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of Installation Management

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Garrison Command Skills for Success

By Colonel Charles D. Allen

Transforming Installation Services Management Through Common Levels of Support

By Thomas Dobrydney

Sprawl: An Unsustainable Model for Military Planning

By Mark L. Gillem with Jerry Zekert





Transforming Support for Soldiers As the Army Transforms

Army Transformation is reshaping installations as the Army builds to meet the needs of Soldiers. New benchmarks in quality of life are incorporated into the design and construction of training, maintenance and living facilities that support expeditionary operations. The Installation Management Command provides the foundation for consistency as IMCOM incorporates design standards to improve installation infrastructure, enhances installation sustainability, and strengthens Soldier and Family readiness.

U.S. Army Corps of Engineers personnel brief Lieutenant General Stanley E. Green, inspector general of the Army, on the construction of unaccompanied personnel housing for brigade combat teams at Fort Bliss, Texas. (Photo by Major Deanna Bague)



PERSONNEL HOUSING

ARCHITECT

From the Commanding General

Restoring the Balance



As the Secretary of the Army and Chief of Staff of the Army work to restore balance to the Army, we must ensure installation readiness and Soldier and Family readiness are in step with Army transformation.

As members of IMCOM, we provide and maintain installations that are the Army's home. Our vision must provide the balance that ensures an environment in which Soldiers and Families can thrive. Collectively, we must also provide a structure that supports unit readiness in this era of persistent conflict. We must provide a foundation that supports Army Transformation.

Our revised mission is to provide the Army the installation capabilities and services to support expeditionary operations in a time of persistent conflict, and to provide a quality of life for Soldiers and Families commensurate with their service.

Many of these concepts were introduced through the Army Family Covenant in October. These concepts have since been formally recognized worldwide by Army Family Covenant signings on U.S. Army installations. The signings provide tangible evidence that IMCOM supports the Families, who support the Soldiers, who support the Army that defends the nation. Soldiers enlist. Families reenlist. These signings have helped us focus our efforts in retaining the All-Volunteer Force. The actions we have taken over the past few months have reassured Families and Soldiers serving around the world that we understand and appreciate their daily sacrifices. In many cases, we will build upon the exceptional relationships that exist in the active, Army National Guard, and Army Reserve communities.

The next step in this process is to gain the commitment of our civilian communities. Much as the Army Family Covenant has focused our internal support, the community signings, which will begin in March, will serve to help focus leaders outside our gates in pulling community resources together that will further support and recognize the dedication, sacrifices, and strength of our Soldiers, civilians, and Families.

The Army's Four Imperatives are to sustain our Soldiers and civilians, prepare Soldiers for success in current operations, reset to restore readiness and depth for future operations, and transform to meet the demands of the 21st century.

In looking across our broader enduring goals, our installations must support unit readiness via the Army's Four Imperatives, the Army Force Generation Model and in accordance with the Army Campaign Plan.

To make the Army Family Covenant an enduring reality, every Army installation must continue to provide Soldier and Family services that are standardized, predictable, and flexible. We must optimize available resources while supporting Soldier, Family and unit readiness. As we have done in the past, it is important that we adapt our Army installations to prepare for the future.

In looking ahead, my intent is to fulfill the IMCOM vision of providing a source of balance to the All-Volunteer Force by improving Soldier and Family Readiness and by providing Soldiers, civilians and Families a quality of life commensurate with their service. We can only accomplish this through the continued efforts of each member of the Installation Management Command.

We must never forget that our focal point is at the installation.

This is a customer-focused command. To successfully achieve that end, regions must coach and mentor garrison leaders. We must invest in leader development. Our core competence is empowering and developing leaders that enhance Soldier and Family readiness at every installation. These leaders ensure standardization of programs and services, and adjust resources to support an expeditionary Army.

We must support senior commanders and tenant units with quality installation

services, programs, facilities and infrastructure, always improving to the limits of resources and efficiency.

We must continually examine our way of doing business. We must establish requirements and work cooperatively within joint and Army partners to obtain adequate resources for readiness, quality of life, and common levels of support. We will lead the Army in Business Transformation using Lean Six Sigma. Garrisons will lead the Army into the future by implementing the Army Strategy for Environmental and Energy Programs.

At the garrison level, we will update each of our installation master plans. These plans will be formally approved by the mission commander and regional director, then updated every three years. Garrisons need to ensure that command programs and emphasis are communicated throughout their workforce. We cannot execute to standard without a common understanding.

Each garrison's priority of effort for Fiscal Year 2008 is the Army Medical Action Plan, the Soldier Family Action Plan and installation readiness. We must stay in step with the Army's Four Imperatives: Sustain, Prepare, Reset and Transform.

Our end state can be simply stated: Balance restored to Soldiers and Families of the All-Volunteer Force – and installations and services standardized, integrated, and transformed to support Active and Reserve Component Soldier and Family Readiness in an era of persistent conflict.

Support and Defend

Army Strong – Family Strong

**Lieutenant General
Robert Wilson**

Assistant Chief of Staff
for Installation Management

Commanding General
U.S. Army Installation
Management Command

Contents

- 6 Garrison Command Skills for Success**
By Colonel Charles D. Allen
- Garrison Operations and Functions: Building Tomorrow's Garrison Commanders** **12**
By Neal H. Bralley
- 16 Transforming Installation Services Management Through Common Levels of Support**
By Thomas Dobrydney
- Fort Jackson's Customer Management Services Captures the 'Voice of the Customer'** **21**
By Scott Nahrwold and Vince Valenzuela
- 26 Corps of Engineers Adopts Building Information Modeling to Support Transformation and Asset Management**
By Major General Merdith W.B. "Bo" Temple and Beth A. Brucker
- Sprawl: An Unsustainable Model for Military Planning** **31**
By Mark L. Gillem with Jerry Zekert
- 38 The State of Army Installation Master Planning**
By Lieutenant General Robert Wilson
- A Six-Year Journey: Transforming to Enhance Service to Soldiers, Civilians and Family Members Stationed in the Republic of Korea** **40**
By Edward Johnson and Susan Silpasornprasit
- 44 Fort Drum Envisions Development within an Army Community in Change**
By Noreen Dresser
- Star-Studded Present: Huntsville Donates 10 Homes to Redstone Arsenal** **48**
By Brendan Bennick
- 50 Huntsville's Facilities Reduction Program Offers Best Practices for Facility Removal**
By Colonel Larry D. McCallister and Debra Valine
- Lean Six Sigma: Transforming the Culture of the Installation Management Command** **54**
By Rosye B. Cloud and Heather Miller
- 60 Employees Key to Lean Six Sigma Success at Fort Leavenworth**
By Jennifer Stefano
- Fort Bragg uses Lean Six Sigma to Improve Customer Satisfaction, Reduce Costs** **65**
By Tom McCollum
- 68 Balancing Endangered Birds with Training Soldiers at Fort Hood, Texas**
By Gil Eckrich
- Artillery Battalion Scores High In Environmental Management System and Environmental Compliance** **74**
By Christine Luciano
- 76 Partnerships for Success: IMCOM-Europe and USACHPPMEUR Health Promotion and Well-Being Councils**
By Anna Courie, William P. Lennon and Colonel Tracy Williams
- The New Army Civilian Education System** **84**
By Dr. Pamela L. Raymer

Journal of Installation Management Contributors' Guide

Topics and Contributors

The U.S. Army Journal of Installation Management is intended as a forum for sharing ideas, experiences, and case studies relating to installation management, city management, public administration, and similar topics. The journal welcomes submissions of articles or feedback from anyone with an interest in any part of the broad field of military or civilian installation or city management, public administration, or any of the component functional areas that make up this broad field of endeavor.

Articles are evaluated for content and style by an editorial board of installation management experts, which will make recommendations to an author when appropriate to maintain consistent focus and high quality. Ultimately, the journal is intended to contribute to continuous learning and continuous improvement among installation management practitioners.

In addition to article submissions, we have a Feedback section, where readers can comment on ideas in published articles, either for or against. Discussion should always take a professional tone and center on the ideas and concepts, not on personalities. Installation personnel are encouraged to professionally debate, discuss or collaborate on submitted material. Feedback is submitted like an article.

Manuscript Style

Writing should be clear and concise; ideas should be the author's and quoted material should be properly accredited. Article structure typically proceeds from the thesis statement to background, discussion, conclusion, recommendations and summary. The author's opinions, solutions and recommen-

dations are welcome, but should be substantiated with objective evidence. Proposal outlines are not required at this point, but will be welcomed if the author wants to test the appropriateness of an article idea.

The journal editorial staff does not currently require adherence to a particular style, but rules of good writing always apply. Good references for effective writing include the Associated Press Guide to Good News Writing by Rene J. Cappon and The Elements of Style by Strunk and White. These books are available in book stores and libraries, and excerpts can be found online. If an article is extensively footnoted, either American Psychological Association or Chicago Style manuals may be preferred.

When possible, vocabulary should be accessible to a general college-educated audience, but avoidance of technical language should not hinder the point being made. Writers should avoid bureaucratic and military jargon when possible, but should explain or define in footnotes when not possible.

In the interest of consistency, the editorial board will edit all manuscripts for general rules of good grammar and style; however, substantive changes will be approved by the writer in order to avoid misinterpretation. Editors will also consider security requirements and rules of appropriateness when dealing with manuscripts.

Length

Articles should be of adequate length to engage a knowledgeable reader in a substantial exploration of the topic. The range can be from 1,000 to 7,000 words, with the expectation being that most will fall in the range of 2,500. Photographs, charts, and other supporting graphics are welcome if they help to give the material substance.

Submissions

Material(s) will become the property of the Journal of Installation Management, unless otherwise agreed upon. Articles need not be entirely new, but should be relevant to some current aspect of installation management. If previously published, reworking for the particular installation management audience is appreciated.

All articles for submission should include a short biography with the author's name, current position, and any credentials or experiences that validate the writer's expertise. Also include address, daytime phone numbers, e-mail address, and any other contact information that will enable editors to reach you.

Topics may be proposed by abstract or outline by submitting an e-mail to the editorial board at imcomjournal@hqda.army.mil

Accompanying Material

Photographs, charts, and other supporting visuals are welcome, but must be thoroughly documented for clarity. All supporting material can either be e-mailed or delivered by postal service to US Army Installation Management Command, ATTN: IMPA, Public Affairs, 2511 Jefferson Davis Highway, Taylor Bldg., Suite 12021, Arlington, VA 22202.

Clearance of Material

All submitted material contained in your article may require official Department of Defense or Department of the Army clearance. Our editorial board and members of the IMCOM Public Affairs Office will ensure that all material is releasable for public consumption.

Additional assistance with clearance of official material may be obtained locally by contacting your Office of Public Affairs.

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We Want Your Feedback

Ernie Taylor, chief of Installation Management Command's Morale, Welfare and Recreation Business Operations Division, found the summer 2007 issue a keeper. He said, "I have found the Journal of Installation Management not only informative and well presented, but also a useful management tool. The article on 'Fostering a Sustainability Ethic in the Army' by Karen J. Baker is a wonderful blueprint for managing vital resources and linking our actions today to how we want our communities to thrive in the future – I bookmarked the article as a great planning tool. Keep up the good work."

Keeping up the good work indeed is the journal's goal. This issue – No. 4 – is the biggest yet. The underlying theme is support to Soldiers and Families through delivery of services, which includes building the Army's infrastructure.

Topics in the journal are intended to be thought provoking. This page is where you can say what you thought – point or counterpoint. The feedback page is an open forum for readers to engage writers, express views and exchange ideas. If we're doing our job, the articles here should stir you to strongly agree or disagree, or perhaps remind you of a similar circumstance that can contradict or amplify the article in the journal.

We will print your comments. Deadline for the next issue is May 1, 2008. Send your comments to the e-mail box, imcomjournal@hdqa.army.mil. No length or style requirements apply, but comments will be reviewed for clarity and, of course, civility.

Hope to hear from you soon.

Garrison Command Skills for Success

By Colonel Charles D. Allen

At the time of the publication of this article, the slate of garrison commanders who will assume leadership of installations in the summer of 2008 is well known. Incoming commanders are looking at calendars to coordinate attendance at precommand courses, completing requirements of their current positions, and preparing for the upcoming assumptions of command.

In the summer 2007 issue of the "Journal of Installation Management," I suggested that garrison commanders have the unique responsibility of leading at several levels – direct, organizational, and strategic – and so require an equally unique skill set.¹ The garrison commanders' tasks are to clearly state the importance of mission, then establish the vision, build the team, and execute the strategy. The recently released "Field Manual (FM) 6-22: Army Leadership"² carries as its by-line the desired attributes of the leader as "Competent, Confident and Agile." These attributes apply to the leaders of garrisons, as well. The field manual also lists several sets of competencies grouped under the titles of lead, develop and achieve.

The question a new garrison commander might ask is, "What skills are needed to lead the organization and develop the capacities to achieve the mission in support of the agencies and activities that depend on it?"

To address this question, one can go to several sources. Naturally, I started with materials from our U.S. Army War College (USAWC) curriculum and focused on what is taught in our Strategic Leadership course. Then I looked in detail at our leadership doctrine as captured in FM 6-22. I also contacted a small group of installation management professionals, both uniformed and civilian, that included experienced

garrison commanders, a garrison command sergeant major, senior staff members at the lieutenant colonel- and colonel-level commands, and an Installation Management Command (IMCOM) region director. This was an opportunity to match the classroom academics on the subject to the realities that garrison leaders face everyday.

Our core course uses the "Strategic Leadership Primer"³ that is the off-

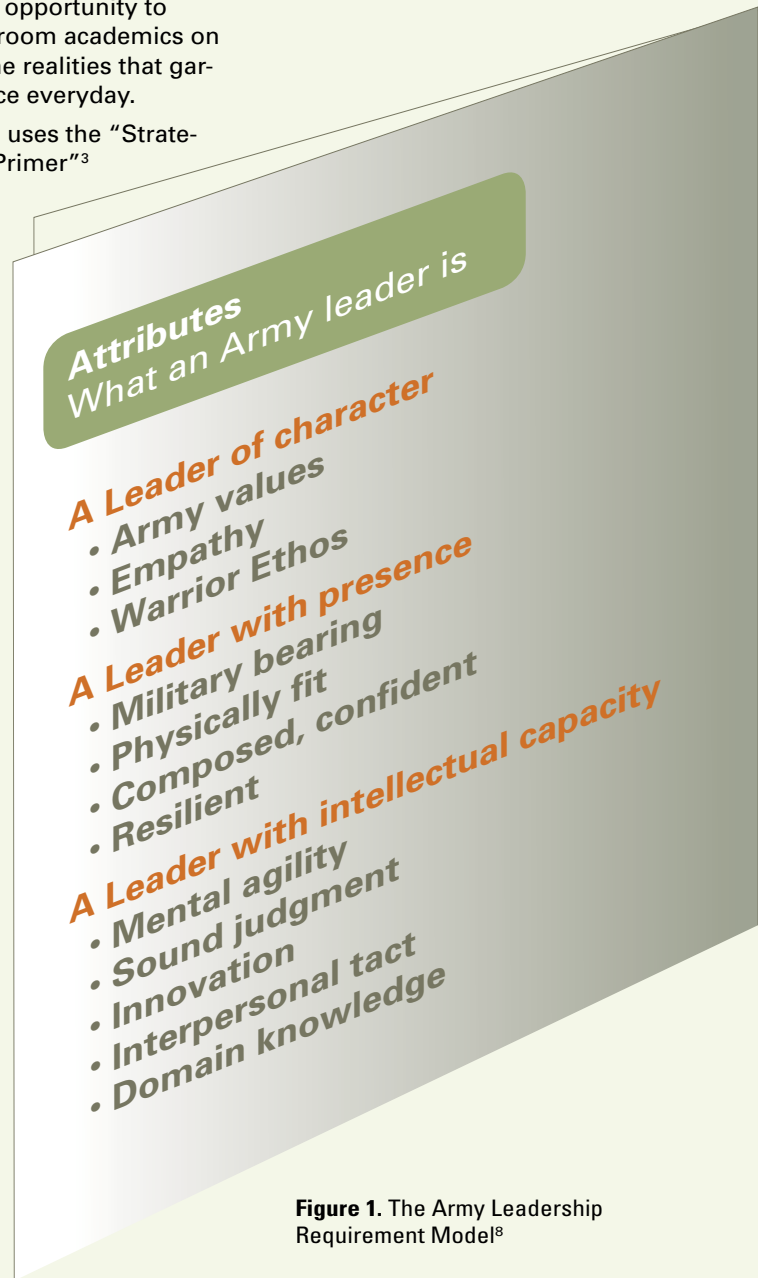


Figure 1. The Army Leadership Requirement Model⁸

spring of a 1991 USAWC conference that explored this aspect of senior leadership. The primer is in its second edition and has provided an Army leadership framework that has been considered useful in understanding the overlapping roles and responsibilities of senior leaders. A major contribution of the primer is the presentation of strategic-leadership competencies that have been recurrent in the findings of subsequent studies of senior-

leader skill sets⁴ and most recently reinforced in the 2004 study of division commanders from Operation Iraqi Freedom (OIF).⁵ Competencies are defined as the knowledge, skills and abilities that enable the leader to accomplish the organizational mission and to take care of its people. Competencies can be acquired and developed through several means – experiences during operational assignments, as part of a formal education program, and through personal development. Command-selected officers have been successful at the direct level of leadership and bring a wealth of experiences from their operational deployments. However, in the transition to organizational-level leadership, incoming garrison commanders should focus their preparation on gaining and exercising competencies that facilitate the success of their garrison.

The USAWC model groups several skill sets under the categories of conceptual, technical and interpersonal competencies.⁶ Conceptual competencies include the thinking skills required to function effectively in an environment of complexity and ambiguity. Such an environment routinely provides challenges to garrisons and confronts the leader with tough, competing issues that may not be resolved with clear, neat solutions.

Today's Army leaders must recognize that such issues exist and must seek to understand these tough problems. This acceptance leads to a deeper examination and search for apparently unrelated issues that may be connected. A quick and easily implemented decision can have second- and third-order effects with unintended consequences. Senior leaders must heed the wise caution to "make haste slowly"⁷ so that the urgency of near-term situations does not supplant the importance of issues

Core leader competencies What an Army leader does

Leads

- Leads others
- Extends influence beyond the chain of command
- Leads by example
- Communicates

Develops

- Creates a positive environment
- Prepares self
- Develops others

Achieves

- Gets results



that support the long-term relevance of the organization.

Imagine the garrison commander who has a pending redeployment of units from OIF and restationing of forces from Europe. Preparation for the influx of troops requires an understanding of military construction for building headquarters, unaccompanied housing, and training ranges that happen over a longer time horizon than a typical three-year command tour. The arriving units will be under two command headquarters – U.S. Army Forces Command (FORSCOM) and U.S. Army Europe (USAREUR) – which will require extensive coordination. Funding streams from IMCOM may have earmarks for specific programs and therefore are not subject to reprogramming at the installation or may not be sufficient. This illustration helps to understand the complexity of garrison missions and underscores the need for conceptual competency of the commander in the face of ambiguity. The garrison commander is challenged to meet the strategic intent to provide facilities for incoming personnel with potentially limited resources for the execution or lack of clarity in the priorities.

Technical competencies require an understanding of the organizational processes and support systems for installation management. Also required is an appreciation of the functional relationships outside of the organization with partners on the installation, those in the local community, and with the region headquarters. The leader must know the professional responsibilities and the mission requirements of the command. Technical competencies include knowledge of external command structures and politics, financial systems, and social programs that

“Commanders must know how and when to delegate and empower their subordinates. The garrison/installation world is extremely complex and not to be done alone. The real experts are your directors and deputies and as a point of emphasis for me, my CSM.”

A garrison commander

affect the organization.

The Garrison Pre-Command Course (GPCC) has a comprehensive program of instruction that outlines the strategic vision and direction for installation management, and identifies the prescribed duties of the garrison commanders and command sergeants major. The GPCC provides a baseline of technical instruction on structures and processes (e.g., personnel management, budgeting and cost control, environment, etc.). Importantly, the GPCC presents contemporary installation issues as well as key areas of concern such as the ongoing discussion of the responsibilities of IMCOM vis-à-vis senior commanders. This discussion is especially pertinent given that

“Building a coalition at the garrison functional level is crucial because a GC doesn’t ‘own’ all of the services or assets in the garrison. For example: AAFES, DeCA, banking facilities, CIO/G6 (overseas), MI, civilian personnel services all belong to other commands.”

A former deputy garrison commander

installation management is a fledgling activity within Department of the Army and with the establishment of IMCOM in the 21st century.

Strategic issues are being addressed by the corporate leadership of the Army with the Assistant Chief of Staff for Installation Management (ACSIM) as the principal agent. It is prudent for the garrison commander to develop an executive-level understanding of the recent program initiatives of Lean Six Sigma (LSS), Common Levels of Support (CLS), the National Security Personnel System (NSPS), and the 2005 Base Realignment and Closure (BRAC), as well as ongoing A-76 competitive-sourcing actions.

Perhaps interpersonal competencies are the most difficult to develop, as they entail the “softer side” of leadership. The garrison commander is responsible for managing diversity within the organization, working with other cultures (particularly when overseas), building consensus with multiple constituents and communicating effectively with internal and external audiences. The heart of our business is to lead people – whether in the field, in an Army command headquarters or on the installations where our Army works, lives, trains, and plays.

FM 6-22 is a good starting point for interpersonal leadership competencies in that it does a good job of communicating the complexities of contemporary environment. It acknowledges the challenges in operational units that execute full-spectrum missions and functional agencies that support Title 10 responsibilities. Where the previous FM 22-100 presented 41 leader competencies, the new FM 6-22 identifies eight core competencies for Army leaders (See Figure 1) in

an attempt to provide a manageable number for focus. However, as one turns to Appendix A, those eight competencies are further deconstructed into 55 leader actions.

With the abundance of lists of what a leader is supposed to be good at, this article offers a few items from my experiences, and the experiences of others, that may assist incoming leaders in preparing for assumption of garrison command.

Leadership and Team-building

Garrison commanders enter organizations where the structure is already determined and in place. Generally, each conforms to a standard garrison organization that has well-defined functional responsibilities. In most cases, the civilian work force is also well established with people who are experts in their field and who have extensive experience in providing service to their local community. The command team of the deputy garrison commander (DGC) and command sergeant major (CSM) is likely to be the same team from the previous commander. The DGC and CSM have a wealth of knowledge about the specific garrison environment and will offer different perspectives that are invaluable. Thus, working as a strong senior-leadership team can yield a situation in which the “whole is greater than the sum of its parts.” The same can be expected with the staff directors and deputies of the functional areas. Both sets of teams performed to some degree of effectiveness before the new commander arrived – it would be naïve and pretentious to believe otherwise.

The primary goal for the new leader is to become a value-added quantity to the organization. Added to this is the challenge to lead a predominantly civilian organization that is likely to be distinctly differ-

ent from previous assignments and experiences. Commanders will encounter a diverse work force that provides garrison services with a significant number of contractors. They may be confronted with allegations of a hostile work environment related to the behavior of a supervisor, or deal with perceptions of discrimination in promotion decisions. Commanders may, for the first time, face union and Equal Employment Opportunity (EEO) issues that do not exist in operational units.

Regardless of the new context, the

“Knowing how to influence and develop your staff directly relates to how much time the GC has (Does he have to drill down, ask the hard questions, walk the dog with the staff, or have they been trained to do that BEFORE they show up at his conference table?).”

A former deputy garrison commander

leadership responsibilities are the same. To achieve the organizational mission, the commander has to develop teams at three levels: the command team, the functional team, and the team of external stakeholders.

The first two teams are wholly within the organization – stable and inherited. These teams are under the direct influence of the commander. However, the team of stakeholders is much more fluid in its composition and may consist of members that come and go depending on the purposes that bring them together. In this case, the commander is generally not in a position of authority but may be the one who can coalesce the

collection of people from disparate activities to address the garrison mission requirements. In that capacity, the garrison commander must be able to influence others to manage problems or to seize opportunities that emerge.

The challenge for garrison commanders is to adjust current leadership style or behaviors to the internal groups based upon their level of expertise and need. Commanders must quickly realize that the functional work force has extensive expertise that garrison commanders cannot hope to match. The environmental engineer, child development associate, range coordinator, and budget analyst are examples of highly skilled members within the work force who are capable and, therefore, should be empowered to do their jobs. A garrison commander only has to visit the Child Development Center during the morning drop-off period to appreciate the talents and abilities of the caregivers.

The same is often true with the direct reports of commanders and their deputies; it is a rare commander who has experience in running Public Works, Morale, Welfare, and Recreation, Emergency Services, and Information or Resource Management agencies. Therefore, a “first-rate” commander has to “recognize when subordinates already have it right and to either build on their successes or get out of the way.”⁹

This harkens back to the enduring themes of early studies that found that leader behaviors were categorized as initiating structures to accomplish tasks and developing relationships among the members. Later research identified critical leader functions based upon what leaders do – monitor performance and take action to improve performance or to resolve problems. The other key function is where



the leader focuses his effort and attention – on issues internal to the team or on issues that are external but directly affect the team.¹⁰ However, what may be apparent is that some supervisors and managers have been placed in positions of leadership without the benefit and experiences that officers and noncommissioned officers have acquired within the professional military education (PME) system. It is incumbent upon the commander to develop the leadership capacity of its senior members and midlevel

sions and identification of goals are essential. A new commander briefed his staff using the No. 1 principle shown in Figure 2. This is a clear statement of what is important in the command and what is expected of the garrison team.

The second area for garrison team effectiveness is meeting the needs of its members. The garrison commander should encourage and support collaboration among the subordinate directorates and agencies. Accordingly, the commander

learn much about the transition to privatized Army Family housing by polling the net of other installations that have gone through the early stages of the Residential Communities Initiative (RCI). With RCI, the stakeholders include the contractor, local civic leaders and the tenant unit commanders whose members have a vested interest in the quality of government quarters. Effective garrison commanders also stay connected to other garrison commanders and the region staff to share and garner information that

No. 1 Principle

- Focus on the basics
- Determine what you & your organization does (core functions) –
- Focus your effort on these
 - finite resources
 - finite time
 - finite energy
 - (you can't do everything)
- If it doesn't contribute to taking care of our Soldiers, Families, employees, the installation, the environment...then question whether we should be doing it.

This applies at all levels

Figure 2. Guidance to Garrison Teams¹¹

management within the garrison. In many cases, those positions have been assigned based upon technical expertise or longevity of service without the opportunity to learn, develop and exercise leadership competencies. Thus, the commander has the opportunity and the obligation to mentor the senior civilians in the organization. In building an effective garrison team, clarity of purpose, mis-

should demonstrate commitment and concern for the work force and require that leaders throughout the organization do the same.

The garrison commander must be skilled at crossing the organizational boundary to build teams with stakeholders and must be connected to a network of those who can provide resources and advocate for the interests of the installation. A commander can

may be useful for common challenges. In addition, the commander should understand the need to actively scan the external environment and assess potential impacts (good or bad).

The key component of the interpersonal competencies is the ability to communicate to internal and external audiences. The garrison commander will be expected to speak

to the work force, to school children, to spouse groups, to the local chamber of commerce and to civic leaders. Regardless of the venue, the message should be clear and consistent – an expression of why and how the garrison serves its community.

In summary, the skills that a garrison commander needs are many, but the framework of conceptual, technical, and interpersonal competencies may help to focus on what is most effective. It is my opinion (and that of others) that the distinguishing competencies of highly successful leaders are the ability to build teams that can meet and conquer challenges. Building and maintaining such high-performing teams are accomplished through effective communication and by providing what the teams need in order to accomplish their purposes. The garrison commander must be positioned at the decisive point (either in location or time) to monitor and assess what action needs to be taken. In many cases, what the team may need is for the commander to provide the tools so they can “get ‘er done.”

Conclusion

How does a commander know when the teams are working? I offer a short anecdote. In 1998, at the end of a visit by the commanding general, USAREUR, General Eric Shinseki, to my base support battalion (BSB) community, I received a telephone call notification that a U.S. Army military intelligence aircraft was missing and believed to have crashed in a field by a small German town in the BSB footprint. When I arrived at the crash site, the host nation police and fire department were there alongside the BSB safety and emergency response personnel. The incident commander was the aviation battalion commander from a corps unit and was receiving information from the BSB airfield

manager. The BSB public affairs officer was coordinating with local media for coverage of a very sensitive event. What I saw was the nexus of teams performing a must-do-it-right mission. Teams internal to the BSB were working together across organizational boundaries and national lines of authority. They recognized the importance of the task at hand and applied their expertise to handle a bad situation in a highly professional matter. I could not have asked for more.

This short but intense example is but one of many that I experienced during my command tenure with motivated and talented teams of garrison professionals. Incoming commanders have the privilege of ensuring that these teams have the leadership they deserve.

Colonel Charles D. Allen is the director of Leader Development in the Department of Command, Leadership and Management at the U.S. Army War College, Carlisle Barracks, Pa. Assignments during his 29 years of service with the Army include Germany, Honduras and South Korea. He commanded the 417th Base Support Battalion in Kitzingen, Germany, from 1997 to 1999 for an area that included six military installations. He also served as chief of Inspections, Office of the Inspector General, U.S. Army Europe.

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6. Shambach, pp. 39-45 provides more detail on each of the categories of Conceptual, Technical, and Interpersonal competencies.

7. From the Latin “Festina lente” and attributed to Augustus Caesar quoting a Greek proverb from <http://www.worldofquotes.com/topic/Haste/1/index.html>

8. FM 6-22, pg. A-1.

9. This comment was made regarding General David H. Petraeus, CG, MNF-I by Ralph Peters, “Assessing the Surge” in *Armed Forces Journal* October 2007, p. 49.

10. The critical leadership functions are based upon the work of McGrath as summarized by Susan E. Kogler Hill, “Team Leadership” in *Leadership: Theory and Practice*, third edition, by Peter G. Northouse (Thousand Oaks, CA.: Sage) 2006, pp. 206-210

11. From Garrison Commander briefing received via personal e-mail, Oct. 3, 2007.

Garrison Operations and Functions: Building Tomorrow's Garrison Commanders

By Neal H. Bralley



Garrison Operations and Functions students at the Army's Command and General Staff College, Fort Leavenworth, Kan., receive an explanation on how Fort Leavenworth's water purification plant operates.

The Command and General Staff College (CGSC), Fort Leavenworth, Kan., now offers a new class for its majors who attend the Army's Intermediate Level Education Program, Garrison Operations and Functions. The purpose of the class is to introduce majors to the duties and responsibilities of the garrison commander and garrison staff. While virtually all majors have lived and worked on garrisons throughout the Army, both in the United States and around the world, few, if any majors, have worked within a garrison staff section. In nearly every instance, these officers will not have had any direct exposure to the arcane workings of the garrison and its staff.


Officers who attend CGSC will be eligible to be Department of the Army centrally selected garrison commanders as lieutenant colonels within several years, and they

will become eligible as colonels to command even larger installations within another few years. With the advent and development of the Installation Management Command (IMCOM), the role of garrison commanders has been expanding, and opportunities for officers selected to command garrisons has widened and improved significantly.

Garrison Operations and Functions is a 24-hour elective course that meets twice weekly over a six-week period. CGSC organized the class along the lines of IMCOM's standard garrison organization (SGO). In developing the curriculum, the course author consulted with Patrick Cathcart, director of the Garrison Commander's Pre-Command Course at the Army Management Staff College (AMSC) located at Fort Belvoir, Va. Cathcart also provides students with their initial class in which he includes the IMCOM and SGO overview. During

the second session, the students met with the Fort Leavenworth garrison commander, Colonel Timothy Weathersbee; the deputy to the garrison commander, Jack Walker; and the garrison command sergeant major, Command Sergeant Major John Cross. In an effort to get the students outside the normal classroom environment, we held this particular class within the garrison commander's conference room. Following an overview of the Fort Leavenworth garrison operations, the students were able to ask questions and speak with the garrison commander, the deputy, and the command sergeant major. This was an excellent opportunity for the student officers to gain first-hand insights directly from a serving garrison commander.

The Fort Leavenworth garrison commander and his staff were instrumental in the success of developing this class. Without the



various directors' vast experiences and willingness to prepare interesting briefings, open their activities as classroom learning environments, and to suggest the more interesting sites for students to observe the many areas of the garrison, we would not have been able to provide as nearly as interesting or meaningful a learning experience for our students.

From the first discussions in offering this course to students, the garrison commander and his staff have been completely helpful in bringing this class to life. Walker, was instrumental in improving, aligning and synchronizing the course sequencing with the standard garrison model. Walker's vast experience in his duty position made him a key player to the success of this class. While Fort Leavenworth may not have every

aspect of a large divisional hosting installation, it has all the basic elements of every other garrison; it still projects U.S. Forces Command (FORSCOM) units to operational missions in the global war on terror (GWOT), so it is an ideal garrison laboratory for this important class.

Our third session addressed Resource Management and the garrison's Plans and Integration Office. This session discussed how funding and Resource Management actions work within the garrison and in conjunction with such initiatives as Lean Six Sigma. During our fourth session, we discussed Human Resources. This two-hour block looked at the Office of the Adjutant General, the Army Substance Abuse Program (ASAP), the Army Career and Alumni Program (ACAP), and the Army Education Program.

The course provided a two-hour session on Morale, Welfare and Recreation (MWR) programs and organizations that support the garrison's Soldiers, Families, installation, and retired military personnel in and around Fort Leavenworth. During this meeting, the class met in Fort Leavenworth's Frontier Conference Center and combined the class with a lunch meal. This benefited the students by getting them out of their normal classroom environment, offered them an opportunity to eat together and supported the Fort Leavenworth MWR program, as well.



During the Directorate of Plans, Training, and Mobilization (DPTM) block, the class visited Fort Leavenworth's Emergency Base Operations Center (EBOC). This is a new facility composed of state-of-the-art information and communication systems to support garrison emergencies and those in the communities adjacent to Fort Leavenworth. The EBOC has the ability to monitor numerous critical areas on Fort Leavenworth from a secure and centralized location. This location is ideal for future exercises to determine the garrison's and the local civilian communities' readiness for potential emergency operations of all types.

In addition to learning what the DPTM does, students were able to see how the Fort Leavenworth garrison can effectively support the city and the state during emergencies such as the very recent Missouri River flood. Students also received informative briefings on post security measures, thus, contributing to their subject knowledge.

During the Directorate of Installation Support briefing, the class moved to a building adjacent to Fort Leavenworth's water plant. The water plant dates back to 1934 when it was built by the Construction Division of the U.S. Army Quartermaster Corps. While the plant's building and separation and filtration tanks may be older, they work as well and as efficiently today as they did when they were built 63 years ago. In fact, the plant works at less than maximum capacity because of its ability to produce more water than



the garrison and its residents need. The students received an informative briefing and tour from the plant manager, Andy Lewis.

Recent spring flooding of the Missouri River affected Fort Leavenworth. The class discussed the implications of the recent flooding of the installation's Sherman Army Air Field; the impact the floodwaters had on military aviation operations, upon the City of Leavenworth's aviation operations and their fixed base operator. Additionally, the flood's waters submerged the water plant's well field adjacent to the runway, and the Public Works personnel had to cut a levy along the Missouri River to drain the floodwaters from the airfield. While at the water plant, students learned why the installation privatized the plant and turned it over to a commercial operator to support the fort's needs for a 50-year period. The water plant's privatization plan is similar to the Residential Communities Initiative (RCI), which manages and operates all the installation's military family housing.

RCI is an important program for Fort Leavenworth in that it will result in the new construction of approximately 750 new Family living quarters over a seven-year period, and more importantly, the demolition of an equal number of aging houses. During our initial class during the fall 2006, the class made a trip to the Fort Leavenworth's fire department and received a briefing and tour of the garrison's relatively new firehouse. Of particular note in visiting the fire station was the wide variety of equipment and capabilities the fire

station received since the Sept. 11, 2001, World Trade Center attacks. Among the fire department's new equipment is an emergency command center for managing hazardous materials spills, testing materials to identify quickly any potentially hazardous materials, such as powders, and decontamination equipment.

The level of training amongst the Fort Leavenworth Fire Department's firefighters is second-to-none. They maintain a variety of fire-fighting apparatus all in a high state of readiness. Additionally, the firefighters themselves participate in regular physical fitness training, all in an effort to protect the Fort Leavenworth community. During the class visit in November 2006, students tested and identified a mysterious powder during their class, and they decontaminated themselves. One of the students, a medical officer, provided several suggestions on first responder equipment sets to the chief, which could further protect and support the community. This visit was actually of mutual benefit. Students of every age still enjoy a trip to the fire station.

Other topics this course provides to its students include: Directorate of Information Management (DOIM); Directorate of Emergency Services (DES) and the U.S. Army Criminal Investigation Command (commonly known as CID) support to the garrison; and other supporting services, such as Public Affairs, Equal Employment Opportunity (EEO), Staff Judge Advocate (SJA), Command Safety, Civilian Personnel Advisory Center (CPAC), Northern Regional Contracting Center, the Munson Army Community Health Clinic, and the Dental Clinic.

The DOIM presentation covered many aspects of the installation's information technologies (IT), and how the IT architecture and security at the garrison level fits into the overall Army networking strategy. Because of the reliance on e-mail and Internet services to Army operations, this class was very useful, and students were able to ask questions and discuss aspects of the system with the director.

Fort Leavenworth's Office of the Provost Marshal (OPM) and supporting CID detachment briefings provided key insights into their combined responsibilities. Of particular interest were post access control, use of civilian contract security guards on the installation's gates, and the use of Department of the Army (DA) civilian police. Students received a demonstration of Fort Leavenworth's Automated Entry Program, which swiftly and accurately screens the identities of all personnel seeking entry to the garrison. The CID presentation provided an excellent explanation of how their organization supports the community in investigating serious crimes, their role in countering narcotics, and their educational role in making all personnel more aware of potential crimes on the installation.

This fast-paced course provides tomorrow's potential garrison and installation leaders with insights into garrison institutions and its supporting tenant commands that support them, their Families and their organizations that they had little occasion to study in depth in

the past. It is the course's intent to instill in students an interest in commanding a garrison as an interesting, rewarding, and challenging assignment worthy of their considerable talents as field-grade officers. With the professional assistance provided by the numerous dedicated garrison employees at Fort Leavenworth, this class is an excellent educational experience for field-grade officers desiring to learn more information on garrison operations in supporting our expeditionary Army. This class provides the opportunity for these students to see the diversity and importance of the numerous aspects of the garrison activities to support our Army in not just life support, Family support, but the deployment and mission success of our Army forces throughout the world.

Neal H. Bralley, a retired Army colonel, is the course author for the Garrison Operations and Functions class, U.S. Army Command and General Staff College, Department of Logistics and Resource Operations, at Fort Leavenworth, Kan.

Transforming Installation Services Management Through Common Levels of Support

By Thomas Dobrydney

Introduction

As the owner and operator of the Army's installations, the Installation Management Command's (IMCOM's) mission is to "provide the Army the installation capabilities and services to support expeditionary operations in a time of persistent conflict, and to provide a quality of life for Soldiers and Families commensurate with their service." IMCOM executes this mission primarily through the men and women of its garrison organizations. They are the ones who deliver installation services to tenants and customers.

Unfortunately, IMCOM's garrisons must accomplish this mission with funding that is often less than what is needed to do the job expected of them. As the Army fights the global war on terrorism (GWOT) while maintaining an All-Volunteer Force (AVF), funding for installation services delivery is severely constrained. The Army has a critical need to manage its costs, even while it delivers an essential level of services to support Soldier and Family readiness. As a result, IMCOM cannot afford to expend financial resources without achieving desired results.

Indeed, garrison commanders face significant challenges as they carry out the IMCOM mission. To be successful in this environment, garrison commanders are forced to do the following:

- Deliver installation services at an affordable level while properly managing customer expectations
- Stretch constrained resources by finding efficiencies in service delivery
- Instill a cost and performance conscious mind-set in garrison business managers

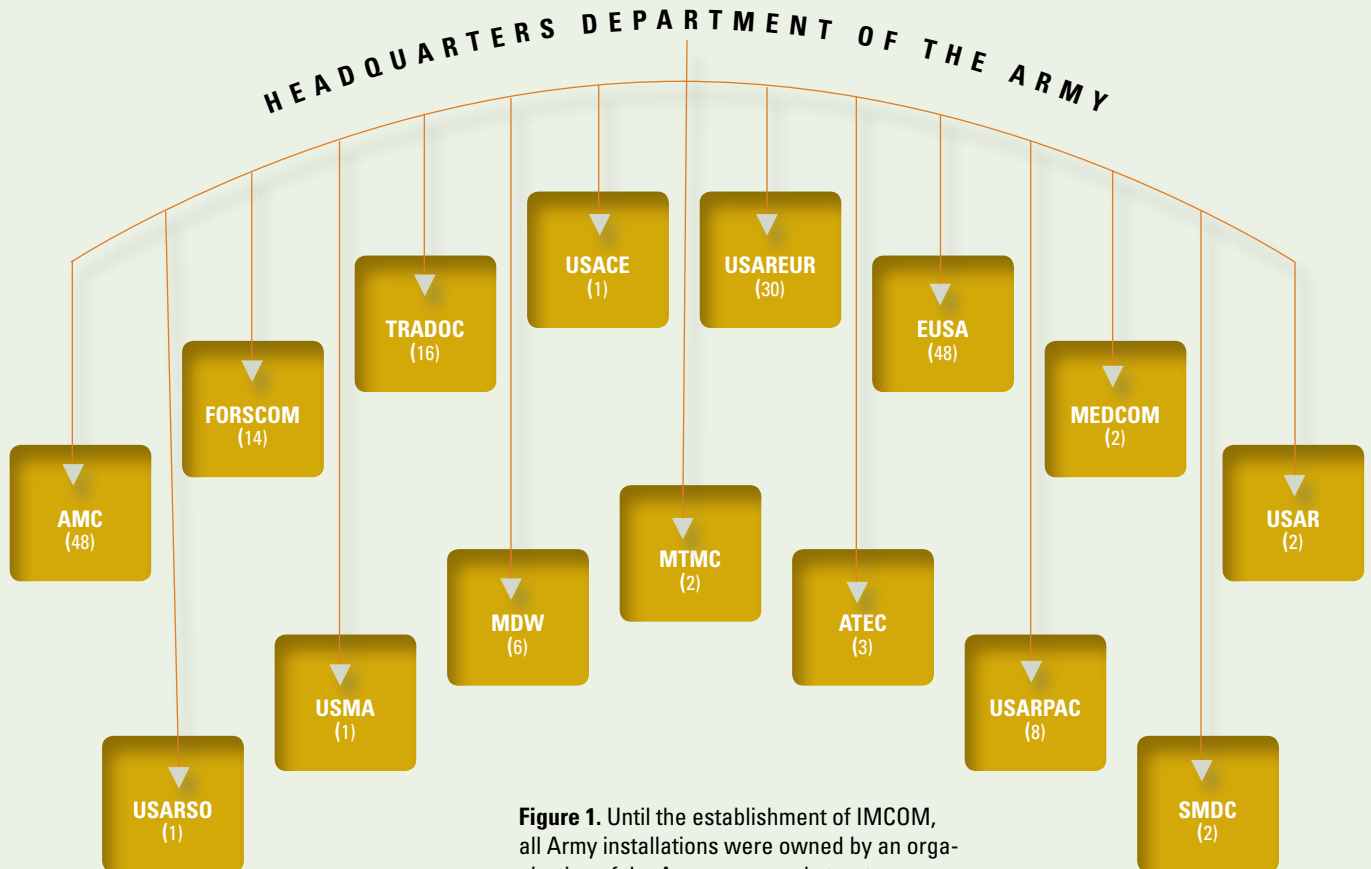


Figure 1. Until the establishment of IMCOM, all Army installations were owned by an organization of the Army command structure.

() = number of installations

While individual garrison commanders can be effective achieving some of these objectives, many of the problems faced by commanders cannot be solved effectively through actions taken at the installation alone. For instance, a garrison may successfully improve its own business process, but it cannot by itself address IMCOM-wide problems with the business processes by which IMCOM plans, resources, and manages delivery of installation services.

Common Levels of Support (CLS) is IMCOM's coordinated strategy for transforming installation services management by focusing on service delivery costs and performance. Through CLS, IMCOM will correct several of the systemic problems that can handicap garrison operations. CLS will also bring a corporate management discipline to installation management, an IMCOM goal since its formation in October 2002.

Installation Services Management by Army Command

Some of the existing problems faced by garrisons have their roots in pre-IMCOM installation operations. Until the establishment of IMCOM, all Army installations were owned by an organization of the Army command structure (i.e., Army command, Army service component command or direct reporting unit). (See Figure 1). While installation services policy was set by the Assistant Chief of

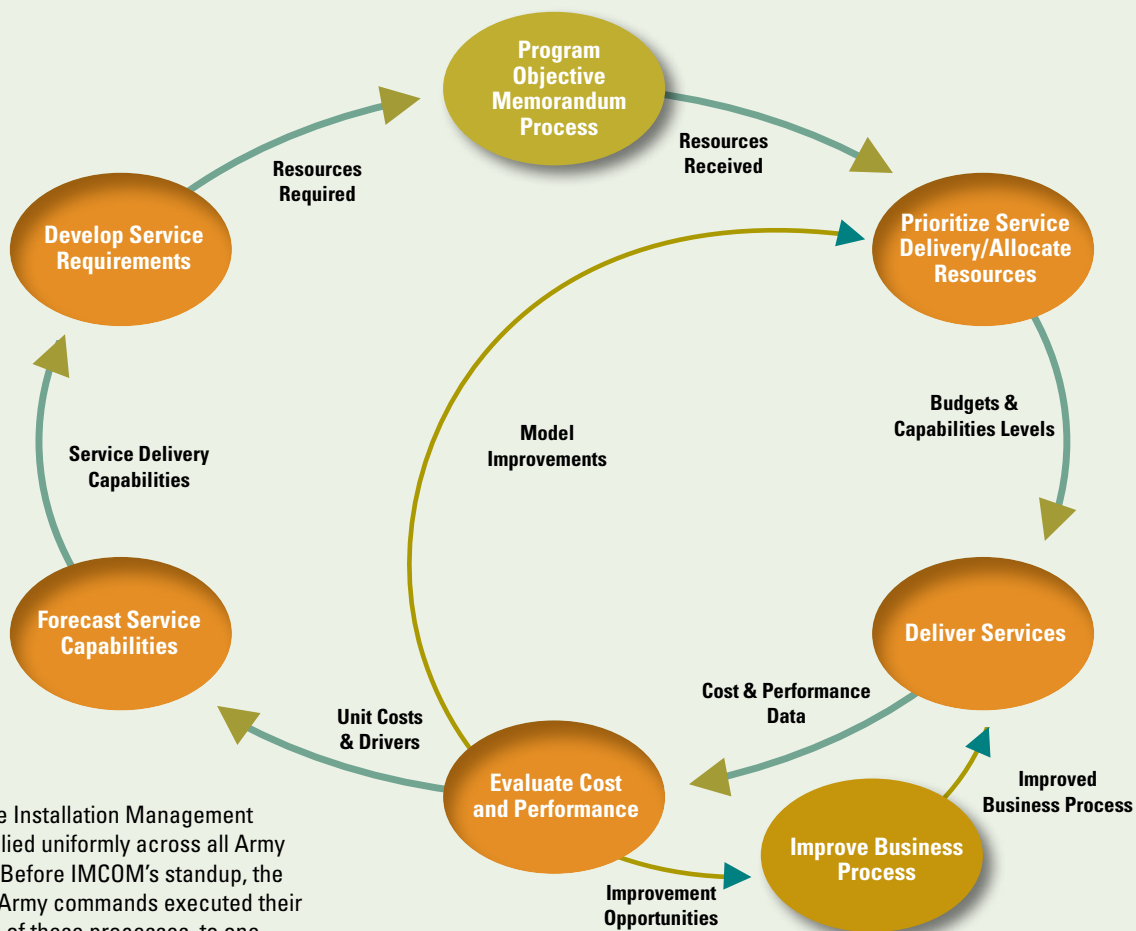


Figure 2. The Installation Management System, applied uniformly across all Army commands. Before IMCOM's standup, the 15 different Army commands executed their own version of these processes, to one degree or another (see Figure 1).



Staff for Installation Management (ACSIM), Army commands funded and provided direction to the garrison organizations.

As one might expect, individual Army commands had great influence on the specific makeup and emphasis of services delivered by their own garrisons. Army commands also controlled the resources allocated to each garrison. When IMCOM assumed control of Army installations in 2002, it inherited a situation of wide variation in how installations were resourced and managed. The specific services delivered to installation customers also varied significantly from installation to installation.

The Installation Services Management 'System'

Generally speaking, IMCOM must have a way to accomplish the following actions in order to manage installations effectively:

- Determine services to be delivered and specify level of service
- Prioritize the services for resourcing
- Identify resources required to deliver services
- Allocate available resources
- Deliver services to specified service level
- Evaluate and improve performance

These processes inter-relate in an installation management "system", as shown in Figure 2.

Before IMCOM's standup, the 15 different Army commands executed their own version of these processes, to one degree or another. Each Army command had its own way of executing the system, meaning that installations were resourced and managed differently. This led to the current situation marked by wide variation in service delivery results across installations:

Services Delivered: The makeup and content of services are inconsistent from one installation to the next. A service offered at one installation may not be offered at another. Also, services have often been tailored to the expectations of the senior commander

Level of Service: While there is a recognized "Army standard" for each installation service, the level of service actually delivered varies across installations. An ID card issued in 30 minutes at one installation may take 60 minutes at another

Lack of Visibility: Because of the significant variation among installations in service delivery, Army leadership finds it cannot:

- Determine the resources required to provide consistent and predictable installation services across the Army
- Assess the impact of reduced resources in terms of services delivered and level of performance
- Adequately justify requests for additional resources to meet Army and customer expectations for installation services

IMCOM now has the opportunity to standardize and improve its installation management business processes.

What is CLS?

CLS is a strategy for performing IMCOM's system of planning, resourcing, execution and improvement processes in order to achieve specific results. CLS is intended to help IMCOM achieve these objectives:

- Standardization of installation services
- Accountability for performance
- Equitable distribution of available resources

CLS leverages many of the same principles as Lean Six Sigma (e.g., reduction of variation and elimination of waste). A key tenet of the

CLS strategy is to reduce variation in its installation services management processes at the headquarters level as well as at the garrison level.

Before CLS, services were defined very loosely as a collection of service components, with little delineation of mandatory or optional components, and no specification of the service level at which components were to be delivered. Variation in service delivery was unavoidable as garrisons could deliver a little of everything, or focus on delivering parts of the service and ignore others. Army commands and senior commanders often weighed in on the elements of service each garrison was expected to deliver at the installation.

CLS addresses this problem by establishing a set of discrete and measurable Service Support Programs (SSPs) that together comprise a service. An SSP defines the elements of service and the standard level of performance to be delivered at the installation. SSPs can be delivered at multiple capability levels (i.e., standards) and the cost to deliver each capability level can be established. SSPs will provide IMCOM with a commonly understood structure for managing installation services.

CLS and Installation Services Management

Under the CLS approach, IMCOM will change the way it performs its basic installation services management processes. This change will be organic and take place over time as each improved process enables improvement in other parts of the system.

Setting Service Priorities. The CLS approach begins with the use of SSPs to establish service priorities. First, SSP delivery priorities within their service are set in a collabora-

orative activity involving IMCOM service providers, installation customers and other installation stakeholders. IMCOM senior leadership then scores each SSP according to the overall impact that SSP has on achievement of the Army's major objectives (as contained in the Army Campaign Plan). The result is a list of all SSPs in priority order. With this list, IMCOM will always be able to communicate where it intends to spend available resources, including where it will spend any additional dollars it receives, as well as the impact of a funding reduction on services delivered. Service priorities are reviewed annually by garrisons, installation stakeholders and Army leadership and updated as appropriate.

Allocating Resources to Garrisons.

The prioritized list of SSPs allows IMCOM to allocate available resources in an equitable manner across its garrisons. Generally, all SSPs are funded in order of priority, first at the lowest capability level, then the next level, then the highest level, until all resources have been allocated. There are some SSPs that, while not prioritized highly for their impact on Army objectives, are still considered basic installation services (e.g., electrical services, water services, fire fighting, etc.). A select few SSPs of this type are resourced out of priority order because installation customers assume these fundamental services are adequately provided.

Delivering Services to Customers.

SSPs serve as a bridge between the resource allocation and service delivery. Garrisons will be allocated resources to deliver specific service components to a defined standard. Garrisons will not be asked to deliver services for which resources have not been provided. SSPs also provide a useful means of communicating with custom-

ers about the content and level of service IMCOM will deliver. Finally, CLS has incorporated a special exception process through which SSPs can be delivered at a higher capability level to accommodate mission-unique, demographic and geographic considerations, so that garrisons remain adaptable and agile to support Army Force Generation (ARFORGEN) needs.

Evaluating Service Delivery Performance.

Under CLS, garrisons will capture cost and performance data for each SSP delivered. This will provide garrisons the basis for understanding their capacity to deliver an SSP at a specified standard, as well as their cost to deliver, enabling more effective management of their operations. It will also help them to understand which service delivery processes require improvement and may lead to the identification of LSS projects. At a region and headquarters level, the compiled garrison cost and performance data can be analyzed to identify necessary adjustments to the CLS resource allocation parameters or to the Army requirements generation process.

Improving Service Delivery. Garrisons interested in conducting business process improvement projects should look first to SSPs where the garrison is having difficulty meeting expected capability level targets. Since cost and performance data will be captured on an SSP basis, LSS experts have a good starting point for initial analysis efforts.

Forecasting Service Capabilities. Over time, IMCOM will identify natural workload drivers for each SSP, and will accumulate sufficient data about each SSP to determine standard unit cost for delivering SSPs at a given capability level at any of its garrisons. This predictive capa-

bility will also be useful during the year of execution as installations are forced to adjust operations under short lead times to accommodate troop movements.

Generating Service Requirements.

With the predictive capability described above, IMCOM will improve its ability to predict the level of resources required to deliver services in the next fiscal year, and therefore will be able to have a more significant impact on improving the requirements generation process.

How CLS Benefits the Garrison

As CLS is implemented and the installation services management processes mature, garrisons will begin to experience benefits arising from these changes to the operational environment:

- **Service Consistency:** Garrisons will be expected to deliver the same well-defined set of installation services, to the same performance standard, as all other garrisons. This will effectively end the era of "have" and "have-not" installations. Also, this will enable garrisons to set customer expectations more effectively.
- **Adequate Resourcing:** Garrisons will be resourced adequately to deliver the services expected. This means that garrisons will not be expected to deliver services for which they are not given adequate resources (i.e., to "make do").
- **Improved Service Delivery:** Changes due to CLS will provide garrison service delivery managers a better understanding of their costs and performance, allowing them to plan better, deliver better service, improve their processes, and provide more value-added service to their customers.



Garrisons are not the only beneficiaries of CLS. As installation customers see their service expectations met with consistent services and improved service delivery, customer satisfaction levels will rise. Consistent services will also enable IMCOM to better communicate the true requirements for running the Army's installations when fighting for scarce resources.

CLS Implementation – A Multiyear Process

IMCOM is beginning to implement CLS in fiscal 2008. Understandably, the changes and benefits described above will not all come to fruition immediately with CLS implementation. IMCOM is changing a set of business processes that together operate on an annual basis. It will take several annual cycles of consistent improvement in these processes to yield the bulk of CLS' envisioned benefits.

CLS evolution began with the establishment, prioritization and resourcing of an initial set of SSPs. The SSPs serve as a cost and performance "mark on the wall" for garrisons to begin targeting their operational change efforts. In the first fiscal year, garrisons will focus on:

- Delivering SSPs to the directed standard
- Shaping manpower and operations to optimize delivery of SSPs
- Capturing accurately execution costs and performance data
- Evaluating service delivery cost and performance and improving troubled delivery processes

At end of the first fiscal year, IMCOM will evaluate operational results and adjust SSP configurations to better reflect execution costs and achievable performance targets. It is expected that garri-

sons will likely experience limited success hitting expected service levels in the first few quarters of CLS implementation, considering the time necessary to reconfigure resources and contracts and reshape the workforce.

In the second fiscal year, the cycle will begin again with improved resource allocation and more accurate service targets. Garrisons will be expected to show an improved ability to deliver services to standard.

Over time, IMCOM should expect to see SSPs delivered in a standardized manner across garrisons, concurrent with a stabilization and convergence of SSP unit costs. As this occurs, IMCOM will leverage this situation to effect an improved service requirement, which will better harmonize resources available with expected services.

Summary

IMCOM's mission to "provide a quality of life for Soldiers and Families commensurate with their service..." does not differentiate between Soldiers stationed at one installation versus another. Implied is that all Soldiers and Families, at all Army installations, are entitled to the same level of installation services delivered by IMCOM.

Former Deputy Undersecretary of Defense for Installations and Environment Philip W. Grone has said that installations "are the home of combat power for today and for the future ... the efficiencies we are building today, the innovation that we are building today contributes to that combat power and to a sense of place that our military personnel, our military families, call home."

CLS is IMCOM's coordinated strategy for addressing systemic problems with installation services management that were caused in

part by years of distributed installation operations (i.e., under 15 different Army commands). By improving IMCOM processes for planning, resourcing, executing, and improving delivery of installation services, CLS will promote the efficiencies and innovations envisioned by the deputy undersecretary as being so critical to Soldier and their Family readiness.

The Army has developed an intense interest in the success of CLS. Army leaders are enthusiastic about its potential to help bring predictability, consistency, and improved performance to Army installation services. Development of this enthusiasm was critical for creating the operational environment required for CLS to succeed.

CLS will begin yielding benefits at the installation level. As CLS matures, garrison service providers will be better resourced to provide expected services, and will become armed with better management information about their operations. As garrisons embrace the vision and expectations of CLS, they will be helping to achieve truly "world class" delivery of installation management services to Soldiers and their Families.

Thomas Dobrydney is a consultant to the Installation Management Command. He currently is providing assistance to develop and implement the Common Levels of Support program. His areas of qualifications include performance management, knowledge management, total quality management, business process improvement and re-engineering, and information technology enablement of business processes.

Fort Jackson's Customer Management Services Captures the 'Voice of the Customer'

By Scott Nahrwold and Vince Valenzuela

Do you know how well your garrison is performing in support of the organizations and individuals who live, work, and play on your installation?

If so, how do you measure that performance? Several years ago, in a sidebar conversation, the commanding general asked the deputy garrison commander how the garrison measured its performance.

The deputy's response addressed measures contained in regulations, pamphlets, circulars and standard operating procedures, along with some very limited, existing customer feedback programs.

With the dawning realization that most garrison performance measures were generated by the functional proponents themselves, the deputy was not surprised when the commanding general continued the discussion by describing the garrison's performance measurement system as a "self-licking ice cream cone." The commanding general went on to say, "From here on out, you are only as good as I say you are. I do not mean me personally; I am talking about all the customers you support who live, work and play on the installation."

At that point, the garrison leadership came to understand functional activity measures would be secondary to measures of customer satisfaction. Thus began a phased effort to develop a customer feedback program, using minimal resources, to accurately measure the "Voice of the Customer." The result of that effort is Fort Jackson's Customer Management

Services (CMS) program, which consists of a comprehensive, three-tiered feedback system based on input from individuals, constituency groups, and mission commanders; the "Voice" of the Army's people.

Key Challenges and Goals of Customer Management Services

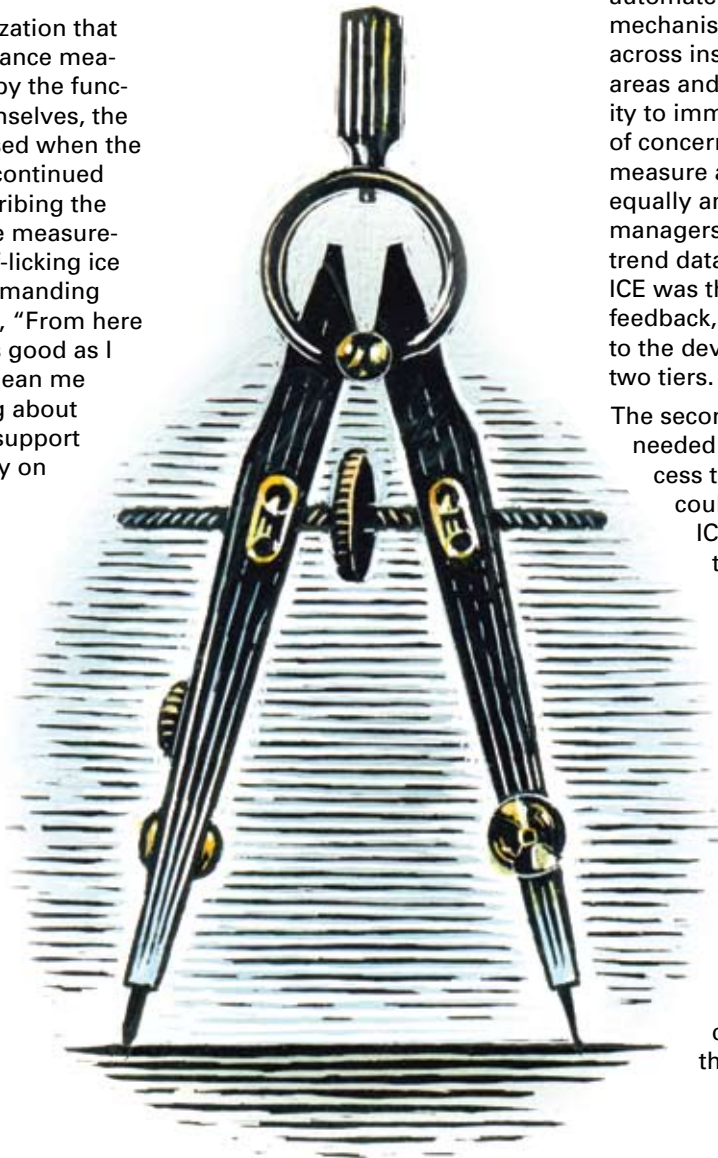
In the development of this program, some challenges arose such as defining the customer base; initiating a management process to integrate and report the information; and producing a tool to track

customer satisfaction, corrective actions, and follow-up. The goal was to develop processes with the ability to measure, prioritize, integrate and report customer satisfaction to the garrison leadership and the supported commands. The customer base included individuals, constituency groups and mission commanders.

Three-Tiered Approach to Identify Customer Needs

The Interactive Customer Evaluation (ICE), developed by the Department of Defense, was initially adopted as the first tier. This automated customer-feedback mechanism was implemented across installation service support areas and provided the capability to immediately alert managers of concerns; request a response; measure all service provider areas equally and allow service provider managers the capability to analyze trend data to improve services. ICE was the base tool for customer feedback, and its initial success led to the development of the other two tiers.

The second tier of the program needed to be a continuous process to address a problem that could not be resolved by ICE. An enhancement of the Army Family Action Plan (AFAP) process, renamed Community FIRST, seemed to be the answer. Community FIRST was designed to solicit feedback on a quarterly rather than an annual basis. The Community FIRST quarterly issue resolution process has allowed Fort Jackson to request and respond to issues affecting the community throughout the year. Issue submis-

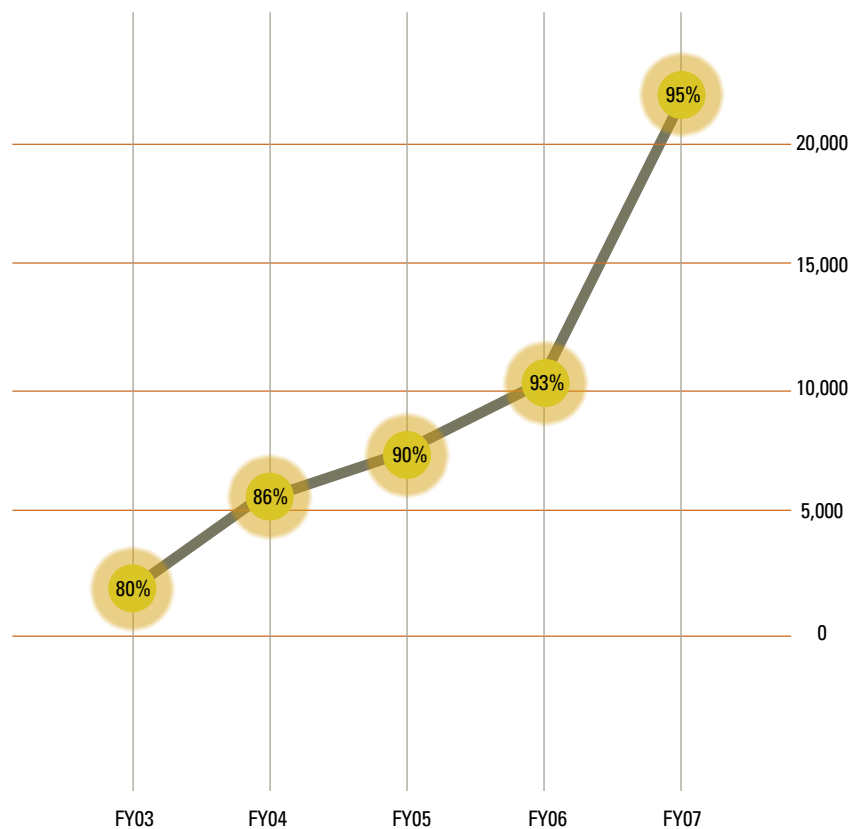


sion and resolution has increased tenfold under this process and assisted in early identification of community concerns. Issues are validated quarterly to ensure that they cannot be fixed by ICE and then submitted to directorates and organizations for resolution. Focus groups are convened (two per quarter) and are constituency specific (Soldiers, retirees, veterans, civilian employees, Family members, teens and surviving spouses) allowing for concentration on their group-unique concerns. During quarterly Installation Action Council sessions, voting members review issues that cannot be resolved by the garrison or other installation organizations and decide which issues to forward to the commanding general for resolution or higher headquarters and those which are unattainable.

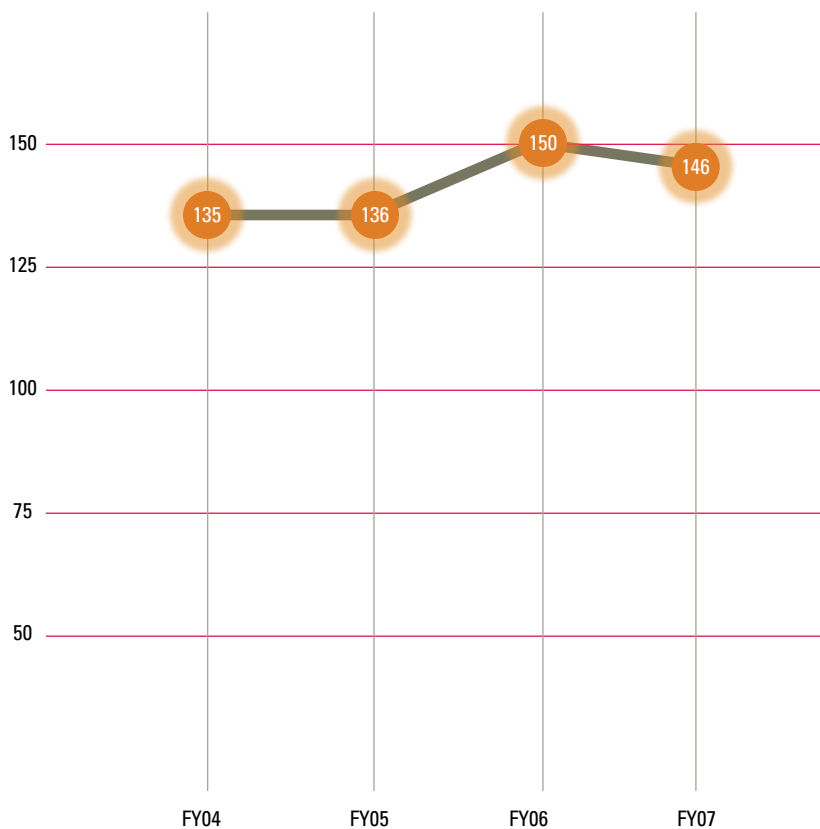
With the third, and perhaps most important tier, there was a definite need to gather feedback from the corporate level customers (mission commanders) supported by the garrison. This led to the development and implementation of the corporate assessment, a simple tool to measure and improve Common Levels of Support (CLS) and Service Support Programs (SSPs) that directly influence tenant organization mission success.

Analysis of this feedback enables the garrison commander to focus on specific corrective action that may include improved customer service training, Lean Six Sigma initiatives, or the need to increase or redistribute standard elements of resourcing. In 2004, Installation Management Command (IMCOM) expanded this program to include Fort Eustis, Va., and forts Richardson and Wainwright, Alaska, demonstrating a proof of principle, or model, for IMCOM-Southeast and even IMCOMwide implementation.

ICE Update FY 07 – Fort Jackson Total ICE Satisfaction Responses



Community First Results – Fort Jackson Total Issue Submissions & Status
(FY 03 14 AFAP Issues Only)



At every level (individuals, constituency groups, mission commanders) performance is measured not by functional proponents with vested interests, but by the people and organizations we support.

At the IMCOM level, aggregate roll-ups of installation performance would provide an Armywide measure of organizational performance assessed not by the hierarchy of IMCOM, but by the Army in the field – a significant contribution to enhanced strategic communication. Performance feedback could be assessed by region, installation, supported Army command (ACOM), functional areas at each echelon (IMCOM, region and installation) or functional areas across ACOMs. The assessment permutations are limited only by imagination.

Customer Management Services Results

ICE (individual feedback) generates customer comments and requests for information in both an automated and hardcopy format and allows the installation’s service providers to respond directly to those same customers in less than 72 hours. Fort Jackson continues to improve in customer satisfaction across the installation’s 270 service providers.

Community FIRST (constituent feedback) enables resolution of issues identified by active Army, Army National Guard, and Reserve Soldiers, Family members, civilians, retirees and veteran groups who cannot be fixed at the service-provider level. This quarterly issue resolution process has permitted nearly 10 times more issues to be handled than with the annual symposium approach with less strain on resources.

Corporate Assessments (mission feedback) identify the support functions that are most important to our mission customers; assessing how



well the functions are being performed and selecting the relative priority (from a commander's perspective) of those functions. The corporate assessment scores for each directorate service provider area are displayed on quadrant charts (scatter diagrams) that give the directorates a better understanding as to where their provider areas are performing in regard to performance and importance, in accordance with the IMCOM averages. The result is improved performance and a more informed, supported population.

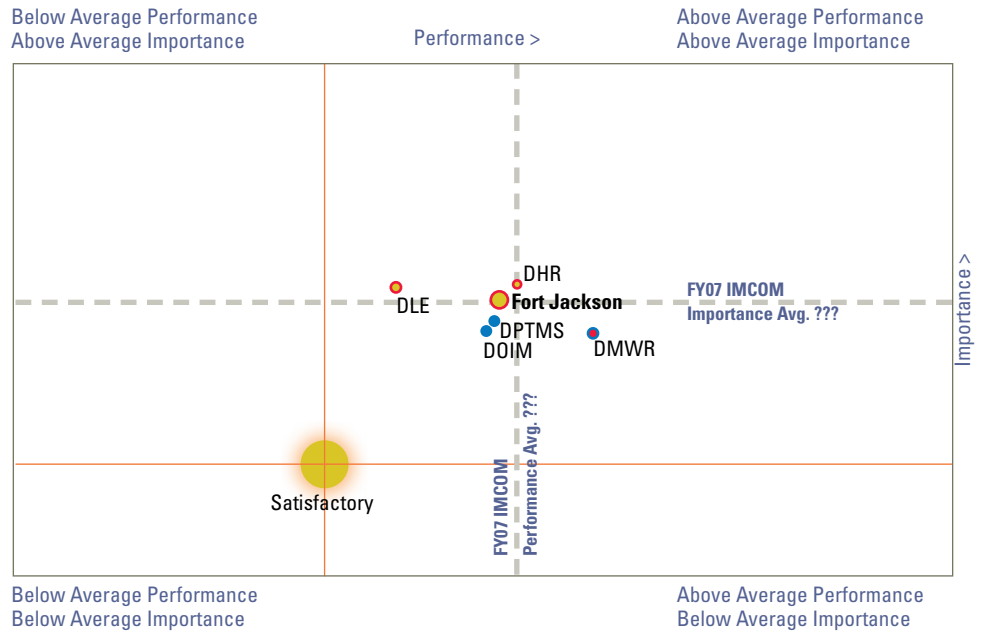
Key Components of CMS

There are four key components of Customer Management Services:

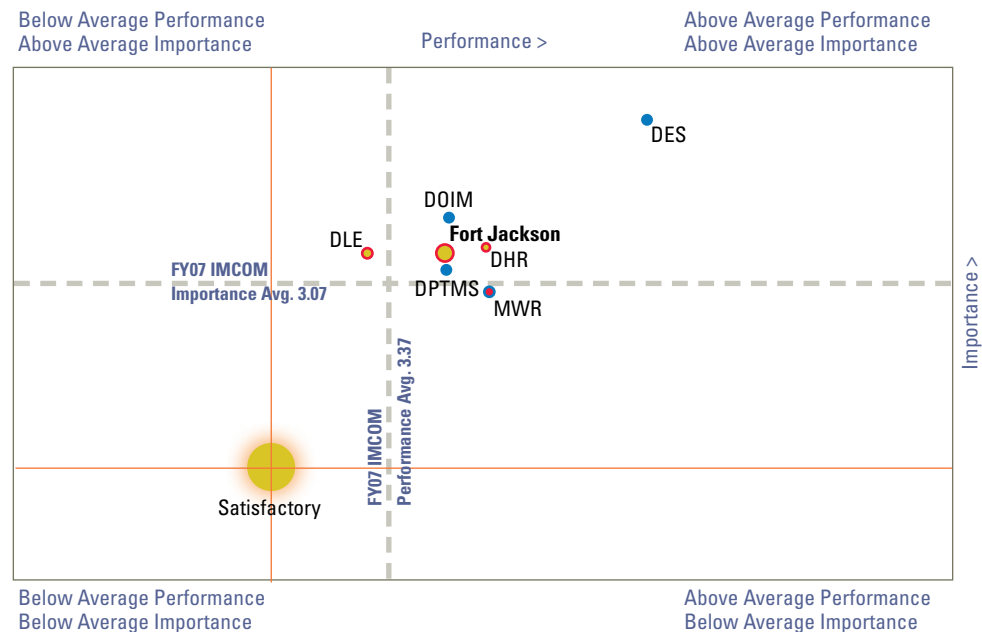
Structure – Structure includes the people and organizations focused on planning and executing CMS. At Fort Jackson, execution requires a full-time customer service officer and an assistant. Fort Jackson also developed, as part of the structure, an Installation Action Council that brings stakeholders to the table and focuses on an agreed set of priorities for the installation.

Feedback – CMS feedback is solicited through the execution of a three-tiered system. The three-tiered feedback system gathers feedback (from the constituent's perspective) through three distinct mechanisms in order to provide a 360-degree view of the delivery and receipt of services. Individual, constituent group, and corporate feedback comprise the three tiers.

Corporate Assessment Results/Fort Jackson
FY06 Directorate Ratings



Corporate Assessment Results/Fort Jackson
FY07 Directorate Ratings



Process – CMS process focuses on the customer’s perspective of the delivery and receipt of services on an installation. By applying the CMS three-tiered feedback process, services can potentially reach world-class levels of support, rather than commonly accepted levels of support that derive from functional proponent standards of performance. This approach facilitates stronger community relations, improved customer satisfaction, and installation cost avoidance and savings.

Communications – Effective communication with target audiences is the cornerstone for marketing and executing any new initiative in the Army, and CMS is no exception. The purpose of the communication plan is to identify the optimum methods or media to reach all CMS constituent groups. CMS facilitates a communication system that is based on direct dialogue with customers. Communication involves the use of a structured feedback mechanism, action council, etc., that promote improved customer service. Most importantly, communication is timely and provides results that ensure customers are aware of the status and actions taken to improve service.

The Future of CMS

The future of the CMS program at Fort Jackson is linking customer satisfaction to the standard elements of resourcing to determine

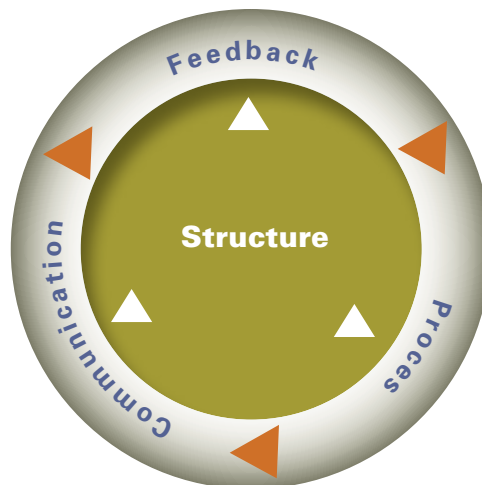
to what extent there is a direct correlation between resourcing and customer satisfaction. Development of a “dashboard” to track performance and resourcing is a primary objective.

As important as resourcing may be to a world-class organization, we have also learned the key to customer satisfaction lies primar-

The program is a first step in a comprehensive customer relationship management process. The decision by the IMCOM Southeast Region director to expand CMS to other installations in the region is laudable. This approach has the potential for expanded application at other installations, and provides critical interoperability

and enhancement to other IMCOM initiatives such as Common Levels of Support, Organizational Self Assessment and others. As CMS and other complementary initiatives are refined, it will become clear that this approach will provide a more consistent and meaningful measure of performance, as determined by the ultimate arbiters of that performance – the customers.

CMS Continuous Improvement Cycle



Structure
Customer Service Officer
Action Council

Feedback
Quadrant Analysis
Focus Groups, constituent ratings and issues
ICE Stats and issues

Process
ICE, Community FIRST/AFAP, & Corporate Assessments
LSS Rapid Improvement Events & Projects
STRATCOM Initiatives
Functional Assessments
Action Plans

Communications
Individuals
Constituents
Commanders

Desired end state

Dashboard multilevel reporting, issue ID, vetting, and resolution; performance Management Review and Strategic Management System information/data links; and disciplined process for ensuring customer feedback is the driving force for continuous service improvement in IMCOM.

ily in how the customer is treated. Our customers have demonstrated a near infinite capacity to understand, and be patient with, the many resourcing challenges we’ve experienced over the years, as reflected in the aforementioned satisfaction scores. In either case, whether it is the treatment of customers or the availability of resources, our customers can (and will) provide the answers, as long as we provide the means for them to do so.

Fort Jackson chief of staff. Nahrwold also served as executive officer in the office of the Assistant Secretary Army for Installations and Environment.

Vince Valenzuela is a contracted employee at Fort Jackson. He retired as a sergeant major after 30 years of service with a background in personnel. Valenzuela arrived at Fort Jackson as part of a Well-Being pilot program in 2002, and has been the primary driver behind the conversion of a customer service vision into a reality.

Scott Nahrwold is deputy to the garrison commander at Fort Jackson, S.C. He is a retired Army colonel, former Fort Jackson garrison commander and

Corps of Engineers Adopts Building Information Modeling To Support Transformation and Asset Management

By Major General Merdith W.B. "Bo" Temple and Beth A. Brucker

The past 20 years have witnessed the development of a variety of computer tools aimed at assisting the architectural, engineering and construction (AEC) industry, and thereby improving the quality of facilities that it delivers. Computer-aided design (CAD), economic models, project scheduling systems, energy analysis tools and similar products all serve a niche within the facility delivery process. However, the fact that such systems cannot be interfaced seamlessly means that, from a life-cycle approach to facility planning and management, this business process has remained disjointed and information flow among participants has been made difficult at best.

In today's business process, we recollect or recreate a vast amount of information between each

phase of a facility's life cycle. The lack of interoperability between systems and phases costs the owner roughly \$15.8 billion annually according to a study by the National Institute of Science and Technology (NIST). (Gallaher)

Today multiple, interrelated efforts, mostly led by the National Institute for Building Sciences (NIBS), hold the potential to revolutionize the facility delivery process, with the added benefit of supporting total life-cycle asset management. To fully harness the capabilities of Building Information Modeling (BIM), NIBS, along with many government and industry participants, is developing the National BIM Standard (NBIMS), which comprises a set of interoperable standards to exchange facility and infrastructure data throughout the life cycle of a project.

The U.S. Army Corps of Engineers (USACE), which is managing a huge (\$65 billion) military construction (MILCON) program over the next several years, intends to transition to BIM-enabled business processes by 2012. The agency is responsible for all MILCON at Army and Air Force installations, both within the United States and overseas. USACE previously had launched an initiative called MILCON Transformation (MT), a Department of the Army program that intends to streamline and improve facility delivery to meet installations' urgent demands due to global restationing and Base Realignment and Closure (BRAC) actions. The benefits of BIM, documented by industry, have shown faster delivery, reduction in costs, and better quality buildings. These benefits mirror the goals of MT



BIM Benefits: Faster Delivery, Better Quality, Less Expensive. BIM allows engineering analysis and interference checking between disciplines, reducing change orders and improving design decisions. (BIM of Army Reserve Center, courtesy Louisville District BIM Team)

because the strategy intends to deliver, quality, sustainable facilities 30 percent faster for 15 percent less. In addition, the data captured in BIM will help USACE respond to the challenges of Executive Order 13327, which directs government real property holders to manage and report on facility data in a way that contributes to better total asset management.

This move to model-based standards and interoperability is not without precedent. Facing global competitive pressures on every front, automobile, airplane, electronics, and consumer goods manufacturers turned long ago to model-based digital design processes based on data that supported engineering analysis, bill-of-material generation, cost modeling, production planning, supply-chain integration, and eventually com-

puter-driven fabrication on the factory floor. BIM represents this next revolution in facility delivery and life-cycle management activities.

What Is BIM?

Many believe that BIM is just a replacement for CAD and is simply a software tool for drawing a building model in three dimensions (3D). This is not the case.

"BIM is intended to be an open standards-based repository of information for the facility owner/operator to use and maintain throughout the life-cycle of a facility." (NBIMS Web site) This repository of facility data begins at the identified requirement for a facility through planning, design, construction, commissioning, management and sustainment and should contain as-is data when the facility is ready for retrofit, moderniza-

tion, or demolition. The ultimate goal is to capture facility data from its authoritative source and seamlessly exchange this data in a format that all stakeholders can access and take forward.

What Is NBIMS?

Today, almost every piece of data an owner/operator needs to know about a facility can be found electronically, but there is not "an infrastructure in place to capture, organize and mine that information" (NBIMS Web site). The goal at NIBS is to create that infrastructure. The International Alliance for Interoperability (IAI) is an organization representing international efforts in defining, promoting, and publishing specifications for what are known as the Industry Foundation Classes (IFC). IFCs are the basis for information sharing



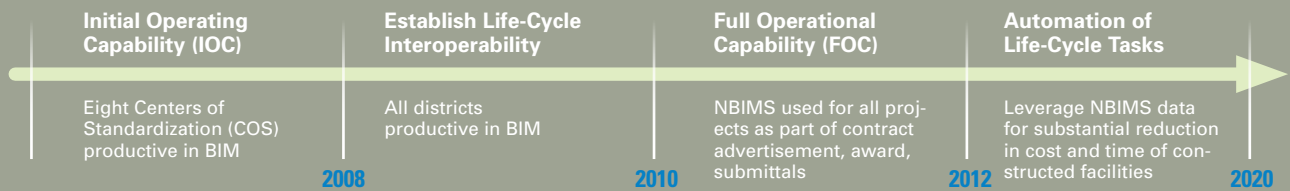


Figure 1: Timeline Overview, "USACE Strategic Goals for Adopting BIM"

Compliant with National BIM Standard (NBIMS) to the extent that NBIMS is defined

across life-cycle disciplines and technical applications.

Basically, NBIMS is about defining requirements for each business process, and IFC is the language of that exchange. NIBS and the IAI have named this entire effort "buildingSMART." In December 2005, a group was formed in the United States specifically to promote the development of a National Building Information Model Standard (NBIMS). NBIMS is an effort under the buildingSMART umbrella.

The first data transfer framework developed for NBIMS is the Construction Operations Building Information Exchange (COBIE). This framework defines the exchange requirements between construction and operation phases. An international panel of experts, facility operators, construction managers, and asset managers participated in the development of the COBIE framework. "The purpose of COBIE is to improve how information is captured during design and construction, and then how it is provided for operations, maintenance, and asset management purposes." (East, COBIE Report) COBIE eliminates the need to create and transfer boxes full of paper construction documents to facility operators following completion of a project.

Other frameworks currently being developed under NBIMS are the Early Design Information Exchange (EDIE), BIM deliverable checking, structural steel design, building code checking, and construction specifier's property sets.

The USACE BIM Road Map

BIM is part of the Army and USACE strategy to begin to leverage facility data throughout the facility life cycle and help USACE meet its MILCON Transformation targets of 30 percent savings in time and 15 percent savings in construction

costs. Acknowledging that USACE cannot fully transition to BIM overnight, the USACE BIM Road Map focuses on the immediate need, working towards an adapt-build process using the USACE Centers of Standardization (COS) as a stepping stone towards full operational BIM capability throughout the Corps and its industry partners by 2012. As part of MILCON Transformation, the fiscal 2007 design-build request for proposal (DB RFP) model included language to encourage contractors to use BIM. In fiscal 2008 and beyond, BIM is a required deliverable in the DB RFP model template. In addition, COBIE will be included in the model template as an optional contract deliverable. Guidance to contractors on BIM submittal requirements for fiscal 2008 includes only the necessary BIM data to generate traditional two-dimensional construction documents. Additional BIM data will be requested in subsequent years as engineering, construction, operations, and maintenance requirements are further defined.

The first phase of the USACE BIM Roadmap requires all COSs to establish an initial operating capability by becoming productive in BIM on at least one of its standard designs by June 2008. As of July 2007, all eight COSs have been trained in BIM and already have at least one standard facility type completed in BIM.

The second phase requires USACE to establish facility life-cycle interoperability by 2010. Achieving this goal will require close coordination between COSs and their supported installations so that all design work will be compliant with NBIMS. Not all NBIMS exchange requirements will be defined by 2010, but USACE will comply to the extent that the standards are defined and vendors can support the standards. All USACE geo-

graphic districts (both Civil Works and Military Programs) will also become BIM-capable by 2010.

Phase three is to achieve full operational capability using NBIMS-based e-commerce by 2012. At this point, experience and the proliferation of NBIMS-compliant products will enable USACE to fully exploit the power of this technology as a communication medium for contract advertisement, award, and submittals. It will automate processes for quantity take-off, scheduling, submittal checking, and code checking. It will also allow the seamless transfer of as-built and Operations and Maintenance information through NBIMS-COBIE to supported installation facility managers.

Past the 2012 timeline, technologies in research and development today will be able to automate many of the data collection procedures for the management and sustainment of a facility, reducing facility manager data upkeep, and contributing more effectively and efficiently to total life-cycle asset management. Some examples may include sensor notification of a leaking roof, automated abnormal water or electrical usage notification, and other smart building components that can be built into an installation's facility data repository for improved facility management.

Sensor technology is already in place at many installations. For example, Fort Drum, N.Y., has long used a remote sensing system to monitor its water quality and its pipe corrosion effects.

GFEBs

The Army's BIM strategy will require BIM databases to be compatible with the General Fund Enterprise Business System (GFEBs), a Web-based system that will allow the U.S. Army to share financial and accounting

data across the service. The GFEBs implementation involves standardizing all financial management and accounting functions, resulting in a system for Army financial professionals to access timely, reliable and accurate information.

GFEBs will have real property accounting functionality, including information typically developed during the development of a BIM model. All of these tools will improve cost management and control, allow more time to perform financial analysis, and facilitate a more accurate understanding of the value and location of property. (GFEBs Web site)

The Installation Challenge

The real challenge to installations is to receive new facilities, and then operate and maintain these assets (real property) effectively and efficiently throughout their life cycle. There is nothing more critical to facility managers than an efficient handover of project completion data. BIM will help facilitate this transfer, but more importantly, will make total asset management a reality for today's military customers. This is especially critical over the next few years due to the huge number of new facilities to be delivered by USACE to its customers worldwide.

To plan this handover, the Army recently convened a multidisciplinary team. Its members came from the Army's Office of the Assistant Chief of Staff for Installation Management (ACSIM), Installation Management Command (IMCOM) regions, installations and USACE to review commissioning activities and processes. During this Lean Six Sigma (LSS) study, the team recognized and documented the fact that valuable information was not being captured early in the facility life cycle. Capturing data from the authoritative source, USACE, as it is being created, can

save installation managers significant labor and will help meet key Army goals such as implementing the Department of Defense Real Property Inventory Requirements.

The LSS team found that three key data sets could be captured by USACE and passed on, resulting in both considerable savings in data transaction costs and improved data accuracy in the Installation's Real Property Accounting and Work Management Systems. (Hodgini)

1. Capitalization and DD-1354 (Transfer and Acceptance of Military Real Property) Processing.
2. Geographic Information System files and Construction "As-built" Drawings.
3. Construction Operations Building Information Exchange (COBIE) Data.

Efforts were focused on the alignment of these data to installation requirements for improving productivity. Open standard formats allow data to be captured and then imported directly into the Installation Work Management System, where it becomes valuable and useful information.

As part of this effort, an Army GFEBs development team is working to synchronize COBIE data transfers with GFEBs fielding. Productivity improvements could be realized by facility managers through automated transfer of this type of data. Examples of data sets can include: the emerging DoD Real Property Inventory Requirements, Installation Geographic Information and Services, DD-1354 information, category codes, gross and net square footage, actual capitalization costs, installed equipment lists, warranty information, preventive maintenance schedules, as-built drawings, utility line locations, utility specifications and, potentially, energy-related data sets supporting Energy Policy Act of 2005 and other energy/facility sustainment-related requirements.

The Way Ahead

USACE is committed to the adoption of BIM and believes NBIMS is the way to achieve vendor neutrality (interoperability among automated systems), with life-cycle data exchange standards between all approved Army facility delivery and facility management tools.

The Army has efforts underway at Fort Lewis, Wash., to demonstrate these capabilities. An example will be to find the most efficient (cost and time) method of capturing existing facility as-built information in a NBIMS-COBIE exchange format so that facility managers can bring this updated information into their current facility work management tools. Another demonstration will use COBIE on small renovation projects completed through installation Indefinite-Delivery-Indefinite-Quantity contracts. Best-practice recommendations will be documented for further consideration in the BIM development process.

USACE and the Army are not the only government organizations realizing the potential of IFC implementation, NBIMS, and COBIE. The Department of State Overseas Building Operations has a requirement for COBIE submittals on all embassy projects in FY 2007 and beyond. NASA also has efforts underway to demonstrate the use of COBIE. The General Services Administration (GSA) is requiring IFC-based BIM submissions for all conceptual design proposals, beginning with GSA 2007 capital projects. USACE intends to engage with these and other facility managers (inside and outside DOD) to capture lessons learned and develop BIM systems that maximize compatibility and usefulness to all potential users.

With the emergence of GFEBs and the Army's concurrent move to BIM, USACE is at a critical juncture in revolutionizing its facility



construction and delivery business practices. This bold move will require expertise from a diverse set of stakeholders from the installation community, USACE district architects, engineers, contracting representatives, and from industry. Historically, the concept of passing life-cycle electronic data between all participants in the facility life cycle development and management process has only been conceptual, but today's technology and the adoption of appropriate data exchange standards has finally made this possible. Doing so will not only improve project delivery, but will facilitate total asset life-cycle management at all installations.

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Sprawl: An Unsustainable Model for Military Planning

By Mark L Gillem with Jerry Zekert

The planner shot his best photos of Kadena Air Force Base, Japan, hanging outside of a Blackhawk helicopter 2,500 feet in the air. A few minutes before, they had reached the right spot above the base. He had opened the side door, pulled a spring-loaded lever, and his seat had lunged out of the hovering craft and locked with a jerk. The exterior seat held firmly in place as the helicopter banked 90 degrees, and the planner, face down above the striking landscape around Kadena (Figure 1), clicked off shots.

The 11,018-acre base, with its sprawling subdivisions, strip malls and streets wide and straight enough to land fighter jets, abutted the compact urban fabric of Okinawa-chi, Kadena-cho, and Chatan-cho. The golf course stood ready to defend the base along one edge. The main shopping center's parking lot was bigger than the dense town center of Okinawa-chi. What was the United States doing building in a place so short of land that airports must be constructed on artificial islands?

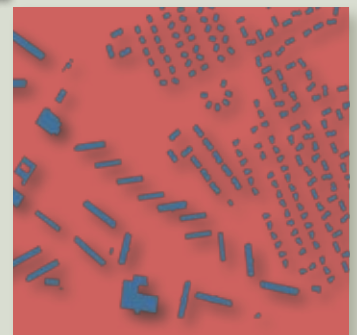
The Costs of Sprawl

This inefficient land use pattern is not unique to American bases overseas. Low density, auto-oriented development known as sprawl is the norm at U.S. military installations everywhere and it comes with a high price tag.¹ In this era of sustainability, building sprawling compounds is a practice that military planners should reconsider. From a mission standpoint, this pattern of development consumes valuable range and training land at an alarming rate and jeopardizes our ability to accommodate future



Figure 1. Ground drawing of Misawa Air Base, Japan, shows the base at upper left and local development at lower right.

Figure 2. A figure-ground image of Misawa Air Base, Japan, shows how widely spaced buildings are on U.S. installations. This is typical of U.S. installations across the world.



missions. From an environmental standpoint, this pattern demands an auto-dependent lifestyle, which consumes natural resources and generates substantial pollution. From an economic standpoint, this pattern extends infrastructure runs (i.e. roads, utilities, parking lots), which adds to an installation's operating costs. From a quality-of-life standpoint, this pattern isolates families and forces all of us on to congested roads and into time-consuming commutes.²

In this era of preemptive war, one might think that land use is a minor issue. But this reading would be inaccurate. Despite widespread media attention focusing on the tragic stories of rapes, deadly accidents and environmental damage, surveys of local residents near some of America's military installations reveal not so much an all-consuming desire for their demise but concern, above all, with the excessive use of land by American forces. For example, a survey of 1,200 South Koreans living near U.S. military bases demonstrates this point quite clearly. The survey, conducted by the Kyonggi Research Institute in the fall of 2001, revealed some startling attitudes.³ Not surprisingly, 30 percent of the residents interviewed said that either they or their family members have suffered due to the presence of American military bases near their homes. They complained of traffic problems, theft, noise pollution and violence, including rape. When asked to describe what they considered pressing concerns regarding U.S. troops, 56 percent pointed to environmental pollution and 62 percent noted crimes and undisciplined activity. Most significantly, 68 percent cited the U.S. military's excessive use of Korean land as the burning issue.

In a similar survey of 143 planners and architects working for the

U.S. military, the result was quite different. Like the South Korean survey, more than one answer was acceptable. The 143 that responded had a very different view: 64 percent thought noise from military operations was the most pressing concern, 44 percent thought it was crime, and only 43 percent thought it was land use. The results are nearly a mirror image of misunderstanding. Americans, used to living with ample land, appear blinded to the importance residents of other nations place on land. By assuming noise is the key issue, they can be relieved of worrying about land use.⁴

These land use patterns have led to protests at installations worldwide. For instance, in a unique form of protest, the Korea Confederation of Trade Unions coordinated the efforts of 600 citizens under a "buy one pyong movement" to acquire land just outside Osan Air Base as a symbolic foothold against its growth.⁵ One pyong is about 35.5 square feet. This measure is a telling example of the value of land. American planners typically measure land in terms of acres. One acre is 43,560 square feet. While land has been plentiful in America, the units of measure in South Korea reveal that land is a precious resource. After all, banks do not measure gold by the ton but by the ounce.

Italians have a similar concern for the value of land and do not appreciate the American appetite for their land. In the 1990s, thousands of Italians protested an expansion at Aviano Air Base in northern Italy. And in Vicenza in 2007, over 80,000 Italians protested against a planned expansion of an Army installation in the area. The issue was not so much that the United States was there and planning to add more missions. After all, the United States has been in Italy since World War II and has expanded its presence considerably over the years.

Rather, the local concern was with the taking of more land for ever-more sprawling compounds. These events have turned some supporters of the military mission in Italy into opponents. This is hardly a strategy for mission sustainability.

This pattern is increasingly evident in the continental United States as well. In Colorado, for example, farmers who have historically supported the U.S. military have joined together to oppose expansion of Fort Carson's range area at Pinon Canyon. When allies become opponents over land use issues it may be time to rethink our approach.

A Checklist for Sprawl

Despite these growing concerns, this costly development pattern is the norm on military installations built after World War II. For American Soldiers, their spatial world is a recognizable suburb, which is hardly surprising given the proliferation of low density, auto-oriented suburbs built across the United States. "In the United States today," says geographer Richard Harris, "no place seems more familiar than the suburb."⁶ It may be so recognizable because it is so ubiquitous. More than half of Americans live in suburbs.⁷ J. B. Jackson calls this a national style of spatial organization and claims the proliferation of familiar landscapes is an American tradition. "There are landscapes in America separated by hundreds of miles that resemble one another to a bewildering degree."⁸ Whether separated by 100 miles or 5,000 miles, Americans have a clear tendency to change the landscape into familiar forms despite differences in ecology, geology, and climate. In the United States and overseas, planners at military bases have wholeheartedly adopted the suburban ethos using a suburban script.

In many ways, a script for a performance is like a checklist for a flight.

Both define what to do, what to say, and where to go. The military regularly operates on a checklist mentality. Fighter pilots attach checklists to their flight suits. Military engineers carry laminated checklists in their pockets. Inspection teams walk around with their clipboards and checklists making sure every installation conforms to military standards. Planners keep a checklist ready as they create Base Master Plans. Checklists ensure certainty through overarching control. In keeping with this checklist mentality, listed below are seven key attributes of a suburban script that policy makers and planners use to build America's outposts.

Auto Focused: Americans living in suburbs primarily get around in their cars. They take only 5 percent of their trips on foot; Europeans and Japanese take up to 50 percent of their trips on foot.⁹ Parking lots rather than sidewalks are the priority for planners. And, when possible, drive-thrus are the preferred architectural typology. To get around on America's sprawling outposts, most Soldiers and their Families must drive. Since automobile ownership costs roughly \$3,500 per car per year, this pattern is expensive. And for the military families that can least afford a multiple car lifestyle, land use patterns force them into a second or third car and in some cases this makes the difference between getting by on their own financially or relying on food stamps. Moreover, this auto-oriented pattern of living leads to environmental damage. In American suburbs, the average family drives over 30,000 miles per year and spews over 33,000 pounds of carbon dioxide into the air.

Abundantly Paved: "Suburbia," says architect Douglas Kelbaugh, "may be paved with good intentions, but

mainly it is paved."¹⁰ In one 86-acre area of land at Kadena Air Base, 40 percent of the land (34 acres) area is paved. Howard Nicchols, the supervisor of the Osan Air Base, South Korea environmental office, said with a grin, "We have one planning rule here, 'thou shalt not build anything without a parking lot.'"¹¹ Of course, people need a place to park but this comes with a spatial cost. Every parking space requires at least 350 square feet of paved area so the land required for this quickly adds up to a substantial number. On Fort Lewis, Wash., for example, there are roughly 70,000 parking spaces for a daily population of fewer than 40,000. This adds up to over 24 million square feet of parking lots. On older installations designed to support multiple modes of travel (walking, biking, and driving), the land consumed by parking lots is dramatically reduced.

Widely Spaced: The helicopter photo of Kadena Air Base (Figure 1) and a figure-ground image of Misawa Air Base, Japan, (Figure 2) where buildings are black and all else is white both show how widely spaced buildings are on U.S. installations. These bases are typical of U.S. installations across the world. This applies to commercial as well as residential buildings. Undefined open space and parking lots separate many commercial buildings. Ample yards and wide roads separate most single-family homes. Typical residential densities range from six to eight units per acre.¹² Across the street from Okinawa Air Base, however, local developers have built a charming single-family neighborhood at 19 units per acre. In single-family residential areas on U.S. bases, homes also need to be setback from the curb enough to accommodate two cars in the driveway. Rear yards on many installations are anywhere from 50 to 150 feet deep. This pattern con-

sumes land at an alarming rate and does little to improve the livability of a neighborhood. In fact, some of the most cherished neighborhoods on many military installations are those built before 1930, when sprawl became commonplace. The historic district at Fort Lewis and the old brick quarters at Wright Patterson Air Force Base, Ohio, were built in an era when military planners appreciated the value of land and the inconvenience of sprawl. These are neighborhoods where one can easily and safely walk to fitness centers, workplaces, shopping areas, and clubs.

Extensively Lawned: Something must fill the increasing gap between buildings and, if it is not paving, it is usually grass. "We have too much grass here," complained Austin Mears, a housing manager at Misawa Air Base. "We have 9.6 acres of grass in the dorm area that takes my crew three days to mow."¹³ This translates into 440 square feet of lawn per occupant, but it is largely unusable, devoid of benches, sidewalks, and easy access points from buildings. "Our lawns exist to unite us," argues historian Michael Pollan, "and so across a continent of almost unimaginable geographic variety... we have rolled out a single emerald carpet of lawn."¹⁴ The lawns serve less to unite people than to unite a disparate array of buildings. This pattern comes with an obvious cost in terms of maintenance.

Increasingly Franchised: In suburbs, chain stores proliferate. They provide the certainty that some Americans crave. A Whopper is the same in Italy as it is in Illinois. And the building where it is made is the same as well. You can count on copyrighted consistency.¹⁵ On military installations, the retail experience is also a franchised experience. Burger King, Baskin Robbins, Chili's, and Taco Bell



have the franchises to sell food fast. What they do not offer is sold by one of the largest franchises in the world: the Army and Air Force Exchange Service (AAFES). AAFES owns the gas stations, car washes and shopping malls at every base. They have their model and their market. They also run one of the oddest ironies – “Main Street USA,” which is essentially a food court inside a strip mall. There is never a real street. Even Walt Disney wanted a street at Disneyland. Rather, these places are food courts with Popeye’s Chicken and Biscuits, Robin Hood sandwich shops, and perhaps a Chinese take-out. With their massive parking lots and single-story buildings, AAFES is a prime contributor to sprawl on U.S. installations. Now, with their new emerging model of “lifestyle centers” that combine exchanges, commissaries, theaters and gyms into one area, they are requesting even more land – in some cases up to 50 acres.

Clearly Segregated: Suburbs are not simply residential enclaves. They include segregated space for all the functions of life: sleeping, working, shopping, and recreating to name just four.¹⁶ They must have color-coded land use plans that segregate compatible land uses like offices and retail shops. Military installations, for example, must usually show the following zones on land use maps: mission (airfields, training areas, etc.), industrial, administrative, Family housing, unaccompanied housing, temporary housing, commercial, medical, recreation and green space. What results is a segregated landscape that can only be accessed by automobile. Walking from one zone to another is often a hazard since sidewalks are an afterthought on many installations.

Haphazardly Ordered: At one military installation, the commander said, “This base looks haphazard and

needs to be reorganized from a human factors standpoint.”¹⁷ As a pilot, he was aware that designers base the layout of F-16 cockpits on the physical needs of pilots. Designers measure, weigh, survey and test pilots to determine optimal cockpit configurations. This ushered in the new field of ergonomic design.¹⁸ However, designers do not plan the built environment that way – the needs of cars and franchises take precedence over people. Looking at installation maps, it appears the process employed is more like “train-wreck” planning (see Figure 3). Think of the scattering of train cars after a derailing and you get the picture. Eric Schlosser, author of “Fast Food Nation: The Dark Side of the All-American Meal,” argues that the haphazard placement of buildings is distinctively American.¹⁹ Nevertheless, there is an underlying order. Every building and road is “planned” in the sense that someone thinks about the siting. Is the site in the right land use zone? Does it have room for parking and setbacks? If the answer is yes to these two questions, then construction begins. Since there is no desire to frame the public realm with buildings to enhance pedestrian comfort and safety, planners often site buildings at arbitrary angles to the streets. The result is a focus on buildings as objects, which, according to architect Dan Solomon, is at the root of modern architecture that favors “... the making of things as opposed to places and ... disengagement of those things from what is around them.”²⁰ Military planners refer to this as “vacant lot” planning.²¹

Following this checklist, military planners can create sprawl regardless of the spatial, environmental or economic costs. From a sustainability point of view the costs are indeed high. While the environmental impacts of auto use are obvious, less obvious are the spatial costs of sprawl. In more

than 100 interviews with military planners across the globe, lack of land was the most common complaint – 90 percent said land availability was an important concern. Many of them would list all of the “constraints” on their maps and describe how they had no more land for new missions. Never did they acknowledge that these “constraints” were self-imposed. Across the military, designers think there is not enough developable land. The reality on the ground, however, unarguably shows that the space exists. What then constrains the use of the ample land the military controls? A planning mentality that perpetuates sprawl is a prime culprit.

Writing Sprawl

Unfortunately, America’s inefficient land use approach is enshrined in many military planning documents. On Army installations it can be found in many Real Property Master Plans. On Air Force bases it is evident in many General Plans. On Marine installations it is clear in their Master Plans. Many of these legacy documents do a good job of describing current conditions and listing needed future projects but they rarely offer a vision for an installation that can be translated into a real plan. This may be one reason why many of these plans are largely ineffective. “Though our base’s General Plans have been updated (regularly) since 1995, the current revision was halted at 35 percent due to funding withdrawal,”²² said one planner at a military base. She added, “This and prior versions sit on a shelf in a cabinet and are not referenced for near-future planning. At no time in (the base’s) history has an installation commander succeeded — assuming there were attempts — in bringing order to the arrangement through a vision that was translated into a General Plan.”

The planner then commented about a “building box” mentality. Planners would place a square that represented a future building on an open site on the map and that would lock in the site and, more often than not, the design. This reduced planning to a technical exercise of finding an open site with the least constraints. But in many cases, even these boxes are missing and these plans are usually no more than a report card identifying the condition of the base with maps of current infrastructure, a list of future projects, and a color-coded land use map showing functional zones. Some installations may even place a number on a future land use map representing a location for a particular project. Very few actually have maps that show details of future development such as possible roads, parking or building outlines.

Antiterrorism and Force Protection: Mandating Sprawl

Today planning effectiveness is largely measured by one overarching criterion – antiterrorism and force protection stand-off. In other words, do buildings follow the required setbacks from roads and parking lots? The goal is to keep cars away from buildings. But this goal may be superseded by the changing nature of terror.

On Oct. 14, 2004, two men hand-carried small bombs in their backpacks into the Iraqi Green Zone, a heavily protected compound where the American leadership lives and works. After having tea in the popular Green Zone Café, one man left but the other stayed behind. A few minutes later, a bomb exploded in a nearby open-air street market and then the man at the café detonated his bomb. Seven people died, including the suicide bombers.²³ The U.S. military controls security for the Green Zone and boosted air surveillance over Baghdad, increased armed patrols in and around the Green

Zone, and strengthened checkpoint security. The zone, however, is not strictly a government or military compound; hundreds of Americans and approximately 10,000 Iraqis live in the four-square-mile area.

Unfortunately, military planners are not facing this new threat. They are responding to car bombs not backpack bombs. They hope to create a new type of cordon sanitaire. Military police have created far-reaching planning regulations that impact every new project built on every U.S. military installation. Planners have ceded their domain to police. In 2002, the Department of Defense published its “Minimum Antiterrorism Standards for Buildings.” The space required to implement the policy is immense. Buildings with occupancies of 50 or more people must be 25 meters away from any road, parking lot, or dumpster. Inhabited buildings have occupancies between 11 and 49 and they need to be 10 meters away from any road, parking lot or dumpster. All buildings need to have a minimum separation of 10 meters and must have an unobstructed space (i.e. no landscaping other than grass) of 10 meters as well.

While planners have turned planning over to the police, the police have largely given up on the defended perimeter, which at most bases is flimsy chain link fencing topped by a few strands of barbed wire. Without the protection of a wall or effective gate, the defensive perimeter moves into the base, around every building. When fully implemented, the only conclusion will be increasingly sprawled-out compounds with longer perimeters that will only be more difficult to defend. Or worse, these policies drive designers to build fewer larger buildings thereby concentrating personnel, which makes these buildings much more attractive targets. Enforcing 25-meter

setbacks that require designers to site one twelve-story building rather than four, three-story buildings puts the entire occupancy of the building at risk if a backpack bomber walks through the doors. As one planner struggling with the requirements recounted, “The rules are making me put all my eggs in one basket. But as soon as you say something the response is 9/11 and the subject is closed. The setbacks just spread everything out – they’re killing us.” By killing he meant he could not find sites for new buildings that had 25-meter setbacks from roads or parking.²⁴

Another planner had this to say: My largest concern is in regard to antiterrorism, force protection setback requirements. It is undisputed that the first and most important aspect of base security is perimeter security. Therefore, gates should be improved, fences and perimeter surveillance improved, etc. Instead, our set-back requirements are driving less dense bases that require more vehicle traffic and consume land indiscriminately.²⁵

These planners are struggling to make the rules work but recognize their flaws. As bases get less dense, they will need to expand. These policies contradict current thinking as articulated by advocates of crime prevention through environmental design and may jeopardize the ability of bases to accommodate new or relocated missions, which is an essential element in the strategy currently underway that aims to reduce bases overseas by consolidating missions on select bases.²⁶ But with all the required setbacks, planners argue there is little room for these missions on existing bases.

The 25-meter standoff distance is largely a reaction to the Khobar Towers bombing in 1996 in Dhahran, Saudi Arabia. Of course, 25 meters is meaningless against an airplane or missile attack so these



modes can be left aside. In terrorist attacks in Beirut (1983) and New York City (1993), trucks drove past lightly guarded or unguarded gates. In Oklahoma City (1995), Dhahran (1996), and Africa (1998), the trucks and cars were on uncontrolled public streets. The lesson from these events should not be that a car will freely drive onto a base, park next to an office building, and detonate a trunkload of explosives. Rather, the lesson should be that the military should protect the gate and the perimeter as a first step. To patrol and monitor this sprawling landscape, the United States will need even more police because there will be few "eyes on the street" other than the eyes of the police. As Nan Ellin argues, "form follows fear."²⁷

Setbacks or Sustainability?

These force protection rules require extensive setbacks, which results in extremely low densities. This is at odds with the U.S. military's requirement that all construction be "sustainable," as measured by mandatory compliance with the United States Green Building Council's LEED (Leadership in Energy and Environmental Design) criteria. The LEED criteria call for "sustainable sites" with a preference for densities of 60,000 square feet per acre, which translates into an overall Floor Area Ratio (FAR) of 1.38.²⁸ Not including the area devoted to airfields or ranges, most military installations have FARs of less than 0.1. For example, Osan Air Base has 3,960 square feet of building per acre (FAR 0.09) and Kadena Air Base has just 1,689 square feet of building per acre (FAR .04).²⁹ But the LEED standard does not translate into high-rise buildings and limited open spaces. With their three- and four-story buildings arranged efficiently around walkable "downtown" cores, town squares, and parade grounds, historic portions

of many military installations, such as Fort Belvoir, Va., Fort Lewis, and Wright-Patterson Air Force Base meet this standard. In visual preference surveys of more than 1,000 military personnel over the past 10 years, these older areas are consistently the most valued. Of course respondents love the older architectural styles, with their brick facades and human-scale windows. But they also prefer the sense of enclosure and efficiency provided by the more compact development patterns.

Despite this preference for more compact development, U.S. planners continue to segregate buildings on military installations from each other in short-sighted policies aimed at avoiding automobiles and the bombs they may carry. This approach overpowers local concerns, user needs, ecological values, and even economic logic. Moreover, it actually reduces security since it reduces the ability for natural surveillance as a result of the spread-out nature of development. Another key problem with this approach is that the U.S. military does not consider limited land availability an impediment to its anti-terrorism planning philosophy. The post-Sept. 11 planning rules that require inordinate setbacks or stand-off distances reveal a continued desire to develop at extremely low densities. At installations across the globe, the default position is to sprawl. This comes at the expense of someone else's land. This may mean that installations expand into range and training lands, which will compromise future missions. It may mean that installations expand into adjacent privately owned land, which can turn allies into opponents. When asked what the United States could do first to improve the situation in South Korea, more than 45 percent wanted the United States to use less land. Next, at 19 percent, was better education and improved regulations for the Soldiers.³⁰

A Way Forward?

Sprawling compounds need not be the norm. Nor do we need to build at densities that are inappropriate for American culture. High-rises are not the answer. Rather, a new model is emerging that recognizes the economic, environmental and political value of compact development. At Fort Belvoir, for example, planners have created a walkable neighborhood with mixed-use buildings aligned along a new "Main Street." Apartments over shops are in high demand. Small-lot single family homes have porches rather than garages in front (the garages are placed next to alleys in the back). Residents can easily walk to work, the fitness center, the library and the chapel. At Fort Lewis, planners are designing a new town center based on planning patterns used in small towns. It will have a town square surrounded by mixed use buildings with retail shops on the ground floor and townhomes on the upper floors. These installations are succeeding because they have focused planning efforts on formulating a sound vision for development, implemented by comprehensive Area Development Plans based on effective planning principles.

They have embraced the planning process and are using it to guide development. But these are the rare exceptions. The norm continues to be low-density, auto-oriented development that consumes vast tracts of land. The end result may be a military confronted with dwindling supplies of land, unnecessary infrastructure expenses, and costly environmental problems associated with sprawl. This is hardly a recipe for success.

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Authors' notes: Pseudonyms have been used for those people personally interviewed by the authors. This article is adapted from material first published in "America Town: Building the Outposts of Empire" by Mark L. Gillem (University of Minnesota Press, 2007).

The State of Army Installation Master Planning

By Lieutenant General Robert Wilson

Master planning for Army Transformation, Global Rebasing and Base Realignment and Closure (BRAC) is, for the most part, behind us, and these initiatives have moved into the “programming” phase of our business. That is, the projects have been defined, sited and prioritized. Execution will be driven by available military construction funding in the Annual and Five-Year Defense Plan budgets. We are now faced with a new challenge to increase the size of the Army but we must also start planning for the Army of the “twin twenties” – the twin twenties being the 2020 decade.

Short-range master plans (five- to seven-year) are largely complete, essential projects programmed out through 2013-14, and we know, at least for the current size of the Army, who will be stationed at our installations by 2020. However, our long-range master plans – plans that go beyond the current Program Objective Memorandum period – are dated and lacking.

Where We’ve Been

The Installation Management Command, then the Installation Management Agency, revitalized Army Master planning in 2003 when Major General Anders B. Aadland published Netcall No. 10. Netcall No. 10 laid a foundation strategy for Installation Strategic Planning and Real Property Master Planning. It was followed with the elevation of master planning to division-level status in the Standard Garrison Organization and reintegration of facility utilization management and real property management into master planning.

Standardized position descriptions were developed. Real Property Planning Boards were directed to

convene at least twice annually to approve and prioritize capital investment projects and new construction sitings. The Army published the Installation Design Standards used by our garrisons to develop their Installation Design Guides (IDGs), an essential component of the installation master plan. In 2004, master planning was forced to the forefront of garrison activities when the Army announced plans to transform from divisions to brigade combat

further compounded the challenge with the most significant realignment of institutional units in history.

The combination of all this is resulting in movement of more than 140,000 people across our installations – people who need facilities on well-planned installations.

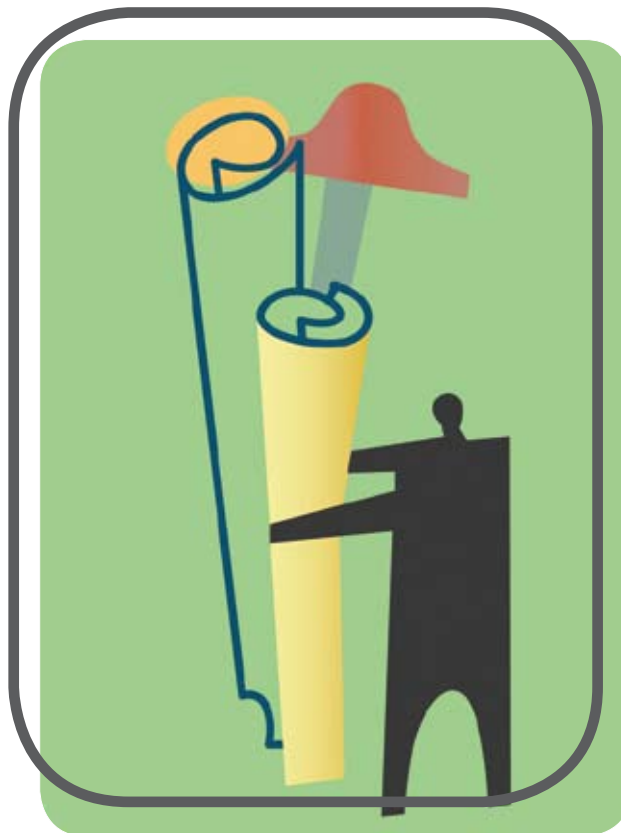
Where We Are

The facility utilization management element of master planning must now shine. Most of master planning for Army Transformation is complete. Our installations are running at full speed training, deploying and redeploying warfighting units and 24/7 production operations to keep the Army equipped. Facility utilization management has become an all-consuming task to keep up with the fast pace of troop activity as we balance space needs among existing over utilized buildings, relocatable buildings and new construction.

It will take up to 10 years for military construction to catch up with the requirements of the transformed Army. Land management is also becoming a problem. The Corps of Engineers has begun the massive building of permanent facilities for Transformation, Rebasing and BRAC. Troops and contractors are competing for available

land for training, swing space and construction staging areas respectively.

With the increased pace of construction on our installations, we must engage closely with the Corps of Engineers to ensure compliance with the primary architectural features of the IDGs. We are approaching the end of the



teams and to rebase many units from overseas to the United States – initiatives that changed the structure of all operational units and involved restationing more than 60,000 Soldiers and their Families. Facility plans had to be developed and executed in the space of months rather than years, and garrison planners proved equal to the task. The 2005 BRAC decision

relocatable building interim facility program with just a few requirements left to fill and some possible interim requirements to support Army growth. Headquarters IMCOM published the Army Master Planning Technical Manual that incorporates all the lessons learned of the last few years plus specifies the content requirements of the Real Property Master Plan. Master planners are very busy and productive but must now concentrate on our dated long-range plans, visions, goals and objectives.

Where We Need To Go

We must now look beyond Transformation, Rebasing and BRAC and plan for the Army of 2020. Transformation, as we know it today, will be complete, but the future combat force will be emerging on our installation landscape. We don't exactly know what this force will look like, but it will be lighter and more agile with different requirements for the use of facilities and land.

The training landscape will continue to change as the global war on terror drives changes in combat strategies. We must be ready to accommodate new facilities and training land uses to meet those strategies as they develop. We must clearly identify the capabilities of our installations from which we can develop Installation Expansion Capability Plans and thus be responsive to the changing and growing Army.

Planning begins with an accurate picture of what is on hand

for existing assets. This means increased emphasis on real property management to ensure correct accounting of our assets and new construction is posted quickly. We will also be transitioning to a new real property accounting system (General Fund Enterprise Business System) and must diligently ensure the transition is smooth and records are cleanly transferred into the system.

Master Planning not only encompasses the traditional construction activities but also includes

demolition and divestiture (privatization) of facilities. Demolition planning and execution must be done hand-in-hand with construction planning to minimize the net growth of Army inventory. Planning and privatization of facilities (housing, utility systems, lodging, etc.) also must continue. These initiatives transfer ownership and management responsibilities to organizations that specialize in focused areas and are true success stories. Soldiers receive better facilities and services, and the Army can focus on its core competencies.

Energy planning and management will be an increasingly impor-

tant aspect of our work. We must reduce energy consumption and our reliance on imported fuels by continual planning and engineering for conservation and energy alternatives.

Sustainment, Restoration and Modernization funding has become more predictable, and Annual Work Plans must be designed so that they complement the Future Development Plans.

In conclusion, garrisons must rebuild their long-range master plans by refreshing their

Installation Strategic Plan and Real Property Master Plan visions, goals and objectives.

The military construction program will add a very significant inventory to our installations but will not fill in the blanks – specifically, all the landscape and exterior features that make the difference between a snapshot and a portrait. Our

Operations and Maintenance, Army and Military Construction Capital Investment Strategies must be integrated to continue the systematic and orderly development of our "Installations of Excellence."

We have begun well; let us press on.

Lieutenant General Robert Wilson is the assistant chief of staff for Installation Management and commander of the Installation Management Command.



A Six-Year Journey: Transforming to Enhance Service to Soldiers, Civilians and Family Members Stationed in the Republic of Korea

By Edward Johnson and Susan Silpasornprasit



Picture this: A Soldier and his family receive permanent change of station orders assigning them to the Republic of Korea – 8,000 miles from the United States. Despite having never been there, or in any assignment in a foreign country, they are confident in the knowledge that they can expect the same common levels of support that they have grown accustomed to, and deserve, while serving their nation at other Army installations around the world.

Turning that vision into a reality is the job of Installation Management Command (IMCOM) and over the past six years IMCOM has played a leading role in making the Republic of Korea one of the premier assignments for Soldiers, Families and Department of Defense (DoD) civilians.

History in the Making

Beginning as part of the Army's overall transformation process, improvements to installations and quality of life in Korea continue at a rapid pace as United States Forces Korea (USFK) works to normalize tours in the region and shift its geographic presence to installations south of the city of Seoul.

As the Army transforms, so too does the way it manages installations. This transformation was most dramatic on Oct. 1, 2002,

when then Secretary of the Army, Thomas E. White announced the activation of the Installation Management Agency (IMA). This decision was further validated with the activation of the Installation Management Command on Oct. 24, 2006.

By establishing IMA, then IMCOM, the Army made a conscious decision to focus on the day-to-day business of installation management and shift that mission to a more streamlined and centralized command. Soldiers, Families and DoD civilians now have a single command to turn to for garrison support. It also enhanced the Army's ability to develop a staff of installation management professionals – dedicated and trained with a focus on managing installations.

The Best of Both Worlds

According to the IMCOM-Korea Commanding General Brigadier General Al Aycock, the decision to consolidate installation management into a single organization was made to allow mission commanders the ability to focus on preparing their Soldiers for warfighting missions.

"The establishment of IMCOM now allows the mission commanders to focus on training their Soldiers," said Aycock in a recent interview. "So on a day-to-day basis, mission

commanders have more time to be with their Soldiers, while still maintaining their ability to look to the future and determine what garrison support requirements are needed for their Soldiers and Families.

Another goal in establishing IMCOM was to centralize and define the lines of authority related to installation management activities, so that the Army could better leverage efficiencies and economies-of-scale for base utilities, housing, and other installation support functions.

"No successful corporate headquarters in the world today is organized the way we [were] in Headquarters, Department of the Army," said White, in announcing centralized installation management in 2002. "We [had] two separate staffs, often performing some of the same or similar functions."

From the beginning, IMCOM was charged with consolidating those staffs into a single, professional, and efficient organization. At the same time, IMCOM began the work of establishing common levels of support to help determine what it costs to run an installation.

"If there has been anything that has helped us to determine how much it really costs to run a garrison, it has truly been our efforts to establish common levels of service across all garrisons," said Aycock.



What that meant for the Republic of Korea was a strengthened ability to improve existing installations and to focus on master plans for new facilities and installations from the ground up.

According to Aycock, IMCOM was absolutely essential in delivering to the Republic of Korea common levels of installation support service that never existed before.

“What we have been able to do is to take a consolidated approach to installation management and master-plan our enduring garrisons to ensure that they are designed with Soldiers and Families in mind. At the same time, we have been able to take a unified approach to the construction, personnel and MWR (morale, welfare and recreation) realignments required to support Army transformation initiatives on the Korean peninsula,” he said.

More than Just a New Name

In 2006, following the activation of Installation Management Command, support to Soldiers and Families was further enhanced.

As a command, IMCOM now has greater control over the establishment and management of its budget. Its mission of providing “quality of life for Soldiers and Families” remains the same.

Before Oct. 2002, installation management funding was appropriated at the Headquarters Department of the Army-level and sent to garrisons at various levels of command. This meant that the quality of housing, family support services, and other installation management activities varied from post to post. At some installations, years of underfunding had taken its toll and, according to Secretary White, the Army found itself manned with first-class Soldiers who were living and working in third-class facilities.

The original establishment of centralized installation management helped to level the playing field between installations, so that there was less disparity in infrastructure or services from one base to the next. By giving IMCOM the full authority of a command, the Army further strengthened its ability to rapidly manage and direct funding to those areas or functions where it is needed the most.

According to IMCOM-Korea Deputy to the Commanding General James Joyner, the transition from IMA to IMCOM was more than just a name change – it was essentially a reorganization in command that resulted in a more efficient and empowered organization.

“By making IMCOM a full command we were able to get a seat at the budget table and we can

now better influence the funds that garrisons will receive – before, we didn’t have that opportunity,” said Joyner.

As the Army transforms into a leaner more modular force, so too does its budget. By establishing common levels of support and managing the funding for those services within a centralized command, IMCOM is better prepared than ever to continue the transformation process and ensure the quality of life for Soldiers, Families, and DoD civilians stationed in the Republic of Korea. Indeed, quality of life can play a vital role in recruitment and retention – for both Soldiers and the civilian workforce.

“It’s not just about taking care of garrisons – it is that, but it is even more. It is about taking care of our Soldiers, their Families and our civilian workforce,” said IMCOM-Korea Command Sergeant Major Kevin Witt. “It’s also about ensuring that we support our Soldiers with the level of service they deserve so that they stay in the service. We need to ensure that we are doing everything within our power to care for, and keep, the Soldiers we have.”

That is exactly what IMCOM is doing in the Republic of Korea. From expanding Family support





services to constructing state-of-the-art housing, child care, education, and recreational facilities, IMCOM-Korea has taken the lead in ensuring that the expectations of Soldiers, Families, and civilians assigned to the Korean peninsula are met – and even exceeded.

Building an Installation from the Ground Up

Master-planned from the ground up, the future Camp Humphreys is a key part of IMCOM-Korea's vision to make Korea one of the premier assignments for Soldiers, Families and DoD civilians anywhere in the Army.

Located in Pyeongtaek, about 55 miles south of Seoul, Camp Humphreys is one of the Army's fastest growing installations and has become a model for the future of Army life in the Republic of Korea. The installation has made progressive changes over the past five years and is scheduled to be the new home of USFK by 2012.

"We are building barracks and vehicle maintenance and company operations complexes. The complexes will include Soldier barracks, dining facilities and recreational centers – all within walking distance from the Soldiers' new worksites," said Bart Mirabal, director of Public Works for U.S. Army Garrison Humphreys.

"Six new state-of-the-art gyms are also being constructed throughout the installation," Mirabal said.

Mirabal added that the schools will be within the community in which families live. This will make it safer and more convenient for students to attend these educational facilities. These schools will have a campus-like appeal. The construction of three elementary schools, one middle school and one high school are all part of the master plan.

One facility that is already open for business and garnering rave reviews is the brand new aquatics park – dubbed "Splish & Splash." It is the first and to this day the only of its kind open on the Korean peninsula. The park was specifically designed by IMCOM-Korea to provide all of the excitement, safety, and family fun found at popular water parks in the states and is one of the new facilities geared toward making life more enjoyable at Camp Humphreys.

If ongoing projects like the one at Camp Humphreys are any indication, IMCOM-Korea is well on its way to accomplishing the goals set out by the Army in 2002, when the establishment of consolidated installation management was announced.

According to Witt, the expansion of Camp Humphreys is strong evidence that IMCOM-Korea is succeeding in its mission to provide world-class support services on the peninsula.

"Clearly, across the board, Sol-

diers, Family members, and DoD civilians in Korea have benefited from IMCOM," he added.

As Army transformation on the Korean peninsula continues, IMCOM-Korea remains a driving force behind the accomplishment of further improvements to on-post living conditions throughout the region. Although much of the construction work at Camp Humphreys is complete, more is yet to come.

With each new phase of transformation on the Korean peninsula comes greater challenges, and yet IMCOM-Korea is better positioned than ever to take advantage of the experiences of its first six years, and leverage the skill and determination of its professional team of installation management commanders, Soldiers and civilian workforce to meet those challenges.

According to Aycock, Army installations are the centerpiece of the Army Family and the big-picture way ahead for IMCOM-Korea is to make sure that it remains fully engaged in taking care of that family.

"We want Soldiers, Civilians, and Families to help us keep looking for the best ways to invest our labor and money wisely, in order to continue providing world-class installation management support," said Aycock. "We can do this through the Army Family Action Program (AFAP), town hall meetings, the Interactive Customer Evaluations



suggestion program (ICE) and the many other ways we have for your voice to be heard.”

The road ahead will undoubtedly involve change, the most significant of which may be realigning support services in the region to match U.S. Forces Korea restructuring and force reduction. Included in this force reduction process is the inactivation of several Army installations throughout the peninsula and their return to the Republic of Korea – a mission that falls under the charge of IMCOM-Korea.

“One of the biggest challenges that we face is transformation – across the entire Army. Being as important a part of the Army as we are, we will continue to play a major role in the success of Army transformation,” said Aycock.

Good Neighbors

A critical component of the IMCOM-Korea mission is the establishment and maintenance of bilateral, positive and cooperative relationships between installations on the Korean peninsula and their neighboring, local-national communities.

According to Joyner, IMCOM-Korea serves as a vital link between the installations and the local populations surrounding those installations. Through such initiatives as the Good Neighbor Program, IMCOM-Korea continues to posi-

tively influence public opinion about the Republic of Korea-U.S. alliance – at the grassroots level.

“As a former garrison commander in Korea, I saw first hand the value of engaging our installation’s good neighbors and ensuring that they were involved in the installation management process,” Joyner added.

For USFK Commander General B. B. Bell, the Good Neighbor Program (GNP) is essential to the effectiveness of his command.

“We are all ambassadors for America and the GNP constitutes our outreach program with the citizens of this country. Our goal is to achieve and sustain a positive image of USFK in the ROK,” said Bell.

Over the past six years, IMCOM-Korea has been at the forefront of sustaining that positive image and continues to do so by fostering close working relationships with local leaders and city governments, while at the same time aggressively supporting community outreach initiatives and Good Neighbor Program special events and activities.

The Way Ahead

Clearly, transforming installation management in Korea to meet the needs of our Soldiers and Families, while simultaneously supporting

the ROK-U.S. alliance, has set the conditions for further installation management success across the peninsula.

The challenge for IMCOM-Korea will be in leveraging the experiences of the past six years in order to ensure continued success across the full spectrum of installation management support – while continuing to transform in order to meet the changing needs of the Soldiers, Families, DoD civilians, and mission commanders they support.

With challenges come opportunities and IMCOM-Korea is committed to taking advantage of those opportunities as it forges into the future. The past six years have seen many changes in the way Army installations are managed in Korea – and more changes are yet to come – but the mission of IMCOM-Korea remains the same: “Provide the Army the installation capabilities and services to support expeditionary operations in a time of persistent conflict, and to provide a quality of life for Soldiers and Families commensurate with their service.”

Edward Johnson is the public affairs officer for Installation Management Command, Korea Region.

Susan Silpasornprasit serves as a writer/editor in the IMCOM-Korea Public Affairs Office.

Fort Drum Envisions Development within an Army Community in Change

By Noreen Dresser

The U.S. Army is undertaking its largest and most sweeping transformation in over a decade, and this transformation is repositioning vast numbers of Soldiers and their Families on installations like Fort Drum, located in upstate New York near the Canadian border. Home of the 10th Mountain Division, Fort Drum boasts some of the largest training facilities and ranges in the nation, and is receiving an additional \$2 billion dollars worth of new infrastructure.

While the installation is essential to meeting the Army's mission readiness requirements, Fort Drum's garrison commander and Department of Public Works director are also committed to ensuring a high quality-of-life standard for Army Families. The commander and director worked to develop a close partnership with the U.S. Army Corps of Engineers' New York District – which already provided realty services to the installation – to furnish 200 new housing leases to relocating Soldiers and their Families.

The Mission

The housing market in the Watertown and Le Ray areas surrounding Fort Drum was already severely taxed, with not only Soldiers and their Families, but also with contractors, all of who contributed to the significant increase in demand for rental and sales of housing stock. In 2004, Army Families and contractors were stretched over 150 square miles in their search for adequate housing. Early in 2005, the Corps of Engineers was tasked with securing leased housing to help ease the burdens of relocating Army Families. The Fort Drum Housing team met with the Corps of Engineers' Fort Drum Realty project manager to identify the market area for lease housing for these Families.

For Fort Drum, which deploys infantry troops to fight for the nation in both Afghanistan and Iraq, these leased housing units would be held to a gold standard, because the quality, security and comfort of housing are critical in supporting Army Families.

The Challenge

Today, the Army looks to the local community first for housing, expecting an average of 70 percent of these units to be provided in the communities that surround military bases. While the Army makes decisions based on the nation's needs, realty markets are local and respond to local demand. Job creation drives new investment in residential real estate markets. Jefferson County, where Fort Drum is located, had not experienced a significant increase in the core economic sectors since its last large increase in the mid-1980s.

Fort Drum's housing market is semirural in nature, punctuated with small towns linked by country roads. Situated roughly 20 miles from the Canadian border, Fort Drum is surrounded by scenic countryside, extending outwards from the base for roughly 30 miles. Its closest "big" city, Syracuse, is an hour-and-a-half drive away via the only highway that feeds into Fort Drum. In addition, Fort Drum sits in the middle of the picturesque Thousand Islands region of upstate New York – a popular summer tourist destination. Many residences are seasonal, and, in the summer months, vacation competition drives up housing costs far beyond what Army Families can reasonably afford.

As of February 2005, the total number of certificates of occupancy issued in the previous 10 years for Jefferson County was only 3,425. The opportunity cost of capital has been low since 2000, and has encouraged some development of single-family residential

homes sales by developers. The city of Watertown, still recovering from the closing of its mills and the restructuring of its farm market, has approached the issue of housing by assisting homeowners with grants for self-start projects to rehabilitate existing homes. The few new homes for sale were bought, along with the rest of the housing stock – 78 percent of which was between 35-45 years old.

In 2004, the influx of relocating Army Families met this existing housing market. However, in February 2005, when the Corps of Engineers conducted a market survey, it was revealed that the 30-mile target area surrounding the installation consisted of older housing stock, with poor insulation and other related problems. A high failure rate in meeting a minimum quality standard for housing resulted in a tremendous work-load – for every domestic lease signed, two were being passed over. In addition, the labor pool for repair and revitalization of housing was significantly hampered by the competing increase of higher-paying construction jobs with the Fort Drum expansion.

The Corps Real Estate Team quickly ascertained that addressing the immediate problem of procuring leases in the target area would only temporarily ease the burden of Army Families. With 200 leases acquired in 2005, where would the additional Soldiers and Families identified by Fort Drum reside? How could these leases be used to expand the affordable market in housing for both sale and rent?

The Corps' small domestic lease program demand for 200 leases is truly dwarfed by the requirement to identify an additional 2,100 housing units by 2009 – after Fort Drum implemented the Residential Community Housing Initiative (RCI). James Corrieveau, with his

many years of experience directing the Fort Drum Housing team and leading the RCI, noted “the need for 2,100 units of housing” during the Housing Forum in January 2006.

Identifying the Rental for the Designated Housing Area

In February 2005, at the start of the domestic lease program, the Fort Drum area had not seen any new housing developments since 1987. The inclement weather that

comes with the installation’s location so near Lake Ontario (with the high volumes of “lake effect” snow and low temperatures) reduces the commute area for younger Families, setting the perimeters at 30 miles and a 30-minute drive time from the fort.

However, the urgency for Army Families justified the need to go beyond the traditional commercial realty frame of reference, and reach potential hidden markets. The Fort Drum Field Office team

actively canvassed the market for new sources. Using an education approach, the team gave extensive feedback on improvements that would be needed when older units failed the leasing standard. The team then followed up by implementing a mail and telephone campaign in designated areas. Local banks and financial lenders in the area received certified letters explaining the Army’s need for quality residential units.



The Fort Drum team followed up with e-mails, phone calls and faxes to all major real property associations and community groups within a 30-mile radius, including but not limited to 63 realtors, 101 churches, 25 chambers of commerce, 40 apartment complexes, 30 accountants, 12 land surveyors and 36 assessors. Given the small-town, rural nature of the community, the team's plan was to build sustainability into the rental market.

The various forms of communication used by the Fort Drum team succeeded in gaining the community's interest in leasing. The public heard from multiple sources – realtors, preachers, neighbors, and community boards – about the Army's interest in leasing. An advertisement placed in the Watertown News reinforced Fort Drum's telephonic and flyer campaign. The Fort Drum community was fully informed. The team's research identified manufactured units (both double-wide and single-wide) placed on foundations or secured for climate as a major source of housing in the Jefferson County area. However, the manufactured homes market was not willing to invest for renting on a large scale, as the quantity was not available. Fort Drum managed to reach 100 leases by June 2005 with houses and apartments, exhausting all available resources. By now, the team knew that new development must become available to reach any realistic goal for the Army.

The Field of Dreams: New Affordable Housing

The uniqueness of the markets surrounding military installations creates special needs for the housing community. The New York District knows the realty market of both military installations served by the Corps and the civil works arena

entails regional economics interest, city and state governmental entities and large private firms. The Corps' field office at Fort Drum reached out to build a relationship with the wider realty market in the State of New York, and to promote interest among the housing developers by sending letters about the installation's leasing program and Soldiers' needs.

By actively pursuing leads on local developers from both staff in the field and staff from the Housing Team, Fort Drum met with Empire State Development, Development Authority of the North Country and others. The team contacted every bank in the Watertown area in an effort to encourage financial institutions to lend for construction, rehabilitation and new development projects in the moderate and affordable ranges. They worked with city and town officials and the Jefferson County office responsible for certificates of occupancy to further expedite the permitting process.

The premise was simple: rather than a request for proposals (RFP) where a developer would be selected, the Fort Drum team would instead facilitate the demand. Recognizing that the Jefferson County area is the economic engine of the North Country, pouring more than \$2 billion dollars into local infrastructure and jobs, the need for quality housing within the 20-mile target area should be met by the market realty forces. The team sought to produce a lawful, clear, streamlined approach for developers to land in this market.

By following the potential developers' progress, the Fort Drum team was able to assist them in understanding the area market better. Supplying current information on family size, demand for two-, three- and four-bedroom units, basic allowance for housing (BAH) rates,

wetlands issues, the Leased Government Housing Program, and a variety of other questions unique to each development, Fort Drum helped the developers with computations of the financial feasibility of their projects.

The Developers

A developer in the spring of 2005 called the Fort Drum Field Office about his Pinehurst Apartments project – a high school building in the area that he had purchased with the intent of developing roughly 27 new housing units. The developer has met with COE field staff with plans to ensure the developed units met with Army housing criteria. With 24 apartments having been completed by the end of summer 2006, the developer is currently finishing an additional nine units.

Good communication with potential lessors is vital in the Domestic Lease Program. Government leases are attractive since they provide the developer with a gross operating income (GOI) to leverage for construction loans. The Pinehurst Apartments development, while small, sent an important positive message to the market in the area. Today, Mike Teanor and Associates has renovated more than 40 homes, purchased an old factory facility on the Black River for an additional 32 apartments, and has many more projects planned for the area.

Another developer source, Clover Management, sent a letter of intent to purchase property for a new apartment complex. Recommended by Empire Development, Clover Management is one of the largest developers of affordable housing in New York state. As of Sept. 19, 2006, the development company agreed to a contract for 103 acres along the Route 11/342 corridor just outside of Fort Drum in the town of LeRay. Today, Clover

Management has plans to build 648 apartments (418 two-bedroom and 230 three-bedroom units) with an Olympic-size swimming pool, community room and work-out facility. They have promised to continue to build as long as the demand is there.

The Fort Drum Field Office team has continued to follow up with other developers within the 20-mile target area, including Empire Development and the Development Authority of North Country, to further encourage support for the permits and advise the companies on permit issues.

The Fort Drum team also fielded questions from financial lenders concerning the market data calls for potential rental income, as it related to BAH and other factors in the core economic sector. This allowed for financial modeling for net operating income (NOI) discount rates, capital costs and yields. Because the Army, as an employer, drives economic expansion to the benefit of local communities and the service industry, finding the right developers to build projects for this market is critical to success.

As quality leases are procured for Soldiers, land sites with utility lines for possible traditional, modular and manufactured home construction are being tracked and investigated thoroughly. Additionally, certain criteria are being defined for smaller lessors, so that they might provide their properties at acceptable levels.

Market Development

The best leverage that these leases offer is that they are encouraging the market to make more units available to Soldiers. The total number of potential new housing units is upwards of 1,800 over the next two years. To sustain these new starts, a domestic lease program assists with a critical NOI for

financing. This program also offers the Army real flexibility, since this is not a long-term commitment of funds. Nor is the Army selecting only one developer; instead, a natural, free market approach with healthy competition is being created, which is proven to encourage both rental and sales. Fort Drum's leasing team is part of the solution, and will continue to work hard to serve today's Soldiers.

To optimize private-sector residential real estate markets within commuting distance of Army installations, the New York District assists advocacy housing groups in targeted areas, through field research in real estate and financial markets. The Domestic Lease Program accommodates the current and future needs of Army transformation by providing the market with a demand for new development. By supplying active real estate portfolio management, in partnership with the Fort Drum Housing staff, forces in local and national markets are identified to recommend policy. An integrated approach will assist the Army by encouraging private development that meets the needs of off-post Family housing.

Key to the Domestic Lease Program is generating, and demonstrating, a demand for rental housing. When the local community cannot meet the immediate needs of the Families assigned to the installation, the Domestic Lease Program increases the pool of potential lessors who may not have been willing to lease to the Army personnel in targeted areas. By using standard restoration clauses, lessors are more willing to sign first-time leases with Army Families.

Quality checklists also serve as independent evaluations of the suitability of the housing stock. Interested lessors are given a list of improvements they can make in order to ensure that their housing units meet Army housing stan-

dards. The short-term lease also acts as a stimulus for refinancing and construction loans to rehabilitate existing residential property, and provides a means for infill and improvement to the existing housing stocks. At the end of the short-term Domestic Lease, properties are returned to the market in better condition, which therefore, raises the bar for rental housing in the targeted areas.

Summary

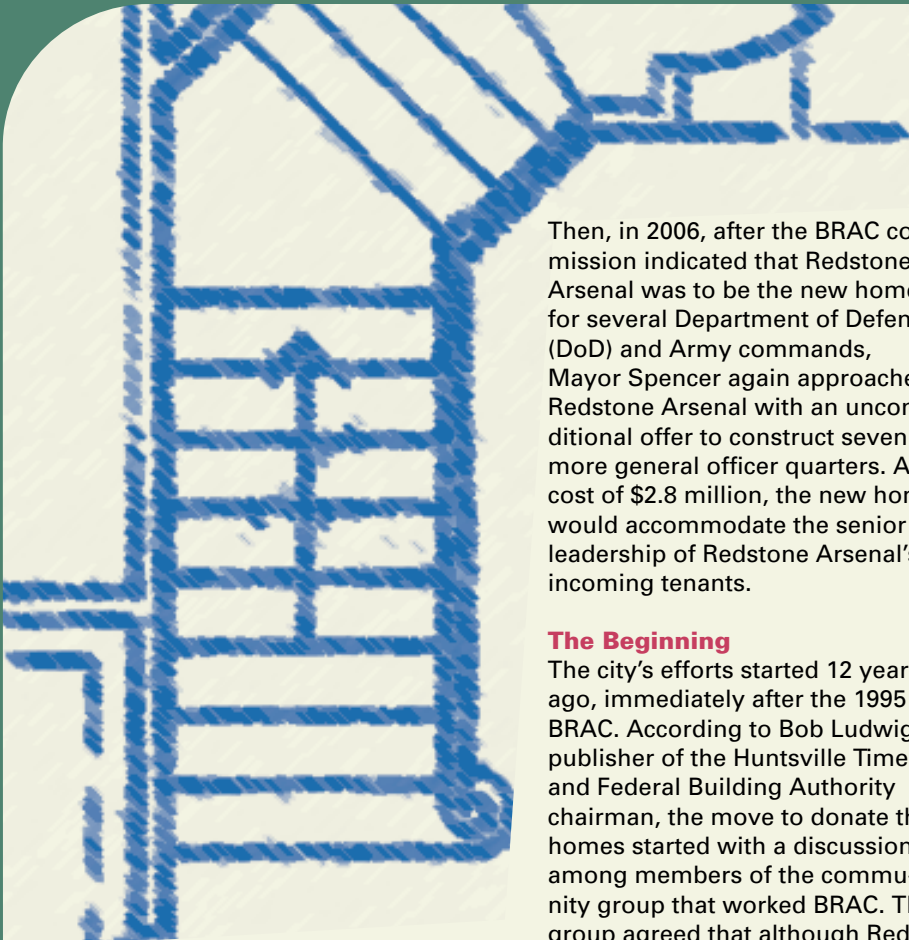
Short-term domestic leases can be effective in encouraging the local market to make more units available to Soldiers and their Families. The Corps of Engineers, New York District, has increased the numbers of residential multifamily units for leasing and sales. The Army can greatly reduce costs for its future Family housing needs by relying on the private sector to provide affordable, quality Family housing. The potential housing built around Fort Drum at no cost to the government is now valued at more than \$200,000, and offers the Army increased flexibility, since it is not a long-term commitment of funds.

The Domestic Lease Program introduces the demand for better quality homes in underserved areas where little or no residential development is occurring. Working with the New York District team, the Corps of Engineers can assist with reaching potential developers, as well as educating the local civic and business communities about the cycle of demand in this market.

Noreen D. Dresser is the chief of Real Estate at the U.S. Army Corps of Engineers, New York District. She began her federal career in San Francisco (1985-1992) with the U.S. Navy Western Division. She later joined the Corps of Engineers in Los Angeles in the Real Estate Division. Dresser transferred to the New York District. In 1998, she became chief of Management and Disposal Branch. She was appointed chief of the Real Estate Division in 2002.

Star-Studded Present: Huntsville Donates 10 Houses to Redstone Arsenal

By Brendan Bennick



Then, in 2006, after the BRAC commission indicated that Redstone Arsenal was to be the new home for several Department of Defense (DoD) and Army commands, Mayor Spencer again approached Redstone Arsenal with an unconditional offer to construct seven more general officer quarters. At a cost of \$2.8 million, the new homes would accommodate the senior leadership of Redstone Arsenal's incoming tenants.

The Beginning

The city's efforts started 12 years ago, immediately after the 1995 BRAC. According to Bob Ludwig, publisher of the Huntsville Times, and Federal Building Authority chairman, the move to donate the homes started with a discussion among members of the community group that worked BRAC. The group agreed that although Redstone Arsenal had many positive attributes, there were areas that the installation needed to shore up – one area being the lack of adequate general officer quarters.

In response to that need, Mayor Spencer formed a committee to find a way for the city to contribute new quarters to the Army – an unprecedented offer. Working through the state, city officials proposed legislation which enabled the city to form a Federal Building Authority (FBA) to manage the project's funding.

Money for the projects came from Alabama state road funds. The state agreed to up its investment in the roads projects, enabling the city to move money to the FBA. FBA, in turn, hired the Huntsville-Madison County Builders Association. The association used two of its builders, Garber Construction Company and Reeves Custom

Homes, both of Huntsville, to build the homes.

According to Ludwig, the city's purpose in building the homes was to try to support military and base efforts from an economic development standpoint. In short, it was a "build-it-and-they-will-come" effort.

Acceptance

While the city looked for methods to fund the homes, Redstone Arsenal looked at how to accept them. When first approached with the idea of "gift houses," installation leadership was skeptical that the Army would ever approve the donation. No military installation had ever been approached with this type of unconditional offer.

Joe Davis, director of the garrison's Public Works Directorate, and his staff took the lead and prepared gift acceptance packages to send to the Department of the Army (DA) for approval. The packages included a letter from the city's FBA stating that the gift of the homes was unconditional. The packages moved through normal Installation Management Command (IMCOM) staffing channels to DA. A year and three months after the staff packages were initiated, and following an intense legal review, garrison staff received notification from the Secretary of the Army that Huntsville's offer to build general officer homes had been accepted.

In 2003, construction began on the first three general officers' quarters. Construction for the next seven homes began in 2006.

New Homes

The homes' sizes and amenities were based on commensurate homes in which a general officer would live in the Huntsville area. All 10 homes were based on variations of two floor plans, ranging in size from 3,340 to 4,000 square feet.

Supporting the military and Redstone Arsenal has always been a high priority for Huntsville, Ala. From the time German scientists brought missile technology to this small, rural, cotton-dependent region, to today's Base Realignment and Closure (BRAC) expansion, no installation could ask for greater support.

That feeling of community and mutual dependence was never greater than in 2003 when Huntsville's Mayor Loretta Spencer approached Redstone Arsenal with an unconditional offer to construct three new "executive" homes for the general officers assigned to Redstone Arsenal. This "gift," worth more than \$1 million, was intended to show that the city of Huntsville supported the Army, specifically, the missions and activities of Redstone Arsenal.

An interior decorator developed the color and finish scheme for each house. The two-story brick homes feature granite counter tops, stainless-steel appliances, custom-built maple cabinets and ceramic tile flooring. There are hardwood floors in the great room, dining room and study, and ceramic tile in all the bathrooms.

One of the homes was built on a slab rather than a crawl space so that the first floor would be handicapped-accessible.

Site Preparation

Choosing the site wasn't difficult. All 10 homes were built within Redstone Arsenal's senior officer housing area. Although the first three homes were built on an undeveloped cul-de-sac, access to water, sewer, and electricity was nearby. The more recent homes were built on sites where early 1960s ranch-style homes sat. These older homes were demolished several months before the construction of the new homes began.

Updating the utility infrastructure did bring its challenges. Installed in the early 1960s, it was nearing the end of its design life. In light of this, designs for new water, sewer, storm water drainage, electrical, and communications were developed, construction costs were estimated and projects prioritized. The overhead electrical service in the area was in need of repair followed by segments of the water service. The new electrical service was placed underground and transformers were upsized to accommodate increased service requirements.

In addition, there were significant requirements for installing and upgrading communications capabilities (secure communications) to the new homes. While the sanitary sewer was not replaced, the clay sewer mains had been previously slip-lined and were also found to be serviceable.

Construction Issues

Until this project, the homebuilders, Garber and Reeves, didn't have much experience working on military installations. Although the mechanics of home building are the same everywhere, working on a military installation is different from working outside the gate. One of the more challenging issues the builders faced was finding enough tradesmen to qualify for the required security clearances. Fortunately, Garber and Reeves pre-screened all workers, enabling Redstone Arsenal badging office personnel to quickly process all access badge requests.

Another issue for the construction workers was the strict enforcement of speed limits and cell phone usage while driving. There were many speeding tickets issued and cell-phone usage warnings distributed during the initial phase of the project. However, once everyone understood the ins and outs of operating on a military installation, everything ran smoothly.

Although the various phases of construction were scheduled, there was a window of time where seven homes were under construction simultaneously. It was not uncommon to see more than 100 tradesmen on-site.

Another issue the builders and garrison staff had to contend with was the fact that the area immediately adjacent to the construction area was inhabited. As a result, the selection of material staging areas, worker parking, and site hygiene was extremely important. It was also necessary to communicate with residents regarding scheduled (and unscheduled) utility outages. Fortunately, all residents understood the occasional inconveniences of living on and around a construction site and were very gracious.

Moving In

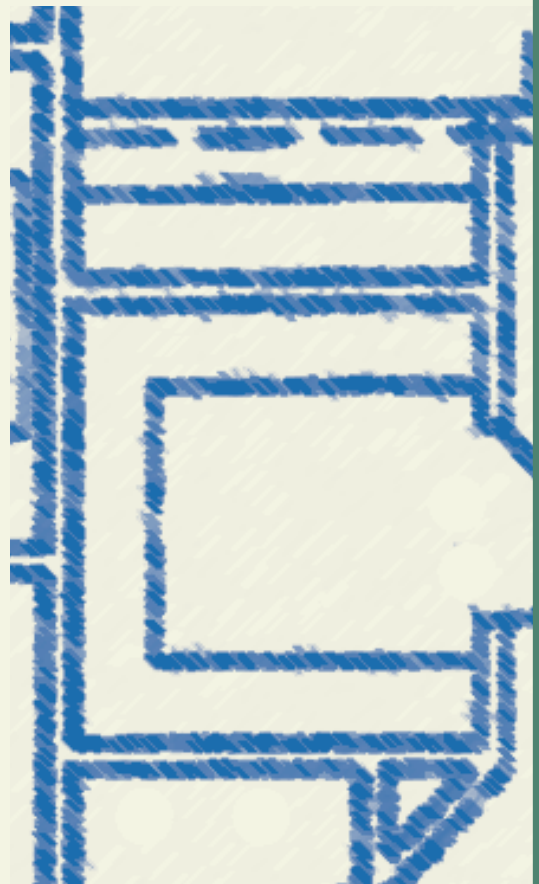
In October 2003, and then again in June 2007, the new homes were dedicated.

"Welcome to the final transition from the historic district to the future," Garrison Commander Colonel John Olshefski said.

Incoming residents continue to express amazement at the homes' beauty – homes that symbolize the support Huntsville has for the military community.

Mayor Spencer said it best: "This is what the Huntsville community is about – giving back."

Brendan Bennick is a civil engineer with the Redstone Arsenal, Ala., Directorate of Public Works.



Huntsville's Facilities Reduction Program Offers Best Practices For Facility Removal

By Colonel Larry D. McCallister and Debra Valine

As the Army transforms, realigning units and building new facilities, installations also must look at removal of unnecessary structures. The Facilities Reduction Program (FRP) at the U.S. Army Engineering and Support Center in Huntsville, Ala., (Huntsville Center) has the expertise and proven track record to help installations determine the best way to remove excess buildings at the lowest cost.

The Installation Management Command (IMCOM) assigned management of the Operations and Maintenance, Army (OMA) and Army Family Housing (AFH) facility demolitions to the Huntsville Center. As the Installation Support Directory of Expertise for facilities demolition and reduction, Huntsville Center centrally manages these programs with decentralized execution by installations and Corps districts.

In fiscal 2004 through 2006, the OMA program removed 4.8 million square feet of excess facility inventory. In fiscal 2005 and FY 2006, the AFH program removed 345,000 square feet of excess Army family housing. Under FRP, the Army's inventory of excess facilities has gone from 132 million square feet to 125 million square feet. The savings from demolition projects allow the program to remove more excess facilities.

The FRP employs a national indefinite delivery/indefinite quantity (IDIQ) contract that uses standardized contract language to ensure employment of industry best practices. FRP project managers have a long-established track record for finding the least costly way to remove buildings while meeting

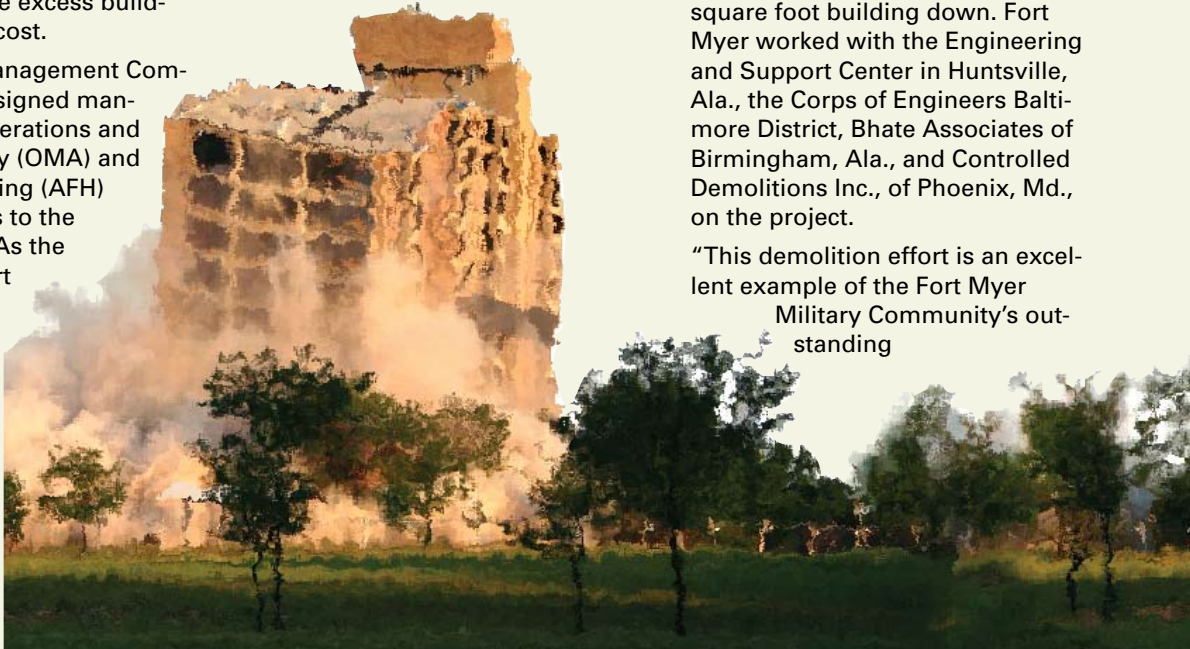
the Army's requirement to divert 50 percent of construction and demolition (C&D) debris from the landfill. Each project recycles or finds ways to reuse as much of the C&D debris as possible – many times achieving an 80 percent or more diversion of waste from the landfill.

Some creative methods for removing buildings from the Army

with the Huntsville Center. "Implosion is only cost effective on taller buildings. Buildings up to five stories can generally be taken down by conventional methods at less cost."

It took engineers from the Corps of Engineers and contractor partners 124 pounds of explosives and 15 seconds to bring the 150,449 gross square foot building down. Fort Myer worked with the Engineering and Support Center in Huntsville, Ala., the Corps of Engineers Baltimore District, Bhate Associates of Birmingham, Ala., and Controlled Demolitions Inc., of Phoenix, Md., on the project.

"This demolition effort is an excellent example of the Fort Myer Military Community's outstanding



inventory have included implosion versus traditional demolition, a public sealed bid sale, and testing a new concept for a regional mobile demolition team, which led to the Directed Demolition Services Program. Project managers use a Web-based Best Practices Toolbox, developed specifically for demolition and reduction projects, to determine the best method for removing excess structures.

Implosion vs. Traditional Demolition

At Fort Myer, Va., FRP demolished a 12-story, 40-year-old housing complex using implosion rather than traditional demolition.

"It's rare to implode a building on an Army installation," said Morgan Ruther, a civil engineer formerly

partnership with the Army Corps of Engineers," said then Garrison Commander Col. Thomas A. Allmon. "The project is a true environmental success story for our Army and the open communication with our partners is the key to that success."

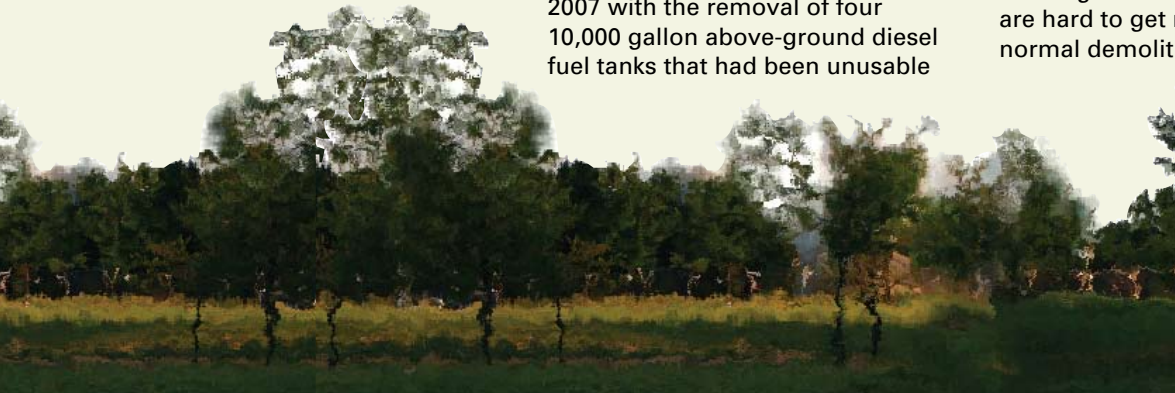
Imploding the building versus traditional demolition saved both time and money and is a much safer operation. The team diverted (reused or recycled) 91 percent of the building material from the landfill, which exceeds the 2004 Army regulation that requires 50 percent diversion of materials.

The project cost of \$1.6 million and saved the installation \$100,000 and a month's time over traditional demolition.

Public Sealed Bid Sale

A public sealed bid sale of unneeded structures held at Fort Huachuca, Ariz., resulted in the installation removing seven unneeded structures from its real property inventory at no cost to the installation.

"It worked out very well," said Paul Kays, the installation facilities and space utilization officer with Fort Huachuca's Directorate of Public Works. "I was very well pleased with the way everything went. All the major buildings we wanted to get rid of, we got rid of. The sale helped us meet our goals for reducing some of the old structures."



Fort Huachuca DPW worked with the Huntsville Center and the Corps of Engineers Los Angeles District on the sale.

Using a centrally-funded, locally executed process, the Huntsville Center provided the funds and the on-site engineer organized the sale.

"The original budget request to remove these facilities using conventional methods was \$156,000," said Michael Norton, the former FRP program manager. "It would cost us \$6 - \$7 per square foot to remove those buildings. FRP estimated the cost using conventional methods would be \$77,500. By selling the buildings through a public sealed bid sale, we removed the buildings at no cost to the installation."

The IMCOM sustainability policy requires that facility removal be accomplished in such a fashion as to reduce the negative impact on the environment. The Army Environmental Command requires that 50 percent by weight of all demolition debris be diverted from the landfill. By removing the installations from Fort Huachuca via relocation, the project resulted in 100 percent diversion of material.

Directed Demolition Services

Huntsville Center's newest building demolition program kicked off at the Military Ocean Terminal in Sunny Point, N.C., in December 2007 with the removal of four 10,000 gallon above-ground diesel fuel tanks that had been unusable

and taking up space for years.

The Directed Demolition Service program provides Army installations with an easy way to eliminate small excess structures.

"It's great to see the tanks finally go," said David von Kolnitz in MOTSU's Department of Public Works. "Working with DDS has been wonderful. All I had to do was send them the plans and take care of the necessary forms."

The old diesel fuel station was used in the past to refuel locomotives at this major port for the Army on the Atlantic Ocean.

Tightening of temporary explosive storage regulations made the location of the fuel tanks unacceptable and they became unusable. They

became giant concrete rectangles taking up space along the installation's main road.

That's where DDS came into play.

DDS is a centrally managed and centrally funded program that provides for the demolition of relatively small structures, like storage bunkers or observation towers, at continental U.S. Army installations.

Installations that need these structures removed can contact either Huntsville Center or IMCOM to get their projects into the program. The demolitions are funded by IMCOM, so costs to the installation are minimal.

"DDS gets rid of the things that are hard to get rid of through normal demolition channels

because they might not have building numbers or square footage associated with them," said DDS program manager Amber Martin of Huntsville Center. "It's harder to get funding for these kinds of projects.

With DDS we can fund these. We can come out and get them done quickly and cost effectively and help installations get rid of their unneeded structures."

DDS simplifies the demolition process by cutting overhead and administrative costs associated by using already set up demolition contracts with certain small businesses that can mobilize for projects throughout the country. Crew day prices are already fixed into the contracts and specialized equipment costs are added on a case-by-case basis.

"The MOTSU demolition was a success and we learned a lot of lessons here that we'll be taking into account as DDS continues," Martin said. "All in all, we completed the



job pretty quickly and at a much lower cost than if it had been done without DDS.”

Martin estimated the MOTSU demolition cost about 30 percent less than it would have cost without using the DDS program. The work took about half a day longer than originally planned.

She also said 100 percent of the waste from the project was recycled, including more than 404 tons of concrete that was surrounding the fuel tanks and more than 25 tons of steel from the tanks and associated piping. Even the chain link fence that was around the station was saved for use elsewhere on the installation.

The MOTSU project was the first of many DDS projects already planned throughout the country. DDS is geared only for Army installations now, but could include future projects for other services.

Best Practices Toolbox

The easy-to-use Best Practices Toolbox, located on the Web at <https://frptoolbox.erdc.usace.army.mil/frptoolbox/index.cfm>, has three features that walk Directorate of Public Works planners, project and program managers at IMCOM and the Assistant Chief of Staff for Installation Management or Corps of Engineers districts through a demolition or removal project.

The major tools are the quick estimate, the advanced estimate and the library.

The quick estimate is used as a single facility estimator. “The toolbox allows users the option to input the specific installation and the tipping fees (landfill disposal) involved and drill down to a finite cost in the quick estimate,” said John Taylor, Frankie Friend & Associates, developers of the site. Specifying the project installation allows the calculator to adjust rates by location; thereby, giving the user a much more refined answer.

“I use the toolbox quite a bit,” said Martin. “Most recently I used it to review information on military construction Army funding. The DA Form 1391 is how the Army describes what they will construct.

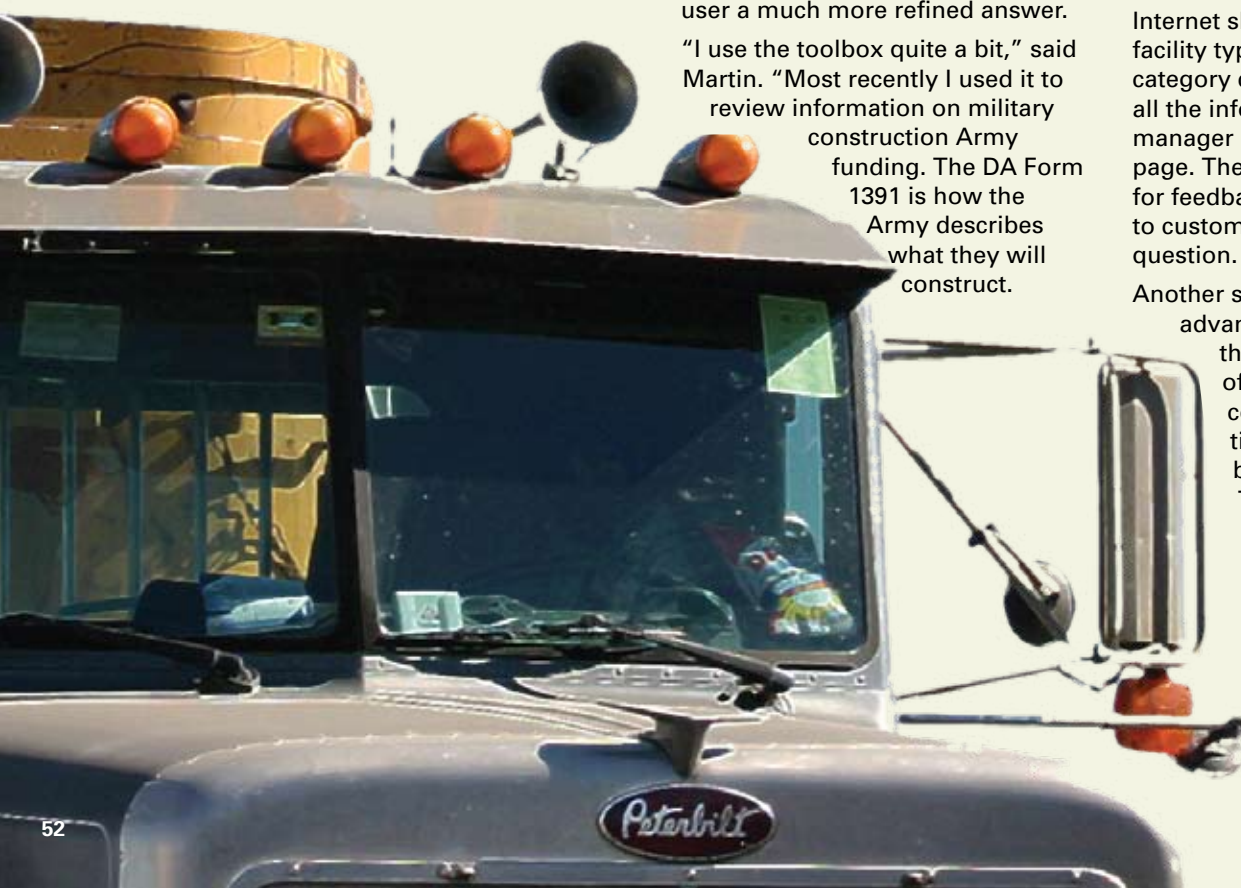
Within that, there is a policy requiring one-for-one demolition, which means that for every square foot they build, they have to take down the same amount of square feet. We are checking the information to make sure it meets that requirement as well as making sure there are enough dollars budgeted to remove what they listed.”


Martin takes the building numbers and gets the specific data on the building and runs that information through the FRP Toolbox to generate an estimate for what it should cost to take the building down. She then compares that to what is listed on the DA Form 1391.

“Using the toolbox makes this process a lot easier,” Martin said. “I work with details and I need the level of detail that the advanced feature of the toolbox provides.”

The advanced estimate feature allows a project manager to input information for multiple facilities. There is a shopping cart, like most Internet shopping sites. Multiple facility types, by common use or category code, can be added and all the information the project manager needs is on the same page. There is also a mechanism for feedback for people who need to customize an estimate or ask a question.

Another step was added to the advanced estimate feature that includes an estimate of the quantity, by type of construction and demolition debris, which should be diverted from a landfill. This lets project managers know if the project meets the new Army diversion policy. Grouping select facilities helps the planner best meet the project requirement for 50 percent diversion by weight from the landfill.





When all the information has been entered, the project manager has a final, printable report that is more organized. It includes assumptions and best practices based on user input.

The library is the third component of the toolbox to be improved. It includes a search engine so project managers can find exactly what they are looking for.

"The toolbox provides us a quicker and more uniform way to estimate demolition costs," Martin said. "The toolbox incorporates current industry standards and gives us a better cost estimate by using industry-based practices," Martin said. "The cost per square foot used to be \$30-\$40. The Army average for demolition is now around \$10 per square foot."

Facilities reduction is just one of many public works programs at Huntsville Center that supports installations worldwide. The program has saved more than \$9.6 million that was reinvested to remove more facilities. Project and technical managers stand ready to augment installation staff on these removal projects. The examples mentioned above illustrate the creative approaches taken by Huntsville Center managers to get the best practice at the best value for installations.

Other programs include utilities procurement and energy savings

contracting; physical and electronic security; utilities monitoring and fire protection systems; ranges and training land; facilities planning, operation, repair and renovation; and mobilization facilities. For more information on facilities reduction or any of the programs at Huntsville Center, please call 256-895-1694.

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Distinguished Military Graduate. He is a graduate of the Army's Engineer Officer Basic and Advance Courses, the Combined Armed Services Staff School, the Army Command and General Staff College, the Army Management Staff College, and the Army War College. He is a registered Professional Engineer with the states of Virginia and Texas, and is a fellow with the Society of American Military Engineers.

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Lean Six Sigma: Transforming the Culture of the Installation Management Command

By Rosye B. Cloud and Heather Miller

What is Lean Six Sigma?

The Army is in the midst of a major business transformation. The efforts of this transformation focus on optimizing limited resources while also maximizing the return on investments (ROI), reducing waste and improving the customer experience. While other data-collection and cost-saving tools are used in conjunction, LSS is the Armywide primary business transformation tool.

Lean Six Sigma (LSS). By now, everyone has at least heard of it, if not participated in it in some way. The Installation Management Command (IMCOM) has, in short order, moved out in the implementation of an industry-proven continuous improvement methodology. Integrating LSS into our culture by using its tools in our everyday work will ensure that we remain relevant and in a position of effectively anticipating customer demands.

Limited resources and mission tempo require an ever increasing need for organizational and execution agility. The need for efficient business processes has a direct impact to the direct delivery of services to our Soldiers, Army civilians and Families. As part of the Army's Business Transformation effort, our goal is to continue to be a more customer-centric command. While the potential benefits and capabilities of LSS are clear, adapting to changes in our standard operating procedures and processes can be difficult. But resistance to change – in any environment – is to be expected. In fact, it's normal.

It is critical to take into account the "human side" of change management. For LSS to succeed, employees at all levels must see it as needed. To help encourage acceptance and ensure an easier transition to applying new processes, it is important to involve team members in the planning and

execution of a change (so that they can develop shared ownership and commitment) and to provide them the tools they will need to implement the desired changes. Creating an environment for change goes a long way toward successfully implementing it.

With a conscious decision to posture the organization for success, the IMCOM LSS deployment model has been developed and revised to stay abreast of our emerging trends. With such a rapid emergence comes resistance and fear of change. Resistance is an important phase that must be overcome if we are to achieve full adoption.

The Challenges of Cultural Change

LSS is an industry-proven, customer-driven, and statistically measurable method of creating efficiencies. By streamlining business processes, the Army stays ready and relevant to meet America's defense challenges. LSS helps installations make the best use of their resources and provides IMCOM with new tools and support to provide more consistent quality of service, as well as more cost-effective services – all while better aligning with our command mission to improve life on Army installations for Soldiers, Families and Army civilians.

However, regardless of the many capabilities of LSS, without overall cultural acceptance, buy-in, and integration at every level within the enterprise, IMCOM will not reap

the many benefits of the program. In his book, "Making Six Sigma Last: Managing the Balance Between Cultural and Technical Change," George Eckes argues that the cultural component of (Lean) Six Sigma is the most critical success factor and the most often overlooked. He explains, through his formula for success, just how essential cultural acceptance is. His formula: $Q \times A = E$, or Quality times Acceptance equals the Extent of success and Six Sigma achievement. He recommends reviewing – or creating if one does not exist – the organization's implementation plan to determine if activities and projects fall under the Q or A category. If there is a significant imbalance toward Q, revise the plan to have a greater A balance. Without considering the cultural aspect of acceptance, a Six Sigma implementation will not see the same level of success.

Eckes, a psychologist, notes that by nature humans have a biological resistance to change. For example, even organ transplants – that would result in positive outcomes by replacing diseased organs with healthy ones – are often rejected without sufficient suppression medication. He also cites some of his own studies and findings, explaining that most of us are programmed to associate change with loss or subtractions, so it's no surprise that there is often an initial resistance to implementing LSS processes.

The methodology of LSS is fairly simple. It combines key tools and techniques from two business philosophies: Lean and Six Sigma. Lean focuses on increasing efficiency and eliminating waste. Six Sigma addresses business process improvements, improving quality, and eliminating defects/errors. Combined, LSS evaluates processes to find ways to work more efficiently and with less error, using statistics to minimize the difference between what customers need and the product or service delivered.

Eckes categorizes the various types of resistance and offers insight into underlying issues and possible root causes. Some of these include: fear; change often times make people feel inadequate or stupid; threat to the status quo (i.e., loss of power, prestige, independence, etc.); and poor timing (stressful or extremely busy situations).

In the article “Making Six Sigma Last,” William Parr suggests that all too often, the point of failure in Six Sigma projects is not the lack of adequate statistical methodologies or even failure to create suitable project timelines, but is, instead, the team leader’s failure to manage internal stakeholder opposition. He argues that this “non-technical” aspect of Six Sigma – or the “soft side of change management” – is frequently overlooked and can have detrimental impacts. Parr notes that typical Six Sigma training programs often cover the subject of resistance management, but suggests that perhaps there is not enough focus on (or actual coaching in) this area. Eckes echoes Parr’s sentiments, claiming that the cultural component, or Six Sigma acceptance, is often the most ignored element in implementations, despite the fact that this component can potentially drive quicker and more dramatic performance improvements.

Managing and Overcoming Resistance

In the article, “Basic Strategies for Avoiding and Overcoming Resistance,” Mike George Jr. notes the

seriousness of resistance to LSS, explaining that resistance can slow or derail the initiative altogether, thereby potentially influencing millions of dollars in savings or profits for an organization. Typically, when employees put up strong resistance or reluctance, they have legitimate concerns. Fortunately, there are ways to turn resisters into advocates, or at least neutralize their concerns. Eckes argues that of those who are moderately or strongly resistant, 80 percent are changeable.

George offers the following four strategies for countering resistance:

- **Understand the resistance and the root cause:** The leader’s job is to determine the driving factors or perceptions behind resistance (i.e., this initiative is a fad or the “flavor of the month,” don’t have time/can’t free up resources, etc.).
- **Act and/or communicate to address the root cause:** Once leadership clearly understands the root causes behind the resistance, specific steps can be taken to address them.
- **Pay attention to the need to continue to act:** Even as some problems are solved, conflicts and misunderstandings will continue to arise, possibly leading to future resistance. Leadership should always keep its finger on the pulse of the organization.
- **Provide mechanisms to engage continually the broader population in the change:** Encourage engagement

by directly involving people in the initiative and by having converts share their experiences with peers.

George explains that unless leadership closely looks at the root causes of problems (and not just the emphasized complaint) and addresses them by developing targeted solutions to each, problems are likely to recur. In his article, he gives several examples of complaints and root causes, such as:

Complaint: This is just another “flavor of the month.”

Root Cause: Multiple past initiatives have been launched with much fanfare and little results or staying power.

Even when leadership does evaluate root causes, Eckes notes that management must recognize that the acceptance of Six Sigma requires repeated interventions. Cultural development is not a one-time event and should not be delegated. IMCOM leaders can show their dedication to LSS and incorporate LSS into their daily life by continuing to work on process improvements and the critical “why” questions.

Richard Bellanca, in his article “Managing Six Sigma Change Resistance,” also offers various approaches to overcoming and countering resistance. In order to avoid problems with employees simply ignoring the new processes, he suggests making it impossible to ignore by tying the initiative to personal training plans and per-



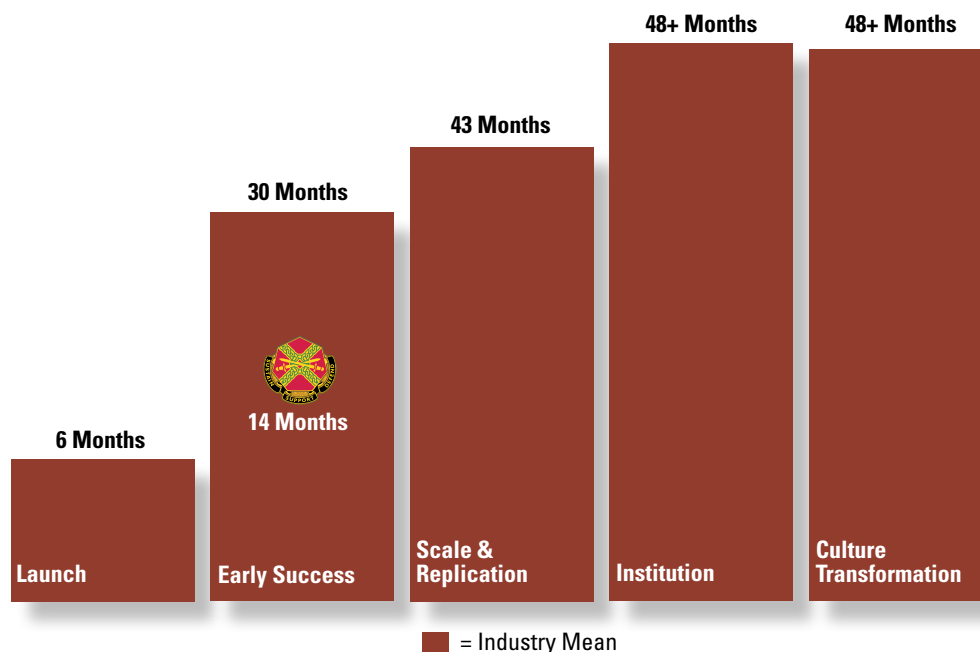


Figure 1. Survey respondents required an average of 30 months to reach the early success level, which is when initial projects are well underway and improvements are demonstrating significant financial and other impacts. IMCOM has reached early success in about 14 months, better than industry benchmarks, with the additional challenge of a geographically dispersed deployment.

formance reviews. Proper training and communications are also critical for ensuring people adapt to a new process. IMCOM has begun tackling resistance by adding accountability to all key roles in the LSS program by adding LSS objectives into the National Security Personnel System (NSPS) and tying performance in the LSS program to their annual reviews.

Bellanca also suggests using successes from other organizations to help validate the credibility and benefits of the initiative; providing a means for feedback and continuous improvements; and denying process change exceptions. Lastly, he argues the importance of ensuring employees that the change process is well planned.

Maturity Model: The Road to Business Transformation

Research has shown that organizations that adopt and implement LSS practices often tend to undergo similar experiences or program stages during deployment. A 2007 benchmarking survey was conducted at 105 organizations worldwide by Instantis, a firm that helps organizations incorporate Six Sigma into their business processes. They concluded that it takes an average of 48 months to achieve self-sufficiency and cultural transformation when deploying LSS. A Maturity Model was developed from survey results to help organizations benchmark their progress and better assess their strengths and performance gaps. The model defines five levels: Launch, Early Success, Scale and Replication, Institutionalization and Culture Transformation. All major

industries were represented in the survey including manufacturing, healthcare, financial, government, telecommunications, media, and business services.

As illustrated in Figure 1, survey respondents required an average of 30 months to reach the early success level, which is when initial projects are well underway and improvements are demonstrating significant financial and other impacts. IMCOM has reached early success in about 14 months, better than industry benchmarks, with the additional challenge of a geographically dispersed deployment. IMCOM achieved early success by focusing on training a large number of green belt candidates to communicate and execute projects, and choosing projects of lower complexity, thus allowing for LSS

	Startup	Early Success	Adoption	Institutionalization	Business Transformation
A. Culture Change					BT is Ingrained
B. Continuous Improvement				Encouraged	Empowered
C. Customers			Collect and Analyze Requirements	Validate Requirements	Consistently Meets Customer Requirements
D. Strategy		Disparate Strategy	Identify Imperatives & Align Strategy	Prepare BT Strategy	Execute BT Strategy
E. Reporting	Ad hoc	Lagging Measures	Predictive Measures	Integration of all Transformation Initiatives	Centralize Measurement System
F. Infrastructure	Develop Concepts of Operations & Policy	Establish Local Quality Councils	Establish Enterprise Quality Councils	Councils Promulgate Best Practices	Enterprise Council Governs Policy
G. Financial Benefits	Informal	Cost Avoidance	Cost Savings	Achieve Annual Financial Targets	Consistently Reduce Requirements
H. Project Selection	Ad hoc Projects	Introduce Prioritization Techniques	Strategic Alignment	Project Replication/Enterprise Projects	Standardization
I. Solutions Center	Establish Center & Deploy Resources	Build Capability/Close Projects	Develop Center Expertise in Gov't	Share Duties with Gov't Practitioners	Shift to Gov't Practitioners
J. Training	Initial Practitioners	Saturate Employee Base	Identify & Train Advance Practitioners	Begin Deliver of POI by Gov't Pract	Full Ownership & Delivery of LSS POI
K. Leadership	Mandated	Performance Defined	Performance Measured & Rated	Incentivize Performance	Incentives Unnecessary
L. Communication	Deployment Order, Initial Comms	Region Action Plans, Conference Comms	Celebrate Local Successes	Celebrate Enterprise Success	Industry Recognition
	Phase 1 3 – 9 Months	Phase 2 6 – 18 Months	Phase 3 12 – 36 Months	Phase 4 24 – 28 Months	Phase 5 36+ Months

Figure 2. The IMCOM LSS Maturity Model outlines five standard phases of deployment evolution and includes typical progression highlights for the various components within each level.

culture to quickly be instituted at all levels within the enterprise.

IMCOM has modified the Instantis model to reflect our own maturity model for the IMCOM LSS program. The IMCOM LSS Maturity Model (Figure 2) outlines five standard phases of deployment evolution and includes typical progression highlights for the various components within each level. The five maturity levels include: startup, early success, adoption, institutionalization and business transformation.

In the early success phase, some projects have been completed, generating results and financial benefits and therefore establishing credibility. Although many in the organization may still be skeptical, progress is occurring. Now that IMCOM has achieved early success, the next phase will be adop-

tion. This is the phase where the focus is on strategy and training more advanced practitioners. Institutionalization, the phase where processes have become more tailored to the organization's needs and buy-in and participation has substantially increased, typically occurs within two to four years, or more. The business transformation phase—when LSS processes becomes fully ingrained and starts to become the standard way of operating, and the culture truly begins to transform – can take up to three years (and has no duration limitation).

Similar to the timeline on the Instantis Six Sigma Maturity Model, Eckes notes that achieving cultural transformation for most organizations will typically take two to five years. Early successes, however, showing the benefits of Six Sigma can – and do – occur.

After only 14 months, LSS is already helping to transform the culture of our command on many different levels. IMCOM stood up a governance structure that includes leadership engagement at all levels and executive quality councils (EQC) to make program decisions at headquarters, the regions, and all of the garrisons. IMCOM deployed master black belts and black belts to all IMCOM regions to mentor green belts through project completion and coach program leaders from the field. IMCOM also developed a mass of quality leaders as green belts to take on improvement projects. As of October 2007, 436 green belts have been trained, which comprise about 30 percent of the Army's entire green belt population.



Project At-A-Glance

Title: Army Community Service Classes and Information Briefings

Location: USAG Fort Huachuca, Ariz.

Green Belt: Heidi Malarchik, plans specialist, Plans, Analysis and Integration Office

Project Sponsor: Jim Chambers, deputy to the garrison commander

Objective: Impact how the garrison addresses and delivers mandatory training

Key Learning: By measuring training effectiveness, delivering valuable information

IMCOM leaders are not the only ones being prepared with training and guidance. IMCOM employees, too, are embracing the program and learning about its abilities to transform the way IMCOM does business. In fiscal 2007, an LSS town hall briefing was presented at every garrison to provide a program overview. In addition, 30,000 people deepened their LSS knowledge with an interactive 2.5-hour awareness training course, the first of its kind within the Army. For those looking for even more information on the program, such as helpful tools and training registration, an AKO Web portal was created as a one-stop-shop for all program information, as is proven by the 3,000 weekly visitors it consistently receives.

Applying LSS to processes within installation operations means measuring process improvement opportunities, quantifying root causes of service failure, and applying tools to sustain long-term gains in speed, quality, and cost. LSS is more than just a way to improve process performance, however; it also empowers teams to improve the quality of service to Soldiers, Army civilians, and their Families.

The success story highlighted below is a transactional example of how LSS can help transform the culture at our Army garrisons – and how these successes are helping overcome initial resistance that

could impact the entire initiative moving forward.

Cultural Transformation in Action: Green Belt from Fort Huachuca Revised Army Community Services (ACS)

Green Belt Heidi Malarchik, plans specialist, and her team at U.S. Army Garrison (USAG) Fort Huachuca, Ariz., tackled the problem of optimizing their Army Community Service (ACS) programs, which ranged from financial services and relocation to mobilization, deployment classes, career development, family planning, and domestic violence prevention.

ACS helps to prepare mission-focused Soldiers. The problem: Many ACS classes were either cancelled because of lack of participation or had very low attendance rates. The average attendance for more than 50 percent of the classes was about five people. The cost per student was extremely high, and customer satisfaction with ACS' programs was low. Malarchik's team wanted to fix that.

By measuring training effectiveness, delivering valuable information through critical venues, and making time for Soldiers to attend training, ACS has become a more customer-driven department. Stronger messaging was used to publicize classes; training was adapted to leadership training requirements; statistics were generated to prove training value to Soldiers; and data from students was gathered and evaluated. ACS

has also generated more interest in their programs by offering mini briefings and online, self-paced training, which is exactly what the Soldiers and Families said they needed.

This project generated a cost avoidance of \$15,600. With the new process, ACS can more easily identify nonessential activities and redirect manpower and financial resources. Classes now are filled to more than 50 Soldiers, and the right services are being provided at a higher quality to the customers.

Financial benefits were not the only advantages of revitalizing the ACS processes, however. Reflecting on the project success, Malarchik detailed the other improvements that her team generated:

"We have changed from a reactive organization, where we serve those customers who come through the door or e-mail us for information, to a more proactive outreach program. We help manage risks associated with Family, deployment, relocation and financial stressors. It all comes down to improving the quality of life for Soldiers and their Families," she said.

Applying LSS methodologies was initially unfamiliar territory for many on the team. Team member Darrell Leigh described his first LSS experience by saying, "I was skeptical about the LSS process at first. It appeared to be one more bureaucratic attempt to fix something from the top down. By the

through critical venues, and making time for Soldiers to attend training, ACS could become a more customer-driven department.

Team Members: Shirley Pettaway, Gail Mortensen, Richard Sleeper, Lana Stutzman, Dana Owens, Evelyn Uncel, Debbie Pumphries, Darrell Leigh, Pam Allen, Rosa Driggers, Teresa Richardson, Christy Leavitt, and Azalee Henderson

end of the project, though, I was converted to a believer. Even in a long established system, it is possible to make intelligent changes.” He said that LSS helped the team identify “real issues so we could suggest effective changes.”

As noted in this success story, applying LSS methodologies to projects can, at first, seem overwhelming to those who are unfamiliar with the tools. Both projects included team members who were initially very skeptical of the LSS process. Both, however, in the end, saw the value of LSS and became firm advocates.

Management Support Office budget analyst Stacy Cribb, who worked on an IMCOM LSS project, commented on the transformation she saw on that team while applying LSS to the project and the openness to suggestions and changes to improve processes that resulted. The once naysayer turned supporter described the experience as rejuvenating, and she looks forward to working on another project.

Project sponsor Kathleen Curd, chief of IMCOM Plans, said, “This is exactly how we want to use LSS – to fix broken processes, improve customer satisfaction, lower costs, and increase employee morale.”

Conclusion

LSS is the new way of the Army – and the most effective means of helping IMCOM accomplish its mission. It engages and empow-

ers employees, at every level, to improve continuously process effectiveness and alignment to customer needs. LSS helps installations make the best use of their resources and provides IMCOM with new tools and support capability to provide more consistent quality of service as well as more cost-effective services for our Soldiers, Families, and Army civilians. By streamlining business processes, it also helps the Army stay ready and relevant to meet America’s defense challenges.

While sometimes overlooked by organizations, culture transformation can be the most critical component and determining factor for success for a Six Sigma deployment. Transforming the IMCOM culture and generating acceptance at every level is absolutely critical to the success of the LSS program and ultimately achieving the command’s mission. Lack of acceptance can delay or derail the initiative, resulting in great losses, both financially and otherwise.

Change, however, takes time and commitment. And, while some resistance to change is inevitable, there are ways to accelerate acceptance and overcome resistance through best practices. Employees must see the benefit of the solution or change and leadership must continually sell the idea and work on continuous improvements.

To date, IMCOM is too early in its deployment to have achieved full culture transformation, but early successes are paving the road for continued success.

Rosye B. Cloud is the Installation Management Command Lean Six Sigma deputy deployment director. She provides support to a globally dispersed deployment supporting 75,000 government employees and current black belt candidates. Ms. Cloud also is responsible for quality and continuous process improvement initiatives that yield both operational and financial benefits to the Army.

Heather Miller is a contracted employee in support of IMCOM. She is the change management and strategic communications lead for the Lean Six Sigma Solutions Center team.

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Employees Key to Lean Six Sigma Success at Fort Leavenworth

By Jennifer Stefano

While there is no doubt that both civilian and military leaders in the Department of Defense (DoD) are committed to Business Transformation, progress in achieving the kind of reform called for by DoD's most senior leaders has been discouragingly slow. In testimonies before U.S. Senate Subcommittees from 2004-2006, the U.S. Government Accountability Office (GAO) repeatedly addressed the issues impeding reform, and identified cultural resistance and inadequate incentives for change to be among the principal causes for this inertia.

Corporate business leaders echo the GAO's findings. Their message? Workforce buy-in and support are probably the most important elements of success for organizational improvement. An incredibly high percentage of the changes introduced in business organizations do not reach their full potential – that is, they're not fully implemented or do not produce the benefits envisioned by their sponsors. Changes usually don't fail because of technical reasons. They usually fail for human reasons: The promoters of the change did not attend to the healthy, real and predictable reactions of normal people to disturbance of their routines" (Excerpted from Brien Palmer, *"Making Change Work: Practical Tools for Overcoming Human Resistance to Change."* ASQ Quality Press, 2004, pages xv-xvi, 7-9).

The Malcom Baldrige National Quality Award Criteria and the Army Performance Improvement Criteria (APIC) accordingly, highlight the significant linkage between Category 5, "Human Resource Management," Category 6, "Process Management," and Category 7, "Results," calling it the "Results Triad." The concept behind this triad is that our people and our business processes are interdependent and effective management of this relationship

is absolutely essential to realizing high performance in any organization.

So how then will the Army, the Installation Management Command (IMCOM) and its garrisons meet the challenge of obtaining workforce support and involvement to promote the success and sustainability of Lean Six Sigma (LSS) into the future?

Augmenting IMCOM's deployment strategy of mandatory awareness training, as well as centrally-funded black belt, green belt, project sponsor and resource management training, Fort Leavenworth, Kan., is aggressively breaking down cultural and bureaucratic barriers to promote, incentivize and institutionalize involvement in its LSS program throughout all levels of the organization.

"We cannot solve our problems with the same level of thinking that created them." (Albert Einstein)

Certainly, Einstein's words were not in reference to Lean Six Sigma implementation, but the idea behind them could be very relevant. The key to success in the assimilation of any new program "depends increasingly on the diverse backgrounds knowledge, skills, creativity and motivation of all its employees" (APIC 2006). It is the staff on the front line of customer service that must be targeted. They understand their jobs, their customers' requirements, and their challenges in delivering our products and services better than anyone else, and this reservoir of experience is unquestionably the garrison's most fruitful source for potential LSS projects. The key then to tapping this resource lies in our ability to mitigate workforce resistance, actively welcome employee input and nurture a willingness to share opinions and participate in organizational improvement.

Easier said than done though because accomplishing this objective requires culture change – change that not only espouses continuous improvement and waste elimination, but that cultivates trust and rewards empowerment, creative thinking and risk-taking.

"Start with good people, lay out the rules, communicate with your employees, motivate them and reward them. If you do all those things effectively, you can't miss." (Lee Iacocca)

The concept originated during one of the commander's "All Hands" meetings – his quarterly opportunity to pass on relevant information to the staff and to address questions or concerns regarding garrison business. After a brief discussion on the importance of mandatory LSS awareness training, an employee asked about the sharing of project ideas. Of greatest concern was who these ideas should be shared with and whether they must be routed through the chain of command. Recognizing that this touched on one of the key tenets of LSS – that the best project ideas come from those in the field, working the processes that are targeted for improvement – the commander tasked the Plans, Analysis and Integration Office (PAIO) with the development of a venue for the sharing of improvement suggestions. This venue came to be known as the garrison's "Lean Six Sigma Good Ideas Program."

Within a matter of a few weeks the program was up and running. With support from the Directorate of Information Management, the suggestion form was placed on the Intranet. Employees with Intranet access could complete the form on line and with one keystroke send it to a mailbox established specifically for this purpose. For those without Intranet access hard copies of the forms and promotional posters were set up in all common

areas. These submissions could be mailed in, sent through distribution or delivered in person. All options eliminate bureaucratic roadblocks that could preclude suggestions from consideration by providing a direct route from the suggestor to the PAIO where the program is managed. Forms ask that the suggestor identify the product, service or process in need of improvement, which office is responsible, what other offices are involved, what the benefits of improvement would be and contact information to enable feedback to the employee as to the status of their suggestion. This provides the minimum amount of information necessary to determine whether the idea is a viable candidate for either a gated or nongated project.

To ensure full deployment of the program, an exhaustive marketing campaign was launched. Over the course of several weeks, PAIO staff met and spoke in small groups with the entire garrison staff about the commander's vision for LSS and how their input was key to its achievement. The pitch was simple: "Have an idea that will save money, increase customer satisfaction or improve workforce efficiency? Your ideas are critical to improving garrison operations. Sharing is fast, easy, direct and you'll get an immediate receipt acknowledgement with a tracking number so you'll always be able to check on the status of your idea."

However, the message was not always well-received. Plans, Analysis and Integration staff discovered that there were some very pervasive concerns and even fears about the program among the workforce. Many felt that LSS improvements would lead to downsizing, for example. Others were of the opinion that it is just a "flavor of the day" program that will eventually wane in importance, making way for the next quality-

related initiative. So in addition to promoting the program, the Good Ideas campaign was instrumental in alleviating fears and clarifying any misconceptions that garrison employees had about the purpose and objectives of LSS.

Before the quarterly Executive Quality Council (EQC) meeting, the garrison commander as the LSS champion reviews all Good Ideas. Those meeting the basic criteria for a bona fide LSS project (cost saving/avoidance, revenue producing, intangible results that increase customer satisfaction or workforce efficiency) are approved for consideration by the EQC (along with any suggestions generated by primary staff or project sponsors outside of the Good Ideas channel). Idea proponents then brief their suggestions to the council. If approved, ideas are prioritized in accordance with IMCOM-established criteria and assigned a green belt for implementation.

Valuing employees means creating an environment that encourages risk taking and innovation and providing recognition that goes beyond the regular compensation system (APIC 2006)

So the garrison was now fully engaged in the implementation of its LSS program. With the chartering of the Executive Quality Council, the program infrastructure has been established. Lean Six Sigma awareness, green belt and project sponsor training were ongoing and the Good Ideas program had been launched. However, a systematic approach to recognizing LSS-related accomplishments would be critical to the continued success of the program and while Headquarters IMCOM underscores the importance of having such a system in place, guidance for local implementation was largely non-prescriptive. Accordingly, the garrison set out to develop its own approach to objectively and sys-

tematically rewarding and recognizing significant LSS contributions and accomplishments.

Since Good Ideas were already starting to roll in from across the organization, there was a degree of urgency to rapidly develop this system. A tiger team, consisting of seven members, representing a cross-section of garrison functions was established for this purpose. The team's chartered objectives were to:

- a. Develop an approach to incentivizing, rewarding and recognizing LSS accomplishments in the garrison that would, at a minimum, address types of rewards and recognition to be offered, identify criteria for each type of award, consider the applicable circumstances for all segments of the workforce and provide for both individual and team awards.
- b. Present the proposal for command review, approval and implementation.

Using mental imaging and brainstorming as its primary techniques to conceptualize and develop this new system, the team began its assignment. The first, most important step was to begin with the end in mind and determine what the proposed system, once implemented, should do. The team agreed that it should:

- 1) Provide incentives for a diverse workforce with diverse needs.
- 2) Incentivize and reward participation in general, cost savings and avoidance, both tangible and intangible results, and team participation.
- 3) Promote program integrity.

Then, with the understanding that the garrison staff is highly diverse, the team segmented the workforce using regulatory guidance, funding sources and the ways that different employee groups are motivated its primary criteria. While numer-



ous categories of employees were identified, those that were relevant, given the task at hand and the defining criteria, were military, civilian (differentiating between appropriated fund and nonappropriated fund employees), and those external to the garrison staff but with a vested interest in its operations, such as contractors and volunteers.

The third step was to identify existing rewards and recognition programs that could be used to reward and recognize LSS accomplishments and to determine

then identified and categorized as follows:

- Team awards for those participating on gated and non-gated project teams.
- “LSS Good Ideas” submissions.
- Individual awards for LSS ideas that result in significant outcomes (cost savings/cost avoidance, improved customer service, improved work systems).

The fifth step was to align rewards and recognition programs identified in step three with these types of accomplishments and develop

accomplishments in the installation newspaper, The Lamp.

Individuals submitting suggestions through the Good Ideas Program would be given:

- Commander’s Letter of Appreciation.
- “59 Minutes” Certificates for ideas meeting the basic criteria for bona fide LSS projects or “Just Do Its.”

Perhaps the most difficult task for the team was to reach consensus on rewards for project ideas resulting in significant cost saving, cost

Military	Civilian	External
Time Off (Pass)	Honorary	Honorary (Certificates)
Military Awards	Monetary (to include Time Off)	
Coins	Coins	
Public Recognition	Public Recognition	Public Recognition
Commercial Sponsorship	Commercial Sponsorship	

Figure 1.

which employee segments each program could support. This step would decide whether new types of awards would have to be developed.

With the simple matrix in Figure 1, the team decided that rewards programs already in use or available to the garrison would be adequate to support the incentivizing and recognition of LSS contributions.

The types of accomplishments and participation to be rewarded were

the award criteria. This would become the team’s proposal.

Those teams participating in the execution of a LSS project would receive:

- Commander’s Certificates of Achievement.
- Eight- to 24- hour Time Off Award or Pass (the EQC will determine the hours based on the time dedicated to the teams’ effort and the value of the project).
- An article highlighting the teams’

avoidance or revenue generation. Ultimately, it was agreed that the following scale (Figure 2) should be used to determine the type and extent of the reward:

There are several considerations and requirements that must be addressed with respect to this matrix in order to illustrate fully the logic and soundness of the approach. First, idea values must be validated by the Resource Management Office upon the project’s completion before an award will

Idea Value	Civilian	Soldier	Contractor/External
< \$2,500	Certificate of Achievement	Certificate of Achievement	Certificate of Appreciation
\$2,501 – \$7,500	Certificate of Achievement 8-Hour Time Off Award	Certificate of Achievement 1-Day Pass	Certificate of Appreciation
\$7,501 – \$9,999	10% of Validated Savings/ Avoidance	Army Achievement Medal	Certificate of Appreciation
>\$10,000	Driven by AR 5-17	Route Through ASP	Certificate of Appreciation

Figure 2.



Idea Value	Civilian	Soldier	Contractor/External
Substantial Value/ Extended Extent (Compare with <\$2,500)	Certificate of Achievement	Certificate of Achievement	Certificate of Appreciation
High Value/ Broad (Compare with \$2,501 – \$7,500)	Certificate of Achievement 8-Hour Time Off Award	Certificate of Achievement 1-Day Pass	Certificate of Appreciation
Exceptional Value/General Extent (Compare to \$7,501– \$9,999)	\$750 – \$1,000	Army Achievement Medal	Certificate of Appreciation
Exceptional Value/Extent (Compare with >\$10,000)	Driven by AR 5-17	Route Through ASP	Certificate of Appreciation

Figure 3.

be made. Further, in keeping with the provisions of Army Regulation 672-20 (Incentive Awards), all monetary awards more than \$5,000 must be independently audited and those more than \$10,000 must be approved by both the Office of Personnel Management and the Office of the Secretary of Defense.

While idea values of \$7,501-\$9,999 are eligible for an award representing 10 percent of the actual cost savings or cost avoidance, values exceeding this amount will be governed by the scale contained in AR 672-20 that also begins with a 10 percent return to the employee but is progressively reduced as cost benefits to the government increase.

And finally, in order to more equitably reward the military members of the workforce who are otherwise ineligible for monetary awards, their ideas with a value of \$10,000 or over would be routed through the Army Suggestion Program for payout.

With awards for tangible cost saving and avoidance developed, it was somewhat easier to build the plan for rewarding intangible idea values. Figure 3 approximates awards given for intangible savings by using the crosswalk and criteria contained in AR 670-2 .

It is important to note that in the development of this system, the team consulted and coordinated with the Civilian Personnel Advisory Center, Directorate of Morale Welfare and Recreation (Commercial Sponsorship) the Army Suggestion Program coordinator, the Internal Review, Audit and Compliance officer and the IMCOM-West LSS deputy deployment director.

Additionally, every effort was made to stay within the provisions established by local awards policy, as well as the following:

- AR 672-20, Incentive Awards
- AR 215-3, Non-Appropriated Funds Personnel Policy,
- AR 5-17, The Army Ideas for Excellence Program
- HQ DA Memo 5-17, Management of Army Ideas for Excellence Program
- AR 600-8-22, Military Awards
- HQ IMCOM Policy Memorandum #16, Military and Civilian Awards Policy

The final step was to determine whether the chartered objectives had been met. Reviewing its proposal, the team concluded that it provided appropriate incentives for program participation, was responsive to needs of diverse workforce, in alignment with existing regulations governing monetary and non-monetary awards, supportive of both individual and team involvement in LSS initiatives, and that it promotes objectivity and program integrity. Moreover, the proposal, once approved could be implemented immediately and without additional resources.

The proposal was promptly briefed to the senior leadership of the garrison and approved in its entirety by the commander. Shortly thereafter, the newly established LSS Rewards, Recognition and Incentives Program was shared for informational purposes with the West Region and Headquarters IMCOM proponents who asked the garrison to serve as a test site for potential commandwide implementation.

The real success story however is that during the first quarter of implementation alone, four projects have been approved by the commander and will be considered by the EQC for implementation. The initial round of LSS awards for Good Ideas contributions and team participation were given out during a recent "All Hands" and at the

time of the writing of this article, 15 days into the first quarter of the year, nine new Good Ideas have already been received.

While these are indeed preliminary results, Fort Leavenworth is certain that it has taken the first steps to successfully engaging its workforce in the design, development and ultimate success of its Lean Six Sigma program.

Continuous dialog with the staff on the purpose and direction of LSS has virtually eliminated any earlier fears or resistance that may have threatened the viability of this fledgling initiative. Involvement of all employees in contributing to organizational improvement through the Good Ideas Program is generating obvious support and buy-in, and the positive reinforcement that comes from rewarding and recognizing participation and significant achievements will serve to institutionalize LSS in the garrison, ensuring its sustained success well into the future.

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Fort Bragg uses Lean Six Sigma to Improve Customer Satisfaction, Reduce Costs

By Tom McCollum

Just before World War II, Fort Bragg, N.C., experienced a massive construction boom. In less than one year, the post grew by more than 62,000 Soldiers. More than 31,544 men were employed to construct the buildings and infrastructure needed to handle the new arrivals. Seven days a week, 24 hours a day, these men worked diligently to complete each phase on or ahead of schedule. For nine months, workers, interspersed crazily with Soldiers in training, pushed roads through pine forests, and erected buildings at a rate of one every 32 minutes.

Many of these buildings stood well past their expected five-year life span, their original purpose long forgotten as the needs of the post changed through the years. What was once a barracks became office space and later storage space.

One of these buildings though kept its original purpose. The post's Central Issuing Facility (CIF) stayed in the same location from 1941 until 2005. Located in the old warehouse district of Fort Bragg next to long abandoned rail heads, the cavernous, one-story structure held long counters where countless Soldiers came in picking up new equipment and returning old. Bins sat behind the counters holding a mixture of new and previously issued items waiting to be issued. As a Soldier came by pushing his shopping cart and holding onto his list of items to be received, he would receive his gear, have his list marked off and move along. At the end of the line, he would dump his gear out, inventory it and sign paperwork.

Through the years, the building began to show its age and out-live its usefulness. It was too small to hold the items being issued and the items waiting to be issued. Another warehouse, leased off post, was used for storage of additional stocks.

Customer satisfaction surveys showed Soldiers were not satisfied with the amount of time it took to issue and turn in equipment. Additionally they were concerned about the state of repair of the building.

Across the post, a new Womack Army Medical Center had opened leaving its old building empty. Rather than tear the old building down, Fort Bragg officials redesigned the building to house the new Soldier Support Center (SSC). The SSC was to be a one-stop processing center for newly arriving and departing Soldiers. An integral part of that processing would be a new CIF. This gave the post's logistical staff the chance to not only change locations but the way in which they did business.

Logisticians incorporated the Lean principles of eliminating nonvalue added steps and activities while providing the service that the customer needed and wanted. They went a step further and focused on reducing the variation from the remaining value-added steps and in making sure they were doing the right things right the first time without interruption, thus adding the Six Sigma process.

"We looked at this as an opportunity to improve processes because the CIF experience here was one of the most despised processes for both in-processing and out-processing of Soldiers on the installation," said Robert Franks, director of Logistics for Fort Bragg. "We wanted to improve our support to the Soldier and make it as painless as possible for them."

Fort Bragg's CIF administrators conducted time studies of both the issue and turn-in processes. Analysis of the time studies allowed the process to be mapped out in value stream maps, which are graphical pictures rich with data that tell how the process is working and help to identify constraints within the pro-

cess and the critical path to success.

These particular value streams clearly pointed out two things. First, there were too many stops in both processes which caused a lot of waiting in line for the Soldiers. Second, the abstract (or checkout station) was clearly the biggest bottleneck in the process.

Inventory was also a major source of waste because of the time it takes to count, maintain, move and store items. It was found that the on-hand balances were way in excess of requirements based on demand history.

Issue and Turn-in

To mitigate the wait time in the issue process, several innovations were implemented. Issues are now done on an appointment basis so the Soldiers' records are ready for them when they show up, thus eliminating the time waiting for the system to produce the issue paperwork.

"We were looking at making the CIF more like a clothing store than a World War II CIF," said Steve Wilkins, DOL's deputy for supply and services. "Clothing stores have sizing rooms. What this does is save time in the process because the Soldier knows when they get to the counter what size they need. This way they don't need to spend time trying clothes on, put it back, try on something else and put it back until they get the size right."

In order to find the most efficient process of operating the CIF, the DOL staff turned to its workers.

"We told the workers, 'This is what we want you to do. What's the best process to do it?' We let them figure it out," said Wilkins.

The CIF employees' suggestions allowed the DOL to consolidate the number of issue stations from four to two; the first being for sized



ISSUE

Time Saved

16.1 Minutes per Soldier
X 13,500 Soldiers per Year
= 217,350 Minutes or
3,622.5 Hours

items and the second for nonsized items. By consolidating the stations, it cut down on the amount of distance the employees had to travel and there by reduced the amount of time it took to provide the issue to the Soldiers. Excess movement is another source of waste.

At the nonsized station, all of the nonsized items, such as canteens, canteen cups, covers, etc., were vacuum packed in clear plastic packages that allowed the Soldier to verify at one time what he was receiving as he received it.

"The kitting was one of the processes the workers developed," said Wilkins. "They showed us the most efficient way to put that kit together. Every item in that kit goes in a certain place. They have it down where they know how many seconds it takes to create that kit. It takes 15 seconds to seal it but it took 55 seconds to issue each item individually."

"When a Soldier received a kit, he could look at the kit, see the items, and inventory it right there through the plastic," added Franks. "This eliminated the need for a dump out inventory after the entire issue process was completed before signing at the check out station."

Finally, the checkout process was streamlined by having the Soldiers sign and go as opposed to waiting on the installation support module system (ISM) to process their receipt. The receipts are still input into ISM but not at the expense of Soldier wait time.

Additionally, four checkout stations were added increasing the number of check out stations to six.

"We looked at the All-American Access Control Point (ACP) (Fort Bragg's largest ACP with 11 lanes), and thought if you have more check outs, the Soldier can look to see which one is available and move to that one," said Franks.

The turn-in process was also examined and many of the same wastes were found and minimized or eliminated in the same ways. Turn-in was consolidated from eight stations to three. The first station being check-in, the second being turn-in and the third being checkout.

All equipment is now turned in to a single attendant instead of the Soldiers being herded through a line of six stations. Serviceability and cleanliness are determined after the fact by designated personnel thereby eliminating that time from the process.

"We realized that many of the items that a Soldier was required to clean, had to go to the laundry anyway before it could be reissued," said Franks. "With the exception of the canteen cans and cups and things like that, sleeping bags and most clothing items that are going to be worn, are always sent to the laundry to be absolutely sure they are cleaned thoroughly. Rather than harass the Soldier, and make him clean it and bring it to us, what we decided was, if it was going to the laundry, as long as the Soldier cleans the sand out that would be good enough."

Additionally this reduced wait time by reducing the distance both the Soldier and the attendant have to travel.

A new feature of the turn-in process was the creation of a help desk.

"During turn-in, if you are missing five items or less, when you come back you can go to our help desk with the items or a statement of charges and be cleared," said Franks.

"This stops them from going back into the entire process again for just a few items."

The help desk also reduces the amount of time a Soldier needs to spend at CIF to direct exchange

items. Instead of going into the regular issue process, they can now go to a help desk.

"The Soldier now just goes to the Help Desk, and the Help Desk will go back and replace that item for them as opposed to having to wait in line with everyone else," said Wilkins, a 22-year veteran of the quartermaster corps. "It's just like an express checkout."

The check out process was not able to be changed because the Soldiers still need the Department of the Army Form 3645 to clear post but the wait time has still been reduced because the checkout terminals are not tied up in the issue process so the Soldiers get through faster.

Inventory

As previously mentioned, inventory levels were also analyzed and a stockage objective was established based on Defense Logistic Agency resupply times and the demand history. The overall average was 11.2 years of supply on-hand that resulted in waste. Not only does the equipment have to be counted and maintained, but storage became such an issue with the addition of the contingency items that additional warehouse space had to be procured. By reducing the stock down to a manageable level, the additional warehouse space was no longer being required. Those dollars could now be applied towards more value added activities.

Additional Improvements

A much improved waiting area with big-screen TVs also was created. The big-screens are used to show a briefing that explains how the process works.

Several controls were developed and implemented to ensure the improvements delivered the desired results. Process cycle time is continually measured to ensure improvement.

TURN-IN

Time Saved

9 Minutes per Soldier
X 13,500 Soldiers per Year
= 126,900 Minutes or
2,115 Hours

Work processes were rewritten to provide the employees with the "How." This allowed the worker to participate in the process. Worker morale at the CIF greatly improved.

"We allow all of the employees who do this work everyday to help improve it and give us ideas on how to set-up the processing line in order to make it the most efficient by removing the lag time," said Franks. "We let them develop how the line should be set up, what items should be first in the line. It was their idea to put the specialty items like cook whites or aviator uniforms, at station 1 so if someone needs just those items they can go to just the first station and then check out. If they don't need them, they can by-pass that station and go to the station they need."

Results

Initial testing results were extremely encouraging. Issue time was greatly reduced by eliminating the ISM and reinventory processes from the Soldiers processing time. The average wait time at checkout went from 19.5 minutes to less than a minute. The overall process time has been reduced from 27.9 minutes down to 11.8 minutes not counting in-processing that consists of checking in at the front counter and watching a seven-minute video that explains how the process works.

To put this improvement into perspective, multiply the time savings of 16.1 minutes per Soldier by the average number of Soldiers receiving an issue each year at Fort Bragg, about 13,500, and the time savings in just one year is 217,350 minutes or 3,622.5 hours.

More importantly to the Soldier being issued equipment, 100 percent received everything they were supposed to get.

Turn-in processing time was also greatly reduced by implementing the Lean processes to reduce cus-

tomers wait time. The current state measurements revealed that the average processing time for turn-in was 26 minutes but initial testing of the re-engineered process has reduced that average to 16.6 minutes. The 9.4 minutes multiplied by the same 13,500 issue average equals 126,900 minutes or 2,115 hours.

The inventory stockage objective has been established at 15 days of stock with two additional days of safety stock. This allows weekly replenishment for only what was issued. It has been determined that 70 percent of equipment turned-in is immediately returned to stock. This further reduces the replenishment requirement and therefore reduces the amount of time it takes to generate and process the requisitions. This also saves time by not having to deal with the massive inventory. Additionally, this saves money by minimizing the amount spent on Organizational Clothing and Individual Equipment.

Innovations such as the kitting of nonsized items have also reduced the inventory time.

"Kitting items together has reduced our inventory time," said Franks. "Because you know how many items are in a kit and how many kits are in a box and how many boxes are on a shelf. You no longer have to count the kit items individually."

One of the most important aspects that Lean Six Sigma has brought to the market place is the ability to measure the financial impact of implementation and deployment. Fort Bragg's CIF, the annual savings to the government is expected to be \$539,080 in addition to the \$38 million in inventory reduction. This was accomplished by reducing the staff by eight positions, which freed-up \$366,080. An additional \$173,000 was saved by eliminat-

ing the need for the off-post leased warehouse. This equates to a 20 percent savings in cost reductions, well beyond the acceptable 2 percent savings considered successful for Lean Six Sigma.

As for Fort Bragg Soldiers, comments received from them indicate that customer satisfaction is extremely high.

"This is so much better than before. This streamlined process was exceptional, from the reception to checkout," said Master Sergeant Rich Greene. "This is the way Soldiers should expect to be treated."

Lean Six Sigma has brought a host of valuable tools to the CIF, which has made a huge difference in the way it works. These two combined processes have provided the CIF with the fastest rate of improvement in customer satisfaction, cost, quality, process speed, and invested capital.

"It reduced our inventory and it gave us predictability for the number of customers we would have on a daily basis," said Franks. "It allowed us to be able to forecast the amount of inventory we needed to have on hand, and it reduced inventory process time. It was the right decision to transform our CIF. Everyone wins with this process."

Tom McCollum is the U.S. Army Garrison Fort Bragg, N.C., public affairs officer. McCollum retired from the U.S. Army after 22 years in infantry and Special Forces. He holds a Master of Arts in Journalism degree from Marshall University, Huntington, W.Va. McCollum has been U.S. Army Garrison Fort Bragg public affairs officer since 2004.

Balancing Endangered Birds with Training Soldiers at Fort Hood, Texas

By Gil Eckrich

When Warren Pulich, the author of "The Golden-cheeked Warbler," came to Fort Hood, Texas, on April 10, 1970, looking for a small, obscure songbird called the golden-cheeked warbler, he found the species in both Bell and Coryell counties. He persuaded the post's Commanding General Lieutenant General B.E. Powell that military operations were compatible with the interests of the birds and Powell set aside about 4,466 acres in the Owl Mountain area and about 2,600 acres of the Henson Mountain region to be left undisturbed (Pulich 1976).

This was significant in that this action was not required by law or regulation and preceded the Endangered Species Act by three years. However, this statement by U.S. Army Vice Chief of Staff General Jack Keane (July 9, 2002) before U.S. Senate Committee on Environment and Public Works reflected a growing concern of military leadership with the increasing training restrictions that stem from urban sprawl and the resultant increase in Army responsibility to manage and protect threatened and endangered species: "At Fort Hood, Texas, the biological opinion (initial 1993 Biological Opinion) issued under the Endangered Species Act for both the Golden Cheeked Warbler and the Black Capped Vireo, restricts training on over 66,000 acres (33 percent) of training

land. These restrictions include no digging, no tree or brush cutting, and no 'habitat destruction' throughout the year on the entire core and non-core area. From March through August, vehicle and dismounted maneuver is restricted to established trails, and halts in restricted areas are limited to two hours in designated endangered species 'core areas' (46,620 acres of the 66,000 acres are designated 'core areas')."

Almost identical concerns were echoed by the testimony of Major General R.L. Van Antwerp, assistant chief of staff for Installation Management, before the Subcommittee on Readiness and Management Support of the Committee on Armed Services of the Senate: First Session, 107th Congress. Van Antwerp testified that endangered species restrict training on over 74,000

acres (38 percent) of training land and that 55,000 acres of the 74,000 acres are designated "core areas." What had occurred that changed the U.S. Army's perspective on a small songbird from voluntary habitat protection, in the absence of any regulatory mandate, to one of genuine concern with being able to train properly Soldiers for combat?

The enactment of the Endangered Species Act of 1973 provides for designations and protection of invertebrates, wildlife, fish, and plant species that are in danger of becoming extinct and preserves the ecosystems on which such species depend; and recognizes that such species, "are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people."

All federal agencies must use authorities to carry out programs for the conservation of endangered and threatened species. Additionally, Army Regulation (AR) 200-3 requires each installation to have an Endangered Species Management Plan (ESMP).

Background

Fort Hood was established in 1942 at what is now North Fort Hood as a temporary tank destroyer training facility. In 1951 South Camp Hood was designated as Fort Hood, a permanent installation. The installation currently covers 214,778 acres (86,918 ha) in Bell and Coryell counties, including

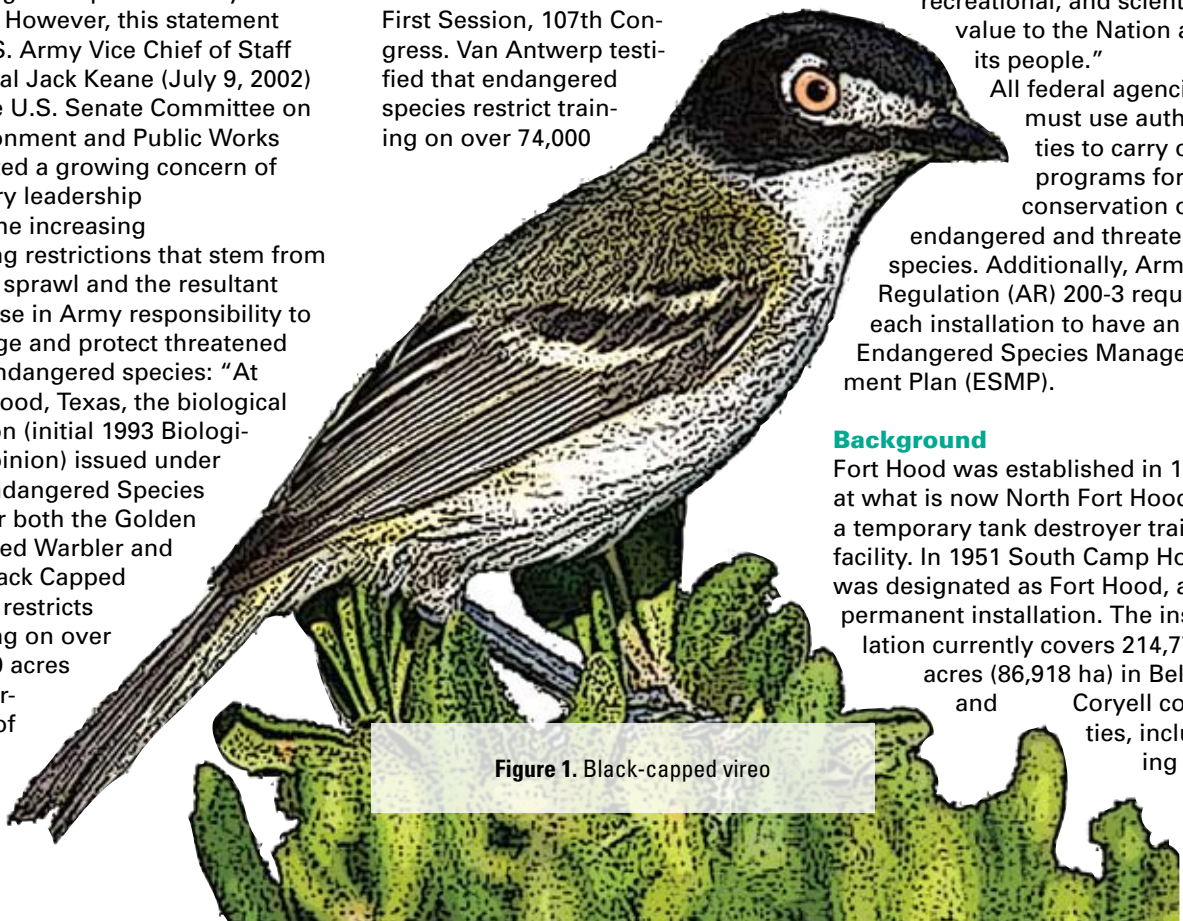


Figure 1. Black-capped vireo

197,603 acres of maneuver area, and 63,000 acres of live fire impact area. Fort Hood today trains, maintains and sustains a corps-level headquarters, two Army division level headquarters, a corps sustainment command, six brigade combat teams (BCTs), five other brigade-size formations and numerous other major organizations. With Army Transformation and Modularity, every major unit is being restructured. The III Corps Mission is, "When directed, deploy to a theater of operations, conduct military operations and redeploy. As the Nation's counteroffensive force, III Corps trains, mobilizes, deploy and sustains ready forces; on order, conducts decisive full-spectrum joint or combined operations."

The presence of federally listed endangered species on Fort Hood is a significant natural resource management challenge for the Army and Fort Hood. In accordance with the Endangered Species Act (ESA) of 1973, as amended, the Army must assist in recovery of all listed threatened and endangered (T&E) species and their habitats under the Army's land management authority (ESMP). Fort Hood has the largest breeding populations of two federally listed endangered songbirds, the golden-cheeked warbler (*Dendroica chrysoparia*) [hereafter, warbler] and the black-capped

vireo (*Vireo atricapilla*) [hereafter, vireo]; as well as whooping cranes (*Grus Americana*) that occasionally use the post as a migratory stopover site, as does the now delisted peregrine falcon. The recently delisted, but still protected by law, bald eagle uses the areas bordering Lake Belton as wintering habitat.

AR 200-3 requires installations to prepare an Endangered Species Management Plan for all listed and proposed T&E species. The installation ESMP should be used as a tool to achieve conservation objectives for populations of listed and

proposed T&E species and to minimize impacts on the training mission.

Despite military training activities on Fort Hood, the installation presents a much less hostile environment for endangered species than most of the surrounding landscape, which is dominated by ranching, intensive agriculture, and rapid urban development (Cornelius et al. 2007).

The vireo (Figure 1) is an 11.4-centimeter (4.5-inch) long, insect-eating songbird that arrives in Texas from mid-March to mid-April and returns to its wintering grounds on the Pacific slope of Mexico between August and October. Vireos typically inhabit shrub lands and open woodlands with a distinctive patchy structure. The shrub vegetation generally extends from the ground to about 1.8 meters (6 feet) above ground and covers about 30 percent to 60 percent of the total area. Threats to the vireo include habitat loss and degradation due to development, habitat succession, poor grazing practices, brown-headed cowbird (*Molothrus ater*) parasitism, and low reproductive success. Throughout the Hill Country, much of the vireo's habitat has been destroyed or degraded by residential and commercial development, grazing practices, and fire suppression (U.S. Fish and Wildlife Service (USFWS) 2005).

The U.S. Fish and Wildlife Service listed the vireo as an endangered species in 1987. Well before this date, a single black-capped vireo vocalization was reported in a 1979 baseline ecological report for Fort Hood.



Figure 2. Golden-cheeked warbler



John Cornelius, a biologist with the NRMB, subsequently observed two male vireos in 1985 at an approximately 40-acre site on the East Range and several again in 1986 (Tazik 1993). Tazik reports that as a result of extensive on-site survey work, 85 male vireos were observed in 1987. The vireo is very susceptible to brood parasitism by the brown-headed cowbird, meaning that the cowbird lays an egg in a vireo nest that hatches sooner than vireo eggs, and the young cowbird out competes the vireo young for food and space, thus dooming that clutch. The parasitism rates in the first two years of study were above 90 percent, indicating the vireo population on the installation was not increasing but heading towards local extirpation.

The warbler (Figure 2) is a medium-sized (13-centimeter length) warbler characterized by a distinctive black head, yellow face, and thin black eye-line, that breeds in the Ashe juniper-oak (*Juniperus ashei*-*Quercus* spp.) woodlands in central Texas. Only mature Ashe juniper trees have shredded bark, limiting the golden-cheeked warbler to forests with a high proportion of juniper trees that are older than 40 to 50 years. Warblers, however, rarely exist in stands of pure juniper, requiring hardwoods such as red oak that support the insect populations on which they forage

(Pulich 1976). The warbler arrives on its breeding grounds in early March and returns to wintering grounds in southern Mexico and Central America in late July. The primary threats to the warbler are habitat loss and urban encroachment. Other factors include the loss of deciduous oaks (used for foraging) to oak wilt, nest parasitism by brown-headed cowbirds, and predation and competition by blue jays (*Cyanocitta cristata*) and other urban-tolerant birds (USFWS 1992). The USFWS emergency listed the

acres of potential warbler habitat on the installation. The initial field study in 1991 detected 515 warbler territories (Hayden et al. 1991). The warbler is also susceptible to cowbird brood parasitism. Of the 33 nests observed by Pulich (1976), 58 percent were parasitized by brown-headed cowbirds.

Adaptive Management

Since the earliest field studies in 1987 Fort Hood has applied an adaptive management approach to its endangered species, in recognition that protection and management actions are often implemented with less than perfect knowledge. Recognition of this ambiguity allows for development of monitoring and research approaches to progressively improve knowledge, and thus enhance decision-making and management capabilities. Fort Hood has been able to draw on years of natural resource and endangered species inventory, monitoring, and research data since 1987. The products of its research and management programs are regarded by the environmental and scientific community as among the most comprehensive and credible sources of information available for the endan-

gered warbler and the vireo (Cornelius 2007).

Fort Hood began cowbird control in 1988, but by the end of the 1990 breeding season researchers found that the parasitism rate was still too high to even sustain the

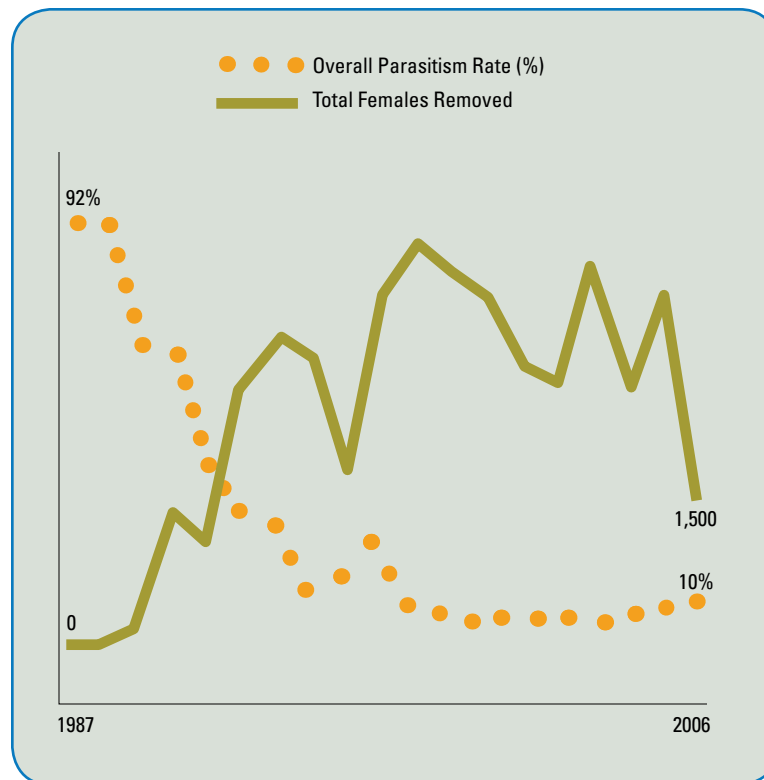


Figure 3. – Correlation of trapped female cowbirds and vireo parasitism rates from 1987-2006.

warbler as an endangered species on May 4, 1990, and published a final rule on Dec. 27, 1990 (USFWS 2005). Before initial studies of the warbler, beginning in March 1991, Landsat MSS data were integrated with a Geographic Information System (GIS) to identify 34,348

vireo population. That all changed in 1991 when we changed the cowbird trapping methodology by moving traps from shrubland to open pasture with short grass, where cowbirds tend to feed. The results were immediate, with more female cowbirds caught, and parasitism rates declining (Figure 3) to less than 10 percent for the past 10 years. Consequently the vireo and warbler populations increased and researchers increasingly found both birds in new areas and even in habitat that would have earlier been considered unsuitable. However, this progressive expansion of delineated ES habitat, while viewed with satisfaction by biologists, was seen by the military trainers as ever-expanding encroachment on training land. The three biological opinions, to date, issued by the USFWS reflect the approach of adaptive management to protecting the birds while actually reducing encroachment on training.

1993 Biological Opinion

The USFWS issued an initial “non-jeopardy” biological opinion (BO) in 1993 (USFWS 1993) that spelled out specific actions Fort Hood was to take under its terms and conditions. These actions did establish military training guidelines within designated endangered species habitat from March 1 to the end of August and directed a scope of scientific studies and fire management. The purpose of the training guidelines was to minimize habitat damage and harassment of BCVI and GCWA populations during the breeding season from land-based military training activities. Since 1993 the mandated scientific studies, as well as cowbird and fire management have been conducted by the Fort Hood Field Office of The Nature Conservancy under renewable five-year cooperative agreements, currently under the third such agreement. The amount of ES habitat known in 1993 was

considerably less than currently identified; thus, if the presently designated habitat were subject to training limitations, 77,469 acres of training lands would be affected, representing 37.85 percent of maneuver and live fire lands (Figure 4). As biologists identified new acreage each year during the 1990s as ES habitat, both military trainers and natural resource managers realized that more and more training lands were being subjected to training restrictions. This very real dilemma was unexpectedly addressed when three wildland fires, starting on Feb. 21, 1996, burned 9,921 acres of land.

2000 Biological Opinion Issued Following Wildfires

Because these wildfires exceeded the annual incidental take authorized in the 1993 BO, Fort Hood entered into consultation with USFWS to amend the 1993 BO Opinion for both the vireo and the warbler. About 5,715 acres of warbler habitat was eliminated, exceeding the authorized incidental take (109 acres) by a factor greater than 50; and the estimated 1,026 acres of burned vireo habitat was almost seven times the 148 acres of authorized incidental take (USFWS 2000). The new 2000 Biological Opinion designated “core” and “non-core” habitats. “Core” habitats being those areas on Fort Hood essential for population viability, and thus are intensively managed to promote the long-term survival and recovery of the species. Training restrictions in core habitats are conducted in accordance with the Fort Hood Endangered Species Training Guidelines, included in Appendix A of the Endangered Species Management Plan (ESMP) (Cornelius et al). “Non-core” habitats are those areas where training restrictions were lifted in exchange for the intensive management and protective efforts in core habitat (USFWS 2000).

According to the ESMP, of the estimated 53,117 acres of warbler habitat on Fort Hood, 36,767 acres were designated as core habitat, and of the total 13,144 acres estimated to be vireo habitat, 10,339 acres were designated as core habitat. Figure 4 shows that endangered species-related training restrictions were removed from the entire West Range maneuver corridor where the overwhelming preponderance of mechanized training takes place. The Fort Hood Training Map that is issued to all units does not reflect any ES habitat that has been designated as non-core. However, Figure 4 also shows that 21.5 percent of the installation, including large acreage within the Live Fire Area, was subject to core habitat restrictions. The staff of The Nature Conservancy’s Fort Hood Field Office initiated a five-year study to compare data between core and non-core study sites on abundance, nest success, productivity, and other aspects of both species’ demography.

In September 2004, upon completion of the fifth season of data collection, the Army sent a letter requesting consultation with the Arlington Field Office of USFWS. Consultation was initiated on October 25, 2004 (USFWS 2005).

Current 2005 Biological Opinion

The 2005 biological opinion proposed changes to the latest ESMP to better suit the Army’s mission and incorporate the most current information regarding the status and distribution of the BCVI and GCWA at Fort Hood and the effects of military and other activities on these species. Key changes are: modification of current fire management and protection policy within Live Fire Areas; and reduction of habitat area designated as “core” for BCVI and GCWA subject to Fort Hood Endangered Species Training Guidelines (USFWS 2005).



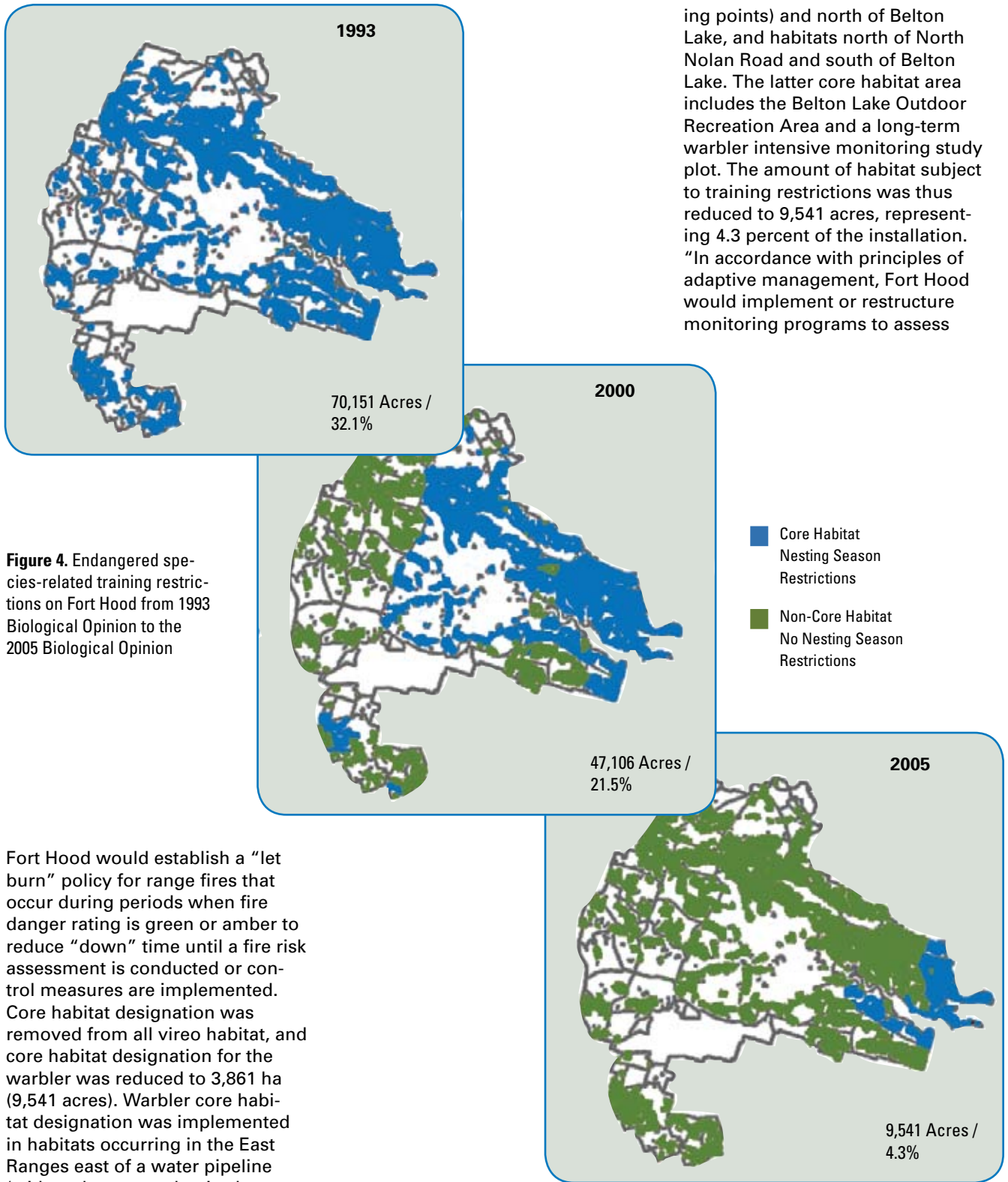


Figure 4. Endangered species-related training restrictions on Fort Hood from 1993 Biological Opinion to the 2005 Biological Opinion

ing points) and north of Belton Lake, and habitats north of North Nolan Road and south of Belton Lake. The latter core habitat area includes the Belton Lake Outdoor Recreation Area and a long-term warbler intensive monitoring study plot. The amount of habitat subject to training restrictions was thus reduced to 9,541 acres, representing 4.3 percent of the installation. "In accordance with principles of adaptive management, Fort Hood would implement or restructure monitoring programs to assess

Fort Hood would establish a "let burn" policy for range fires that occur during periods when fire danger rating is green or amber to reduce "down" time until a fire risk assessment is conducted or control measures are implemented. Core habitat designation was removed from all vireo habitat, and core habitat designation for the warbler was reduced to 3,861 ha (9,541 acres). Warbler core habitat designation was implemented in habitats occurring in the East Ranges east of a water pipeline (without heavy mechanized cross-

long-term effects, if any, of this action on endangered species populations and habitats on the installation" (USFWS 2005). Additionally, the time period for implementing Level 2 restrictions (Appendix A, ESMP) was reduced to March 1 through June 30.

Current Status of the Endangered Species

Although the 2007 Annual Report on endangered species monitoring and management issued by the Fort Hood office of The Nature Conservancy is still in draft, initial data show it is clear that both species continue to thrive on the installation. The 2006 Report states that based on distance sampling, an estimated 7,184 (95 percent confidence interval: 5,787–8,919) male black-capped vireos were present on Fort Hood outside of the live fire region. This estimate is slightly higher than that obtained in 2005 (6,319 males) but its 95 percent confidence interval (4,834–8,261) broadly overlaps the interval calculated for 2006 (Cimprich 2006). This is a remarkable increase from the 85 males reported in 1987.

The population trend for the warbler is similarly encouraging. "The overall results suggest that the abundance of the golden-cheeked warbler on Fort Hood has significantly increased from 1992–2006. In fact during 1992–2005 mean number of golden-cheeked warblers detected at each survey point doubled" (Peak 2006). The overall number of warblers on Fort Hood is estimated to be 5,400 singing males.

Summary

Fort Hood has successfully met the challenge of accomplishing military training objectives while meeting and exceeding conservation objectives for endangered species: to maintain sufficient habitat to support a minimum carrying capacity of 2,000 singing male

golden-cheeked warblers; and to maintain sufficient habitat to support a minimum carrying capacity of 1,000 singing male black-capped vireos. While meeting legal and regulatory requirements to assist in recovery of all listed threatened and endangered species and their habitats, the Army has simultaneously succeeded in minimizing the impact of these species on the most important mission – to train its Soldiers.

Acknowledgments

The Fort Hood endangered species program would not exist, nor be as successful, without the foresight, management skills, and leadership of John Cornelius, the Natural Resources Management Branch chief, who initiated and has guided the program from its inception. The program is renowned in the ornithological community because of the highest quality scientific data produced by the full-time professionals and many dedicated seasonal technicians of The Nature Conservancy's Fort Hood staff.

Gil Eckrich is a contract employee serving as Outreach Coordinator for Fort Hood's Natural Resources Management Branch. He began his tenure in February 1991, initially performing cowbird control functions. Before 1991, he served for 20 years in the U.S. Army. As outreach coordinator, he has made presentations on wildlife on Fort Hood to military and civilian groups throughout Texas and has collaborated on articles in peer-reviewed scientific journals.

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Artillery Battalion Scores High In Environmental Management System and Environmental Compliance

By Christine Luciano

An Environmental Management System (EMS) is a systematic approach to identify and manage significant impacts on the environment that can occur as a result of its activities. The EMS helps Soldiers and civilians identify environmental issues, what procedures are in place, and how to improve tasks related to the environment.

The Fort Hood, Texas, "performance beyond compliance" EMS is an effective economic, administrative and environmental tool that has been recognized through the Texas Commission on Environmental Quality's Clean Texas program. As the first Department of the Defense installation to be given the status as a Gold Clean Texas member, Fort Hood has set the standard for environmental performance for other military entities in Texas to follow.

Background

Fort Hood's successful EMS first started in 2003. As Fort Hood went through the process of implementing its EMS, the leadership took ownership of the EMS and signed Fort Hood's Environmental Policy in 2004. The policy communicates environmental performance commitments, creates a prioritized list of environmental goals, generates and disseminates EMS awareness training across the installation, produces an internal audit plan, and serves as an example to surrounding communities. At the end of 2005, Fort Hood's EMS was fully implemented. Fort Hood's EMS effectively ensures that every Soldier and civilian on the installation understands that they play a vital role in protecting and preserving the environment. At Fort Hood, the Directorate of Public Works Environmental Division and the commanders work together to communicate to everyone that the EMS will improve mission performance, enhance compliance and reduce costs.

Environmental Compliance Assessment Team Works Together with Commanders

Fort Hood's continued success in EMS comes down to the Soldiers who incorporate environmental compliance into their daily activities and the Environmental Compliance Assessment Team (ECAT) that provides Soldiers with knowledge and resources.

Fort Hood's ECAT helps Soldiers and civilians find solutions and achieve environmental success by ensuring their customers are informed of Fort Hood's environmental regulations and policies, and receive required training. Fort Hood's four-man team provides support and guidance to every unit on the installation. Each ECAT member works individually with command support to increase leadership involvement and environmental awareness. This ensures that today's and tomorrow's Soldiers have the resources to train.

ECAT is not simply dedicated to ensuring environmental compliance with federal, state and local laws, but is also the on-the-ground force that teaches, trains, and creates culture change within our community to surpass environmental regulations. The team is the main driver that has catapulted the installation the way to environmental excellence. The team looks upon every contact as an opportunity to teach, train, assist, and tell individuals, units, contractors, tenants and others the effects of their actions on the environment. With this positive communication, individuals get a better understanding of how they can help Fort Hood continue its mission for generations to come.

ECAT goes through steps to help the organization identify deficiencies, help correct them and then set procedures and policies in place to prevent further occurrences. ECAT combined the EMS and compliance audits into their formalized process and assessments. Semiannually, ECAT audits each organization's EMS

based on environmental significance. The organization is scored on a 0-100 percentile scale and on a status of red, amber or green.

The internal audits give Fort Hood the opportunity to educate, inform and provide innovative solutions to environmental aspects and impacts on the installation. These audits are communicated and any nonconformance or deficiency requires a reply by endorsement from senior leadership. The audit findings are routed through brigade, division and III Corps level. The garrison commander and III Corps chief of staff receive the audit results and conduct a management review. Objectives and targets are monitored and communicated back down the chain of command. This internal audit process has been instrumental in Fort Hood's continual improvement process. One of the organizations that have set high standards here at Fort Hood and has implemented an effective EMS is the 1-21 Field Artillery (FA) Battalion, 41st Fires Brigade.

Artillery Battalion Sets High Standards

When 1-21 FA first arrived to Fort Hood in 2005, the battalion did not have an environmental program in place. To get started, 1-21 FA contacted its ECAT member, TC Coffman. Coffman worked with 1-21 FA's Soldiers and commanders to integrate ECAT's checklist into the battalion's internal auditing system, incorporate environmental procedures into their daily activities, and keep leadership informed of the challenges specific to their unit and the installation.

"The basis of success in anything is leadership involvement," said Lieutenant Colonel Paul Hossenlopp, former commander for 1-21 FA. "An effective EMS will continue as long as there is leadership involvement and commitment from the battalion commander and battalion sergeant major down to the junior Soldiers new to the unit." In less than eight months, 1-21 FA went from no program to implementing an effective EMS, and scored 100 percent on its



first formal environmental assessment. "From the beginning, the leadership's intent was to perform to high standards not only in the environmental realm but also in every aspect of their operations," Coffman said.

The battalion's first step to success was establishing a training program to educate Soldiers and establish routine habits. Leadership used every opportunity to put out environmental information at monthly and quarterly training events and weekly at formation. When new Soldiers arrive each month, leadership and Soldiers are involved in educating them about their environmental procedures.

"Education is the number one thing," said Command Sergeant Major Kelvin Hughes, former command sergeant major of 1-21 FA and current brigade command sergeant major for 41st Fires Brigade. "If we, as the leaders, do not make Soldiers aware of how important EMS and environmental compliance is, then what are we here for? We, as the leaders, need to implement change in our organization." With an effective program in place, 1-21 FA instilled good environmental habits in every Soldier in its command.

Pride and Ownership

The battalion also identified different environmental sections in the motor pool and assigned batteries (companies) for specific areas such as the wash rack, recycle containers, dumpsters, petroleum, oils and lubricants shed, daily use pallets, and other areas around the motor pool. Ownership of an area gave the Soldiers a sense of pride in what they do. The leadership created a motivating environment for Soldiers by recognizing their efforts and making everyone involved as environmental stewards.

Commanders conducted weekly EMS inspections on each area to ensure the standards were maintained. Soldiers were present at the inspections to gain feedback from commanders on how well they did or how to improve. "It takes a combination of command emphasis and involvement, instilling ownership and pride, and providing resources to your Soldiers," said Hossenlopp, "and the next thing you know, you have an effective environmental program."

Key to Success Is Leadership Commitment and Involvement

Brigade Commander Colonel Richard Francey, 41st Fires Brigade, explained that the key component to a successful EMS is leadership, purpose, direction and motivation. "The leadership has to be involved in a cultural change within the organization, help Soldiers gain the education and embrace the environmental mindset," Francey said. "This is an investment on our environment which is going to pay dividends, so that we continue to have the resources and training lands over an enduring period."

Although some organizations are hesitant for ECAT to identify shortcomings, they do not realize the role ECAT plays in assisting in compliance and EMS implementation. "To be successful, I have to know my organization and how it can be the very best. The two don't come together if I can't see everything," Francey said. "If somebody from the Inspector General's office decided to look at something and they identified issues, should I be upset that they identified an area that can help my organization become better? If you look at ECAT as being the enemy, then you are accepting lower standards across your organization. ECAT is an important resource that will help you succeed."

Sustain the Mission, Secure the Future

Integration of EMS concepts and principles into an already successful compliance assessment procedure allowed Fort Hood to communicate the policy more effectively, ensure that every Soldier and civilian knows that they are expected to protect and preserve the environment, and understand that they play a vital role in reducing the waste on the Installation. Fort Hood's EMS allows us to integrate environmental stewardship into daily activities and incorporate the Army's strategy for the environment – "Sustain the Mission, Secure the Future."

In the past year, 1-21 FA has scored 100 percent on its last two formal assessments and has set high standards across the installation. 1-21 FA's leadership has taken a very proactive approach to implementing its EMS and stressing performance beyond compliance. The battalion is sharing its lessons learned and helping other organizations learn how to implement a successful EMS. The 41st Fires Brigade commander values the benefits of an effective EMS and is committed to bringing the overall brigade to same level as 1-21 FA. "Overall the key to success is leadership commitment, keeping everyone involved in the mission, and maintaining a working relationship with the Environmental Division," Coffman said. EMS enables Soldiers and civilians to recognize that they have an impact on the environment and that they are empowered to do something about it.

Christine Luciano is an environmental outreach coordinator with the Fort Hood, Texas, Directorate of Public Works, Environmental Division.

Partnerships for Success: IMCOM-Europe and USACHPPMEUR Health Promotion and Well-Being Councils

By Anna Courie, William P. Lennon and Colonel Tracy Williams



Introduction

The health and well-being of Soldiers and Family members has been designated an integral aspect of the Army's mission by Army Chief of Staff General George W. Casey Jr. The quality of life programs that are developed to support our Soldiers and Family members are fundamental to the mission of the Installation Management Command (IMCOM). Health and well-being include all aspects of mental, physical, spiritual and material wellness. The garrison plays a crucial role in ensuring that these aspects of quality of life are addressed as a part of the garrison strategic plan. We often consider

health to be solely the responsibility of medical personnel, when so many of the assets that influence the health and wellness of our Soldiers lie squarely in the hands of installation management.

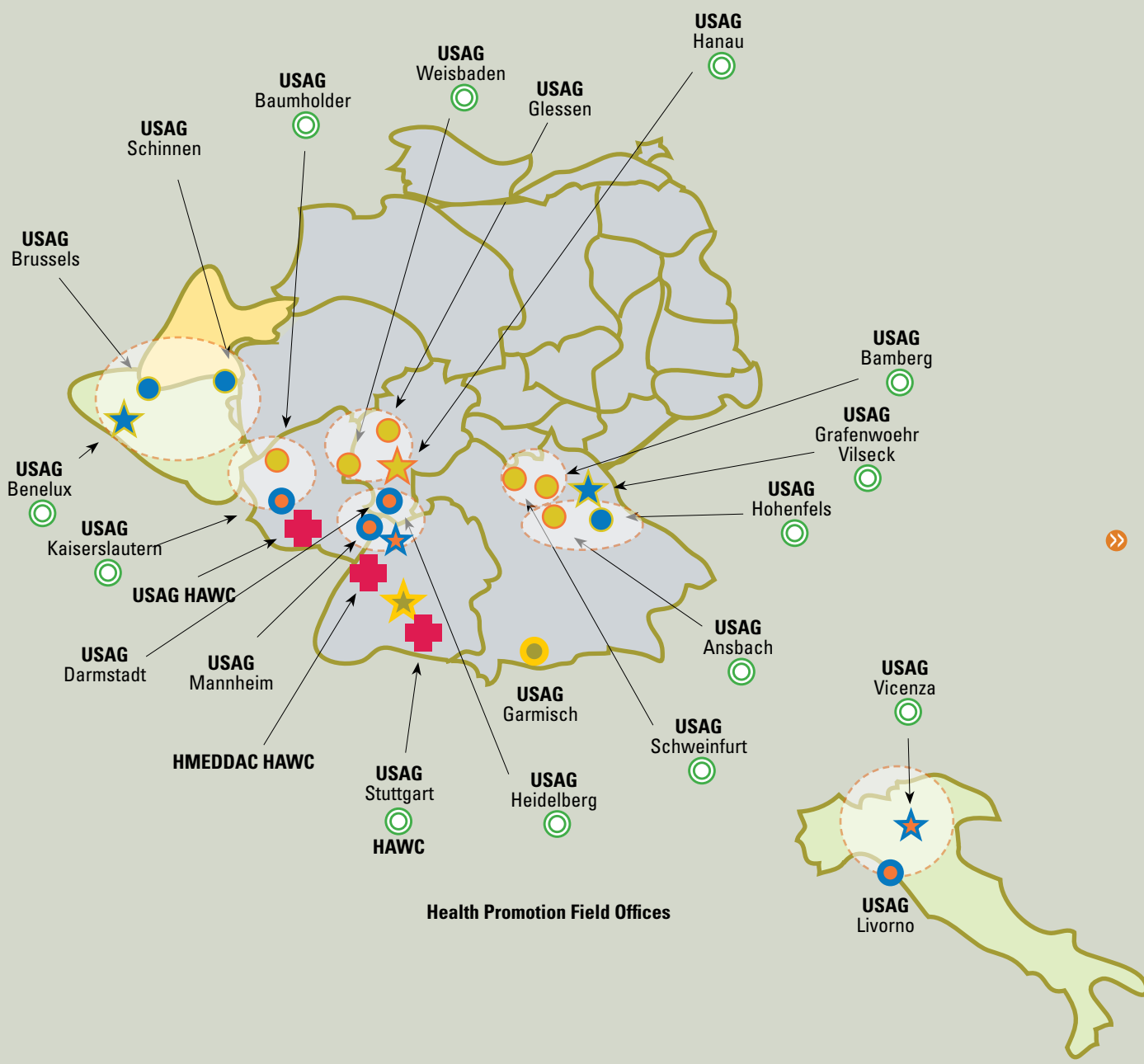
During this time of war, the health of our Soldiers and Family members is essential to the execution of the mission down range and for the success of our Army in the global war on terrorism (GWOT). In 1997, as a part of an Inspector General (IG) inspection of garrisons in Europe, the U.S. Army Center for Health Promotion and Preventive Medicine-Europe (USACHPPMEUR) was given the mission to bridge the gap between medical, tactical and garrison services to enhance the well-being of installa-

tions in Europe. By partnering with IMCOM-Europe, USACHPPMEUR took on the execution of Army Regulation (AR) 600-63 on the local level by the implementation and development of Community Health Promotion and Well-Being (HPWB) councils.

Now, every garrison in IMCOM-Europe has established Health Promotion and Well-Being (HPWB) councils that meet at least quarterly to work community issues that influence the health and well-being of the Total Army Family. Key programs that support the garrison health and well-being are highlighted, created and evaluated through the multidisciplinary



Health Promotion Council Priorities



- Current Office Location
- USAG HQ
- Wellness Center

Sept 97

Jan 98

Mar 98

Jun 98

Sept 98

Feb 99

Jul 99

1 HP Coords
0 HP Councils

2 HP Coords
0 HP Councils

3 HP Coords
1 HP Councils

5 HP Coords
4 HP Councils

8 HP Coords
6 HP Councils

9 HP Coords
13 HP Councils

11 HP Coords
21 HP Councils

A History of Health Promotion Development

USACHPPM Health Promotion Coordinator

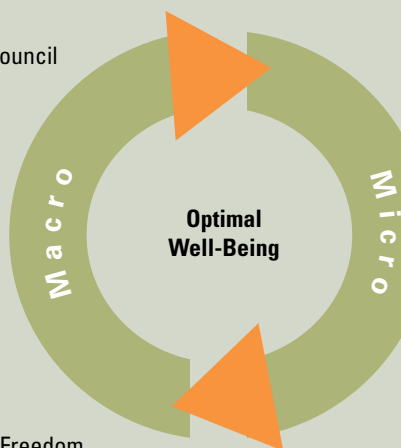
Macro

- Health Promotion Council
- Strategic Planning
- Process Action TEAM
- Combat Operational Stress Control Teams
- Civilian Fitness Program
- Suicide Prevention Task Force
- Operation Walk for Freedom
- Youth Weight Management
- Pregnancy and Postpartum Program

USACHPPM Wellness Center Director

Micro

- Wellness Center Programs (HBG, BBG, STG)
- Exercise Testing
- Medical Referral Network
- Hypertension Screenings
- Weight Management
- Stress Reduction
- Tobacco Cessation
- Soldier Readiness
- Sports Injury Prevention
- Community Events



Integrated Garrison Health Promotion
Think Populations... See Individuals

council with executive oversight by the garrison commander. Through utilization of data-driven tools, customer feedback assessments and multidisciplinary forums, the council ensures the needs of the community are met. To facilitate action-oriented processes, the council implements process action teams (PAT) or working groups to focus on the different needs identified for community wellness. Different working groups that have been implemented by HPWB councils include Combat & Operation Stress Control (COSC) teams; Suicide Prevention Task Force (SPTF); Fitness and Weight Management; Youth Wellness; Deployment Cycle Support; Strategic Planning and various others.

In accordance with AR 600-63, the HWPB council is chaired by the installation commander and is made up of assets from the garrison, medical and tactical communities. USACHPPMEUR funds the council coordinator who facilitates the multidisciplinary forum to assess the health and well-being needs of the garrison. The mission of the HPWB council is to identify gaps and overlaps in health and well-being services and ensure that programs are identified, modified or created to meet the needs of the community. Key processes to achievement include reduction of stove-piping, multidisciplinary program integration and partnerships to enhance success. This article will discuss the various programs identified as needs by the HPWB councils, which have been standardized throughout U.S. Army Europe (USAREUR).

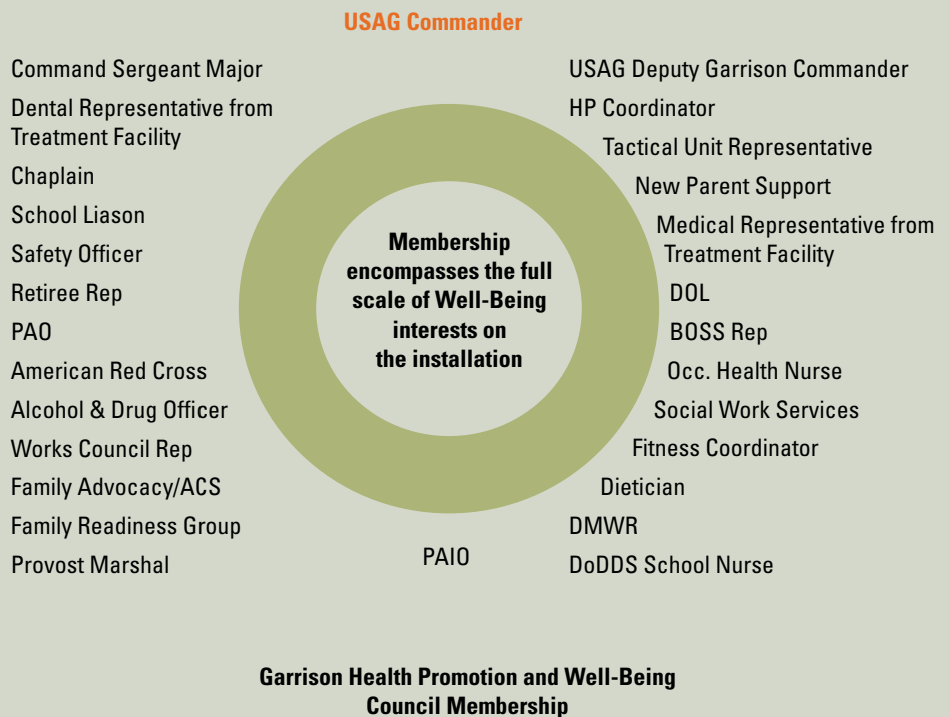
Combat & Operation Stress Control and Suicide Prevention

During the recent Department of Defense (DoD) and Department of the Army (DA) IG inspections of mental health programs in IMCOM, it was identified that there is an increased need for programs that

support the mental health of our Army. One such program that was created was the COSC teams that work with Soldiers and Family members throughout the deployment cycle to ensure that the mental health of our Total Army Family is addressed. The COSC team formation was directed by the garrison commander through the actions of the HPWB council. The genesis for the formation of the COSC team is outlined in "A Proposal to the U.S. Army Garrison Giessen Health Promotion and Wellness (HPWB) Council Stress Management Process Action Team (PAT) Establishing A Garrison-Based Combat & Operational Stress Control Team." COSC team members include area chaplains, social work services, Army Substance Abuse Program (ASAP), division mental health, Army Community Services (ACS), and, as required, medical treatment facility (MTF) health care resources.

During combat, it is well documented in the literature that stress behaviors begin to rise in both Soldiers and Family members. These behaviors include alcohol and drug problems, crime, coping issues, grief, increased suicide risk, anger, stress, marital problems and parenting problems. The goal of the COSC is to normalize the reactions from the combat situation and provide healthy alternatives to expressing or dealing with the stress derived from a combat environment. Symptoms related to combat stress are often most seen during the 90- to 180-day window following a deployment. As a result, it is essential to educate Soldiers and Family members during the pre- and post-deployment period, to prepare them for any adverse effects from combat stress.

Each licensed mental health provider on the COSC team is assigned a battalion by the team's coordinator to function as a single



point of contact for that battalion's leadership to access COSC services; Family member Critical Incident Stress Management (CISM) following a casualty; and Battlemind Post-deployment Combat-to-Home Transition Training to Soldiers. COSC team members are available to their assigned bat-

agree to conduct individual and group debriefings of Soldiers and Family Care team members and Post-deployment Combat-to-Home Transition Training upon request of battalion commanders. By assigning a qualified COSC team member to the battalion, the team member becomes a part of the battalion

accessing traditional mental health services. The COSC team will also report issues and progress to the garrison HPWB council, so that the installation commander is aware of potential combat stress problems of constituents in the community.



Developing a Comprehensive Intervention Plan

talions, Family Readiness Groups (FRG), and care team leadership during business hours and, for emergencies, after hours by cell phone. All COSC team members receive specialized training in CISM and Walter Reed Institute of Research Battlemind Training. Following training, team members

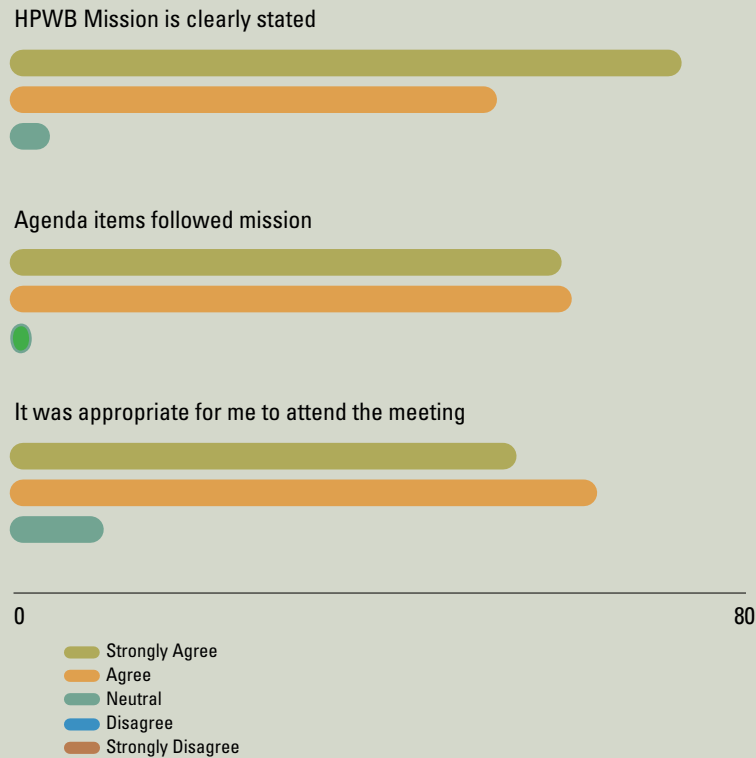
family and therefore a resource that the members of the battalion are more willing to confide in when supportive mental health services are needed, or to answer questions regarding combat stress and its symptoms. This personalized, friendly approach has increased service utilization by reducing the stigma often associated with

This allows the commander the opportunity to mobilize additional resources in the garrison to support the mental health of the units – hopefully before problems arise. The HPWB council has also established Suicide Prevention Task Forces (SPTF) that promotes awareness and training of suicide prevention activities throughout

the entire deployment cycle in support of the entire community. SPTFs are additional working groups to the HPWB council. The SPTF is also made up of behavioral and spiritual health providers from the community and is most often chaired by the installation chaplain.

new Soldiers from dependents of active-duty Soldiers. As a result, it is to the benefit of the Army to ensure that the youth beneficiary population is a healthy component of our Total Army Family. The HPWB council focuses on youth wellness initiatives in a designated Youth Wellness PAT.

Affairs Office (PAO), School Liaison Office (SLO), and Women, Infants and Children (WIC) Overseas. The Youth Weight Management Program is a community educational campaign to emphasize the need for children to watch less television each day, exercise for at least one hour each day and eat five or more



Health Promotion Council Survey
October 2005 – March 2007

Youth Wellness

The wellness of our military children is essential to the success of our Soldiers in the field. When Soldiers know their kids and Family are healthy, safe and taken care of, they are better able to focus on the demands of the job. Additionally, the Army recruits a large pool of

The Youth Weight Management Program is an initiative that influences policies to promote child and adolescent good health and fitness. The Youth Weight Management PAT includes partners from the Centers for Disease Control (CDC), USACHPPMEUR Medical Treatment Facility, Child and Youth Services (CYS), MWR youth sports, Public

servings of fresh fruits and vegetables daily. These programs provide information on height, weight, body mass index (BMI) and other fitness indicators.

Through partnerships with the schools, MWR, medical staff and other support organizations, youth wellness has been targeted



through multidisciplinary marketing and partnerships to execute health fairs, safety fairs, support groups and peer teaching groups.

Fitness and Weight Management

The Civilian Fitness Program (CFP) is part of the DA program that authorizes civilians a one-time opportunity in their career to exercise for three hours per week for six months while being paid. The Army recognizes that the health and wellness of its civilian employees is crucial to the mission. Through the HPWB council, the CFP is standardized throughout garrisons in IMCOM-Europe thereby ensuring that the program is structured properly to meet administrator and employee needs alike. Additionally, the CFP is designed to measure pre- and post-fitness indicators, including weight, BMI, flexibility, cardiovascular recovery, body fat, heart rate and blood pressure to show indicators of health improvement in the population for the command. Many installations use the metrics for CFP as a part of their Army Performance Improvement Criteria (APIC) package for targeting Human Resources support of the civilian workforce.

The Pregnancy Postpartum Physical Training (PPPT) program is an innovative physical fitness and health education program that provides commanders with a standardized and safe physical training (PT) program for pregnant and postpartum Soldiers. PPPT was created by USACHPPM to ensure that a safe and effective program was available for pregnant and postpartum Soldiers to maintain their level of fitness throughout pregnancy. The primary goals of the program are to increase Soldier retention through pass-rates for the Army Physical Fitness Test (APFT) and meeting AR 600-9 height and

weight standards, promote faster return to physical readiness and assist in transition back to unit PT, promote a healthier pregnancy, and reduce physical discomforts and stress during pregnancy. During times of deployment, rear detachment commands often rely on the garrison to provide programs that support the health and wellness of the Soldiers. By partnering with MWR, the PPPT program can provide a safe and effective exercise program that is designed to return female Soldiers to a fit and fighting form ready to deploy in support of their unit.

Deployment Cycle Support

Operation Walk for Freedom/Walk to Iraq is a civilian and Family member holistic fitness program that supports the spouse of a deployed Soldier through fitness, nutrition and social support in a healthy environment. Participants are challenged to walk a distance in miles equal to the distance to Iraq or Afghanistan during the year-long deployment of their Soldier. The program is administered through local FRGs, thereby enhancing the esprit de corps of the unit, spouses and Soldiers. The HPWB council facilitates the coordination of support organizations including MWR, ACS, MTFs and tactical units to provide a comprehensive program that supports the spouse in walking over the course of their Soldier's deployment to Iraq and back, or to Afghanistan. Reward programs are developed in conjunction with MWR events to ensure participants are recognized.

Arguably one of the most important products to be developed out of the HPWB council includes the development of the Community Resource Guide. First, in response to a lack of awareness of all the community resources available to commanders to support their troops during pre-deployment, deployment, redeployment and

re-integration, the Community Resource Guide was developed to coordinate all the services and issues that agencies are able to support. This allowed for better use of mental and behavioral health resources to support the complex issues surrounding combat stress. These guides were duplicated and provided to every leader and Soldier in the 1st Infantry Division (ID) and 1st Armored Division during reintegration as a part of the redeployment packet. Additionally, USAREUR posted the guides at <http://www.per.hqusareur.army.mil/postreintegration/> as a part of utilizing various methods to get this information to the public. This guide is essential for commanders, service members, supervisors and community members to identify resources available that can assist with a wide variety of topics, concerns and needs. Through vigorous marketing of existing resources and programs, the garrison is better able head off constituent complaints of "I didn't know it was there."

The key to the function of the working groups in the garrison is the HPWB council that brings all subject matter experts across all commands to the same table to discuss and prepare action plans that will best meet the needs of the Army Family. The TEAM (Together Everyone Achieves More) philosophy runs strong in the membership of the HPWB councils. Through these partnerships that are facilitated at the garrison level, many great programs have developed that affect cost savings, cost avoidance and mission readiness of our Army communities. Through these partnerships, tactical, medical and garrison assets ensure the health and well-being of the total Army community thereby enhancing the mission of the Army as a whole.

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William P. Lennon was formerly the clinical director of the Community Counseling Center at U.S. Army Garrison Giessen, Germany, Army Substance Abuse Program. He currently holds that position at USAG Benelux, Belgium, serving Soldiers, Sailors and Airmen stationed in the North Atlantic Treaty Organization communities of Belgium, the Netherlands, and Luxembourg. A graduate of Columbia University School of Social Work, Lennon spearheaded the formation of the first garrison-based Combat & Operational Stress Control Team, while at USAG Giessen with the assistance of the garrison's Health Promotion and Wellness Council. He served as the team's leader in sustaining Soldiers and the Family members through the 1st Armored Division, 1st Brigade's 2006-2007 deployment cycle in support of Operation Iraqi Freedom.

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The authors wish to acknowledge the assistance of Wendy Lakso. Lakso is the health promotion coordinator for U.S. Army garrisons Wiesbaden, Hessen and Baumholder in Germany. She has been instrumental in coordinating the efforts for the implementation of the Garrison Combat

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The New Army Civilian Education System

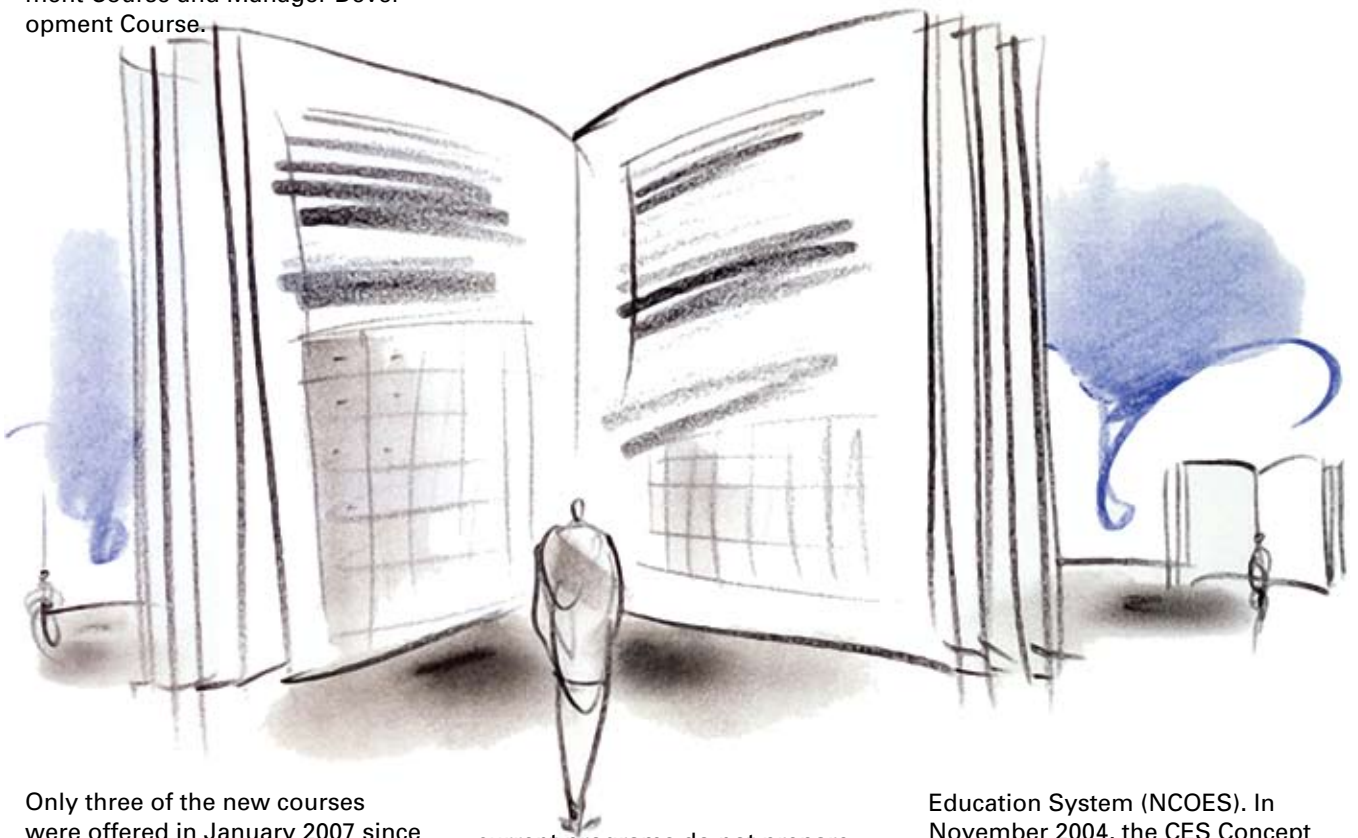
By Dr. Pamela L. Raymer

The U.S. Army officially launched the Civilian Education System (CES), a leader development program for the U.S. Army Civilian Corps that leads as the first of its kind in the Department of Defense.

CES consists of the Foundation, Basic, Intermediate and the Advanced courses supplemented by three existing online courses, the Supervisor Development Course, Action Officer Development Course and Manager Development Course.

aware of its shortfalls in developing Army civilian leaders, but for whatever reasons – resources, mission requirements, operational pace, other priorities, internal/external resistance, etc. – the Army has not made the changes recommended by previous studies. This history of marginal action and the many conclusions from these studies indicate that the Army has not been effective in developing Army civilian leaders and that the Army's

In 2004, the U.S. Army Training and Doctrine Command commanding general approved a leader development concept to design, develop, implement and sustain a CES program for Army civilians. This proposal was a result of direction from the chief of staff of the Army to plan, implement and sustain a system comparable to the Officer Education System (OES), Warrant Officer Education System (WOES), and the Noncommissioned Officer



Only three of the new courses were offered in January 2007 since the Foundation Course was still in development. It was officially opened worldwide on July 2, 2007.

Background information

The need for a Civilian Education System grew out of recommendations from the Army Training and Leader Development Panel (ATLDP) report published Feb. 23, 2003. The report stated, "There has been a lack of sustained momentum in growing Army civilian leaders. It is evident that the Army has been

current programs do not prepare Army civilians to become leaders."

The report added, "It is critical that the Army make civilian and leader development a higher priority than it is currently or face the prospect of the Army civilian being ill prepared to meet the challenges of tomorrow."

As a result of these and other findings, the Army's commitment to resourcing and providing a leader development program for civilians kicked into gear.

Education System (NCOES). In November 2004, the CES Concept Proposal for Leader Development detailed what is now the foundation, basic, intermediate and advanced courses.

In June 2005, the Army Management Staff College (AMSC) received the mission to design, develop and implement the new program. The courses were to be launched in fiscal 2008 but timelines were accelerated for execution in fiscal 2007.

Civilian Education System Matrix

	Foundation Course (FC)	Basic Course (BC)	Intermediate Course (IC)	Advanced Course (AC)
Method of delivery	Distributed Learning	DL and Resident	DL and Resident	DL and Resident
Eligible for resident phase	All Army civilian employees Military and other DoD employees	Army civilians in permanent appointments; Military supervision of civilians and other DoD employees	Army civilians in permanent appointments; Military supervision of civilians and other DoD employees	Army civilians in permanent appointments; Military supervision of civilians and other DoD employees Grade eligibility: GS13 - 15 or comparable NSPS pay band
Prerequisite for resident phase	FC required for Interns, Team Ldrs, and Supervisors employed	FC if required	FC if required BC or substitution	FC if required BC, IC or substitution for each Grade prerequisite: GS13 - 15 or comparable NSPS pay band
*Substitution for resident phase	Course: ILDC	Courses: LEAD, OBC/BOLC, WOAC, ANCOG or more advanced level	Courses: OLE, CCC, WOSC, FSC or more advanced level	Courses: AMSC/SBLM, CGSC/ILE, WOSSC, SMC or more advanced level
* Course Credit	Army civilians employed before Sept. 30, 2006 receive credit for FC	Credit for education/training received through working for private industry, another military department, federal agency, university study or credit for work experiences (inside or outside the Federal government or private industry) must be requested through TRADOC.		
Required Attendees for resident phase	Mandatory for all Army Interns, Team Leaders, Supervisors and Managers employed after Sept. 30, 2006	Required for Army civilians assigned as a team leader or in permanent appointment supv or mgr position and not received course/experience substitution Must complete course within 1 year of placement	Required for Army civilians in permanent appointment supv or mgr position and not received course/experience substitution Must complete course within 2 years of placement	Required for Army civilians in permanent appointment supv or mgr position and not received course/experience substitution Must complete course within 2 years of placement
Admission Priority 1 for resident phase	Available by DL	Army civilians assigned as a team leader or in permanent appointment supv or mgr position and not received course/experience substitution	Army civilians in permanent appointment supv or mgr position and not received course/experience substitution	Army civilians in permanent appointment supv or mgr position and not received course/experience substitution
Admission Priority 2 for resident phase	Available by DL	Army civilians in permanent appointment non-supervisory positions and not received course/experience substitution Army civilians & DoD employees in an Army endorsed supv or mgmt dev program and not received course/experience substitution	Army civilians in permanent appointment non-supervisory positions and not received course/experience substitution Army civilian & DoD employees in an Army endorsed supv or mgmt dev program and not received course/experience substitution	Army civilians in permanent appointment non-supervisory positions and not received course/experience substitution Army civilian & DoD employees in an Army endorsed supv or mgmt dev program and not received course/experience substitution
		Army civilians in permanent appointment supv or mgr positions who are recommended by their supvs and have completed legacy CLD/Mil LD five or more years prior to date of CES consideration		
Admission Priority 3 for resident phase	Available by DL	Active duty military supervisors who supervise Army civilians Term and temporary civilians who are responsible for leading or supervising civilian teams Army civilians in permanent appointment non-supervisory positions who are recommended by their supvs and have completed legacy CLD/Mil LD five or more years prior to date of CES consideration Other DoD employees		

*Employees who have completed Army Management Staff College (AMSC)/Sustaining Base Leadership and Management (SBLM), Command and General Staff College (CGSC)/Intermediate Level Education (ILE), Sergeant Majors Course (SMC), or Warrant Office Senior Staff Course (WOSSC) will receive credit for attending CES. Employees who have graduated from or are currently enrolled or participating in Senior Service College (SSC), Defense Leadership and Management Program (DLAMP) or the DoD Executive Leadership Development Program (DELDLP) are exempt from attending CES.



Army Management Staff College and Center for Army Leadership (CAL)

The Army Management Staff College was created in 1985 when the chief of staff of the Army approved the establishment of a learning institution to educate and prepare Army civilian and military leaders in sustaining base leadership and management operations. The college opened its doors at the Maritime Institute of Technology and Graduate Studies in Linthicum, Md., in 1987. Initially AMSC offered only one course (named after itself). Yet, before the establishment of AMSC, the Center for Army Leadership piloted leader development courses.

In 1986, the Intern Leader Development Course (ILDC), Leader Education and Development (LEAD) and Organizational Leadership for Executives (OLE) were piloted at Fort Leavenworth, Kan. A year later, the same year AMSC opened, the three courses ramped up to full status as Civilian Leadership Courses. In 1987, LEAD Train the Trainer (TTT) was introduced to meet the increased demand for LEAD.

In 1993, the course AMSC was changed to the Sustaining Base Leadership and Management Program when other courses were added to the college's curriculum.

Policy

Policy for this new Civilian Education System is codified in the Headquarters, Department of the Army G-3/5/7 Training Directorate Policy, dated November 2006. Leader development as defined in the policy is the deliberate, continuous, sequential and progressive process; grounded in Army values that develops civilians into competent and confident leaders capable of decisive action.

The Civilian Education System is nested within the Institutional and Leader Development domain described in this policy. Two other domains complete the Field Manual 7.0 Training the Force Army Training and Leader Development Model operational assignments and self-development.

The institutional training and educational domain epitomized by the Army's school system provides leader education (what to know); character (how to be) and training (how to do) needed to perform duty position requirements. The relationship of training and education to operational assignments is that training and education usually precede significant new levels of operational assignments. Self-development is a continuous process generally associated with life-long learning of developing one's self through a variety of learning activities such as participation in professional organizations, online courses and advanced schooling.

Development of CES

Legacy civilian courses were used as the basis for designing and developing the new CES courses. Leadership and Education Development became the starting point for development of the Basic Course while the Organizational Leadership for Executives served as the foundation for developing the Intermediate Course and the Sustaining Base Leadership and Management (SBLM) Course served as the basis for developing the Advanced Course. These legacy courses, LEAD, OLE and SBLM, along with the LEAD TTT were phased out in fiscal 2006. The Intern Leader Development Course, another legacy course was eliminated in December 2007. These courses were very popular with not only civilians but many military but were not mandatory and were not designed or developed to be progressive and sequential.

Course Design

With the exception of the Foundation Course, which is entirely online, all courses follow the Army Learning Model (ALM) of blending a distributed Learning (dL) phase with a resident phase. The Foundation Course has 57 hours of dL, the Basic Course has 27 hours of dL with a two-week resident phase, the Intermediate Course has 44 hours of dL with a three-week resident phase and the Advanced Course has 67 hours of dL with a four-week resident phase.

After enrollment, students have 90 days to complete the dL phase before attending the resident phase. During the pilot year in fiscal 2007, students enrolled through the AMSC Web site. On June 1, 2007, the Army expanded the Civilian Human Resource Training Application System (CHRTAS) to enroll students in CES courses.

All of the course dL phases can be completed for self-development regardless of eligibility for the resident phase. Students have 180 days to complete the dL work for self-development. Students completing the dL for self-development who become eligible to attend the course must review the dL work by retaking the dL exams prior to attendance at the resident phase if the dL work was completed more than 180 days prior.

Course Scope

Foundation Course. The Foundation Course (FC) is designed for civilians entering the Army with various levels of previous experience. The FC is required for interns, team leaders, supervisors and managers hired after Sept. 30, 2006.

The FC is designed both to provide an orientation to the Army and some of its systems and to begin the development of an effective Army team member. Students in this course will develop an understanding of the Army including

its composition, ranks, structure, customs, traditions and values and how it fits into the Department of Defense; the basics of Army leadership doctrine, leadership styles and Army ethical standards; group development theories, strategies for dealing with conflict and basics of communication including types of communication styles, and the skills of listening, feedback and basics of oral and written communication. From here the course goes to self-development skills from the complexity of career progression to maintaining competence and developing self-awareness in self management, learning and personal health. The course also provides basic information on a series of administrative requirements for Army personnel.

Basic Course. The Basic Course (BC), offered at Fort Leavenworth is designed for leaders who exercise direct leadership to effectively lead a team. Employees in supervisory and managerial positions must complete the dL and resident phase of BC within one year of assignment or the effective date of the policy (whichever is later). Eligible employees are Army civilian employees, who for 25 percent or more of their duties, lead teams of civilians; Army employees assigned as a supervisor or manager and have not received similar training; Army civilian employees

who are program managers; military supervisors of civilian employees and other DoD employees.

Courses that may be used as substitute credit are the Civilian LEAD Course, Officer's Basic Course (OBC), Basic Officer Leader's Course (BOLC) I and II, Warrant Officer's Advanced Course (WOAC) and Advanced Noncommissioned Officer's Course (ANCOC).

This course educates students on creating a positive team climate,

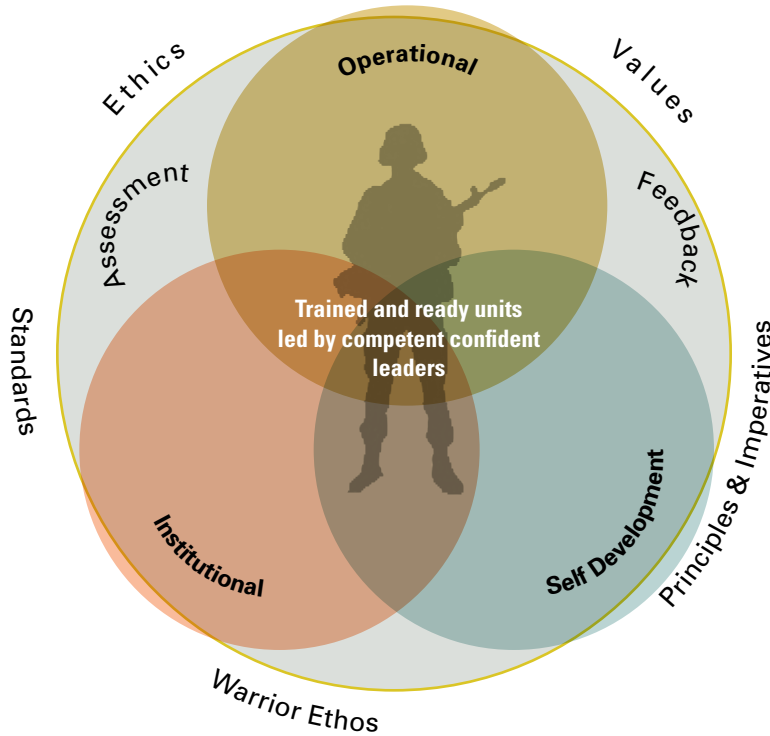
Intermediate Course. The Intermediate Course (IC), offered at both Fort Leavenworth and Fort Belvoir, Va., is designed for leaders who exercise direct and indirect supervision. Army civilian employees who are supervisors or managers, program managers, military supervisors of civilian employees and other DoD leaders are eligible. Employees in supervisor or managerial positions must complete this course no later than two years from placement or the effective date of the policy (November 2006).

Army courses identified as IC substitution are OLE, Captains Career Course (CCC), Warrant Officer's Senior Course (WOSC) and First Sergeant's Course (FSC).

Intermediate Course graduates will be able to apply an effective leadership style, apply an analytical process in solving problems, apply effective communication skills, develop a cohesive organization, develop an effective/efficient organization, manage subordinates and manage

organization financial resource system.

Advanced Course. The Advanced Course (AC), offered at Fort Belvoir, is for leaders who exercise predominately indirect supervision. Employees must complete this course within two years from their placement or the effective date of the policy. Eligible employees are Army civilian leaders in a permanent appointment to a supervisory or managerial position at GS-13



Army Culture (FM 7.0)

preparing self for leadership responsibility, developing subordinates and members of a small team, leading subordinates and small teams, leading by example, extending influence beyond the team, communicating with subordinates and small teams and generating results from subordinates and small teams.



and above or comparable pay band; deputies or program managers; military supervisors of civilian employees; and DoD supervisors.

Army courses identified as AC substitution are AMSC's Sustaining Base Leadership and Management (SBLM), Command and General Staff College (CGSC) Intermediate Level Education (ILE), Warrant Officer Senior Service College (WOSSC), Sergeant's Major Course (SMC) or a more advanced level.

Advanced Course graduates will be able to lead others in the execution of job responsibility and mission performance; expand influence through effective integration of leadership, knowledge and skills; devise programs for effective problem solving, critical thinking and conflict resolution; generate clear, concise and effective communications; create a positive and flexible environment; prepare self through the development of core competencies; assemble effective teams; provide direction that supports national and defense strategic priorities; establish and increase self-awareness; and synchronize organizational systems, resources and capabilities.

Online Courses. Additional courses that civilians may take are the Action Officer Development Course (AODC), Supervisor Development Course (SDC) and the Manager Development Course (MDC). AMSC was assigned proponentcy of these dL courses Jan. 17, 2007. The three courses are popular with military who often take them for promotion points. The AODC is designed for civilians who "work actions" on behalf of senior staff officers or commanders. The SDC provides supervisors and managers with civilian administration skills such as work management and basic supervision. The MDC assists supervisors and managers with basic skills for managing work and leading people.

General Eligibility Requirements

Subject to satisfaction of the prerequisites and eligibility requirements for the individual courses, Army civilian employees eligible for the CES courses include, but are not limited to the following:

- Appropriated fund
- Non-appropriated fund
- Working capital fund
- Civil works
- Federal wage system
- Local national employees
- Reserve (OMAR) and National Guard civilians
- Term and temporary employees

Funding

Most permanent Army civilians are centrally funded. Local national employees; military members; term and temporary employees; and non-Department of the Army employees, for example are funded through their own organizations.

Summary

We hope that every civilian employee in the Army will participate in this exciting new program. CES continues to evolve. AMSC piloted a new course in September, 2007 for senior civilian leaders – Continuing Education for Senior Leaders. This 40-hour dL and four-and-a half-day resident course targets GS-14 and above and equivalent pay bands. (The dL consists mainly of prework reading and writing). Without a sustainment course, civilian graduates of the Advanced Course might have few or no opportunities for continuing education in leader development through the remainder of their Army career. This course is an opportunity for senior civilians to get together to collaborate on issues affecting the Army Civilian Corps, receive updates on major army programs, hear from recently-returned commanders

from theater and participate in highly-interactive exercises on topics such as moral development/ethical dilemmas, dynamics of transition leadership to the senior level and strategic innovations.

CES is but one part of the triad of the leader development model but a huge step forward for the Army Civilian Corps. For more information on CES, visit the AMSC web site at <http://www.amsc.belvoir.army.mil>.

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Adapting New Standards For Today's Soldiers and Families

The needs of today's Soldiers fighting a persistent conflict require adapting standards and services to enable healing and recovery. Houses and barracks accessible to Soldiers recovering from injuries received on the battlefield are essential to retaining Soldiers. The need to accommodate Soldiers and Families with disabilities is integrated into today's housing designs, and shows the Army's commitment to America's Army.

Private First Class Jose Santiago-Gonzalez and wife Arelis, and sons Luis and Anthony live in Lincoln Housing on Fort Sam Houston, Texas. Santiago-Gonzalez is a wounded warrior still on active duty. He was injured by an improvised explosive device June 29, 2006, in Iraq. After discharge from Brooke Army Medical Center at Fort Sam Houston, he moved into housing that accommodates use of a walker or wheel chair while recovering. (Photo by Olivia J. Mendoza)



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