 2005, approximately 56 percent (63,766 units) of the worldwide end-state inventory of 113,451 units will be privatized.

The Army's first privatization project is at Fort Carson, Colorado, where privatization is on track and has shown great progress. The contract was awarded on 30 September 1999 and calls for the developer to construct 840 new units, fully renovate the existing inventory of 1,823 units, and operate and maintain the total inventory for the term of the 50-year contract. This project will provide our soldiers a quantum leap in quantity and a dramatic improvement in the quality of our on post housing in a short period of time.

Under the Residential Communities Initiative (RCI), three other pilot projects are being developed at Fort Hood, Texas; Fort Lewis, Washington; and Fort Meade, Maryland. It is projected that the Fort Hood project will be approved, and deal closed, in March 2001. The projects at Fort Lewis and Fort Meade are under development and are expected to be ready for deal closing in June 2001 and January 2002 respectively.

The selection of the 16 additional privatization candidates identified in the FHMP was closely coordinated with the Army Secretariat and Major Army Command (MACOM) staffs. The Army expects to start awarding these projects in FY 02 and ending by FY 05. The candidates are:

- FY 02--Fort Bragg, North Carolina; Fort Campbell, Kentucky; Fort Stew-

art, Georgia; and Presidio of Monterey, California.

- FY 03--Fort Belvoir, Virginia; Fort Eustis/Story, Virginia; Fort Sam Houston, Texas; and Fort Irwin, California
- FY 04--Fort Gordon, Georgia; Fort Bliss, Texas; Fort Shafter/Schofield Barracks, Hawaii; and Fort Leonard Wood, Missouri.
- FY 05--Redstone Arsenal, Alabama; Fort Benning, Georgia; Fort Polk, Louisiana; and Fort Rucker, Alabama.

By using a combination of traditional military construction, operational and maintenance support as well as increased reliance on privatization, the Army reaches the Secretary of Defense's goal in Europe and Korea by 2010 and in the United States by 2014. In order to meet the 2010 goal in the United States, the Army estimates that an additional \$700 million in family housing investment would be needed.

In summary, the Army has built its programs as outlined in the FHMP to support the Secretary of Defense's three-prong strategy to improve family housing. Privatization of our family housing inventory remains a key factor in helping the Army achieve its goal to provide adequate housing and improve the well-being of soldiers and their families. Plans are under way to update the current FHMP and use it to assist in building the FY 03-FY 07 Program Objective Memorandum (POM). The updated FHMP will be coordinated with MACOM commanders and Army Staff before it is sent to the Office of the Secretary of Defense and the Congress in June 2001.

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PWD



# Furniture spec improves quality of life

by Kim Gillespie

Centralized procurement of Unaccompanied Personnel Housing (UPH) barracks furnishings has resulted in several improvements to the Army's furnishings program in the past few years. The Huntsville Center provides centralized procurement and delivery of furniture and furnishings for MILCON and renovated UPH barracks.

In addition to furnishing more rooms faster, the Huntsville Center has ensured that soldiers consistently receive quality furnishings that meet their needs, regardless of the supplier. A major contribution to the improved quality has been the development of a specification or "spec," especially for UPH barracks furnishings.

Alicia Allen, Huntsville Center project manager for UPH Furnishings Centralized Procurement Program explained, "It is especially important to have good specs for furniture because there is such a wide range of quality available in the commer-

cially produced items available through General Services Administration (GSA) schedules. Unfortunately, without the right specification, our soldiers can end up with substandard furniture, or furnishings that are inconsistent."

The Huntsville Center found this to be a problem for furnishings delivered under the centralized procurement program. For this reason, it was decided a UPH barracks furnishings specification was necessary.

## Determining materials

One of the largest problems that existed before the UPH specification was developed was trying to determine the materials and methods of construction. According to Jay Clark, Huntsville Center technical lead for the UPH Furnishings Program and primary developer of the specification, product literature is written as a marketing tool. "You quickly realize that basic terms such as 'solid wood' and

'plywood' really mean different things to different people."

Teamwork was key to the success of the development of the UPH furniture specification. The specification was developed by the Huntsville Center Architectural Branch using previously developed criteria and by getting input from the furnishings management offices at the installations, from GSA, and from the suppliers who commonly produce furniture for UPH barracks. Corps of Engineers interior designers were consulted as well.

## Special requirements

Clark notes that the furniture specification does exceed industry standards in some areas, but that these requirements are necessary to meet the requirements the soldiers bring to the table. "The installations would have liked even sturdier furniture, while the suppliers would have liked fewer deviations from industry standards, but all in all, the specification works for almost everyone."

Barbara Nagy, the Furniture Management Officer for Fort Lewis, Washington, sees the benefits of the UPH specification. "I'm a big fan of the 3/4-inch backings and face framing. It certainly increases the durability," noted Nagy. "The spec was developed by the team, so it really does meet everyone's needs. What we are seeing is that it has leveled the playing field of vendors and increased the quality and standards for the furniture. Previously, Furniture Management Officers like me would request a specific vendor because the quality varied so much. Now if our specified vendor is not the awarded vendor we don't have to worry that the furniture will not meet our requirements."

This specification, developed by Huntsville Center and enforced by GSA, is tailored to meet the special requirements of soldiers, which include frequent moves, heavy loads, and using the furniture for temporary storage of field packs, etc. "The goal of writing a good specification is to make our work easier and our customer happier with the product." ➤

## Army Facility Strategy will modernize facilities

You will be hearing a lot about the Army Facility Strategy (AFS) in the next few years. This program was created with the intent of bringing the Army to an overall C-2 facility condition by modernizing selected facilities to C-1 within a 30-year time period beginning in FY03.

The Army Facility Strategy proposes to buy-out 12 facility types Army-wide over 30 years in 10-year increments. The first 10-year increment will consist of:

- Vehicle Maintenance Facilities (and supporting hardstand requirements).
- Classrooms.
- Fitness centers.
- Trainee barracks.
- 1/3 of Reserve Centers.
- 1/3 of Readiness Centers.

A data call for modernization projects was sent out in the fall of 2000. The MACOMs have responded and these projects are being consolidated at HQDA and used in the mini-POM 03-07 process to obtain funding.

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*Most rooms have four to five pieces of standardized furniture.*



*Limited barracks space means much of the furniture, such as Spec. Maddox' nightstand, take on a multitude of functions.*

These specifications are meant to increase the longevity of the items and are not luxury requests," said Allen.

According to Clark, "The specification does not specify construction techniques, but does specify parameters for items that have been inconsistent in the past, such as substrate, thickness of backs and bottoms of drawers, edgebanding, and door construction for larger pieces such as entertainment centers. What we found out by talking to the team was that many times the items being stored by soldiers are heavier, and thus a thinner, pressed wood backing or thinner wood just doesn't hold up. We also find that soldiers hang heavy

backpacks or field gear on the doors of the wall units, so the doors, and the associated hardware, also need to be more substantial than what you would provide in a standard residential setting. While this isn't normal use for some people, it is for some soldiers."

Also, the changing nature of today's Army means that furniture is being moved more frequently. Allen repeats what the team often hears, "While normally furniture stays in the rooms for which it is bought and configured, the reality is that, for soldiers, there are frequent moves of furniture pieces, which means increased wear and tear on the furniture."

### **Style standards**

Another feature of the specification is to establish general standards for style and finishes. According to Allen, the Army's Assistant Chief of Staff for Installation Management's goal is for a soldier to feel at home in the barracks, despite frequent moves. "If the furnishings look similar, and the items of furniture are somewhat standard, the adjustment period is easier for the soldier," she explained.

Similar appearance and finish color also means that furniture items may be more easily moved between buildings, even if buildings were originally furnished by different suppliers. This means less inventory of spare furniture items is

needed, an important factor for cost-conscious installations.

### **Positive results**

In addition to the quality and appearance standardization improvements to the delivered furniture items, the results have been overwhelmingly positive for Huntsville Center business practices as well, according to Allen and Clark. "The spec has reduced review time of the quotations, lessened the number of substitution of items or components by vendors, and increased the installations' acceptance of a larger field of vendors. It has also allowed more emphasis on the long term performance of the contractor, including such services as the quality of installation and warranty services offered by vendors," said Allen. "It takes much less time to prepare a package for procurement as we do not have to describe each piece of casegoods on each different procurement; instead, we just refer to the overall specification," added Clark.

### **Wide impact**

The improvements resulting from the UPH furnishing specs have impacts beyond the Huntsville Center's Army UPH barracks centralized furniture procurements. The GSA has recently adopted the UPH barracks furniture specification for use in their most recently awarded Special Order Program contract. This program, which allows government agencies to purchase only a pre-selected type of furniture, is used when a quick delivery is needed or a specific vendor or style is not important. All GSA customers (including military services) who choose to purchase furniture under the Special Order Program will be receiving furniture produced in accordance with the UPH barracks furniture specification.

But the best result is the difference the specification makes for the soldiers. "It improves the quality of life for our soldiers in the barracks," concluded Allen.

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# Fitness facilities-- a priority in the Army's Facility Strategy

By Janet C. MacKinnon

For an extended period, the Army has not been able to fund real property maintenance (RPM) to a sustaining level. The consequence has been a dramatic decline in facility conditions. To tackle this problem in a resource constrained environment, the Army developed, in FY 2000, the Army Facility Strategy. This integrates the two principal real property resourcing functions, sustaining facilities and modernizing facilities, into a single cohesive program.

Fitness facilities, the only MWR facility category included, are prioritized in the first ten-year increment of this 30-year plan. If we are successful in getting resources to support this strategy in this year's POM, the centrally managed investment program will fix all fitness facilities to C-1\* level across the Army over a 10 year period starting in 2004. The strategy recognizes the important linkage between sustaining facilities to a level that prevents further deterioration, and improving both the quality of existing facilities that have fallen below current standards and the quantity of facilities to meet validated deficits.

The current standardized facility construction design is being updated to meet changing fitness needs, expectations of the force, and new Department of Defense standards. The new design incorporates American College of Sports Medicine guidelines and features the addition of modules to existing assets on installations versus complete new buildings. Installation assets will be rated using quality and quantity criteria similar to the Installation Status Report (ISR) currently used.

In the future, however, most installations will gain total square foot requirements (quantity) due to added space allowances generated from the new design standard. Current assets will be compared against new square foot requirements within fitness facility modules (fitness, exercise, and gymnasium, etc) to determine if an excess or deficit exists. In addition, quality factors such as proper air conditioning,

heating, and ventilation will be critical elements of the evaluation.

Fitness and sports facility managers and installation Directorate of Public Works (DPW) personnel will need to understand the impact of changes to the facility ISR assessment tools. Filling out the new quantity worksheet and the quality standards booklet (a document filled out at the installation level to determine your facility ISR quality rating) will ultimately affect how much money an installation will receive.

Bottom line: The Army will fix the worst hurt facilities first....if your installation receives a red rating, don't sweat it, it will be in your favor !!! The new ISR standards booklet that has been changed to reflect the new standards will be tested this year and fielded in January 2002.

For more information, go to the ISR website ([isr.xservices.com](http://isr.xservices.com)). Each installation has an ISR POC usually located in the Directorate of Public Works.

*\*Note:* ISR-Infrastructure provides a single source for assessing key elements of the status of facilities at an installation. With a C-rating system similar to the Unit Status Report (USR) system, and ISR software to perform calculations and analyze



*This is the main exterior entrance of Abrams Field House, one of the most modern physical fitness centers in the DOD inventory.*



*Abrams Field House locker rooms.*

data, installations report the status of facilities annually in each of five infrastructure areas. To reach a C-1 rating in both quality and quantity of Fitness Center Facilities, an installation would need to have 90% of its existing Fitness Facilities meeting established ISR quality standards and 95% of required square footage would need to be on-hand.

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# Forts Hood, Chaffee to reduce demolition waste

by Dana Finney

The Engineer Research and Development Center (ERDC) and multiple agency partners plan to demonstrate methods for deconstructing and reusing materials from excess Army buildings. Fort Hood, Texas, and Fort Chaffee, Arkansas, will be pilot sites where volunteers with Habitat for Humanity (HfH) will take down several hundred buildings to salvage wood and other components for resale. The proceeds will be used to build low-income housing.

Partnering with HfH in the projects are ERDC's Construction Engineering Research Laboratory (CERL) the U.S. Environmental Protection Agency, U.S. Department of Agriculture's Forest Products Laboratory, and the Fort Chaffee Redevelopment Authority. The salvage operation is expected to lower demolition costs while diverting thousands of tons of debris from landfills which is typical with "smash and trash" disposal.

Some 50 million square feet of build-

ings on Army installations are not useful for current mission requirements and need to be removed. Most were built during World War II and consist largely of wood construction.

For several years the Army has been tearing down the old buildings to make room for new construction. Between 1992-99, 71 million square feet of excess space was eliminated. A goal for Directors of Public Works (DPWs) is that facilities to be replaced will be demolished either before, or in some planned timeline after, the new construction. The work has usually been contracted, with successful bidders only required to remove the structures in a given timeline. The result has been wide use of mechanical smashing and trucking destroyed materials to government landfills.

"Much of the wood in these buildings is really good, and often hasn't been painted – especially in the barracks and the floor and roof framing in other struc-

tures," said CERL researcher Tom Napier. His team led an economic analysis at Fort Chaffee that estimates the value of reusable materials at nearly \$3 million.

DPWs at some installations have attempted different ways to salvage the building materials – with varied levels of success. Many trials faltered for lack of a uniform approach to contracting the work, an unclear cost-to-benefit ratio, or salvagers who either deserted the project or weren't able to complete removal within time constraints.

The pilot projects at Forts Hood and Chaffee will evaluate various options for deconstructing the buildings. One method is to take them apart piece-by-piece. An alternative may be to cut and remove the building in sections and take it apart on the ground or in an industrial facility, according to Napier. "We'll be able to collect productivity data on each type of disassembly," he said. "This will give us valuable information for doing economic analyses at other installations to determine where salvaging may be feasible in the future."

As part of that investigation, the USDA Forest Products Laboratory is developing a grading system for lumber salvaged from the building deconstruction.

Research engineer Dr. Robert Falk said, "The grade stamp on a new piece of lumber is an indication of quality and certifies a piece of lumber for a specific use, such as for house framing. Our laboratory is working with the lumber industry to develop similar QC standards for reclaimed material. This effort will not only assure that this material is reused in an appropriate fashion, but help its market potential."

Some excess buildings, while no longer supporting Army needs, could be relocated to communities and, with minor



*These barracks are among hundreds of WWII-era buildings that need to be removed as part of Fort Chaffee's redevelopment efforts.*



upgrades, used for other purposes. Moving versus demolition also may be less expensive for the Army, which has projected total disposal costs at \$350-400 million.

At Fort Hood, two buildings will be deconstructed by the HfH chapter from Austin, TX. The chapter operates a successful resale store, called a Re-Store, where materials are cleaned and offered to the public. In addition to the salvaged wood, components such as windows and bathroom fixtures will be sold. HfH believes the pilot projects will help its volunteers hone their skills which will speed the deconstruction process.

The Austin HfH team will also tackle Fort Chaffee's buildings. Chaffee's training mission was eliminated under Base Realignment and Closure (BRAC). The Redevelopment Authority wants to clear out some 440 unused buildings out of 600 total so the real estate can be offered to prospective developers, including the Department of Energy (DoE). A DoE facility adjacent to Fort Chaffee's old hospital complex is slated to expand, and the first 120+ buildings will be torn down to accommodate it.

The BRAC Office had CERL assess three options for removing the buildings: demolish/landfill, burn, and deconstruct/reuse. With open burning ruled out by state environmental regulators, that option was dropped from consideration. CERL then estimated the volume of waste that would be produced in a smash-and-trash operation.

"We spoke to public works managers in nearby Fort Smith where the closest landfill is located," said CERL researcher Stephen Cospers. "The amount of waste to be generated from the 600 buildings at Fort Chaffee would have been equal to a whole year's worth of garbage from the city. We think about 80 percent of that can be avoided by salvaging."

The amount to be diverted will depend in part on whether the exterior wood siding can be reused. Most of it is covered



*"Smash and trash" demolition produces tons of waste that require large volumes of landfill space.*

with lead-based paint, which EPA banned in 1978 for consumer use. While items with lead-based can legally be reused in certain circumstances, it is generally not practical, therefore, CERL first had discounted reusing this wood. However, an initial assessment by the USDA Forest Products Lab suggests the siding may have excellent resale potential if the lead paint can be removed cost-effectively. As a result, Napier's team scaled up the estimated value of salvageable materials.

"We're planning a pilot study to learn if we can use standard woodworking equipment to mill the siding into value-added products, such as flooring, wainscoting, and so on," said Falk. "This would, in one step, remove the lead paint while providing a product for resale. With the enormous volume of siding available at Fort Chaffee, we hope that Habitat for Humanity can use these product sales to help offset the cost of deconstruction."

According to Cospers, concrete from foundations and footings also will be put to good reuse. "The LRA wants to stockpile it because a new interstate is being built through Arkansas – it will run from Kansas City to Shreveport. The waste concrete can either be crushed fine to use as aggregate or just placed as fill or base

course," he said.

EPA's participation in the pilot projects will ensure proper handling and disposal of materials contaminated with lead-based paint and asbestos. The agency will also help identify maximum opportunities for recycling at national and regional levels, and use these projects as a basis for interpreting new agency policy on lead-based paint disposal.

The pilot projects at Forts Hood and Chaffee will provide valuable information to support future salvage operations across DoD. CERL will develop guidance to analyze the economics for both the installation and the partners on a case-by-case basis. With the Forest Products Lab's help, a lumber quality evaluation will also be prepared for estimating resale value of materials.

*For more information, please contact Tom Napier or Steve Cospers at CERL, 217-373-3497, [Thomas.R.Napier@erdc.usace.army.mil](mailto:Thomas.R.Napier@erdc.usace.army.mil) or 217-398-5569, [Stephen.D.Cospers@erdc.usace.army.mil](mailto:Stephen.D.Cospers@erdc.usace.army.mil).*

*Dana Finney is the Chief of the Public Affairs Office at CERL. **PWD***



# Team effort results in completion of family housing on Schofield Barracks

by Michelle Cain

If the Tuckers are any indication, there are 64 very happy families living in brand new family housing on Schofield Barracks.

Chief Warrant Officer 2 James Tucker of C Co., 1st Battalion, 25th Aviation Regiment, his wife Gayle, daughter Elizabeth, and granddaughter Alaysia moved into their quarters in the newly-completed project in November.

"We absolutely love them," raved Gayle Tucker. "The space is unbelievable. There's lots of storage space and a beautiful yard. We couldn't ask for more. We are just so pleased with this house."

The FY99 Family Housing New Construction Project is the first one designated as officer housing since new construction began in 1990, said Keith Nishioka, Directorate of Public Works (DPW) Facilities Maintenance Coordination Officer. Until now, all new construction and revitalization projects have been for enlisted soldiers and non-commissioned officers.

"This project is a blessing for the company grade category," he said.

The Corps of Engineers, Honolulu Engineer District (HED) awarded the contract for 64 junior officer units to Texas-based Hunt Building Corporation in

March 1999 at a cost of \$13,147,911. It was awarded under the 'design/build' construction concept.

"Typically, we used to do the design and then award a contract to the contractor based on that design," said Glen Takishita, HED project manager. "But today's family housing projects are 'design/build' which is where we award a contract to the contractor and they come up with the design for the project themselves, based on what is proposed."

This process has been used in the construction of Army family housing in Hawaii since Aliamanu Military Reservation was built in the 1970s.

The design/build process works well for family housing construction because the units don't need to be built to conform to military standards of construction, as other installation projects do. Housing can be built in line with commercial standards, thus providing a product similar to what's available outside the installation, Takishita explained.

The 'design/build' contract is one entity. The designer is part of the contractor's staff, so if the contractor has a problem with the design during construction, he can fix it without going back to the Architect-

Engineer consultant or in-house designer, explained Lise Ditzel-Ma, who was the original project manager.

"The liability is less on the government, and it's faster to get problems resolved because the same entity is responsible for it," she said. "It's the wave of the future in military construction. And, in many cases, it's more cost effective for the government."

Giving the design responsibility to the contractor saves the government money up front, added Takishita.

Each family housing project is a learning process, Takishita said. "We try to make use of lessons learned from previous projects and improve as we go along."

"We also work closely with DPW to find out what they want included in each project, and then try to incorporate all of their requests into the Request For Design."

"It's a partnership," said Nishioka. "If there were any problems the Corps was quick to react to our concerns. Even the contractor took that into account and tried to rectify any problems that evolved during the construction process."

HED Construction Representative Al Carvalho, agreed. "It's a team effort between the design contractor, our office, and all Army agencies involved. ➤



Moving trucks were a familiar sight during November and December as families moved into their new homes at Schofield Barracks.

(Photos by Michelle Cain)



Gayle Tucker appreciates the well-designed kitchen, just one example of the exceptional planning and construction that went into the building of the FY99 Family Housing Project at Schofield.



# Hard at work and play at West Point

At the West Point Family Symposium two years ago, the community asked West Point to establish a playground committee to better serve the needs of the families and the community. The committee, staffed with representatives from the various housing areas, was established in March 2000.

Walter Perez, Chief of the Housing Division at West Point, serves as the committee's commissioner, and Martha Hinote, the Directorate of Housing and Public Works Customer Service Representative, serves as his right-hand lady.

The committee's primary goal was to identify and inventory all playgrounds in the housing areas and then prioritize their needs. The focus was to concentrate on the needs of the community, not just the demographics of specific housing areas.

The enhancement of the playground areas will be planned and programmed in the West Point Housing Master Plan.

Last August, the United States Military Academy Superintendent, LTG Daniel W. Christman, cut the ribbon for the opening of the new Stony Lonesome II Recreation Area. This recreation area includes basketball courts, a skating rink, playground equipment, green space and a quarter-mile



*The West Point community playground.*

*LTG Daniel W. Christman and Walter Perez*

running path. Results like these are living proof of what community input, good planning, hard work and a little luck can accomplish.

*POC is Walter Perez, (845) 938-4845 DSN 688. PWD*



*(continued from previous page)*

“We turned over the units in just about a year from ground-breaking. We worked around any problems that came up without stopping work; we just kept on going and met our deadlines,” said Carvalho.

“We’ve had several projects with Hunt Building Corporation, and they’ve always been very cooperative in working with the government,” said Takishita. “Their contract proposals are always very well done. They give us everything we ask for, yet their price is consistently lower than anyone else’s. We’ve had few,

if any, problems; we’ve partnered really well with them.”

Carvalho explained that Hunt has a team that specializes in Army family housing. “The units are very well-built. The Army is lucky to have somebody like Hunt who knows how to do business building family housing.

Family housing projects encompass more than just the buildings. They are full-blown neighborhood projects whereby the contractor develops the site in full, to include amenities such as playgrounds and bike paths. “It’s a neighborhood concept,” said Ditzel-Ma.

Ultimately, a delighted customer is everyone’s goal upon completion of a project such as this one. And if customer satisfaction can be measured by the Tucker family, all parties involved seem to have scored a perfect ‘10.’

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*Michelle Cain is the Editor of the Pacific Connection, U.S. Army Corps of Engineers, Honolulu Engineer District. PWD*



# House moving company recycles Redstone—88 duplexes find new homes off the Arsenal

by Sandy Riebeling

Everyone's heard of recycling aluminum, plastic and paper but here's a twist: Redstone is recycling buildings. Originally, the 88 duplexes in housing area seven, in the LaCrosse Drive area, were scheduled for demolition. When a local house moving company got wind of the project they put in a call to Redstone to see if the houses could be moved instead of torn down.

"The duplexes are in very good shape," Joe Davis, chief, master planning and installation management office, Directorate of Environment and Public Works, said. "We just don't need them anymore. The number of soldiers on the Arsenal has been steadily declining. The contract with Kennedy is a win-win situation."

Redstone entered into a contract with a local firm, Don Kennedy and Son House Moving Company, to move 88 duplexes off the Arsenal in the next 16 months. The cost of moving the buildings is equivalent to the cost of demolition. Benefits to the Arsenal are two-fold. First, moving the houses saves precious landfill space at Redstone's construction debris landfill and secondly, it makes the houses available for reuse, something that is good for the community and environment. To deposit the debris in the city landfill instead of the Arsenal's would have cost more than \$750,000.

"We're excited about the fact that houses destined for the landfill can now be reused," Jeff Kennedy, company president, said. "It's great to be able to save these kinds of resources for reuse."

But not just any firm could tackle the job. These duplexes are masonry houses built on a concrete slab. Special equipment and expertise is required to successfully remove the dirt from beneath the buildings while bracing the structure to prevent cracking.

Transporting the 200 ton, 29-by-90-foot structures is another major concern. Kennedy is expected to transport as many as two a week during the peak moving

times. Right now Kennedy is working with investors and individuals interested in purchasing the units.

"We struck a deal with the company to move the buildings pretty much at what it would cost us to demolish them, which is well under what a moving company would charge to move the building from one place to another," Davis said. "They will recoup some of their expenses through selling the buildings or setting them up on their own property for rental or sale."

Some of the duplexes will be cut in half on-site and prepared as single unit dwellings, both for investment purposes and to make it easier to move.

"Each unit is 1,200 square feet, which is unusually large for a one-story," Kennedy said. "They make very nice single homes because they are so large. Not everyone wants a duplex. And once we saw them in half, we fix the ends so that you'd never know it was a duplex."

Most of the duplexes are unoccupied. About 10 families still remain in the housing area. Most are expected to transfer duty stations within the next year. Those few that do not will be provided quarters in another housing area.

So far, one house is up on the steel frame makeshift trailer used to haul the building. Another is being prepared now. Kennedy is using a couple of subcontractors specialized in this type of building removal. About 16 people are working on



Tim Stephens, left, works with Kenneth Zdrojewski to brace the building as the dirt is being removed and column screw jacks are placed under the concrete slab to keep the structure from cracking. (Photo by Sandy Riebeling)

the project.

Before the moving crew begins preparations, gas, electric and water utilities are cut to the building. It takes four to five days to prep a regular size building for removal. For those that are cut in half, prep time is about a week.

The majority of the buildings will be moved out of the housing area, down Goss Road and then onto Jordan Lane. The Arsenal will supply military police escorts to usher the move off-site. Two streetlight poles at the Patton/Goss road gate will have to be removed to allow space for the buildings to pass through. The streetlights will be reset once the move is complete.

"One of our biggest concerns is that children want to come in and play around the area," Davis said. "Parents have been very good about helping us keep children away from the area. We appreciate all the help we can get."

Anyone interested in purchasing a duplex can call Kennedy at (256) 533-1100.

Sandy Riebeling is a staff writer for the *Redstone Rocket* **PWD**



# New contracting tool speeds up renovation in Europe

by Alicia Gregory

The 1/36 Infantry Division and the 2/37 Armor Division celebrated an engineer victory in January when they moved into newly renovated maintenance shops. The Corps of Engineers Europe District beat a 120-day clock successfully completing the lion's share of the work at Ray Barracks while the troops were in Kosovo.

The 1/36 ID and the 2/37 AD challenged the Corps to accomplish the work on a short fuse and the District took the dare--banking on a new contracting tool, the Multiple Award Task Order Contract (MATOC).

The facilities at Ray Barracks in Friedberg, Germany, were in pretty rough shape. In fact almost a quarter of the vehicle maintenance facilities in Europe are at a substandard level and U.S. Army Europe (USAREUR) is working hard to get Headquarters, Department of the Army (HQDA) support for more money to fix motor pools and tactical shops. Ray Barracks is one of the first to be renovated.

Beginning in August of last year, contractors HSG Holzmann and SKE Maintenance GmbH & Company were awarded two separate contracts, totaling to more than \$1.9 million, to renovate three maintenance facilities. They installed new electrical, ventilation, mechanical, safety, and fire alarm systems. The contract included upgrades and repairs to the phone system, roof, walls, and flooring. They also put in new bay doors on one of the buildings, and a new crane in another.

One hundred and twenty days is an extraordinary turn around on a renovation of this magnitude, made possible only by MATOC.

"Using the MATOC allowed us to make a lot of decisions in the field," said Rob Weaver, Europe District project engineer for the maintenance facilities. "It allowed us to get materials quicker and it gave me more options. I didn't have to go back to Wiesbaden (district headquarters) to get approvals; with the MATOC I could make decisions."

Under MATOC, top construction firms are on call to provide the full spectrum of



*The new crane allows these armor maintenance soldiers to service tank engines inside, out of the harsh winter winds.*

engineering construction support. Because the contracts are already in place, the normal solicitation and award process is reduced to the time it takes for competing MATOC contractors to walk the job, develop their proposals, and for the Corps to make an evaluation and task order award. Contractors can work along side the Corps and customers to suggest cost and time saving ways to get the job done. MATOC is quicker than traditional contracting methods

"For jobs under a certain price (\$250,000 to \$2 million), MATOCs can help get the jobs done quickly," said Lourdes Levya-Colon, project manager for the 284th Base Support Battalion. "If you have a good contractor it works wonderfully."

"I figured at this point I would be asking for forgiveness because it wouldn't be finished," said Patrick Biliter, deputy district engineer for Programs and Project Management. "We took a risk and I am really proud to deliver these facilities."

"We are delighted to have them," said CW3 William Pettit, battalion maintenance technician, 2/37 Armor. "There was a lot of excitement when they opened up. The day we got the key; the soldiers were moving in." Seventy-five soldiers from the 1/36 ID,

and 68 soldiers from 2/37 AD were able to move into the maintenance facilities -- improving their poor working conditions.

"Troop moral was pretty low," said Levya-Colon. "It was a bad place to work."

"It was hard," agreed Master Sgt. Keith Green, battalion motor sergeant, 1/36 ID. "Everything was just so old."

SFC Rickie Bywater, C. Company maintenance team chief explained that one of the problems was lack of heat because the doors wouldn't close.

"When I first got here the plates that run along the bottom of the doors were broken up and didn't shut all the way," he said.

MSG Don Drake, battalion motor sergeant, 2/37 AD, said his engine motor is easier thanks to new overhead lift capability.

"Before we had to work outside using recovery vehicles (to lift engines)," he said. "The new cranes allow us to work inside, and keeping the soldiers inside keeps them happy."

"We will be able to work more efficiently," said Green. "The facility has better lighting, so soldiers can work on vehicles by the bays. With the new exhaust blower we can work inside without leaving the doors open for ventilation. Once the doors are open, all the heat escapes. Now the soldiers don't have to stop and take a break to warm up when it is cold outside."

"Just the way they look improves the moral of the soldiers," said Drake. "When it looks nice, the soldiers want to take care of it."

Providing a comfortable environment for the soldiers to work in was a priority for Weaver. He said it is good that the base support battalion is pleased with the facilities, "but it is nice to hear from the mechanics who use (the facilities) that this makes a world of difference."

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*Alicia Gregory is a Public Affairs Specialist at the USACE, Europe District.* **PWD**



# Why ISR?

by Anthony V. Fasolo

**O**n 1 March 2001, the Acting Secretary of the Army advised the Secretary of Defense that the Installation Status Report (ISR) was one of three programs that the Army uses to assess Performance. The other two are the Unit Status Report and the Quarterly Army Performance Review. How did this happen?

The ISR was developed by the Department of the Army in 1994 as a way to assess installation level conditions and performance against Army-wide standards. Data is provided annually from all Army installations. This data is then used to develop a three-part report consisting of Infrastructure, Environment and Services. The ISR uses the familiar "C" rating system similar to the Unit Status Report (USR). ISR benefits include:

- Provides Army-wide standards for infrastructure, environmental and service delivery requirements in *one* reporting system.
- Identifies shortcomings that may not have been discovered otherwise.
- Provides more visibility to installation conditions and priorities.
- Applies objective, Army wide *quality* and *quantity* standards to facilities, environmental programs and service delivery conditions.
- Assists commanders at all levels to track progress and justify resourcing.
- Provides information at the appropriate level of detail for the level of command doing the analysis.
- Provides HQDA and MACOMs with an objective, summarized picture of overall status based on detailed assessments.
- Provides estimated costs needed to sustain, renovate or construct facilities in order to achieve a desired C-rating.
- Reduces redundant reporting. (One example is the elimination of the Backlog of Maintenance and Repair (BMAR) report.)

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Anthony V. Fasolo is the HQDA ISR Program Manager for OACSIM.

## ISR Q&A

Here are the answers to some of the most frequently asked questions about the ISR Program:

**Question:** How does the ISR tie in with the other ACSIM systems?

**Answer:** *ISR integrates many currently available databases and adds value to that data. In a nutshell, the ISR's relationship to several of the Army's institutional databases is as follows:*

**Integrated Facility System (IFS)**, is the Army's database of record for Real Property. It captures the "on-hand" assets or "things" an installation has.

**The Army Stationing Installation Plan** captures the detailed installation population on an installation.

**Real Property Planning and Analysis System (RPLANS)** determines the associated facilities requirements based on the population, type of units, from the ASIP. RPLANS feeds directly into the ISR, and comparing the assets on hand (from IFS) and the requirement (from RPLANS), determines the quantity rating in ISR Infrastructure.

**The Environmental Program Requirement (EPR), Environmental Quality Report (EQR) and Defense Sites Environmental Restoration Tracking Systems/Cost to Complete (DSERTS/CTC)** feed directly into ISR Environmental portion of the ISR.

**Service Based Costing (SBC)** captures the "did" cost of performing a service on an installation. ISR Services will capture the condition of that service.

**Standard Service Costing (SSC)**, currently under development, will capture the SBC and ISR Services data for a service and compute a programming "should cost" for that service.

**Question:** Is the ISR used in the Army's Planning, Programming, Budgeting and Execution System (PPBES) process?

**Answer:** *The ISR is used extensively in the PPBES process in both garnering and defending Army resources in support of Army installations worldwide. As ISR Infrastructure is*

*the most mature part of the ISR, it is currently used extensively in the process. The other two parts, ISR Environment and ISR Services, are both still evolving and are therefore used to a lesser extent. The primary benefit of the Infrastructure data has been to convey the unhealthy conditions of Army facilities to Army, OSD and Congressional leaders during the POM build – to establish a measurable, understood picture that can articulate the need for increase Real Property Maintenance funding. The FY99 O&M backlog is \$21B. A degradation model has been used to argue for support for supplemental funding to the Army and OSD leadership. Also, the official Army requirement for deferred maintenance comes directly from ISR data. The ISR is evolving to an extremely valuable tool in establishing defensible, scrutinizable requirements. Eventually the ISR will be to installation readiness what 14.5 flying hours and 800 tank miles are to combat readiness.*

**Question:** Is the Army (and OSD) leadership familiar with the ISR – and have they expressed confidence in it?



*Answer:* The Army leadership is very familiar with the ISR. A number of senior OSD and Army leaders have received detailed briefings on the ISR Program. All have expressed significant interest in and support of the program. Additionally OSD has used it as the basis for the development of the installation readiness component of their annual report to Congress. Congressmen are familiar with the concept and have requested and received copies of the report. They have used it to verify other data provided to Congress by sources other than the Department of Defense.

**Question: Does the ISR directly feed into AIM-HI – the BASOPS resourcing model?**

*Answer:* The ISR data does NOT directly feed into AIM-HI. However, data from the ISR is used in support of the POM, as does AIM-HI. The ISR is a snapshot in time that reports on the conditions and costs associated with them. AIM-HI is a predictive model used to develop the ACSIM portion of the Army budget.

**Question: What are other uses of the ISR at HQDA?**

*Answer:* The ISR is used extensively at HQDA. As a result of its maturity, ISR Infrastructure is used the most (It was initially fielded Army-wide in 1996). Uses of it have been:

- Enhancing our view of Real Property Issues – primarily by enhancing the condition of the Essential Facility Requirements (EFR) Charts).
- Defending the Army Real Property Maintenance budget – by articulating the enormous unfunded backlog of RPM.
- Supporting force structure stationing decisions – by enabling the Army to readily consider the quantity and quality of facilities required to support the restationing actions.
- Justifying military construction (MIL-CON) at HQDA Project Review Boards – by demonstrating the shortage/condition of

facilities at an installation.

- Informing Army leadership of an installation’s status prior to field visits. Installation summary “chiclet” charts are placed in “Trip Books.”
- Communicating the unhealthy conditions of Army facilities to Army, OSD and Congressional leaders during the POM build in a consistent, replicative, easy-to-understand format.
- Projecting future facility conditions based on a projected funding level by illustrating the condition of facilities, over time, based on a specified funding level.
- Modeling the backlog of real property maintenance – the “official” Army requirement is a direct derivation from ISR data.
- Developing requirements for requesting facilities backlog reduction supplemental. ISR data was the mechanism for articulating the RPM shortfall. Army received a \$178 mil/year plus-up based on the requirement to bring all Army facilities to C-2 in 40 years.

**Question: What is happening with the Environmental portion of the ISR?**

*Answer:* The Environmental portion of the ISR is gaining acceptance at HQDA and has been used to:

- Fulfill internal Environmental Compliance Assessment System required by Army regulation.
- Identify critical funding requirements based on current and target performance status.
- Input to HQDA-managed programs such as the utilities privatization program.

An environmental working group is developing new standards for approval at the July 2001 After-Action Review. Look for possible changes in the 2002 data call.

**Question: What’s the latest on the Services Portion of the ISR?**

*Answer:* ISR Services will eventually input into the Army Resourcing Model. It will portray the “outcome” of a wide range of installa-

tion services. We fielded 37 Services with the 200- Data Call. We are also collecting Service Based Costing data so that we have the “DID” costs of services. When we combine those services that we can combine with SBC data we will know the “SHOULD” costs of Services. WE expect to collect at least tow more years’ worth of data before this past of the ISR is used for funding.

**Question: What is being done to facilitate the use of ISR data at the installation level?**

*Answer:* The ISR Program is still evolving. It is a dynamic, high-visibility program that is rapidly gaining acceptance at all levels of the Army. One thing that we can do to increase its acceptance at the installation level is to provide consistent, accurate responses to frequently asked questions. The installation must perceive the ISR to be of direct value to them and NOT just to HQDA.

The biggest step taken in that direction is the fielding of the Installation Commanders Viewer (ICV). The software was fielded this past April – it is a decision support tool designed to enable the Installation and Garrison commanders and their staffs to view their data in ways that are meaningful to them. They will be able to roll-up data from all three of the parts within that part hierarchy. They will be able to view, simultaneously, multiple years of data within a part – or different parts.

For example, the ISR Infrastructure data could be viewed for the most current three years – or data from ISR Infrastructure, ISR Environment, and ISR Services, for a particular year, could be viewed simultaneously. With easier access to their data – the ISR should become a much more integral part of the installation’s decision-making processes.

For more information, go to the ISR website (isr.xservices.com).

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**PWD**



## Housing professionals meet in 2001

by Marlene Naranjit

The Professional Housing Management Association (PHMA) in conjunction with Military Housing and Lodging Institute (MHLI) had their 13th annual professional development seminar the week of 21 January 2001. Housing professionals from around the world who work in the housing industry for military installation housing and for community housing had an opportunity to commingle and learn of new housing management and technical techniques and to share ideas to improve customer service and housing business.

This year's theme was "Feet on the Path, Eyes on the Summit." The keynote speaker was Jeff Salz, a cultural anthropologist, author, mountaineer, explorer, and highly spirited speaker who has lived his dreams.

Also provided during the seminar was the Trade Expo 2001 with over 260 booths featuring the very latest products and services available in today's competitive housing marketplace.

The seminar put on over 17 workshops, designed to help improve your lead-

ership, management and financial skills and ability to adjust to constant changes. New acquisition rules were also covered as well as current housing issues such as General and Flag Officer Housing and Bachelor Housing Improvements without Major Construction. The seminar also produced a panel from the Office of Secretary of Defense (OSD) that addressed both family and bachelor housing.

The highlight of the seminars each year, however, is Service Day, and this year was no different. This is when participants separate by each military service to gather the most current information and policy changes. The Army Day agenda for this year focused on:

- Housing Operations and Management System (HOMES).
- Army Family Housing Master Plan.
- Family Housing Facilities.
- Current information from the Residential Community Initiative (RCI) Task Force and Forces Command (FORSCOM), Forts Carson and Hood privatization.

- Fort Drum's perspective on A-76.
- Unaccompanied Personnel Housing (UPH) update.
- U.S. Army Alaska's take on new housing construction warranties.
- Presentation from the president of Institute of Real Estate Management (IREM),
- Army Housing Town Hall.

At the Town Hall, the field had the opportunity to ask questions from a panel represented by RCI leader, Don Spiegelmyer; Fort Carson's CVI expert, COL Toops; Fort Hood's RCI expert, Robert Irwin; Fort Drum representative for A-76, COL Remy; GFOQ expert Mike Ash; Family Housing Master Plan representative, Tom Kraeer; and the Chief of Army Housing, George McKimmie.

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*Marlene Naranjit is a Housing Management Specialist with ACSIM. **PWD***

## Register now for the DPW Management Orientation Course

The Installation Support Training Division (ISTD) at Huntsville, Alabama has vacancies in the following FY01 Course Session:

**CRS # 989, DPW Management Orientation Course**  
**Session 2001-02, 23 April - 4 May 2001**  
**Location: Alexandria, VA**  
**Tuition: \$1,200**

This course covers the administration, organization, functions, and management systems of the installation DPW to include: Operations and Maintenance, Army (OMA) and Army Family Housing (AFH) work classification and approval limits; the DPW financial and work management systems; the DPW resource management and annual work plans; DPW automation; and real property management and master planning.

The classroom instruction includes lectures/seminars presented by experienced guest speakers from HQDA and DPWs; group practical exercises; classroom discussion; individual assignments; and an examination.

For more information about attending this course session, please call Sherry Whitaker, (256) 895-7425 or Jackie Moore, (256) 895-7421 in the Professional Development Support Center's Registrar Division.

To enroll in this course, FAX or MAIL your DD Form 2556 or MIPR to: USACE Professional Development Support Center, ATTN: CEHR-P-RG, P.O. Box 1600, Huntsville, AL 35807-4301; FAX: (256) 895-7469.



# Professional Development Seminar XIII

by Rodney Brown

Army Day, 25 Jan 01-

The Army began their service workshops for the Professional Development Seminar XIII on Thursday, 25 January 2001 with opening remarks from Mr. John Nerger, Director of Facilities and Housing under the Assistant Chief of Staff for Installation Management (ACSIM). Welcoming all the "new folks," he quizzed audience members on how long they had worked in housing in five and ten year increments, asking them first to stand and sit down as he counted off years of service. The last remaining person standing was Ms. Geraldine Williams from Fort Dix, New Jersey, with over 35 years of service.

Nerger paraphrased from an article by Bill Taylor in "Fast Company," a leadership magazine, about the reasons people leave their jobs. The top five were:

1. Work doesn't matter.
2. Not learning anything.
3. Don't like colleagues.
4. Little or no recognition.
5. Not enough money.

According to Nerger, these reasons should not apply to housing professionals, except maybe for the money. Emphasizing how very important our work was, he said that we are always learning how to do our jobs better and that the leadership of the Army is committed to making sure that the housing needs of soldiers and families is a top priority.

Army Leadership had consciously decided to maintain readiness over facilities but there is a tie in between facilities and readiness, he added. More specifically, said Nerger said, General Shinseki, Chief of Staff, Army, was on record as saying that we are committed to eliminating inadequate housing and reducing the deficit by 2010 overseas and 2014 in the United States. Quoting GEN Shinseki, Nerger stated that "America today enjoys a lifestyle that is the envy of the world, and, hopefully, our soldiers can enjoy that lifestyle also."

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*"America today enjoys a lifestyle that is the envy of the world, and, hopefully, our soldiers can enjoy that lifestyle also."*

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Nerger also quoted the theme of Keynote Speaker Jeff Salz, "We have no where to go, nothing to do, but service." We should not underestimate the value of our service, said Nerger.

Here's Nerger's list explaining why smart people work for the best companies-

1. Best in business. We are good!
2. Work hard, but have other interests. (balance).
3. Place where you can change the world and make a difference.

Inviting participants to learn from the educational opportunities available from PHMA, Nerger asked attendees to be interactive, have dialogue and discussions and share stories and better ways to do business. "Washington doesn't have all the answers but we are here to help and to serve," he concluded.

*(NOTE: Mr. Nerger was presented a Plaque for his support of Army Housing careerists to PHMA training programs and Professional Development Seminars at the Awards Banquet.)*

Other highlights of Army Day included the Headquarters, Department of Army, update on the status of the Army's Residential Communities Initiative (RCI) presented by Mr. Donald Spigelmyer and Forces Command's (FORSCOM) perspective on the status of RCI by Mr. James Carmody. In addition, Fort Carson's Director of Public Works, COL Peter Topp, gave an informative briefing on the performance of the contractor who won the award of the RCI initiative at Fort Carson. Topp stated that Fort Carson had improved tremendously since award of the

contract because of the leveraging of capital that is available under the RCI program.

Mr. Robert Erwin, DPW RCI Team, Fort Hood, presented the installation's vision for RCI. Fort Hood is looking forward to RCI as a way to increase family housing units and repair/renovate over 5,000 units. The post has done extensive preparation to ensure that RCI housing areas are in the right place and complement existing neighborhoods and facilities. The bottom line is Fort Hood wants to continue to provide and improve quality of life for their soldiers and families.

COL John Ramey, Director of Public Works, Fort Drum, gave a candid talk about how his in-house workforce organization had recently won the Fort Drum A-76 competition. Mr. Tom Petersen and Ms. Barbara Lehman from Alaska discussed their New Housing Construction Warranties Program.

Ms. Deborah Reynolds, HQDA Unaccompanied Personnel Housing Team Chief, presented the Army's UPH Modernization Strategy. Mr. Mike Ash presented Army Housing Facilities Update, followed by considerable discussion on the Army's interpretation of a DoD Directive that family housing accounts were to reflect all costs including diversions to single housing. This decision was made to avoid appearance that units are diverted to avoid cost reporting requirements.

These briefings will be available at Army Housing's web site at [www.hqda.army.mil/acsim/fd](http://www.hqda.army.mil/acsim/fd).

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Rodney Brown is a Housing Management Specialist in ACSIM's Directorate of Facilities and Housing. **PWD**



# Army Housing training

by Mary Alice Hoadley and Peter Gentieu

The month of February 2001 was very busy for the Information Technology Team of Army Housing. Among other tasks, there were three courses taught at the Casey Building, Fort Belvoir, Virginia. These courses were Intelligent Query (IQ), Part I; IQ, Part II; and Army Housing Basic Operations, Level I. Each of these courses included hands-on computer use with guest speakers from ACSIM at the Level 1 course. We also provided two on-site training/supervised live production sessions at Fort Buchanan, Puerto Rico, for three weeks and at Fort McPherson, Georgia, for one week.

The 40-hour IQ, Part I course is designed for any Army Housing employee who needs to download new HOMES3 IQ reports from the Web, run existing HOMES3 IQ reports or write simple IQ reports. Topics covered include the Wizard, formatting techniques, prompts, and modification of an existing report.

The 40-hour IQ, Part II course is designed for any Army Housing employees who needs to write complex HOMES3 reports. Topics covered include child documents, parent documents, merging the child and parent documents, advanced graphical design layout, creating templates, defining and applying object style, using distinct and aggregate functions, creating linked objects that can change when one of the objects is changed.

The 40-hour Army Housing Basic Operations, Level I course is designed for Housing Office employees who are GS-3 to GS-7, all clerks [Assignments and Terminations (A&T), Community Homefinding, Relocation and Referral Services (CHRRS), Unaccompanied Personnel Housing (UPH)], inspectors, entry level/new housing employees, contract personnel, as well as CP-27 interns. This course combines functional training, which includes Army Regulations and Statues, with use of HOMES3. It focuses on the



One Chair/One Stop concept, where one counselor takes care of all housing needs for the duration of a customer's tour. Topics covered include housing mission, organization, in and out processing, housing regulations including but not limited to housing eligibility, bedroom requirements, waiting lists, assignments, terminations, and an overview of furnishings. The guest speakers from ACSIM keep the material lively and current.

Being on-site allows the trainers to review the data at an installation and to work with the Housing Office to make sure the information is being entered as the program intended. Now that the installations have had an opportunity to work with

the new program, questions have been asked as to the best way to use the system to provide management the information required. Specialized instruction on HOMES3 software, housing management issues and IQ reports is also provided. One-on-one instruction is available working with users at their desks and using their installation's information.

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*Mary Alice Hoadley is the Chief Instructor for ATTventure Limited and Peter Gentieu is the Chief, Housing Information Technology, ACSIM. PWD*



## SPD to hold annual Installation Engineers Conference

The annual Installation Engineers Conference will be held 3-5 April 2001 at the Golden Nugget Hotel in Las Vegas, Nevada. Hosted by South Pacific Division (SPD). The conference is open to all SPD customers as well as others interested in attending.

This year's theme is "Year 2001—Building Engineer Partnerships in Support of the Force." Breakout sessions will cover environmental issues, Fort Future, LA Districts support to military installations and real estate capabilities.

For more information about registration and hotel accommodations, please contact Ron Niemi at 916 557-7890 or e-mail:

[rniemi@spk.usace.army.mil](mailto:rniemi@spk.usace.army.mil) immediately. **PWD**

## USACE to hold first Environmental Development Workshop

The first USACE-wide Environmental Development Workshop combining all personnel engaged in environmental activities will be held on 17-19 April 2001 in Portland, Oregon.

Technical and project management representatives from HTRW/Environmental Remediation, Ecosystem Restoration, Natural Resources Management, Health & Safety, Water Quality, Installation Support, Geotechnical, Environmental Compliance, and Outdoor Recreation will give presentations. The keynote speaker will be LTG Robert B. Flowers, the 50th Chief of Engineers.

Additional information and registration guidelines for the workshop can be found at

<http://hq.environmental.usace.army.mil/edw2001/>.

POC is Mike Klosterman, CECW-ET-V, (703) 428-7337, e-mail:

[michael.j.klosterman@hq02.usace.army.mil](mailto:michael.j.klosterman@hq02.usace.army.mil) **PWD**

## Historic Buildings Conference to be held in Atlanta

A Department of Defense Historic Buildings Conference II will be held June 12-14, 2001, in Atlanta, Georgia at the Sheraton Gateway hotel. This year's conference will address concerns and issues regarding Cold War properties, properties less than 50 years old and how the DoD should maintain these structures.

The three-day conference in Atlanta will provide a forum and opportunity for DoD/military service installations, major commands, facilities and housing managers and cultural resources representatives to discuss Cold War policy, guidance, preservation, and regulatory requirements for installations to maintain Cold War properties.

The conference is designed around specific Cold War themes that will create dialogue on the critical issues:

- DoD Cold War Policy and Perspective: Day One will cover the policy perspective from DoD and each service. Session will include the State Historic Preservation Officers and Advisory Council on Historic Preservation perspective and how their perspective will impact DoD preservation policy.

- What are Cold War Properties? Day Two will discuss preservation solutions by reviewing case studies by each service and discussion of how to determinate eligibility of Cold War properties.

- Solutions and Cold War Resources: Day Three will provide the attendee with resources that are available to the service, a discussion of properties less than 50 years old and determining state and local significance.

There will also be a walking tour of the Fort McPherson historic properties on the third day.

Advance Registration will start March 12, 2001. You may register for the conference mail or by FAX. A block of rooms has been reserved at the Sheraton Gateway Hotel, Phone: (770) 997-1100, Fax: (770)-997-1921. The deadline for making hotel reservations is June 1, 2001.

For more information concerning the conference, please contact Horace H. Foxall, Center of Expertise for Preservation of Historic Structures, U.S. Army Corps of Engineers, (206) 764-4482, e-mail:

[Horace.H.Foxall@nws.usace.army.mil](mailto:Horace.H.Foxall@nws.usace.army.mil) **PWD**

## VACNOT – up and running!

The vacancy notification system (VACNOT) is again operational. You may recall, VACNOT was deployed last year to notify careerists in career program (CP)-18 Engineers and Scientists (Resources and Construction), and USACE CP-55, Real Estate, of vacancy announcements when central referral inventories for these career programs were disestablished. Unfortunately, shortly after deployment there were a number of problems and the system has not been functioning for months.

VACNOT is a voluntary registration system that enables individuals to register for up to five series in any location. Since the system was designed for CP-18 and CP-55, the first four fields are reserved for series covered by these career programs. The fifth

field accommodates all other series, to include the 340.

VACNOT interfaces with the Department of Army vacancy announcement web site, [www.cpol.army.mil](http://www.cpol.army.mil), to notify employees via e-mail when a vacancy for which they are registered is published.

Instructions for registering are at [www.cp18and55.net](http://www.cp18and55.net).

**Because of all the problems with the system since its initial deployment, those who registered previously will need to re-register.**

POC is Cheryl Vinci, Director of Human Resources Employment and Compensation Management Division, (202) 761-0334, FAX: (202) 761-1245, e-mail: [cheryl.vinci@usace.army.mil](mailto:cheryl.vinci@usace.army.mil) **PWD**



## New fire protection system provides false alarm immunity

by Virgil J. Carr, Jr. and Robert A. Loyd

Those of you involved with management, maintenance, and operation of high-speed munitions fire protection deluge devices are



Virgil J. Carr

all too familiar with the problems and limitations of currently installed systems. You've received the late night calls informing you of a false dump that has spilled thousands of gallons of water on your bay floors creating an environmental nightmare, unscheduled clean-up operations and production shut downs.

Even worse, you may have experienced an incident or major accident where your installed system functioned properly but was too slow to stop a deflagration. This, in turn, led to an explosion killing or injuring workers and or producing thousands of dollars worth of property damage to facilities and equipment. In this article, we want to tell you about an apparatus currently under development by the US Army Ammunition Logistics Activity (AMMOLOG) and Army Industrial Operations Command that may solve many of these current problems.

The device is called the Advanced Fire Protection Deluge system or AFPDS for short. The U.S. Air Force Defense Fire Research Laboratory at Tyndall Air Force base is developing the AFPDS for the US Army with funds provided by AMMOLOG and others.

The system uses high-speed (3-5 millisecond) false alarm immune detectors similar to units currently installed in tanks and armored vehicles. These detectors "see" the

burning munitions fire and process an electronic signal through a controller that activates a nitrogen pressurized water sphere. The water sphere is especially designed to expel a cone shaped misty application of water that quickly cools and extinguishes a burning propellant, pyrotechnic, or HE munitions fire. Knowing where a munitions fire will most likely occur, the sphere can be positioned over this location to rapidly intercept and interrupt a propagating deflagration.

Testing with this device has been ongoing since January 1996 with over 200 evaluations with pyrotechnics, propellants, and HE materials conducted. In each test the system has "seen" the burning material flame in its incipient stage.

Typically the device produces water at the sphere opening in 6-12 milliseconds,



Robert A. Loyd

that could be precisely measured in growth and speed. Heat flux equipment was used to measure the effects of heat on a human working nearby, but these

effects have been minimal.

Perhaps one of the best outcomes of the testing program to date has been the high degree of false alarm immunity possessed by the three new detectors used to operate the AFPDS. These detectors were virtually immune to every false alarm stimuli introduced to include various lights, flash cameras, chopped light, drill motors, and MIG/stick welding. The detectors

were exposed to the false alarm source located directly in front of the units for 30 seconds at various specified distances.

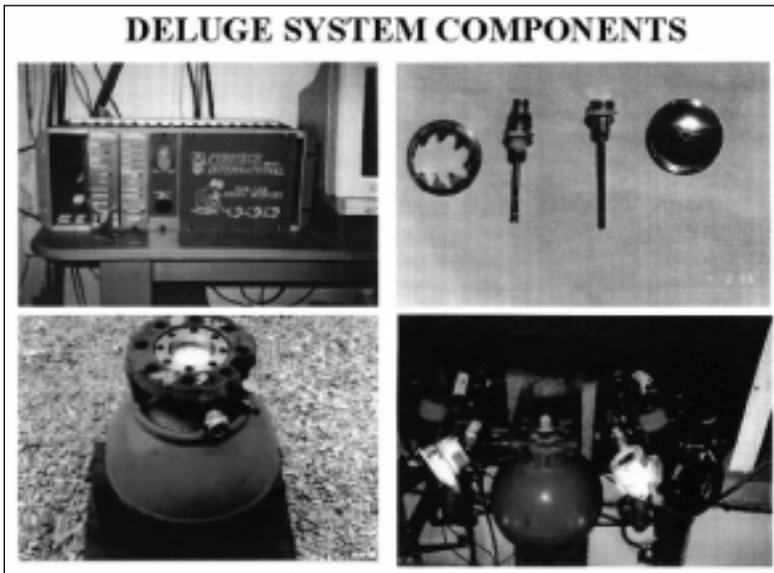
While the AFPDS offers a significant improvement in speed, false alarm immunity and reliability over currently installed systems, improvements to the system are still being made, including testing of a new higher speed detector that will cut overall system speed to between 3-5 milliseconds.

The system is being installed at Picatinny Arsenal, NJ; Sunny Point, NC; Fort Wainwright, AK; and

possibly Fort Dix, NJ.

POCs are Virgil J. Carr, (850) 283-3744 and Robert A. Loyd, (309) 782-2975.

Virgil J. Carr is a Senior Engineer in the Fire Research Branch of the Air Force Research Lab, Tyndall Air Force Base, FL, and Robert A. Loyd is a Safety Specialist at the US Army Operations Support Command, Rock Island, IL. **PWD**



which is 10 times faster than the current NFPA standard. Material samples tested have generally measured between 1/4 to 1/2 lbs. However, special propellant burns/testing for Fort Dix, NJ, produced successful control/extinguishment of up to 25 lbs. of burning propellant.

In each test conducted, a high-speed camera has provided images of the burns



# Huntsville's contracts help installations conserve energy using private funds

by Bob DiMichele

Innovative contract awards from the U.S. Army Engineering and Support Center, Huntsville, are leveraging \$32 million in private sector investment to increase energy efficiency and improve energy conservation at two Army installations. The Corps of Engineers' Huntsville Center recently awarded task orders under its multi-billion dollar, energy savings performance contract (ESPC) that will initiate energy conservation work at Fort Richardson, Alaska, and Fort Gordon, Georgia.

In ESPC, the contractor provides the capital investment and then receives a return on investment from the energy savings the project generates.

The work at Fort Richardson involves the decentralization of the central heating plant and the installation of stand-alone, natural gas-fired, heating systems in 237 buildings. Stand-alone control systems will be installed in 236 of those buildings. This task order was awarded last December to Honeywell International. The Alaska District Corps of Engineers provided

project management and engineering support for this work as well. It has an implementation cost of \$27,488,000. The energy cost savings for the first year amount to \$828,000. The ancillary cost savings for the first year amount to \$1,565,000. There is also a one-time, ancillary savings of \$4,553,000 brought about by avoiding replacement and upgrade costs for various components of the central heating plant.

The contractor will receive 100 percent of the resultant savings over the eighteen-year and nine-month term to cover design, engineering, project installation, and financing costs.

Huntsville Center also awarded an ESPC task order for Fort Gordon in December for changing the customer base line to lower Fort Gordon's long-term electric costs and for replacing chilled water and condensate pipe in one of the installation's training facilities. The task order was awarded to Equitable Resources Incorporated and has an implementation cost of \$4,500,000. The energy cost savings for the first year amount to \$587,000. The cost savings

in operations and maintenance for the first year amount to \$934,000.

The contractor will receive 98.8 percent of the resultant savings over the 20-year term to cover design, engineering, project installation, and financing costs.

The purpose of Huntsville Center's energy savings performance contracting is to leverage scarce operations and maintenance dollars to increase the energy efficiency of government facilities and reduce energy consumption.

There is also a side benefit. Military installations get new equipment and reduce maintenance costs by using private capital.

The contractor provides the capital investment and then receives a return on investment from the energy savings the project generates.

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*Bob DiMichele is the public affairs officer for the Huntsville Center. PWD*

## Problems at Fort Tank – the adventures of Joe Sparks

by Ron Mundt

The new adjustable speed drives at Fort Tank had been installed to replace the old air handling fan motors in the main administration building. The old motors were a constant source of maintenance problems with overheating, bearings freezing up, contractors not operating correctly, and controls breaking down. In addition, many of the compressor and pump motors had been replaced with higher efficiency types.

Joe Sparks, the post electrical engineer, was glad to see new high technology electrical equipment installed on the post. Fort Tank very seldom received funding for electrical upgrades.

After about six months, there were complaints from the maintenance personnel that many of the motors were running extra hot, especially the ones off the same motor control center as the adjustable speed drives. Some of the new motors began to fail and this greatly affected the ambient air climate within the building, generating a number of complaints

since it was the middle of the summer.

The electricians were constantly monitoring the building voltage, since low motor voltage is a "sure fire way" to quickly overheat a motor. The voltage drop on all motor feeders was more than acceptable.

One night when Joe was catching up on his files and paper work, he came across the catalogue information on the adjustable speed drives and became a bit "tiffed." He had specifically specified higher than a six pulse rectifier unit for the drives to reduce low order harmonics on the system. Joe knew that a six pulse rectifier bridge would generate 5th harmonics, and that, with the right conditions, could cause motors to overheat.

The next day Joe Sparks connected a harmonic analyzer to the adjustable speed drive bus and discovered a large 5th harmonic component on the power line. This was causing the motors to overheat. During the next week, harmonic filters were installed on the system,

which eliminated the overheating motor problem.

Normal electrical power phase rotation is A, B, C. Fifth (5th) harmonic current has a phase rotation of A, C, B. This reverse rotation will cause a counter torque on motors, resulting in overheated windings, and eventually, insulation breakdown. Periodically, monitor your electrical power line quality, especially during large renovations. This is part of commissioning and/or acceptance electrical testing.

The Power Reliability Enhancement Program (PREP) Team is currently preparing a technical manual for commissioning of electrical systems for C4ISR facilities.

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*Ron Mundt is an electrical engineer on the PREP Team of the Special Missions Office in Military Programs. PWD*



# Lab reflects on cold-climate ground-coupled heat pump technology

by Marie Darling

For many years researchers at the Cold Regions Research and Engineering Laboratory (CRREL), one of seven laboratories of the U.S. Army Engineer Research and Development Center, have been working on solutions to heating and cooling of Army facilities. The problems associated with efficient heating and cooling not only include energy implications, but also includes maintenance and occupant comfort, areas that the Army continually strives to improve. CRREL works with the Army to provide answers to all Army problems with special emphasis on cold-related problems.

Cold Regions researcher Dr. Gary Phetteplace and his team early on identified water-source heat pumps as the only viable alternative for cold climates, thereby, recognizing the ground-coupled heat pump (GCHP) system as a sound concept and so demonstrated the systems applicability at the CRREL laboratory in Hanover, NH.

After full-scale testing at CRREL, this ground-coupling concept was submitted for inclusion in the Army's Facilities Engineering Applications Program (FEAP) and was accepted. A call for demonstration sites was established and Army officials at Fort Polk, LA, enthusiastically responded.

The basic concept of GCHPs (also known as geothermal or ground source heat pumps) is that these heat pumps exchange heat with the earth using buried plastic piping (see image). This allows the earth to act as a heat source for meeting building heating requirements and dually, a heat sink for building cooling.

During the late 1980s and the early 1990s, in an attempt to gain an in-depth understanding of GCHPs performance under actual military family housing conditions, CRREL researchers conducted two demonstration projects at Fort Polk. A total of 15 GCHPs, as well as 11 air source heat pumps for comparison purposes, were installed and their performance was closely monitored for four years.

The results, in terms of documented energy saving (approximately 30%) and practical lessons learned laid the ground work for a shared saving contract that in 1996 retrofitted all 4,003 of Fort Polk's family housing units with these heating and cooling systems (this is the largest GCHP residential project in existence). This project was accomplished with no out-of-the pocket expense to the Federal Government. The contractor paid all of the approximately \$18M installation/retrofit costs in exchange for approximately 80% of the revenue generated by the energy savings.

In the future, Fort Polk will save nearly \$1M per year in energy and maintenance costs over the 20-year-life of the contract and more than double that after the contract period expires. And a benefit to the Army is occupant comfort which is greatly increased, a "Quality of Life" plus for the Army and it's family housing program.

Additionally, the maintenance requirements of the GCHPs are much lower and, during the life of the contract, the maintenance is the responsibility of the contractor.

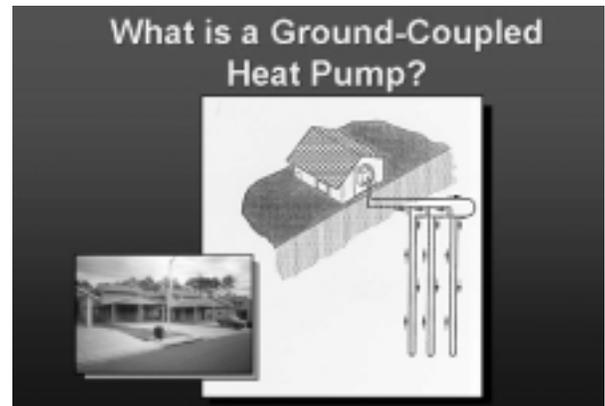
Annual environmental benefits from the Fort Polk project have been estimated as follows:

- 57,973 barrels of oil.
- 19,800 million Btu's of natural gas energy.
- 38 thousand tons of CO2 emissions.
- 100 tons of SO2 emissions.
- 90 tons of NOx emissions.

And there are yet more benefits to include:

- Reduced electrical demand by 40%.
- Contractor performs all maintenance.
- Lessons learned for other similar projects.
- Template for other similar contracts.

This program was a real teaming up of expertise and organizations. The team effort involved individuals from the Fort Polk DEH; the Cold Regions Laboratory; USA



Huntsville ESC; Louisiana State University; and the contractor, Co Energy Group.

The principal investigator of the demonstration projects at Fort Polk, Louisiana, was Dr. Gary Phetteplace and in 1997, he accepted the Hammer Award for the "CRREL Team." The Hammer Award is former Vice President Al Gore's highest award given out in recognition of a team who has contributed three elements in their research - innovation; cost savings; and customer service.

Phetteplace emphasizes that family housing is not the only area where GSHP systems are cost effective. In fact, Phetteplace states that, "the economics are even better for larger buildings where the simple, highly reliable, ground source heat pump systems offer lower installed cost, as well as reduced maintenance and energy costs."

Phetteplace continues efforts in ground-source heat pumps education/awareness presenting at workshops, developing and providing descriptive GCHP information and working with Huntsville Engineering and Support Center to foster the development of guide specifications.

For more information regarding CRREL's continuing role in ground-coupled heat pump technology, please contact Dr. Gary Phetteplace, (603) 646-4248 or e-mail: [gephet@crrel.usace.army.mil](mailto:gephet@crrel.usace.army.mil)

Marie Darling is a Public Affairs Specialist at ERDC/CRREL in New Hampshire. **PWD**



# Carbon monoxide detectors in Army Family Housing

by Tim Ketchum

Carbon monoxide (CO) is a colorless, odorless, tasteless, toxic gas produced by the incomplete burning of carbon-containing fuels including coal, wood, charcoal, natural gas, and fuel oil. Examples of CO producing sources include unvented kerosene and gas space heaters, fuel fired furnaces, woodstoves, fireplaces, gas stoves, gas dryers, gas water heaters, charcoal grills, and automobile exhaust from attached garages.

Every year thousands of people are injured and hundreds die from CO poisoning in their homes. In November 1998, four family members died from CO poisoning in military housing at a Naval Air Station. Immediately after this, the Navy made a centralized purchase of CO detectors to install in all their housing units where the potential for CO poisoning exists.

Carbon monoxide detectors have improved in the last several years and have become more reliable. There are several

manufacturers, which produce various types. These types are hardwired, battery operated, and one which plugs into an existing electrical outlet. There is also a model which includes both the CO detector and the smoke detector in one unit. Each type has its advantages and disadvantages when you consider the items cost, installation, maintenance and vulnerability to tampering. As a minimum, the detector should be UL listed.

The Army has taken some action and is requiring that CO detectors be installed in all new or revitalized housing which has a source of carbon monoxide including houses with attached garages. Some installations have already taken the initiative and installed CO detectors in their existing houses or are issuing the plug in types through the self help store. A recent memo from the Assistant Chief of Staff for Installation Management highly recommends that all installations provide CO detectors

for their family housing which have a potential for CO poisoning. Remember that installation of CO detectors should not be a substitute for proper maintenance of the CO producing appliances or exhaust systems.

The following websites provide additional information on carbon monoxide in the home:

- Consumer Products Safety Commission, [www.cpsc.gov](http://www.cpsc.gov)
- Environmental Protection Agency, [www.epa.gov/iaq/pubs/cofshst.html](http://www.epa.gov/iaq/pubs/cofshst.html)
- National Safety Council, [www.nsc.org](http://www.nsc.org);
- ACSIM website, [www.hqda.army.mil/acsimweb/fd/policy/fire/bruce.htm](http://www.hqda.army.mil/acsimweb/fd/policy/fire/bruce.htm).

POC is Tim Ketchum, DAIM-FDH, (703) 428-7505 DSN 328, e-mail: [timothy.ketchum@hqda.army.mil](mailto:timothy.ketchum@hqda.army.mil)

Tim Ketchum is Chief, Family Housing Facilities/GFOQ Programs, at ACSIM. **PWD**

# Fort Knox opens new clothing store

By Carol Baternik

Like the emperor in his new clothes, soldiers at Fort Knox, Kentucky, now have the luxury of selecting their uniforms in the comfort and elegance of the brand new Military Clothing Sales store.

The dressing rooms are restyled and private with doors that meet the floor, and there's nearly six feet between aisles of merchandise out in the general store. Lots of apparel and sizes are attractively displayed. Maneuvering from the blouses section to running gear is as easy as a hop, skip and a jump, and it's very likely even that odd size is hanging on the rack.

The old clothing sales store was on its last leg this past summer, according to Craig Verwys, Fort Knox Exchange general manager. A leaky roof, cramped quarters and an obscure location out in the "boonies" made it the last place on post anyone wanted to visit. "We were no where near compliance before," he said. "It was four times too small, and looked dirty and dark."

With the clothing store now centrally located at the post's community center,

patrons can one-stop shop hitting the Post Exchange, commissary and clothing sales in one fell swoop.

Shared funding, partnering and what Lewis Graham, the liaison between Fort Knox and the Corps of Engineers, calls "a novel process" allowed for the brand-new facility. The novel process was excellent communication between the Louisville District Corps of Engineers, Army and Air Force Exchange Service (AAFES) and Fort Knox.

Russ Boyd, project manager, Louisville District, applied the corporate approach to the project, ensuring that all commitments regarding scope, schedule, budget and quality were met.

The plan and commitments of Boyd, Graham and Verwys, resulted in the facility coming in just under budget and on an accelerated schedule. The contract came in at \$497,522 with a 5,400 square foot floor plan. Fort Knox spent \$301,522 and AAFES kicked in approximately \$196,000 to fund



the project.

At one point Verwys had to go back to AAFES asking for more money. "Normally, it's unheard of to go back to AAFES and ask for more money," said Verwys. "But they gave us the extra money because they knew the old situation. If the Army was going to build it, AAFES said they would be happy to help."

The payoff was worth the price— clothing sales increased 20% in the first five months.

Carol Baternik is a public affairs specialist at the Louisville District, ((502) 315-6769.



## Developing the Capable Workforce

by Alexandra K. Stakhiv

The 5th Annual USACE Workshop, "Developing the Capable Workforce," held in conjunction with the 15th Black Engineer of the Year Award Conference at the Baltimore Convention Center on 8 February 2001, attracted twice as many participants as last year. The word had gotten out and Corps employees came from around the corner and around the world, anxious to share and hear about the initiatives underway or soon to be implemented that could affect their future careers.

Moderator Wilbert Paynes, Chief, Planning and Policy Division, South Atlantic Division, opened the workshop. "Last year, we talked about preparing for the next millennium. Let me remind you that this is a journey not a destination," he said. "The Corps is investing in people because people are our most important resource. This year, we'll try to give you an edge on some different thoughts for improving yourself. Many of you don't get a chance to attend the Senior Leadership Conference or the Project Delivery Team Conference, which are all important to the Corps in terms of what we're trying to do as an organization. This workshop will give you a glimpse of some of the things that are talked about and help you position yourself within your organization."

Paynes then issued a three-fold challenge to the audience: "First, listen attentively and internalize what you hear. Second, actively seek to meet five new people during the workshop, and third, be a participant, not just an attendee."

After a brief welcome from COL Charles J. Fiala, Baltimore District Commander, the audience sat back to listen to a panel of experts report on the progress of some very special programs.

Ray Navidi, Special Assistant for Military Programs, gave an update on the Registry of Skills (ROS), an on-line database which contains information about the experience, skills, education, training and



Linda Garvin, Deputy Chief of Staff for Real Estate at HQUSACE, instructs participants on the finer points of "Becoming a Professional," during one of the two afternoon sessions.

talent of USACE employees. All Corps employees who use CEFMS can register with the ROS, and those who do not can request a userid from the local Corps U-PASS Administrator. The ROS is a voluntary system, where employees may enter as much or as little information as they wish. Benefits include better visibility of personal skills and abilities, assistance with self-evaluation, highlighting resources available.

"The system was deployed last September, but we still need your help in getting the word out," said Navidi. "ROS can become a powerful tool if there is enough participation by employees," he said. Olivia Henry, Leadership Development Program (LDP) Administrator, summarized the LDP, for which the Chief of Engineers is the functional chief and Mr. William A. Brown, Deputy Director for Military Programs, acts as the Functional Chief's Representative. The three-year program prepares GS 12s and 13s for

leadership positions through courses, mentoring and a six-month developmental assignment.

"For the very first LDP call, we received 279 applications and all 279 were accepted," said Henry.

The program regimen is very strict, and refusal to accept a developmental assignment or failure to submit a semi-annual report is sufficient grounds for dismissal from the program. Future plans include a review of student progress reports, graduation notification, mailing the second call letter, collecting lessons learned and posting assessments.

Dr. Susan Duncan, Deputy Chief of Staff for Human Resources, provided the latest statistics on corporate recruitment and selection. To date, 123 selections have been made at the GS-15 level. These employees, most of whom are males, averaged four geographical moves and 3.5 functional moves prior to being selected. Interestingly enough, the average age was



49. While 98% had undergraduate degrees, an amazing 68% had graduate degrees. It is important to note that very few were selected from outside the Army and even fewer from outside the federal government.

The new vacancy announcement system, VACNOT, will be operational very soon, said Duncan. It is an automated system that will notify candidates when there is a vacancy in the field they are interested in. VACNOT is now available to employees registered in CP 18 and CP 55 and, eventually, will be to others.

Another new program Duncan discussed was Corps Path, which consists of

recruitments right up to the point of selection,” she urged.

Larry Pierce, Program Manager at HQUSACE, provided an overview of Advancing Minorities Interest in Engineering (AMIE). AMIE was formed in 1992 as a coalition organization with partnerships among nine Historically Black Colleges and Universities (HBCUs), Fortune 500 Corporations and government agencies. The organization strives to prepare students for responsible positions and educate them about the Corps’ missions, capabilities and opportunities.

The Corps assists HBCUs in educating students to produce a world-class, diverse

Deirdra Williams, an AMIE student from Morgan State University in Baltimore, reminisced about her summer at Fort Shafter in Hawaii, where she was assigned as an intern. “Mentoring was essential for me,” said Williams. “As a Corps intern, I learned what to expect in a professional setting and discovered what I liked and didn’t like. Being so actively involved not only helped and encouraged me to learn but to become more aware of the office workings as a whole. This helped me to become more assertive and gave me confidence to do my job.” Williams was given the opportunity to carry out a project on her own, and she said the responsibility gave her the impetus to succeed.

James Dalton, Deputy District Engineer and Chief, Programs and Project management Division, Far East District, addressed the “mid-career strategy” by explaining what had worked for him. First, he advised, you need to become an expert in something, enough of an expert so that others will come to you for answers. “You can still diversify, but you need to have something you can call your own to establish your reputation,” said Dalton. “It is important to know the answer or at least know where to go to get the answer.” Stressing mobility, Dalton added that, “it also helps to move around from field to field.”

Second, continued Dalton, it is important to understand the corporate/agency culture—know where it’s headed and what the goals are. “You need to know exactly how your job fits in with the rest of the picture,” he said.

Third, you need to develop good communication skills. “If you’re trying to move up, put in the extra time,” he advised. “Learn how to listen. Raise or lower yourself to the level of your audience. How you deliver and what you deliver are both very important.”

Due to prior commitments, LTG Robert Flowers could not attend this year’s USACE Workshop, but the audience got to hear his comments on film.



*(Left to right) James Dalton, Dierdra Williams, and Larry Pierce prepare for the panel titled “Building upon Successes.”*

CD-ROM modules that can be accessed from your computer to give a history of the Corps and explain how you fit into the big picture. Supervisors need to encourage their employees to do the modules and discuss them afterwards, said Duncan.

While it is not unusual to have a hiring freeze with a new Administration, Duncan said we can expect relief very soon. “I encourage everyone to move on your

pool of talent throughout the Corps. In 2000, the USACE AMIE Student Employment Program recruited 53 students, including summer interns, co-op students, graduate hires, temporary hires and student aides. Other forms of Corps outreach include student mentoring, equipment donations, lab interfaces and promoting professional organization and career days.



*Juanita Harmon, HQUSACE Human Resources Office, takes time out with Pat Rivers, Chief, HQUSACE Environmental Division.*

“The theme of ‘Developing the Capable Workforce’ couldn’t be more appropriate,” he said. “People are our most important resource. Without each and every one of you, the Corps wouldn’t be the premier organization it is today. But we’ve got challenges. Our workforce is aging. Thirty-five percent of it will be eligible for retirement over the next five years, and with retirements will come opportunities. Our strategy will be to shape our workforce for the future.

“I believe the time has come to empower employees,” said Flowers sincerely. All of you should by now have my permission slip. On the front side, are the four responsibilities that I charge every USACE employee with, and on the back side, there are some questions. If you can answer yes to these questions, you don’t have to ask permission to do an action. You already have it from the Chief of Engineers. Just do it!”

MG Milton Hunter, Deputy Chief of Engineers, provided the keynote address during the workshop luncheon. (See article on p. 27.) Introduced by the afternoon moderator, Ms. Bunny Greenhouse, Prin-

cipal Assistant Responsible for Contracting, Hunter expanded on the “The Chief’s Philosophy on Empowerment.”

Hunter also introduced the Corps Nominees for the Black Engineer of the Year Awards, presenting them with framed certificates. (See sidebar.)

The town hall was spearheaded by Greenhouse, Mr. Mohan Singh, Director, Engineering and Technical Services; and Mr. Dwight Beranek, Chief, Engineering and Construction Division, who talked about their individual career paths. They also addressed a wide range of questions, including the importance of professional registration, recruitment and retention, funds for training, contracting and the importance of doing meaningful work.

Both Beranek and Singh urged all employees to take every available opportunity, even if a developmental assignment is beyond the scope of what you’re doing now. Mobility is critical to success and making yourself available is an important key,” Beranek stressed. The point was made that many LDP students are forced to drop out because they are not mobile and turn down the developmental assign-

ment. You have to compete and you have to make yourself competitive, the panelists agreed.

In the afternoon, participants had a choice of two workshop tracks to take part in. The first, “Becoming a Professional—Reflections in Person and on Paper,” was led by Linda Garvin, Deputy Chief of Staff for Real Estate. Other presenters included Pat Rivers, Chief, Environmental Division; and Dale Jackson, Acting Chief, Defense Agencies & Support for Others Branch. Taking turns, they explained what supervisors are looking for in new employees and how to work effectively in any organization. Penny Berardelli, Army DLAMP Office; and Rose Foster, Army DLAMP Office, explained the Defense Leadership and Management Program (DLAMP) and went over the application procedures. The workshop exercises consisted of a self-evaluation, preparing resumes and interviewing. The key, they all agreed, is to know what you want and be able to prioritize.

In the second track, called “Resumes and Interviewing in the New Era: RESUMIX and Interviewing Tips,” Ms. Sheila Dent, Chief, HECSA Human Resources Office, led a lively discussion on the RESUMIX system, an automated resume and referral process that covers all recruitment except the Senior Executive Service. “The point of RESUMIX is to match applicant skills to job needs,” said Dent. Mr. Wilbert Paynes walked the eager participants through the do’s and don’t of interviewing for success, explaining what characteristics managers are looking for and what kind of questions to expect as well as how to answer them.

The long day ended on a positive note with participants eager and challenged to apply some of the things they had learned this year and instructors anxious to develop some new ideas into an even better program for next year.

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



# Deputy Chief of Engineers addresses changes in the workplace

by Alexandra K. Stakhiv

**D**eveloping the Capable Workforce was the theme of the 5th Annual U.S. Army Corps of Engineers Workshop held at the Baltimore Convention Center on 8 February 2001. Expanding on this topic, keynote speaker MG Milton Hunter, Deputy Chief of Engineers, focussed on change, continuity and being prepared for the future. His purpose was to tie these things to what he felt participants should be getting out of the upcoming 15th Black Engineer of the Year Awards Conference, which immediately followed the workshop.

Addressing the concept of change, Hunter began with the old adage, "The only constant in life is change." We generally don't like it, but it happens in spite of us. After asking how many in the audience remembered the good old days, he briefly described an environment of no e-mails, where people stayed with the same organization for many years with no fear of lay-offs and downsizing an organization was virtually unheard of. The only turbulence in this scenario was in the Construction arena, where people simply moved to another location as projects were completed.

In the good old days, said Hunter, you could really learn your job, the technology wasn't so daunting and you could stay current in your field. "We had quality work," he reminisced. "It wasn't important to you if it didn't take place in your district. You didn't hear much about what was happening outside, and when somebody died or retired, you finally had a shot at moving up in the district."

"Now let's fast forward to what you see today," he continued. "High technology, high pressure, and high turnover. Deadlines and no time to keep up with the new skills involved in change. Self-initiative in this environment is going to be the norm. Even though the organization is going to do as much as it can, it's really a two-way street."

What he meant was that today, when someone leaves or retires, it's not as easy

to simply step in and assume that reservoir of knowledge. There's more competition across the greater Corps. Hunter has sat in on many selection panels all the way through to the Senior Executive Service, seeing enormous talent across the organization. Those who were selected were the "cream of the crop," and those who were not selected still opted to stay and hang in

siveness and technical capability? he asked.

Historically, the Corps has been viewed in many ways—but we are still the only country in the world with a Corps of Engineers. "That is why so many nations come to visit us and want to know how we do it—this combining of the military and civilians," Hunter said. "We really have something to be proud of, but the key is



*MG Milton Hunter, Deputy Chief of Engineers, focuses on change, continuity and being prepared for the future.*

there. Having traveled all across the Corps and most places around the world where we have a presence, he is still impressed by the loyalty that employees show to the Corps.

But the bottom line is you have to have new skills to keep up with changes. Hunter alluded to the often repeated phrase of "customers wanting choice." They want choice in service providers, they want competition, and they want reasonable cost. So how have we adapted to this new environment? On a scale of 1-10, where would you place your organization in terms of customer satisfaction, respon-

how we maintain that status. How do we gain that competitive edge of being the employer of choice with all the competition around today? Developing a capable workforce is as relevant today as it has been for the Corps in the past. It's even more important for the Corps' success in the future.

"In a tape viewed earlier, LTG Flowers talked about his vision for the future of the Corps, where the centerpiece is people. There's nothing that we do or don't do that doesn't impact on the whole organization in some way. Negative press in any one area impacts on the whole



(continued from previous page)

organization. If we're going to continue our standard of excellence, our trademark, we must push our organization to meet the Chief's intent."

Since last year's workshop, there is a new Administration, a new Chief and a new location for Corps Headquarters. While it's true that change can be very stressful as we deal with the unknowns, it's really worth taking a look at what has not changed, said Hunter.

"Last year at this workshop," continued Hunter, "LTG Ballard spoke of the importance of preparing for the new millennium and the pursuit of individual suc-

placed on the Corps' technical ability. He's moving the Engineering and Construction Division from Fort Belvoir to the GAO Building in Washington, DC, to visually project the Corps. He's also showcasing our world-class laboratories to the leadership and supporting the Army Transformation, a major event, said Hunter.

In addition, Hunter continued, the Corps is continuing its efforts to improve business processes by seeking out more innovative ways to use technological tools to do its work better. In developing a communications strategy to reconnect with other technical organizations and

future. National defense will be center stage, he predicted.

So what's changed and what hasn't? There is no change in the need for supplementing the technical base with other skills. One of the things we don't often get a chance to do but should do is step back and look at the big picture, not just the day-to-day operations. You need to develop your management skills before you actually need them, know how the Corps business process works, and the ins and outs of resource management, personnel management and other business functions of the organization. If you don't, said Hunter, you can't understand how all these parts put together make the whole, much less how you fit in the picture.

The need for interpersonal skills (conflict resolution) and the need for creative thinking hasn't changed either, Hunter continued. "If you don't have good leaders, you probably won't have any followers. You will also have conflicts because you won't have people who can resolve them. It's a two-way street. You need technical people in leadership positions to lead your team. It's important to not only learn these skills but to practice them!"

Hunter challenged the audience members to continue to learn and to seek out new training and apply it to their professions. Be energetic, he stressed, no matter what field you're in. Keep up-to-date and continually improve yourself.

Opportunities usually present themselves one time only, he warned. "If you don't take advantage of them, they'll most likely never appear again. The people who take advantage of the many opportunities out there are usually the ones who contribute most to a team's success."

Here Hunter explained how some Corps organizations have gone to team recognition by giving out awards of excellence to teams rather than individuals.

"I urge each of you to strive to learn something new each day," he said. "Those of you familiar with Stephen Covey will remember that you should 'expand your sphere of influence.' Sit in on any meetings that you can. The Chief has told us to be 'situationally aware.' Take advantage of the formal opportunities available. ➤



Mike Bevens, Deputy District Engineer, Seattle District, encourages the audience to "seek out multiple mentors."

cess. That's something that hasn't changed as we look forward to this new Chief and you'll look forward to the Chief after that." Dividing individual success into two parts, Hunter said that we need to ensure mature and capable people are hired to join our team and we need to continue to improve our current employees to maximize their contribution to the organization whole. As LTG Flowers said, you need to "know your job." If everyone does this and learns something new or makes a new contribution, the net effect to your organization will be excellence.

The new Chief wants more emphasis

strengthen our technical toolbox, the Corps is also entering into partnerships with the technical organizations with which we do business and share ideas.

"These are exciting times for you to be a member of the Corps of Engineers," said Hunter. He pointed out that there are many things on the national level that we can see on the horizon that may not be visible in individual offices, and these things will require the full capability of the Corps to accomplish. Historically, the Corps has been involved in every major program in the defense of our country, and it will continue to be involved in the



# Black Engineer of the Year Nominees



During the workshop luncheon, MG Milt Hunter recognized and introduced the US Army Corps of Engineers nominees for the Black Engineer of the Year Awards.

#### PROFESSIONAL ACHIEVEMENT

**Sterling Johnson**, *Philadelphia District*

#### CAREER ACHIEVEMENT

**James Dalton**, *Far East District*

#### MOST PROMISING ENGINEER

**Claudnette Purifoy**, *Mobile District*

#### COMMUNITY SERVICE

**Timothy McCleskey**, *Nashville District*

#### OUTSTANDING TECHNICAL CONTRIBUTION

**Wiener Cadet**, *Buffalo District*

Congratulations to all the nominees! **PWD**

*(continued from previous page)*

Seek out the advice of senior people in your organization. Remember that the Corps will provide the opportunity, but you still need to provide the initiative.”

Switching to the things that have changed over the last four years, Hunter said the Corps has been working on its culture by trying to be a more inclusive organization and looking at future needs. During his tenure, the 49th Chief of Engineers, LTG Ballard, created a Vision and some imperatives for the Corps that he wanted to pursue in moving forward. LTG Flowers is shaping that definition some more. You’ll see that he’s focussed on people, process and communication, said Hunter. The new Vision should be completed by the end of March.

Hunter also told participants that the new Chief likes to conduct chat sessions over the phone by making random calls to Corps personnel taken from the directory. So don’t be surprised if he calls on you, warned Hunter.

The Senior Leadership has also chartered a Learning Advisory Board to develop a USACE University for training at your desk to help face the same issues and challenges in different parts of

the world. We can’t have everyone physically away and training all at the same time. The plan would allow every person to develop a means by which he or she can be evaluated on technical expertise, leadership ability and business management skills. Once you have that evaluation, it will help you shape your personal development plan. It’s a great concept for figuring out where you want to go and how to get there. The Chief has endorsed this initiative, and the Board, along with the Human Resources Directorate, continues to work on implementing it.

On the topic of recruitment, Hunter said, “Since about 35 percent of our workforce will be eligible for retirement in the next five years, we have Dwight Burns from North Western Division and his team working on a framework for a Corps strategy on recruiting to shape our future workforce. In addition, during this conference, the Corps will not only be staffing but, for the first time, division representatives will be interviewing potential interns and making job offers on the spot. We are in close coordination with the North Central CPOC to make these on-the-spot offers possible, using their delegated

authority.”

In his concluding remarks, Hunter again referred to the Chief’s philosophy on the strength of an organization—it’s people. We spend more time with our coworkers than we do with our families—at least 40 hours per week. You may disagree on some issues, but you still need to treat others as you would like to be treated. This is the basis for all of us enjoying the workplace, he said.

“After all is said and done, the critical piece is still YOU!” said Hunter. “We need to continually refresh our organization and contribute to the success of the Corps—this is pivotal to our Nation. People are still the key to a successful organization; you can’t do anything without them. You have a great opportunity to network at this conference with all this talent around you, including corporate America. Learn to show an appreciation for your profession and take pride in the Corps. Hopefully, you’ll gain a broader understanding of this organization. The Chief is doing lots of things to make this a fun place to work. If you’re not having fun, I want to know about it,” he concluded. **PWD**



# Corps programs merge on community problems

by Patty Bates

For several years, the now-outdated PCs helped Army engineers design complicated water resources projects. Today, they are helping students across the area learn the basic skills to get them through life.

Through the Army Corps of Engineers' Surplus Property Program, the Vicksburg District donates computers, furniture, even vans, to area education-related institutions and non-profit organizations.

The surplus program is one of several programs the Corps' Vicksburg District is now using to help meet important community needs.

"We have a lot of educators who come to us with requests and we try to fill them as surplus becomes available," said Linda Cudo of the district's logistics office.

The program makes surplus federal personal property available to a wide variety of non-federal public agencies and private non-profit organizations and institutions involved in educational programs for the young, elderly or homeless.

The Good Shepherd Community Center, located in the old Vicksburg Junior High School at 629 Cherry St., is the most recent beneficiary of the surplus property program. Since the program began in 1995, the Vicksburg District has donated approximately 1,000 pieces of ADP equipment in support of area educational programs.

"We needed computers to help supplement the students' reading and math skills and help them do research," said the Rev. Tommy Miller, Good Shepherd Community Center director. "Now, our children can play some educational games as a reward after completing their school work."

The computers came to the center through another district program, the Community Champions.

Community Champions designates an employee at the Vicksburg District as a central point of contact for local charitable organizations. The champion identifies and addresses the organization's needs using Corps volunteers or the surplus program.



Leo Phillips, chief of the Vicksburg District's construction division, instructs Vicksburg students at the Good Shepherd Center on surfing the net.

"Good Shepherd expressed a need for some computers and for adults to tutor children," said Leo Phillips, chief of the district's construction division and Community Champion for Good Shepherd.

"I coordinate the District volunteers who donate a couple of hours each week. Paul Eagles, who works in the District's project management division, helped install the software, which was donated by individuals at the District.

"District volunteers tutor in basic subjects such as: math, English, history, spelling and science and help students with their homework.

"This is not a one-shot deal. It's a commitment to the students and to the community," Phillips said of the two programs.

*Patty Bates is the Media Services Coordinator for the Vicksburg District.* **PWD**

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## Improvement without change

by Bill Crambo



Bill Crambo

Have you ever caught yourself saying, “Improve it all you want, just don’t change anything.” If your answer is yes, you’ve got plenty of company. A variation of this statement is one of the common demands made by users to application programmers. It may sound funny, but its meaning goes to the heart of the problems with all applications, systems and information technologies.

The last issue of the *Public Works Digest* contained an article titled “Catch the PAX surf,” which discussed *who* and *what* questions for a particular system. Most new system and application articles answer *who* and *what* type questions as well as *how* and *when* questions. *Why* questions are often ignored. *Why* modernize, *why* upgrade, *why* change, *why* migrate, *why* re-design? These questions are the most difficult to answer without a lot of references to abstract technical justifications like business process mapping.

The real answer is generally less tied to business needs than it is to simple straightforward technology change. Often the business need is being met, but technology moved and people want to keep up. Sometimes they’re forced to keep up. Y2K and COBOL code are good examples of this dilemma, where there is a need to account for reality with old technology that isn’t easy to update.

Six digit dates work fine for most applications; however, they don’t satisfy policy

and future development with new software tools. Too often, newly upgraded or modernized applications are so traumatic to a user community that the only word on users’ minds is *why*?

People don’t like change. Is there ever an answer to the *why* question that will satisfy one person, let alone everyone? When the existing legacy applications are continually criticized, will those who are doing the criticizing like a modernized application more? If the answer is no, then is modernization primarily about new technology?

For these answers, non-technical factors have to be considered. People have taken on an attitude of ownership of information technologies throughout their existence. Users are very fast to tell you what they don’t like about the applications they use; however, they don’t really want to see them changed.

User applications are designed to be personal, so why should anyone be surprised when users treat them as personal objects? With so much change in an average person’s life, the applications they use to do their jobs are one part of the universe they don’t want anyone to fool around with.

Changing an application is tantamount to changing someone’s favorite soft drink or throwing out their favorite slippers for a new pair. It’s as if the lawn service workers decided to tear out the existing landscaping, plant new shrubs and trees and replace all the grass with a new genetically-altered grass, all while the homeowner was away and never consulted. The analogy is almost as traumatic for changed applications.

Often changes are done for other esoteric reasons. Users are only thought about as a necessary itch to scratch. For example, one of my favorite web services was

recently bought out by a large .com company. It didn’t take long before the entire look and feel of the service was changed to fit the .com’s image. Did any of that help me? No. Were there any improvements or efficiencies put in place? No. Were any of the bugs corrected? No. So why did they change it?

As an application and systems engineer, I have to keep telling myself the overall benefit will become obvious over time. As a user, I feel compelled to fire off a few e-mails venting my displeasure at change for change’s sake.

There is an inherent driving force to change applications. It is almost out of our (human) control. Information technologies are experiencing more change in one hour in each specialty than traditional engineering does in one year. The rate of change is mind-boggling. Some specialties of information technology see more change in one day than some specialties of traditional engineering have seen in the past 100 years!

Nothing that computer science engineers learn in college today will be relevant five years from now. In five years, that time gap will be reduced by at least half. Unless flexibility, open-mindedness, adaptability, and coping with change are on the plate the most important thing computer engineering students will or should learn is how to *work with* users, because the human aspect may be the only aspect the programmer and user can control in the future.

Some of the change is needed to stay competitive. If an application doesn’t keep up, someone else will come up with something to supersede it, even if it’s only for the profit motive. The web was relatively unknown by the average person five years ago. Today, the web revolution is radically impacting information, entertain-



# Where in the world is the Army sending me now?

by Dinetha Thompson and Thomas Moore

**P**CSHouse Express is not only the first stop for many soldiers looking for information about their next duty station, it's a popular resource for their family and friends as well.

A soldier gets word that his next duty assignment is in Europe, Asia, or even the US. There are so many questions; and more and more soldiers are finding the answers at PCSHouse Express.

From the main page of the [www.army-housing.net](http://www.army-housing.net) web site, a link to PCSHouse Express takes the user to a table of contents page where they can find out more about their new home. Each Army installation around the world that has family housing has an area in PCSHouse Express – 100 installations. There are four links for each installation – the PCSHouse Express page, a local web site, a military web site, and an email link for a point of contact at that installation's housing office.

The PCSHouse Express page gives phone numbers and office hours for important offices (housing, guest housing, family services, child care center, household goods and the civilian personnel office). Average waiting times for on-post



housing; local BAH rates; sample housing rates for renting and purchasing off-post; and a brief comments section are all part of the PCSHouse Express page.

Although January is not a huge moving month for soldiers, there were 36,267 hits to the PCSHouse Express installation pages. Many post web sites have direct links to the PCSHouse Express page for that installation. The main page of the official Army web site has a direct link to PCSHouse Express.

The information is current and that is an important part of the PCSHouse Express service. An employee at the local

housing office updates information at least quarterly. OHA rates are updated twice a month.

The web site not only offers housing information, it provides an e-mail address that reaches someone who will answer questions. Questions from the web site have covered a multitude of areas, but each is personally answered in a timely manner. From "where will my son live" to "can you help me find...", the questions are varied and the answers can get involved, but PCSHouse Express provides answers either online or through e-mail.

For the past several years, there has been a web site for soldiers and their families to turn to for housing help. Where in the world is the Army sending them next? When they find out, PCSHouse Express is ready to help show them their new home.

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*Dinetha Thompson is the President of ATTventure Limited and Thomas Moore is a Housing Management Specialist with ACSIM's Housing Division. **PWD***

*(continued from previous page)*

ment, communication, science, medicine, commerce, knowledge, publishing, security, fashion, art, and human behavior in such profound ways, so rapidly, that even the best prognoses are conservatively narrow. As a matter of fact, the web has done more to cross-generation, gender, ethnic, political, economic, religious, and social gaps than all other factors combined, ever!

The answer to *why* is probably anti-climatic. Without change, all the reasons for the existence of an application or system become irrelevant. Often, change is a simple matter of choice, a decision made to revitalize.

Another way of approaching it is to realize that without choice there would

be no competition, without competition there would be no change, and vice versa. Without choice, we wouldn't have new models from which to choose when our cars wear out because the manufacturer wouldn't bother if it's not as profitable. Without change, we would have only one TV show to watch or one radio station to turn on.

So is change for change's sake or is it change because we want choice, freedom to evolve, and an opportunity to become better? Think about that.

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# Software supports window management decisions

by Melanie Graham

Army installation managers challenged to maintain aging buildings and operate them within budget allocations now have electronic assistance as they decide whether to repair or replace old windows.

Approximately 73,000 Army buildings will become 50 years old within the next 30 years. To keep up with this immense responsibility, installation managers search for ways to improve energy efficiency and reduce cost.

No set of windows is completely energy efficient; and as window hardware ages, efficiency gradually decreases. Complete window replacement is not the only option. The new Window Econometric Analysis program software, developed for the U.S. Army Environmental Center (USAEC), provides window life-cycle cost

comparisons for repair, rehabilitation and replacement of windows.

The program assists users by grouping physical characteristics such as material, size, type, fit and present condition into four categories according to the extent of repair needed (minor, moderate, intensive or custom).

To account for site-specific labor and material cost, nationally averaged data is modified to reflect local construction cost. The econometric analysis provides up to fourteen possible repair actions ranging from less extensive repairs such as painting and weather stripping to complete window replacement.

“One of the real strengths of the program is that the life-cycle comparison analyzes cost implications over a 20 year time frame, said Caroline Hall, USAEC historian. “This is a more accurate assessment of

total cost implications for any project.” Managers can examine repair scenarios and easily identify the most cost-effective and beneficial solution for their windows.

The reports section allows the manager to review, assemble and print the results of the window econometric analysis. A convenient report table includes initial project cost, energy savings, and life-cycle maintenance cost for each scenario.

The Window Econometric Analysis program is available to authorized members of the Defense environmental community (DENIX account holders) through the USAEC Web site, <http://aec.army.mil>. CD-ROM versions are available through the USAEC Technical Information Center (TIC) at [USAECTIC@aec.apgea.army.mil](mailto:USAECTIC@aec.apgea.army.mil).

*Melanie Graham is a contributing writer at AEC.*

PWD

## Huntsville awards two ROOFER contracts

The Huntsville Installation Center of Expertise (ISCX) has awarded two ROOFER contracts, each with its own IDTC Contractors. One program is dedicated to visual roof inspections and implementation of the ROOFER program and the other to aerial infrared roof moisture scans for the detection of wet roof insulation.

The South Pacific Division Installation Support Office located in Sacramento, California, is providing Roofer assistance to Army Installations and Corps of Engineer customers in obtaining itemized cost estimates for both the implementation and infrared roof moisture scans. (Divisions wishing to use the ROOFER program should call one of the two contacts listed at the end of this article.)

Nationwide, the Roofer Engineered Management System (EMS) has been implemented at 32 Army installations and 3 U.S. Air Force bases, encompassing over 76 million square feet of roof area. This

program is not intended for repairing roofs but is a tool used in managing and justifying funds to complete the necessary minor and major repairs. ROOFER is an automated EMS that provides the user with a cost-effective program for managing built-up, single ply, and steep roofs (asphalt shingle).

The ROOFER program uses a Windows-friendly format to calculate inspection data, generate various reports, and create a 10-year budget program. The inspection team collects the data using a laptop computer. The ROOFER program also has the capability to incorporate Geographical Information Systems (GIS) into the program.

The second ROOFER contract is available through the other IDTC Contractor for the purpose of detecting areas of possible wet roof insulation. The contractor will fly two aerial missions which will include one daytime photo mission and one nighttime infrared roof moisture scan.

The daytime mission will give the

installation a complete inventory of all their roof assets, in which the photos will show the entire roof along with their roof top equipment. The late evening flight will take place approximately two to three hours after the sun sets, and the complete flight will be recorded on VHS tape or CD, documenting any suspected areas of wet insulation. The contractor will produce thermograms showing the locations of suspected wet areas of insulation, and turn both the daytime photos and the thermograms over to the other IDTC contractor for use while performing the visual inspections.

For additional assistance or information about the ROOFER implementation or infrared roof moisture scans, please contact Ron Niemi, (916)557-7890, FAX: (916)557-7889, e-mail: [rniemi@spk.usace.army.mil](mailto:rniemi@spk.usace.army.mil); or Jim Ledford, (916)557-5893, FAX: (916)557-7893, e-mail: [jledford@spk.usace.army.mil](mailto:jledford@spk.usace.army.mil)

PWD



# TRADOC delivers integrated corporate solutions to installation management

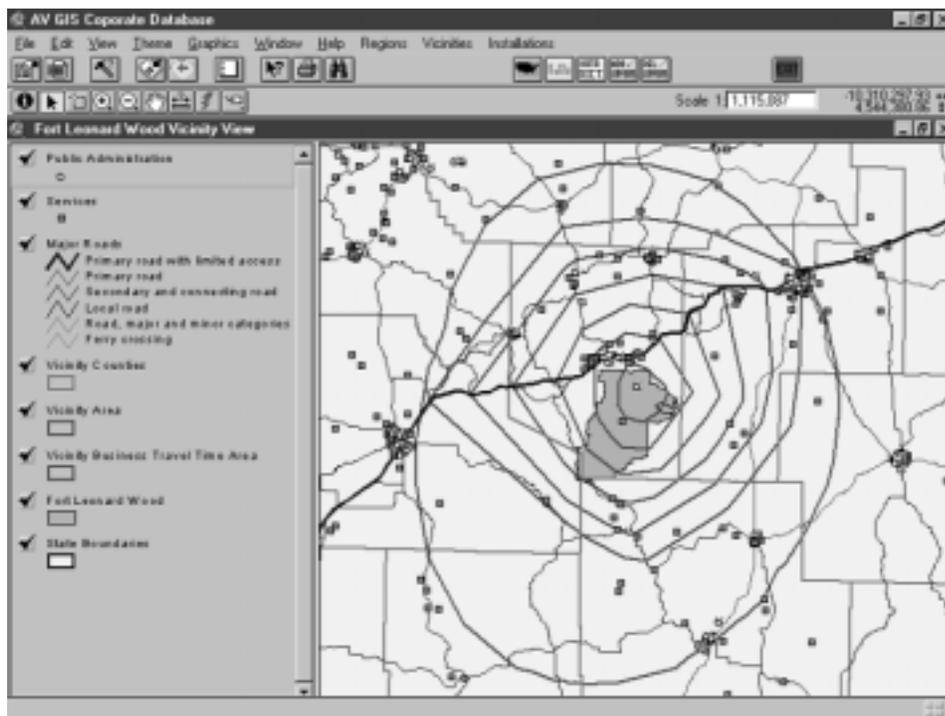
by Bob Houston, Gloria Hauer and Sam Martin

The Deputy Chief of Staff for Base Operations Support (DCSBOS), Headquarters (HQ), Training and Doctrine Command (TRADOC), Fort Monroe, Virginia, provides mission support; facilities installation management; and accesses, trains, sustains, and deploys the forces while supporting 16 installations.

Despite the fact that substantial information resources used in decision-making are spatial data or directly-related attribute data, until recently, DCSBOS had no structured "information library" for integrating, viewing, and analyzing current or historical information for various sources. All of the various DCSBOS functional Information Technology (IT) systems managed, stored, and summarized data in "stove-pipe" hierarchies. Also, there was no repository of time-based, summary information to help make decisions.

DCSBOS, supported by its contractor, Systems Management Engineering, Incorporated, developed an enterprise-level, geographic information systems-based (GIS-based) decision support system known as the BASOPS Corporate Database (CorpDb). This approach effectively breaks down the "stove pipe" decision making of the past.

The system is a relational database model integrating spatial data (data that references a location on a map), attribute data (descriptive information about the spatial entities), and regular tabular data. It employs ESRI's GIS technology to enable the linking of text data to the appropriate corresponding location on the earth. The GIS technology allows massive amounts of information to be stored, accessed, managed, and analyzed on the computer, then viewed geographically on the screen in map form. Data is shared across these functional domains. Both spatial and non-spatial data can be directly exchanged with the Army's other major commands, Department of the Army, and other military services.



Fort Leonard Wood vicinity view showing commercial services and travel model (5-minute driving increments).

Facing a wide range of potential users, the CorpDb's designers created a system for the entire user community. The CorpDb's capabilities are accessed by system developers and certain designated "power users" in each Directorate through ArcView GIS loaded on individual PCs. By having direct access to ArcView GIS, users can create and add new data layers and perform advanced analyses. The remaining DCSBOS users, on-site or in the field, reach the system through CorpDb web application, now under development.

The CorpDb has over 450 map and aerial photographic data layers, incorporating GIS and CAD layers from the 16 installations, data layers from other Federal, State, and local agencies, and data from commercial sources. The CorpDb incorporates Tri-Service's Spatial Data Standards (SDS) for installations and tracks metadata for all spatial data layers. It currently has direct data links to several major

Army standard systems, including Installation Facilities System Management (IFSM), Installation Status Reports (ISR), Table of Distribution and Allowances (TDA), and Army Stationing and Installation Plan (ASIP).

CorpDb also links to several DCSBOS systems, including the facilities maintenance and repair and the base operations financial management databases. Most of these databases are linked to map layers.

All of the CorpDb databases are accessible through the maps and/or through user interfaces employing on-line analytical processing and business rules modeling technologies. Various non-map interfaces that tap the databases are currently under development.

The CorpDb system has three major parts accessed from a main system screen:

1. Maps - In the CorpDb local area network application, ➤



Maps opens a customized ArcView GIS software engine, allowing the user to view, create, edit, query, analyze, and present spatial and related non-spatial data. In the CorpDb Web application, Maps opens a customized ArcIMS (v.3.0) web interface, providing the user with many of the same tools as the ArcView application.

CorpDb spatial data layers are linked to non-spatial SQL data tables that provide specific physical, geographically-based information about TRADOC's 16 installations, their surrounding communities and vicinities, regions of the nation, and the continental United States. Presently, the CorpDb user begins using the system with a view of all TRADOC installations at a national level. From here, a regional view can be selected at a scale that shows several installations and their surrounding States and Counties.

If the user wants to look more closely at the vicinity surrounding an installation, the view is changed to show the counties, cities, and towns surrounding the installation.

By selecting one of the 16 installations, the user can view an installation's roads and streets, buildings, other facilities, water features, property boundary, environmental features, and aerial photo imagery. The buildings and other facilities are directly linked to the installation facilities systems and Installation Status Reports (ISR) databases, allowing the user to investigate relationships inside, between, and among the facilities.

2. Data Dictionary – During the CorpDb's planning stages, future system users requested a tool for finding out information about the data being used – metadata.

The CorpDb system includes a custom-built Visual Basic application, the Data Dictionary, that is linked to a set of SQL data tables allowing the user to



Fort Eustis installation view with facilities, roads, IFS and aerial imagery data layers.

query, search, and browse both spatial and non-spatial data. A glossary offers access to a searchable database that includes definitions of terms and acronyms.

3. Profile – The Profile links multiple databases to get an integrated solution. The interface, created in Visual Basic, presents an overview of base operations facts and figures for HQ TRADOC and the 16 installations. It links to 10 SQL databases, summarizing general facts, real estate, history, population, real property, topography, climate, and recreation. Using the Profile as a model, other CorpDb interfaces are under development to allow users to integrate multiple databases and GIS maps.

DCSBOS continues to expand and improve the CorpDb system, meeting decision support requirements of TRADOC's installation management community. Future versions of the Cor-

pDb will incorporate new user interfaces and other tools such as those that better manage and analyze data and use business rules to improve decision-making processes.

Expanding the CorpDb system approach to each of the 16 installations will allow base operations personnel to manage people and facilities at the local level, seamlessly transferring information directly to HQ TRADOC. The results will improve the efficiency of information used to allocate installation management resources and reduce, if not eliminate, the need for periodic "data calls" to the installation and reporting.

POC is Bob Houston, (757) 788-5018, email: houstonb@monroe.army.mil

Bob Houston is the Chief of the BASOPS System Division at Fort Monroe; Gloria Hauer is the Project Leader for the Corporate Database; and Sam Martin works for System Management Engineering, Incorporated in Hampton, VA. **PWD**



# Electronic toolbox for DoD cultural resource planning

By Suzanne Keith Loechl and Lucy Whalley

A new web-based toolbox can help Department of Defense (DoD) cultural resource managers tailor required plans according to unique needs at the installation. Available on the Defense Environmental Network and Information Exchange (DENIX) website, the Toolbox contains supporting documents and sample plans to assist in developing the Integrated Cultural Resource Management Plan (ICRMP).

The need to train the nation's military forces while protecting our natural and cultural heritage is a major challenge that requires an integrated, comprehensive approach. To this end, DoD Instruction 4715.3 requires installations to develop plans for integrated cultural resource management. ICRMPs are part of a larger land management program that balances land and heritage conservation with the needs of the military mission.

In 1998, the Legacy Resource Management Program funded the Engineer Research and Development Center's Construction Engineering Research Laboratory (CERL) to conduct a needs assessment and develop a prototype DoD-wide tool for preparing ICRMPs. Working with a coalition of cultural resource managers from across the Services, a team developed the a web-based Integrated Cultural Resources Management Plan Electronic Toolbox. The toolbox was implemented first at three installations for three different services: Fort Lewis, Washington (Army); Washington Navy Yard, Washington, DC (Navy); and Parris Island, South Carolina (Marine Corps). A prototype plan for the Air Force is currently under development for Edwards Air Force Base, California.

The Toolbox is organized to reflect major components of the plan:

- The Management Section contains information about cultural resource management and provides tools to assist with the assessment process.
- The Integration Section outlines the general installation structure for each of the services and describes the philosophy behind successful integration.
- The Monitoring Section stresses the importance of monitoring the success of the cultural resource program once the plan is in place.
- The reporting section lists the major reporting requirements for each of the services.

The main window in the Toolbox provides general information about cultural resources legislation, planning level surveys and installation context. A standardized menu on every page provides links to the DoD Instruction, individual service regulations and guidance, and a list of acronyms. There is also a links page that provides access to many cultural resources web sites including the National Register, the Advisory Council on Historic Preservation, and sites relating to Native American consultation.

Finally, the Toolbox contains a prototype window that provides access to the model ICRMPs developed for each of the services. The plans can be downloaded in PDF format. Each plan addresses the specific needs of each installation and service. However, there are similarities in structure among all the plans.



Historic structures, including Cold War artifacts like this radar tower, are included in the ICRMP.

The Toolbox is located on the web at <http://www.denix.osd.mil/ICRMP>. For more information, please contact Suzanne Keith Loechl at (217) 352-6511, ext. 7397, e-mail: [suzanne.k.loechl@erdc.usace.army.mil](mailto:suzanne.k.loechl@erdc.usace.army.mil)

Suzanne K. Loechl and Dr. Lucy Whalley are researchers at ERDC-CERL, Champaign, IL. 

# Who's Who at HQ



## Kristine L. Allaman

Kristine L. Allaman is the Chief of the Installation Support Division, Military Programs, United States Army Corps of Engineers. The Division mission is to support the Army's Directors of Public works at major commands and installations throughout the world and to provide installation support assistance to Corps districts and divisions, as well as assist the Department of

the Army Staff and Secretariat in policy development and implementation.

Ms. Allaman was selected for the Senior Executive Service in 1995. Her previous assignment was the Director, Engineering and Technical Services, Northwestern Division.

A native of St. Paul, Minnesota, Ms. Allaman earned a Bachelor of Science Degree in Aerospace Engineering from California State Polytechnical University and a Master of Science in Business Administration from Boston University. She is a registered professional engineer in the District of Columbia.

After working two years as a wind tunnel test engineer with the Lockheed Corporation, she moved to Europe and taught mathematics, physics and chemistry for Embry-Riddle Aeronautical University and became the Science Coordinator for Central Texas College Overseas. In 1979, she began work with the U.S. Army in Ansbach, Germany, as the contracting officer's representative, administering contracts at the Directorate of Engineering and Housing.

Two years later, she moved to Munich as Chief of Engineering, Plans, and Services. Other assignments include Chief, Facilities Data Management Branch in Headquarters, U.S. Army Europe; Chief, Engineering Plans and Services, U.S. Army, Berlin; Deputy Chief, Project Management, U.S. Army Corps of Engineers, Europe Division; Chief, Management and Planning Division, U.S. Army Engineering and Housing Support Center, Washington, DC; and Chief Engineering Division, Walla Walla District, U.S. Army Corps of Engineers.

Ms. Allaman has held leadership positions at local and national levels of the Society of American Military Engineers. Additionally, she is a member of the National society of Professional Engineers and American Society of Engineering and Management.

Her awards include the Presidential Rank Award of Meritorious Executive, Department of the Army Meritorious Civilian Service Award (2) Superior Civilian Service Award, Commander's Award for Civilian Service (4), Achievement Medal for Civilian Service (2), and the Commander-in-Chief's Citation for Installation Excellence.

An avid cook, Ms. Allaman is always eager to "try" and "share" new recipes. She and her husband, Larry, reside in Fairfax County, Virginia. **PWD**

## George F. Braun



George F. Braun is the Deputy Chief for the Installation Support Division.

Born and raised in Milwaukee, Wisconsin, Mr. Braun graduated as a civil engineer from Marquette University in 1969. Later, he also earned a degree in Systems Management from the University of Southern California.

Mr. Braun served in Germany as a platoon leader and company commander with the 82d Engineer Battalion from 1969 to 1972, when "the wall" still existed.

In Vietnam in 1972, he got his first public works job as the Area Engineer for Danang. He also had the unique experience of serving as the Engineer for the Danang Region on the U.S. Delegation to the Joint Four Party Commission for Peace, which required integration and provision of all logistics support not only to U.S. and South Vietnamese commission representatives, but to force representatives of North Vietnam, the Viet Cong, and military from Indonesia, Poland, Hungary and Canada.

Having spent more than 28 years in the public works business, Mr. Braun says that his most exciting assignments were at Army installations. At Indiantown Gap, Pennsylvania, he was the Chief of Engineering, Plans and Services from 1973 to 1974, developing the first installation master plan and initiating a number of MCA projects. In 1974, Mr. Braun joined the Army Staff to work on the initial development of DEH automation and facilities management. Moving to Germany in 1977, he served as the Facilities Engineer and Deputy Director of Engineering and Housing in both Wiesbaden and Kaiserslautern.

In 1982, Mr. Braun returned to HQDA, as a staff engineer in the Facilities Policy Division with the Office of the Chief of Engineers. While there, he developed the concept for and implemented the first Chief of Engineers Annual Public Works Awards Program. In 1985, he became the Chief of Customer Support at the U.S. Army Facilities Engineering Support Activity. By 1988, he was the Executive Director of the Army's Engineering and Housing Support Center (EHSC) at the Humphreys Engineer Center, providing day-to-day support to installation public works staffs. He moved on to become the Executive Director of EHSC's successor, the Army's Center for Public Works, in 1993.

An active member of the Society of American Military Engineers (SAME), Mr. Braun is a past Post President of the Fort Belvoir Chapter. He is also a member of the Professional Housing Management Association (PHMA).

Mr. Braun enjoys what he calls "engineering" hobbies, including stamp collecting, gardening, re-modeling his home, and model railroading in N-scale (extra small) of German prototype trains. But his favorite hobby is travelling with Pam, his wife and partner of 31 years. They have two sons, George (married to Liz), and Greg. **PWD**

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# Public Works

## *Digest*



**Housing**

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