U.S. ARMY

Journal of Installation Management

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Rebirth of Army Hometowns

Army installations are changing. New hometowns for America's Soldiers are growing inside installations that redefine military life for a transformed Army. Some installations that once had only minimal comforts now thrive with urban amenities that yesterday's Soldiers found only downtown.

New military communities boast main streets surrounded by offices and shops. Housing for single and married Soldiers is close to schools and shopping.

Army communities are now designed to promote a sense of well-being while fostering environmental stewardship.

Fort Belvoir, Va., is representative of the new hometowns for America's Army. Its Town Center heralds a new era in Army life that says, "Welcome home."

From the Commanding General

Promoting Business Process Improvement and Innovation

Welcome installation management professionals to the second issue of our Journal of Installation Management – the first published under the Installation Management Command (IMCOM) banner. Since our debut edition, much has changed in the Army installation management business.

We activated IMCOM in October, consolidating the Installation Management Agency (IMA), the Community and Family Support Center (CFSC), and the Army Environmental Center (AEC) under one three-star command. Our objective is to create a more effective, efficient and agile organization to ensure that the world's best Army is supported on the world's best installations. Additionally, we reflagged CFSC as the Family and MWR Command and AEC as the Army Environmental Command. We also reduced the number of IMCOM regions from seven to six, combining Northwest and Southwest into IMCOM West, headquartered at Fort Sam Houston, Texas. These organizational changes have added to our operational tempo, but will enable us to improve Army installations throughout the world.

The Army has never been busier and in greater need of "Installations as Flagships of Excellence." While our Army remains at war, we are transforming to a more expeditionary force. Base Realignment and Closure (BRAC), Global Defense Posture Realignment (GDPR), and the transformation of our Army to a modular force recasts our Army to a predominantly continental United States (CONUS) based force with global reach capabilities. This requires a colossal effort in military construction (MILCON), personnel and equipment realignment. There are more than 1,200 BRAC actions alone. Our first-class military and civilian workforce will oversee the greatest change in our Army since World War II.

Although we face many challenges, we look at the activation of IMCOM as a great opportunity to contribute even more toward improving the Army's readiness posture with world-class installation support, and providing the high quality of life that our Soldiers and families deserve – that an All Volunteer Force deserves! The bottom line is that we're making a positive difference in the lives of Soldiers and families.

While our inaugural issue was focused on organizational change, this issue spotlights business process improvement and innovation. You'll find three views of implementing and succeeding with Lean Six Sigma, as well as articles on Army Performance Improvement Criteria and Army Communities of Excellence. This issue also covers military construction innovation, a consolidated Family Readiness Center, flagship installations in the Pacific, a look at leadership styles, and more.

The purpose of this journal is to generate intellectual dialogue. You may have a different point of view from those presented by our authors here – if so, we encourage you to enter the discussion. This is the forum for thoughtful professionals to publish their ideas, and allow the installation management community to digest and respond with their own views. This give and take creates a dialogue, which is the key requirement for a learning organization to continue improving and growing. In the busy environment of our Army, a publication like the Installation Management Journal becomes ever more important as a learning tool for our professional workforce.

We hope you enjoy this issue and look forward to your feedback. If you are interested in serving as a member of our editorial advisory board, please contact our journal editor.

Support and Defend!
Army Strong!

Robert Wilson

Lieutenant General
Robert Wilson

Commanding General
U.S. Army Installation
Management Command

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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 recommendations 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 as wide as 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@hdqa.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, 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.

U.S. Army Journal of Installation Management
Produced by the United States Army Installation Management Command Public Affairs Office, 2511 Jefferson Davis Highway, Arlington, Va., 22211, e-mail imcomjournal@hqda.army.mil, under contract with Rosner Associates, New York. The journal is published semiannually for senior leaders and stakeholders in the installation management community.

We Want Your Feedback

The first issue of the Journal of Installation Management generated some buzz.

Taking time to express thoughts about the journal was Colonel Rick Jung Sr., former commander of the 100th Area Support Group in Germany. He currently is assistant chief of staff for G3 Operations, North Atlantic Treaty Organization Rapid Deployable Corps-Spain. He said:

"Those of us who are installation alum and those currently serving in installation positions have much to discuss. This journal fills a void by providing a much needed medium for professional discourse. I look forward to candid points and counterpoints."

We also want your candid points and counterpoints. The commentary, or feedback, page is where readers engage writers, discussion starts, communication happens, and ideas get exchanged. That's what this journal is for.

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, 2007. Send your comments to the e-mail box, imcomjournal@hqda.army.mil. No length or style requirements apply, but the editorial board will review for clarity and, of course, civility.

Hope to hear from you soon.

Cultural Change at Installation Management Command Garrisons

By Heidi M. Malarchik

Changing the Army culture and transforming the business of garrison operations starts with local leadership-driven behavior changes.

How do you change the Army culture at the Installation Management Command (IMCOM) garrison to support the Army transformation?

Change is not about theory or standard operating procedures; it is about consistent, sustained quality that is reflected in day-to-day operational practices, relationships with customers and behaviors of the work force. Garrison leaders can achieve a culture characterized by an innovative, agile and customer-focused work force through sustained leadership interest, relevant education and skill development, individual accountability linked to measurable performance outcomes and a multidisciplinary approach to on-going process improvement.

Background

In the 2006 U.S. Army Game Plan (AGP), "Accelerating the Momentum," one approach to the envisioned Army culture change includes a "change management process to ensure that business transformation is not just a temporary program, but rather a firmly rooted aspect of Army culture" (Army Game Plan, 2006, slide 24). The new IMCOM organization acknowledges the challenge of the 2006 AGP and strives to change its organizational culture. As part of the Army transformation, IMCOM's transformation mission is to "manage Army installations to support readiness and mission execution – provide equitable services and facilities, optimize resources, sustain the environment and enhance the well-being of the military community" (Macdonald, 2006, slide1).

IMCOM's basic operational unit is the Army installation or garrison. Akin to a small city, the garrison provides the military community with many of the same services and products provided by cities throughout the United States. The installation's infrastructure, including services such as housing, utilities, public safety, recreation, and youth and leisure services, all have a higher purpose of supporting the National Military Strategy.

The military garrison is critical to the Army's goals of well-trained, well-equipped Soldiers; a high quality of life and well-being for Soldiers, families and civilians within the armed forces; and a community infrastructure supportive of every facet in the Army. The transformation goals of IMCOM are to develop and retain a professional workforce; optimize resources and employ innovative means to provide facilities and services; be a streamlined, agile, customer-focused and results-driven organization; and to build and sustain a state-of-the-art infrastructure that focuses on Soldiers and their families. How can garrison leaders make this happen?

Impediments to IMCOM Change

Vibrant corporate organizations in the information age of the 21st century are characterized by a culture of ongoing change. Garrison leaders can learn from these organizations. Change is not a threat to their businesses, but the way to sustain a thriving organization. Understanding current and future threats and opportunities helps leaders determine the ways and means to lead their organizations toward reaching their evolving goals. Recognizing the underlying detracting behaviors that drive parts of the organization also helps define methods for change management.

Three specific organizational behaviors increase the mission transformation challenge at the garrison level:

1. The culture of entitlement, cultivated for years throughout the federal government and American society: "Entitlement is about security, bureaucracy, top down, status quo, rules, single skill, and looking good versus a continuous improvement climate where everyone is constantly seeking ways to eliminate, or improve on, their outputs" (Starcevich, 2005, para 2). Change is a threat to any existing static culture. Members of the existing culture may feel victimized by change. New programs are fought, a lack of resources is bemoaned, risk is avoided, and accountability for personal performance creates fear.

2. The hierarchical framework of Army structure: Authority and responsibility, within the chain of command, flow from the top of the standardized organization to the bottom where the work is performed. This bureaucratic system, though an effective means of running the tactical Army, can obstruct a culture of empowerment, teaming and innovation at the garrison level. Within a strict hierarchical structure, innovative process improvements can be suppressed by a single individual. "Success" in this environment may require thinking the way your boss thinks. Change agents within such a management system may be discouraged and viewed with suspicion. The collective brainpower of the team will be diminished as innovators seek employment elsewhere.

3. Nonsupportive support systems: These are the byproducts of personnel and funding cuts, stovepiped initiatives, lack of value-added personnel development systems and top-driven work processes. Dynamics of institutional dysfunction result in:

- A garrison work force overwhelmed by higher headquarters reporting requirements
- Leadership time and energy diverted from developing the workforce to helping meet the heavy workload
- Low morale triggered by increased personal workloads and lack of resources to meet the demand for services

These dynamics lead to customer-facing employees struggling to buffer Army-level funding decisions that affect Soldiers who can't be adequately served locally. With the high operations tempo, the management focus is on mission accomplishment, with little time or energy remaining to examine business practices or train employees. Overworked employees receive mixed messages and become frustrated, disgruntled and stressed, resulting in employee illness, dissatisfied customers and poor financial performance.

Ultimately these three threats interfere with business results. Change-management needs are sacrificed to boring work processes. Leaders have little time or energy left for communicating and feedback, improving the quality of services or products, or determining changing customer requirements. The behaviors that shape the organization are reflected by overworked employees and stressed leaders who rarely make the time or have the skills to understand how to successfully enable the required behavior changes.

The Army's need for rapid transformation is creating new stresses at the garrison levels. Through creative leadership, this stress can result in an optimum environment for innovation and positive change. A leader can create teams that can work together and enable the behavior change in each individual within the organization.

Fort Huachuca's Experience with Culture Change

Fort Huachuca is a medium-sized installation located in southeastern Arizona. Over the past 10 years, Fort Huachuca's garrison leaders shaped and sustained a culture where front-line employees, as well as corporate leaders, became innovative cost managers accountable for activity-based management and a culture of continuous improvement. In 2005 the garrison commander, Colonel Jonathan Hunter, challenged his staff to provide a low cost, responsive, organizational workforce development program focusing on areas of development not covered by the current Civilian Education System (CES) and to augment the rapid rise of distance-learning topics. The curriculum needed to include an increase in staff communication and focus on customer-relationship building.

These initiatives generated an evolutionary transformation in the garrison culture. How did Fort Huachuca reach the tipping point where initiating process changes, cost-savings proposals and program suggestions for educating front-line leaders became part of the culture instead of command directives? What lessons did Fort Huachuca learn about culture change over the past 10 years?

Over a five-year period, from 1999 though 2004, the Fort Huachuca garrison work force saved more than $32 million by implementing

688 cost-savings initiatives and process improvements. At Fort Huachuca all cost-savings initiatives and process improvements, no matter how small, are considered worthy of being shared. One supervisor decided to eliminate the annual purchase of desktop calendars for his workforce. His staff agreed that with current computer technology, they did not need the desktop calendars. They saved $80 per year. It was a small amount of money, however the idea of saving taxpayer dollars was recognized as a success.

Within the Directorate of Public Works, the exorbitant cost of aggregate base material disposal spurred the idea of recycling the material and saving the annual cost of $36,000 for new aggregate base material. The total savings for this idea, including saving the cost of the landfill fees, was $243,000 a year. Total annual outlay for the project was $10,000. The leaders in a culture of innovation understand saving money may take an initial investment. In the current environment of diminished financial resources, Fort Huachuca understands the primary means available to reach its business transformation goal is the wise use of human capital.

Generating ideas for cost-savings initiatives and process improvement was the outcome of the activity-based management process. Frequent small group and one-on-one activity-based management training for new leaders sustained the interest, re-energized the process, contributed to the data analysis and focused the drive for innovative solutions. A quarterly command-driven process for collecting data, analyzing trends, and briefing the business results evolved. By providing nonpunitive command interaction, leaders were able to articulate detailed analyses of their activity costs, communicate suggestions for cost-saving initiatives and process improvements, and share ideas for optimizing limited financial resources.

The garrison commander's quarterly review of new ideas became the impetus for culture change and helped drive a balanced approach to cost-awareness throughout the organization. This process sustains the cost management culture throughout the organization.

The culture of innovation may have been born by the cost management system, but now lends itself to all aspects of garrison management. Another challenge recognized by Fort Huachuca's garrison leaders was the need for a low-cost,

responsive, organizational front-line leader development program focusing on areas not covered by the Civilian Education System. With the garrison commander as the project champion, the garrison leadership embarked on the creation of a high-performance learning organization. Six learning cohorts of 10 to 15 front-line leaders, facilitated by mid-level managers, and mentored by senior leaders focused on identifying knowledge gaps and networked to solve internal problems. The cohorts, composed of individuals from different garrison organizations, engaged in interactive problem solving. Guided to new knowledge by the Civilian Education System, specific online learning programs and classes conducted by installation subject matter experts, each cohort group honed its knowledge in specific areas relevant to its individual needs. This knowledge was expanded through reflective and meaningful small group dialogue.

Working as a team, each cohort capitalizes on its collective knowledge and experiences to discover meaningful, relevant, and innovative solutions to garrison problems. The individuals in the cohorts are then empowered to implement the solutions within their circles of control. The goal is for the cohorts to develop into high-performing work groups and establish new communication networks across the garrison. Everyone is challenged to innovate outside their normal chain of command.

Mid-level managers facilitate the team-building process and senior leaders mentor the cohorts. The engaged leaders gain valuable knowledge by listening to the concerns of the cohort members. As the cohorts develop realistic solutions, the facilitators and mentors help tackle the road blocks that typically impede change. The ever-evolving process involves approximately two to four working hours per month per participant. This no-cost learning and skill development process does not strain the limited dollars available to garrisons. This learning forum facilitates engagement between garrison leaders, and the informal network formed by the process improves communication within the garrison and helps to mitigate the unintended consequences of the hierarchical structure. As leaders display new behaviors and learn new ways to influence the workforce, a ripple effect of change is realized throughout the organization.

Five distinct themes influenced culture change at Fort Huachuca:

• Theme One: Leaders at all levels learned how to motivate the workforce by focusing their attention on business results. Command influence stimulates change. The ability to analyze and use the data, ask the right questions, and hold employees accountable for business results drives behavior changes and empowers employees to speak with a knowledge base.

• Theme Two: Create a learning organization; detailed knowledge of the cost management process was required at all levels of the organization.

• Theme Three: Hone a process where the knowledge, skills and values of the organization were demonstrated through a quarterly knowledge-sharing forum.

• Theme Four: Building a culture of accountability by relating business results to performance standards. Accountability requires garrison members to continually optimize cost, quality and customer needs. When cost-savings initiatives and process improvements are linked to performance standards, the activity-based management output increased tenfold.

• Theme Five: Continually linking all the lessons learned. Valuing and celebrating the ideas of the workforce and relinquishing process ownership to the customer-facing employees drives the behavior Walt Disney espoused: Empowered employees who feel valued by their leaders create exceptional experiences for their customers resulting in improved financial performance.

Fort Huachuca's organizational culture continues to transform. The workforce is empowered by command influence; relevant and on-going training; controlled processes that integrate knowledge management into operational practices; and business results linked to performance standards.

Implementing Lean Six Sigma is another logical addition to this culture of reinventing how we deliver essential Soldier support with Army standards for the optimum cost. Just like senior corporate executive officers, garrison commanders involved in Fort Huachuca's business transformation understand their role in creating and sustaining a culture, not driven by fear, but by an agile workforce rewarded for their understanding activity costs and the resulting innovations.

Outlook for Culture Change at IMCOM Garrisons

Army Field Manual 1 establishes the role of leaders in change: "When large, complex organizations pursue transformational change, a key measure of success is leaders' ability to reorient people's attitudes and actions" (FM 1, 2005, para 4.33). IMCOM is on the culture-change track by developing new systems and processes to "optimize resources, protect the environment, and enhance well-being of the Army community and provide fast, efficient, agile support to commanders in the performance of their tactical and strategic missions" (Macdonald, 2006, slide 4).

IMCOM leadership recognizes that changing an organization and implementing a culture of continuous process, product, and service improvement starts with passionate senior leaders. To help garrisons achieve and sustain this new culture, additional support is forthcoming:

• The new Civilian Education System unveiled in the fourth quarter of 2006 addresses the need for a comprehensive civilian leadership development system. The sequential and progressive goal of CES is to transform Army civilians. "Army civilians will become 'Pentathlete' civilian leaders of the 21st Century who personify the warrior ethos in all aspects from war fighting to statesmanship to business management" (CES trifold, p 2). By developing a workforce armed with critical thinking skills and creating a climate conducive to new ideas, the significance of each individual will emerge.

• The National Security Personnel System (NSPS), scheduled to be partially deployed throughout IMCOM in April 2007, introduces civilian performance accountability to the IMCOM workforce. Employees are recognized and rewarded for performance. Leaders are held accountable for culture change. The new system battles the culture of entitlement by opening up communication between supervisors and employees. NSPS is linked to the new CES by encouraging broader skill development.

• Deployment of the Lean Six Sigma methodology throughout the IMCOM organization began in January of 2006. Business transformation and improving the quality of installation products and services to Soldiers, their families and civilians are IMCOM focal points. Optimizing resources and being able to quickly respond to the ever changing needs of tactical and strategic commanders requires continuous process improvement. By engaging process owners in the practice of defining, measuring, analyzing, improving and controlling outcomes, the organization benefits from the workforce knowledge and experience. New ideas for process improvements are shared throughout the Army with an online tool called Power Steering. As processes are improved, employees are recognized for their role in the change, and these same employees become astute process owners with vested interests in successful business outcomes.

Conclusion

Changing the Army culture and transforming the business of garrison operations starts with local leadership-driven behavior changes. Garrison leaders can achieve a culture characterized by an innovative, agile and customer-focused work force through sustained leadership interest, relevant education and skill development, individual accountability linked to measurable performance outcomes, and a multidisciplinary approach to ongoing process improvement.

As the transformation evolves, garrisons will benefit from additional IMCOM-driven support systems for more cost-effective service delivery to achieve the desired outcomes of garrison transformation. The expectation for culture change is an IMCOM leadership priority. In the words of the IMCOM deputy commanding general, Brigadier General John Macdonald, in his September 2006 Town Hall Meeting to the Installation Management Agency, "'Perpetual optimism is a force multiplier.' I am talking about a gung-ho attitude that says, 'we can change things here, we can achieve awesome goals, we can be the best'" (Macdonald, 2006, slide 12).

Heidi Malarchik is a plans specialist with the Fort Huachuca Plans, Analysis and Integration Office. She is a recent graduate of the Sustaining Base Leadership Management Non-Resident Program of the Army Management Staff College where she received the outstanding student award. She has 19 years combined military and civilian experience.

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Enabling Army Transformation in the Pacific: Creating Flagship Installations

By Deanna Lee

The Army is undergoing its most significant change in its 231-year history. The Army Campaign Plan serves as the guiding document for this Army Transformation. This article will describe how the Installation Management Command-Pacific Region and U.S. Army, Pacific (USARPAC) at Fort Shafter, Hawaii, have partnered to enable mission commands to fully transform.

Army Command	Performs multiple Army Service Title 10 functions across multiple disciplines.	U.S. Army Forces Command (FORSCOM) U.S. Army Training and Doctrine Command (TRADOC) U.S. Army Materiel Command (AMC)
Army Service Component Command (ASCC)	Comprised of operational organizations serving as the Army component for a combatant commander.	U.S. Army Europe (USAREUR) U.S. Army Central (USARCENT) U.S. Army North (USARNORTH) U.S. Army South (USARSO) U.S. Army Pacific (USARPAC) U.S. Army Special Operations Command (USASOC) Military Surface Deployment and Distribution Command (SDDC) U.S. Army Space and Missile Defense Command (SMDC) Eighth U.S. Army (EUSA)
Direct Reporting Unit (DRU)	One or more units with institutional or operating functions providing broad general support to the Army in usually a single, unique discipline not otherwise available elsewhere in the Army.	U.S. Army Network Enterprise Technology Command (NETCOM) U.S. Army Medical Command (MEDCOM) U.S. Army Intelligence and Security Command (INSCOM) U.S. Army Criminal Investigation Command (CIDC) U.S. Army Corps of Engineers (USACE) U.S. Army Military District of Washington (MDW) U.S. Army Test and Evaluation Command (ATEC) U.S. Military Academy (USMA) U.S. Army Reserve Command (USARC) U.S. Army Acquisition Support Center (Acq Spt Ctr) U.S. Army Installation Management Command (IMCOM)

What is Transformation?

Trans-for-ma'-tion (noun) means "complete change" usually into something with an improved appearance or usefulness.

The heart of this Transformation is the change to a brigade-centric Army in which combat and combat support brigades are tailored to be modular, joint and expeditionary. The modular nature of these brigades enables the Army to better manage the force while rotating units into a contingency theater. Additionally, the Army reorganized commands and specified headquarters to improve command and control and to increase the responsiveness of the Army on a global basis. The new structure establishes Army commands, Army service component commands and direct reporting units.

This restructuring, capable of providing increased, more rapidly deployable combat power, is not without second and third order effects, most notably within the Installation Management Command (IMCOM).

IMCOM was first established in October 2002 as the Installation Management Agency (IMA) to provide Soldiers and families quality, consistent, uniform services at all installations, and to relieve the warfighters and mission commanders of installation-related tasks so that they could focus on combat training and tactical-related issues and support mission-readiness and execution. IMCOM must now posture itself to support a modular Army that is organized to support warfighting, not home station operations.

It has become increasingly apparent that senior mission commanders (SMCs) must now focus on their missions – training, warfighting, and resetting of equipment and forces. The modular force must be easily severable from home station responsibilities because of frequent deployments. From a resource standpoint, IMCOM and mission commands must continue to reduce redundan-

cies across all functions, both base operations (BASOPS) and mission.

Since mid-2005, the Pacific Region has been in collaboration with its mission counterpart, U.S. Army Pacific, to establish Pacific Region garrisons as "flagship installations." This is in line with the Army chief of staff's vision to create "places where military personnel live, work, and train and from which they deploy and are supported during contingency operations." This Pacific version of flagship installations is planned to be implemented in three phases.

Flagships Phase 1

The first step was cleaning up the playing field from the split that occurred in 2002. Before this step, all Pacific Region garrisons in Alaska, Hawaii and Japan were configured to outside continental United States (OCONUS) structures. Directorates of Plans, Training, Mobilization and Security (DPTMS) and military police aligned with the mission unit and, in some cases, not all BASOPS functional transfers occurred. In Flagships Phase 1, Pacific Region garrisons were aligned into continental United States (CONUS) standard garrison organizations (SGO) and the residual functional authorizations were transferred from USARPAC to Pacific Region garrisons.

USARPAC Military in Hawaii

Functions transferred from U.S. Army Hawaii to U.S. Army Garrison, Hawaii:

• Law Enforcement, Access Control and DPTMS (e.g., Battle Command Training Center (BCTC), Ranges and Transportation Services)

USARPAC Military in Alaska

Functions transferred from U. S. Army Alaska to U.S. Army Garrison Alaska:

• Food Service, Law Enforcement, Access Control and DPTMS (e.g. BCTC, Airfield Operations and Ranges)

USARPAC Military in Japan

Functions transferred from U.S. Army Japan to U.S. Army Garrison Japan:

• Law Enforcement, Access Control, DPTMS (e.g. Air Traffic Control and Airfield Operations), Military Personnel, government of Japan Civilian Personnel, Education Center, Postal Operations, Staff Judge Advocate, Community Relations, Internal Review and Compliance, Equal Employment Opportunity, Public Affairs Office, Supply Support Activity, Humanitarian Assistance Program and Real Estate

The USARPAC commanding general and the Pacific Region director concluded Flagships Phase 1 with a signed memorandum of agreement and transition plan Feb. 24, 2006.

Flagships Phase 2

USARPAC now has taken the lead on determining the right distribution of functions and responsibilities between the Pacific Region and the newly restructured USARPAC ASCC. Phase 2 will realign major subordinate command (MSC) and mission command functions at the garrison and mission support element level beyond the current standard garrison organization model. USARPAC will identify candidates for realignment through a holistic table of distribution and allowances (TDA) review and these will be synchronized with the ongoing Department of the Army, Military Operations-Force Management and Personnel review of garrison functions Army-wide.

Potential functions under discussion include Safety, Protocol, Public Affairs, certain Military Personnel Management functions, Ammunition Supply Points, Noncommissioned Officer Academies and Museums. (Note: Functions are not all inclusive, approved or in any priority order.) The simple analogy of "if it doesn't deploy, it's BASOPS" has been used as a benchmark in the delineation of functions most amenable for realignment.

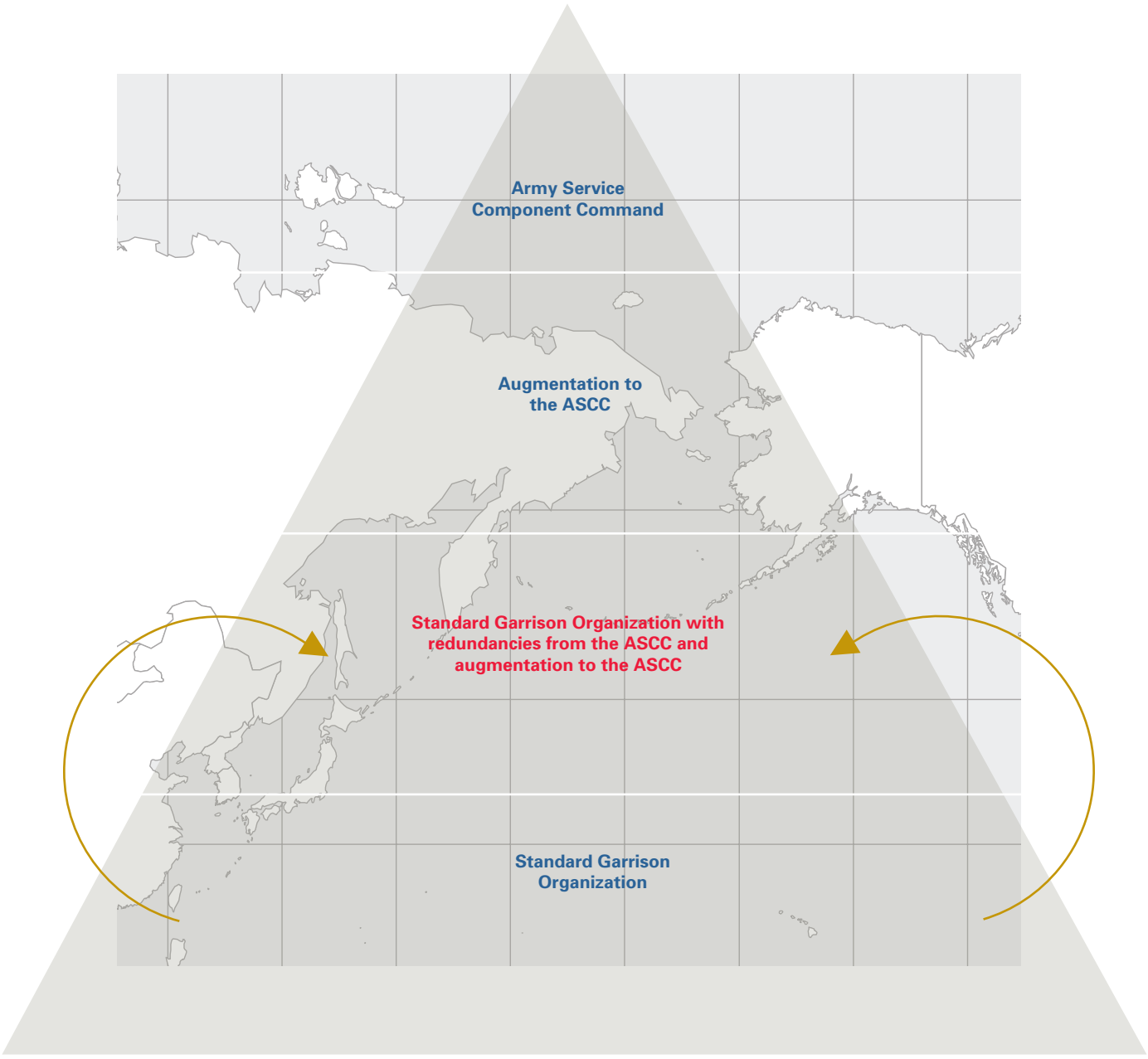
Flagships Phase 3

Future plans include reviewing options to realign USARPAC functions in coordination with Headquarters Department of the Army proponents. This phase will be more complex because of current Army Management Headquarters Activity constraints.

The Road Ahead

Change is inevitable and without it, the Army will not survive. While the BASOPS and mission roles continue to change, it has become increasingly apparent that restructuring the entire Army remains a collaborative effort: first to achieve consensus on defining the new roles and responsibilities; second to ensure the proper resources are transferred; and third to make certain the quality of life for our Soldiers is not compromised.

Deanna Lee is chief of the IMCOM-Pacific Region Resource Management Division's Manpower Branch at Fort Shafter. She is a graduate of the University of Hawaii with a degree in Business Administration, Personnel and Industrial Relations. Lee started her government service career with the Federal Aviation Agency and with the Army in the Civilian Personnel Office. She became a Headquarters Department of the Army manpower intern in 1982. She served with Headquarters Pacific Air Forces as the civilian resource manager for Manpower, Personnel and Budget (Civilian Pay) from 1995-2003. She transferred to the IMCOM-Pacific Region in 2003.



Flagships Phase 2

Military Construction Transformation: Delivering Quality, Sustainable Facilities in Less Time at Lower Cost

By Brigadier General Merdith W.B. "Bo" Temple

To keep pace with the most comprehensive Army restructuring since the years immediately following World War II, essential changes are taking place in our military construction program.

The Army is transforming from a division-oriented structure into a brigade-centric, modular force as rapidly as possible while maintaining the war-fighting readiness of its operational units. This change brings unique challenges and opportunities in many areas, including military construction, or MILCON.

Over the past few years, the U.S. Army Corps of Engineers' MILCON program has steadily increased, while our staffing to execute the program has steadily declined. Despite this disparity, we've done a good job leveraging assets in order to accomplish our diverse mission requirements.

But today's workload is even larger and will continue to grow as a result of several factors:

One is the construction requirements from the latest round of the Base Realignment and Closure (BRAC). Because BRAC 2005 is focused more on realignment than past BRAC rounds, so called "gaining" posts will need to have more facilities built.

In addition, the Army is changing its global footprint through the Global Defense Posture Realignment. More units are returning from overseas locations. But before these units can be brought stateside, the facilities and infrastructure must be in place to house them, train them and provide their families with the quality of life they deserve.

At the same time, the Army's conversion to a modular force will generate certain unique facility requirements that will need to be in place as units are stood up. And finally, many of the existing facilities at our posts are near or have surpassed their design life and are in need of replacement or rehabilitation.

The end result of these factors is that our MILCON program will likely reach or exceed $40 billion over the next few years – considerably higher than in recent times – and we cannot expect any additional human resources to execute the increased workload. Add to this the requirement that BRAC and re-stationing initiatives must, by law, be completed by September 2011 and that the Army's eventual goal is not just sustainable buildings, but sustainable installations, and you can see that the Corps of Engineers and our military customers have some tremendous challenges ahead.

As the Army's construction agent, we must help ensure the Army has the quality, sustainable facilities and infrastructure it needs to meet future capabilities and missions. Now more than ever, business processes need to allow us and our partners to deliver better, faster, less expensive, safer and greener facilities to our Soldiers and their families.

Cannot Achieve with 'Business as Usual'

In November 2004, Deputy Assistant Secretary of the Army (Installations and Housing) Joseph W. Whitaker directed the Corps of Engineers to develop a strategy and implementation plan to provide the Army the ability to establish, reuse and re-purpose facilities with minimum lead-time; leverage private industry standards and practices; and reduce acquisition and lifecycle costs.

We recognized that our current business processes and organizational structure would not support the new requirements, and that new, innovative ways to plan, program, design and build facilities were needed. We looked across our MILCON program to identify efficiencies and processes that we could change. We also gained the perspectives of our customers and partners to include the Office of the Assistant Chief of Staff for Installation Management (ACSIM), the Installation Management Command, garrisons and private industry.

The end result of these efforts was development of the initiative now known as MILCON Transformation, a new MILCON delivery method approved by the vice chief of staff of the Army in April 2005. This initiative involves a number

of changes in our organization, business processes and technology that we think will make our MILCON program less prescriptive in the way of requirements and place more emphasis on performance-based criteria. Key elements of this change include standardization of acquisition processes, standardization of the design of facilities and expanded opportunities to use alternative construction methods such as manufactured building solutions. These changes will transform our MILCON program, and will allow us to meet our goal of continuing to deliver quality, sustainable facilities in less time and at a lower cost.

The new business processes of MILCON Transformation were used on a prototype basis for several projects in fiscal year 2006. In fiscal year 2007, MILCON Transformation will be employed to the maximum extent possible on all Army MILCON and BRAC 2005 projects in the United States.

What is MILCON Transformation?

MILCON transformation means several things:

First, the Corps will provide additional master planning support to the installation community, laying the foundation for better facilities in the future. At the direction of the ACSIM, this also will include better focused use of planning charrettes.

Second, we will increase our use of standard designs and processes that includes a transition from the traditional design-build delivery method in fiscal year 2007 to the use of prototype adapt-build models by fiscal year 2008. Centers of Standardization will allow us to manage this effort better, capture shared lessons learned more seamlessly, and provide more consistent service, while maintaining our core technical competencies.

Third, we will employ regional acquisition approaches as described in the National Acquisition Plan; expand use of all types of construction, including manufactured building solutions; and emphasize partnering with customers and with industry, to include our small business community. This will enhance competition, resulting in a better chance of achieving full scope within cost and time constraints.

Fourth, we will apply new technologies and tools generated by industry and the Engineer Research and Development Center — tools such as the Building Information System, the Land Use Evolution Model, and the Antiterrorism and Force Protection Planner, parts of our "Fort Future" suite of Simulation and Modeling for Acquisition, Requirements and Training tools set. To make our buildings more sustainable, we are looking at and incorporating more efficient energy systems and new water conservation technologies in order to comply with Energy Policy Act of 2005 requirements.

Helping to pull together these points is the establishment of a continuous building program. This program will provide contractors with greater predictability in funding, which will allow them to keep building at multiple sites across multiple facilities without having to wait for incremental or phased funding. The continuous building program also provides contractors with the opportunity to make improvements as projects move forward and incorporate lessons learned continuously, which will lead to an improvement in project costs and time.

Components of Transformation

The essence of MILCON Transformation can be summarized in three major components — facilities, acquisition strategy and people.

Facilities

When we talk facilities, we mean the standardization of processes, facilities and product types. From acquisition to execution, consistency in processes and implementation will be the key to a successful program. The standardization of facilities and processes will result in consistent engineering and construction applications that will allow for the expansion of the use of all types of construction and benefit the Army by providing a greater pool of capable contractors. The standardization of facilities through consistent functional and operational requirements will

result in more consistent solicitations via standard Requests for Proposal (RFPs). This will reduce contractor uncertainty about requirements for like facilities from installation to installation, as well as provide for more productive time spent on proposals. And, the standardization of product and facility types will allow us to focus more on actual construction and delivery through flexibility in materials and methods that adjust for changing economic conditions.

At the same time, each facility we build will need to attain a silver rating on the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) rating system, a nationally recognized measure of sustainability. The silver rating is one of the most stringent goals in the program. It will be a challenge to consistently meet the silver rating level within the constrained resources available. We will need to find new and better ways to incorporate sustainable features as part of the RFP's performance standards, while taking advantage of best industry practice, without exceeding cost limitations. This will also result in lower life cycle energy and maintenance costs.

To facilitate the focus on construction, Centers of Standardization have been identified and will serve as the technical and acquisition resources for the districts. These design centers will employ contractual vehicles that districts will use to fulfill installation standard facility needs.

For example, centers will be responsible for design refinement and for selecting, in coordination with Corps of Engineers regions, a design-build contract primarily through regional Indefinite Delivery Indefinite Quantity (IDIQ) single source selections. When an executing district calls, the center will issue a task order for construction to be managed by the district. With the center issuing the task order, we expect a greater consistency of product. The centers will also capture lessons learned and adjust processes based on feedback from the customer, the contractors and servicing Corps of Engineers district.

When you combine these efforts to standardize facilities and processes, the result is greater consistency in the quality of construction and a lessening of the risk to the contractor and the Army. This will move us closer to achieving lower costs in less time without sacrificing quality, sustainability, and adaptability.

Acquisition Strategy

The Corps of Engineers' Programmatic Acquisition Strategy provides guidelines to major subordinate commands and regional business centers to develop regional contracting tools to implement MILCON Transformation and to ensure we have sufficient consistency during the fiscal year 2007 construction season and beyond.

Within the framework of this strategy, the following contracting approaches are intended to connect the requirement to a completed product or facility:

- a single awarded IDIQ
- unrestricted awards
- set-asides
- local and/or regional contracts
- contracts awarded by facility type or product line

The strategy also encourages site and local market research to determine final acquisition methods. It provides the flexibility, where appropriate, to group projects smartly to allow for a balance between economies of scale and small businesses as primes, including programs such as 8a, HUBZone and small, disadvantaged, veteran-owned businesses.

And finally, the strategy provides the opportunity to evaluate potential contractors based on all experience, not just past government experience. The goal is to enhance competition to give us the best chance of selecting the contractor most likely to succeed in meeting our quality, sustainability, cost and time goals.

This acquisition strategy will help us realize efficiencies that will also reduce the construction-execution learning curve.

People

The last component of MILCON Transformation is people — making sure we are able to maintain our core technical competencies well into the future.

With MILCON Transformation, the Corps will be moving away from full-service design capability in every district. This does not mean we will lose our core competencies. Rather, technical competencies will evolve to a higher level, be concentrated in the Centers of Standardization and distributed to construction locations where district technical oversight is needed.

Competency task forces at Corps of Engineers Headquarters and at several Corps of Engineers Regional Business Centers are looking at the effects of this shift and the types and amount of retraining needed for our workforce to make this successful evolution. The new Centers of Standardization will help us define and sustain these technical competencies of the future. Our technical competence must be broadened to include "full-service" engineers and scientists, similar to the Master Builder concept of early history, who understand and contribute to various aspects of the facilities life cycle and can readily move from one phase into another.

Achieving Success

There are many measurements of success. To me, success is defined by our process changes and efficiencies that enable us to deliver to our customers quality, adaptable, sustainable facilities on time and on budget. Fundamentally, MILCON Transformation is expected to deliver Army facilities with 50-year life cycles that are more adaptable and sustainable at less cost (15 percent cost savings) and in less time (30 percent time savings). Success is also defined by the realization on the ground at Army installations that our process changes and efficiencies deliver the quality facilities that our customers critically need, on time and on budget, while minimizing life cycle cost.

In fiscal year 2006, we used MILCON Transformation principles in some pilot projects at Forts Campbell, Knox, Bliss and Riley. These projects were awarded at full scope and within the Construction Cost Limits (which already reflects a 15 percent savings). We will monitor these projects closely to learn more about MILCON Transformation implementation and adopt Lessons Learned through the Centers of Standardization to improve as we go in 2007.

There is no doubt; we cannot do this alone. We need everyone's support. We need everyone to help make these changes possible and to work through solving problems and implementing lessons learned so that we can improve together. MILCON Transformation is truly transformational and will require essential culture change in three key communities: the Corps of Engineers, garrisons and industry. All of these communities are partners in every Army project, and all three will have to adapt to new ways of doing business to be successful in today's (and tomorrow's) highly dynamic operational environment.

We have a great opportunity to prove our relevance to the nation, the Army, our Soldiers and their families. By implementing Department of the Army's MILCON Transformation strategy, staying focused on execution, and continually looking for process improvements, we will be successful. Working together with our Army and industry partners, stakeholders and customers, we can meet our huge facility requirements over the next several years.

Brigadier General Bo Temple is director of Military Programs for the U.S. Army Corps of Engineers.

Implementing Six Sigma: Exploring Issues in Suboptimization

By Mark Lefcowitz

"So, I have an amazing mousetrap, and I explain to you, I communicate to you what's better about my mousetrap. ... (But) ... my mousetrap's no longer unique. It's now become one of 14 different ways to kill mice. So, the customer isn't interested in hearing about how my mousetrap's different, all the customer wants to know is 'can I give them dead mice cheap?'"

Neil Rackham•

"A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it."

Max Planck**

"We have met the enemy and he is us."

Walt Kelly•••

The Problem

In March 2006, Secretary of the Army Francis J. Harvey announced the continued deployment of the Lean Six Sigma process within the Army. Lean Six Sigma (LSS) is the combination of two improvement tools: Lean and Six Sigma. Lean – whose focus is a disciplined, process-focused production system – was substantially developed by Toyota Motor Company in its Toyota Production System to compete in the post-World War II auto market dominated by American manufacturers. Six Sigma (6σ) – a quality process developed by Motorola Inc. to decrease manufacturing defects to a statistical level of six standard deviations (3.4 defects per million or 0.00034 percent) – has been in existence for two decades.

Despite the many myths surrounding who should be given credit for their creation, it is clear – as in most instances of human endeavor – that both Lean and 6σ were the child of many minds within Motorola[1] and Toyota.[2]

Neither Lean nor 6σ appeared from nothingness. It owes a great debt to a well-established quality practices movement that emerged as a science in the United States during the 1920s. The quality practices movement marked the application of descriptive and inferential statistical techniques – already well established in mathematics and other fields – to manufacturing and the manufacturing process.

In particular, the emergence of 6σ and statistical process control (SPC) tools have not, however, resulted in an overabundance of well-documented, rigorous case studies in the general quality practices professional literature. Those case studies that are available all too often serve the functional purpose of a consultative brochure, rather than a critical report of a specific quality improvement effort's successes and failures. Triumphs are trumpeted and disappointments are rarely ever mentioned. This is particularly ironic when you consider that the notion of hypothesis testing and measurement are not altogether unfamiliar issues to its practitioners.

In spite of the considerable body of knowledge and experience within the general quality movement and despite its current "flavor-of-the-month" status and its considerable success in the manufacturing arena, 6σ largely has languished as a perceived viable tool in the realm of nonmanufacturing processes. There exists an acute lack of balanced reporting of 6σ efforts although there is abundant anecdotal evidence that 6σ implementation has not always been successful. Some argue[3] that performance expectations for Six Sigma have been unrealistically high. This is not an explanation; at best, it is

•Interview conducted by Josh Krist (9/18/2000): SalesLobby.com. Retrieved June 6, 2006 from: http://www.ittoolbox.com/peer/rackham22.htm.
**Scientific Autobiography and Other Papers, trans. Frank Gaynor, pp. 33–34 (1950). •••Earth Day, 1970

only a description of the symptom, and it begs the question of what caused performance expectations to get unrealistic in the first place.

Nowhere has any practitioner or institution attempted to statistically survey the universe of 6σ to discover what proportions are successful and what proportions are unsuccessful and for that matter – why or why not.

Related literature on why software re-engineering projects fail, why projects fail, why Total Quality Management failed, etc. is mostly anecdotal and consensus-based. John Bergey et al[4] have pointed out that software re-engineering project failure can be traced back to management rather than to technical shortcomings. They have enumerated 10 risk factors:

- The organization inadvertently adopts a flawed or incomplete re-engineering strategy
- The organization makes inappropriate use of outside consultants and outside contractors
- The work force is tied to old technologies with inadequate training programs
- The organization does not have its legacy system under control
- There is too little elicitation and validation of requirements
- Software architecture is not a primary re-engineering consideration
- There is no notion of a separate and distinct re-engineering process
- There is inadequate planning or inadequate resolve to follow the plans
- Management lacks long-term commitment
- Management predetermines technical decisions

Additionally, Karl Weigers[5] has listed 10 traps to avoid in software metrics that are thought provoking and pertinent to 6σ implementations:

- Lack of management commitment
- Measuring too much, too soon
- Measuring too little, too late
- Measuring the wrong things
- Imprecise metrics definitions
- Using metrics data to evaluate individuals
- Using metrics to motivate, rather than to understand
- Collecting data that is not used
- Lack of communication and training
- Misinterpreting metrics data

These assertions fit nicely with one another, with some overlap, and they seem to jibe with Michael V. Petrovich's observation that businesses must "address fundamental system issues to sustain or even achieve improvement objectives."[6] Petrovich goes on to describe his model of improvement hierarchy, an incrementally stepped maturation process, leading to a series of cultural and process paradigm shifts that transform the organization over time. It is this transformation that allows process improvement to take place.

Ouellette and Petrovich[7] have noted that alienation of the process owners is a chief danger of implementing 6σ:

"Many front-line and area managers have displayed frustration when unasked-for help is given to solve a problem in their area. Strangers from 'Quality' or a black belt swoop down from on high, put together a team, find a solution (for which they get the primary reward and recognition) and swoop away to work on another project regardless of the long-term viability of the solution. Justly or unjustly, local process owners (like critics of non-representational art) think to themselves, 'Well, sure, I could have done that if I had that amount of time away from my real job!' Or worse, the solution in fact is impossible to implement over the long term due to an incompatibility with the real process or the lack of process auditing and monitoring to maintain interest and control."

Despite the obvious and substantial strengths of 6σ as a tool, as well as the considerable marketing hoopla that surrounds it, there is a strong impression from anecdotal evidence that 6σ projects don't seem to have any better chance of success than any other "project."

On one hand, Six Sigma requires a sustained high-level commitment and a total transformation of the inner-culture of the organization, from top to bottom. On the other hand, Six Sigma – as with all things – must be budgeted incrementally, and must continually compete for budgetary dollars with other endeavors. There is considerable tension between these two realities; the resolution of which is critical to the success or failure of each and every 6σ implementation effort.

All of the literature available – as well as my own professional experience – strongly suggests that corporate and business managers are ill-equipped to champion change in organizations that are ill-equipped to implement change within it.

The Assumption Base

The 2004 Standish Group's "Chaos Report,"[8] a biannual study based (to date) on surveys of more than 50,000 information technology (IT) projects, estimates that only 29 percent of all software projects

succeed. Fifty-three percent of all projects fail to attain their specified cost, schedule, or performance goals. An additional 18 percent are cancelled before completion or delivery and are never used. This results in a 71 percent failure rate.

This paper assumes a similar failure rate for 6σ projects. There are several reasons for this assumption:

• In the absence of any other evidence, there is nothing to suggest that a 6σ project is any more complex or difficult than an IT project

• 6σ projects frequently have a substantive IT component

• Both 6σ projects and IT projects exist within the same environmental and managerial milieu; if project failure is substantially a management failure issue, then the root causes of one should be substantially the same for the other

At the present time, 6σ is being marketed and largely implemented as an enterprise-wide undertaking, yet functionally and by budget treated as a project. The Project Management Institute defines a project – very specifically – as being "a temporary endeavor undertaken to create a unique product or service."[9]

A senior 6σ program manager recently asserted to me that a 6σ project should be initially scheduled for duration of no more than three to four months, and should – at the outside – "succeed" within a six-month period. If not successful within that time frame, the 6σ project would undoubtedly fail to be renewed in the next budget cycle. The smart business choice is to cut your losses, and move on.

Booz Allen Hamilton's (BAH) 2005 chief executive turnover study – done annually – states: "Necessary transformations of companies typically require three or four years."[10] The same report cites the average tenure of a company CEO is around 7.9 years. The BAH study further reported 35 percent of departing North American CEOs are forced out of office. A 2004 study conducted by Spencer Stuart[11] found the median for the top Standard & Poor's (S&P) 100 CEOs has not changed for the past three years, holding steady at four years. Four years is also the median tenure as CEO for the S&P 500 group as a whole.

If a company needs three to four years to transform themselves, and CEOs tenure is somewhere between 4–7.9 years, and if 66 percent of all 6σ projects fail, the outlook for Six Sigma does not look bright unless some changes are contemplated in how it is implemented.

If we look at the military, where the typical length for duty station assignments are significantly less in duration, some obvious transformation issues come to the fore.

Suboptimization

The principle of suboptimization asserts that optimizing each subsystem independently will not in general lead to a system optimum, or more strongly put: improvement of a particular subsystem may actually worsen the overall system.[12] In other words, the whole is less than the sum of its parts.

A company that goes out and merges with its competitor may not be successful as the newly amalgamated business. A government organization that takes over the administration of smaller independent agencies may not work more efficiently. Laying off workers and thereby decreasing overall budget reductions in annual payroll, may result in a net loss to the organization of vital institutional memory and specific functional process acumen.

A NASA report once noted: "It is often a tendency of engineers to move too rapidly to the level of greatest detail. To get down to the real design work as rapidly as possible, the design criteria are often set in an artificial or arbitrary manner. This is exemplified by the idea, 'Let's design one that will do everything model X will do; only let's have it cheaper and more reliable.'

"Worthwhile advances are certainly made using this approach; however, minimizing the negative value is only part of the task of maximizing the net value of a system. Intense consideration of only a few of the design factors while neglecting others is called suboptimization; it leads to incomplete, therefore unsatisfactory, solutions. To avoid suboptimization, it is necessary to develop the design criteria logically from the overall system requirements, always keeping the maximum-value goal in mind."[13]

At the heart of the suboptimization issue, therefore, are four paradigm blind spots:

• Ignoring the cumulative entropy created by the interaction of the various subsystems with one another

• Confusing the maximization of the output of the various subsystems as being synonymous with maximizing the final output of the overall system

• Assuming that the final outputs will achieve the targeted goals and/or outcomes

• Failing to validate that the targeted goals are actually moving toward the overall organizational vision

As it relates to Six Sigma, enterprise-wide implementation of 6σ may cause unintended suboptimization outcomes. An enterprise-wide commitment to 6σ implementation may trigger an increase in internal competition for scarcer operating resources. It may produce an unexpected increase in decision-making dependencies that bottleneck organizational decision-making. It may act as a catalyst for unexpected personal, business unit and cultural conflict.

Not all processes are appropriate targets for 6σ. Eliminating waste and decreasing variation may not result in decreasing costs or increasing efficiency. Theory of constraints tells us that a system is only as fast as its slowest subsystem.

Large Organizations: Organizational Interest vs. Self-Interest

In 1953, President Dwight Eisenhower named Charles Erwin Wilson, then president of General Motors, as secretary of Defense. During the confirmation hearing before the Senate Armed Services Committee, Wilson was asked if, as secretary of Defense, he could make a decision adverse to the interests of General Motors. Wilson answered in the affirmative, but added that he could not conceive of such a situation, "because for years I thought what was good for the country was good for General Motors and vice versa."[14]

It is neither new nor surprising that people associate their extended groups' welfare with their sub-groups' welfare, or that they associate their sub-groups' welfare with their own welfare. To be self-interested is to be human. In the realm of sales, Neil Rackman[15] has pointed out that the customer becomes more cautious committing to a sale as the risk of failure increases. The higher the risk – whether it is in terms of cost, or career, or public failure, or a plethora of other possible rationales, reasons and variables – the more cautious are the decision makers.

And as a sale, Six Sigma is high-end in every respect. Literally, the future of the organization, its key decision-makers, its mission-critical departments and business units, and the careers of many individuals – high and low – will be affected.

What Rackman does not address – because for him the commitment to the sale is the end of the process – is the multitude of "post-sales" sales that must occur to get implementation of any project as large and potentially complex as one that implements 6σ. Dozens of individuals, many who may not have been brought into the original decision to implement, now have to commit to doing the hard work of getting the job done. Some of these individuals may have very different ideas of what the project means for the organization, their sub-group, their business unit, or their own self-interest. Not all will be initially willing to go through the agony of change in pursuit of goals and outcomes they neither understand nor trust, for a management team or organization for which they may feel no loyalty.

Kark Weigers[16] has listed 10 software development traps:

- The project's vision and scope are never clearly defined
- Customers are too busy to spend time working with developers on requirements
- Customer surrogates (managers or marketing) claim to speak for the users, but they really don't
- Users claim all requirements are critical and do not prioritize them
- Developers encounter ambiguities and missing information during coding, and they have to guess
- Customers sign off on the requirements, then change them continuously
- The scope increases as requirements changes are accepted, but the schedule slips because more resources are not provided
- Requested requirements changes get lost and the status of a change request is not known
- Functionality is requested and built, but never used
- The specification is satisfied, but the customer is not

All one needs to do is substitute "consultant" for the word "developer," and substitute "process improvement" for the word "coding," and it all sounds eerily familiar.

In a recent interview, Ralph Szygenda, group vice president and chief information officer, related an obvious, but often overlooked change requirement:

"You have to determine whether a company is ready for change. I had been in corporate America in IT positions at various companies for 26 years, so I knew the issues with making change. I knew certain ground rules had to be agreed upon. … If you are going to be a change agent, you have to determine 'can it be done in the present environment?' If a company is not ready for change, then you have big problems not only in information technology, but with everything else."[17]

The simple truth: Projects succeed or fail because of people, not tech-

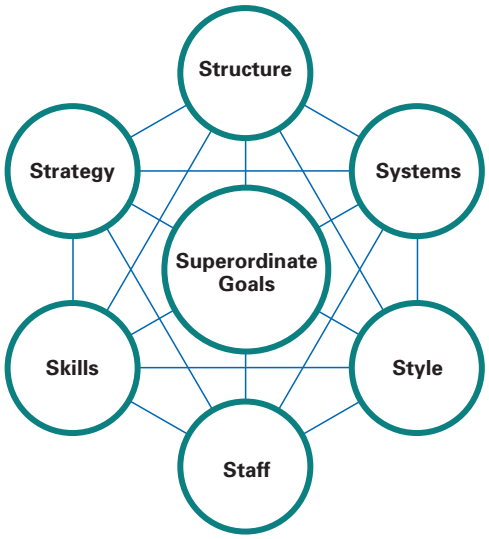
nology, tools, or processes. People will always be the key.

Superordinate Goals

In the early 1950s, Muzafer Sherif coined the phrase "superordinate goal" to describe a mutually held objective that is "compelling and highly appealing to members of two or more groups in conflict but which cannot be attained by the resources and energies of the groups separately. In effect they are goals attained only when groups pull together."[18]

In a series of controlled experiments under the guise of a boy's summer camp, Sherif and his colleagues fostered intergroup rivalry and hostility through intense competition. These rival groups were then brought together to face a common challenge; e.g., repairing the camp's water supply, pulling a stalled truck about to fetch food, etc. Superordinate goals succeeded where previous attempts at conciliation, goodwill and negotiation between the leaders had failed. The outcomes of these experiments were subsequently reported as the "Robbers Cave Experiment."[19]

In the late 1970's, McKinsey & Company used Sherif's idea of superordinate goals as the centerpiece for a model of organizational change: the 7 S Model. The authors of this model were interested in exploring how organizations might change in the years ahead after a decade of decentralization. The main authors of the model were Richard Pascale and Anthony Athos from Harvard and Tom Peters and Robert Waterman from McKinsey. Peters and Waterman later would incorporate the model into their book "In Search of Excellence," which became a best seller in the 1980s.[20] In addition to superordinate goals, the authors identified the elements of structure, strategy, systems, style, skills and staff, as presented below:



The 7 S Model

The central theme of the 7 S Model is that these seven key elements within the organization are interactive and not independent from one another. Each element receives inputs and provides outputs from all the other elements in a network of dependencies. Each needs elements of the others to be successful.

The 7 S Model has gone on to become the focal point of McKinsey & Company's consultative approach. Over the years the McKinsey has had notable successes (Hewlett Packard, Johnson and Johnson, General Motors and Siemens), and some notable failures (Enron, Swiss-Air, Kmart, Global Crossing).

Obviously, a model – by itself – is just not enough.

Steering the Customer to Steer Six Sigma: P-DMAIC

It has already been suggested that, despite increased interest in Six Sigma and SPC, that there is a general lack of the organizational, managerial and worker maturity necessary to initiate and sustain 6σ. The great majority of organizations are just not ready for 6σ implementation.

In this, the Six Sigma professional community must accept its fair share of the responsibility.

Six Sigma is not only a set of techniques and analytical tools; it is a business, too. As the ranks of Six Sigma professionals grow, there is ever increasing competition and greater pressure to "close" potential business. Perhaps the most difficult thing for any business to do is to say no to a potential customer. But – if we are to best serve our customers, and thereby best serve ourselves – that is exactly what seems to be necessary. As the experts in the arena of process improvement – it is we who are ultimately responsible for the high 6σ failure rate. If these failure rates are to be improved, it is to ourselves that we must look. We must change if we ever hope for our customers to do the same.

Essentially – when all is said and done – Six Sigma, as well all other process improvement methodologies, requires behavior modification on a fairly grand and complex scale. Instead of DMAIC (define, measure, analyze, improve and control), we should be talking about the absolute necessity of preparing for DMAIC (P-DMAIC).

Individually and as a group, business and government entities must decide to end their individual "addiction" to dysfunctional organizational behavior. A lesson can be gleaned from the world of medical psychology.

Despite the fact that addiction continues to be a significant problem throughout the world, it is only within the past decade or so that studies have attempted to determine how individuals are able to make the changes necessary to overcome it. Prochaska, DiClemente and Norcross[21] developed a paradigm based on empirical data to approach this problem: the Transtheoretical Model (TTM) of behavior change. The study concluded that individuals are able to achieve lasting behavior change, with or without professional help, so long as specific structures underlying the behavior change existed. This model has been validated in a wide range of health behaviors, including smoking, drinking, eating disorders, and illicit drug use.

The stages of TTM and its processes are as follows, and presented in the table, below.

1. Precontemplation: Individual has the problem (whether he or she recognizes it or not) and has no intention of changing

• Consciousness raising (information and knowledge)

• Dramatic relief (role playing)

• Environmental re-evaluation (how problem affects physical environment)

2. Contemplation: Individual recognizes the problem and is seriously thinking about changing

• Self-re-evaluation (assessing one's feelings regarding behavior)

3. Preparation for Action: Individual recognizes the problem and intends to change the behavior within the next month

• Self-liberation (commitment or belief in ability to change)

4. Action: Individual has enacted consistent behavior change for less than six months

• Reinforcement management (overt and covert rewards)

• Helping relationships (social support, self-help groups)

• Counterconditioning (alternatives for behavior)

• Stimulus control (avoid high-risk cues)

5. Maintenance: Individual maintains new behavior for six months or more

It should be noted, however, that these phases do not tack a simple linear progression; relapse is both common and expected. Each stage is seen as dynamically interacting with the others. Individual may regress to previous stages, but they tend to not completely fall back to where they started. Each individual advances through each stage, making progress and losing ground. Each person learns from mistakes made over time, and uses those insights to move toward their sought after goal.

Concept	Definition	Application
Pre-contemplation	Unaware of the problem, hasn't thought about change	Increase awareness of need for change, personalize information on risks and benefits
Contemplation	Thinking about change, in the near future	Motivate, encourage to make specific plans
Decision/Determination	Making a plan to change plans, setting gradual goals	Assist in developing concrete action
Action	Implementation of specific action plans	Assist with feedback, problem solving, social support, reinforcement
Maintenance	Continuation of desirable actions, or repeating periodic recommended step(s)	Assist in coping, reminders, finding alternatives, avoiding slips and relapses

More recently, Prochaska has attempted to apply TTM to organizational change.[22]

This medical analogy to addiction is not outlandish. As consultants, we need to stop selling panaceas that in the parlance of psychiatry "enable" the continuation of dysfunctional behavior. We need to start talking openly and forcefully, as any professional whose role is to be concerned for the "health" of his or her "patient," about the conditions necessary for success of Six Sigma and process improvement efforts. We need to be talking about it amongst ourselves and, more important, we need to be talking about it at the presales stage. We need to talk to prospective customers about how hard process change is, and what the organization needs to do to begin preparing for it. We need to begin establishing minimal criteria for Six Sigma implementation efforts. And it is here – in more detail – where Petrovich's Improvement Hierarchy shines, shedding some much-needed light:

To modify behavior, at least one person in an organization needs to decide that change is necessary, and make a commitment to make that change become a reality. All too often businesses do not have an organizational purpose beyond making a profit, and those who have a more expanded vision tend to look outward, not inward. What kind of company do you want your organization to be? What sort of people do you want working there? What are the sort of leadership qualities and work ethic attitudes do you want to encourage? What sort do you want to discourage? And – most importantly – what are you willing to do to take personal responsibility to assure all of this takes place?

What is being done to engender management-employee trust and respect? Have housekeeping standards been implemented? Has a minimal standard for equipment maintenance been initiated and maintained? What efforts are being made to define and standardize the organization's processes, and to develop common operational practices? What metrics and controls are currently in place, and to what extent has its scope been established throughout the organization?

If the person asking these questions is not the CEO or the chairman of the board, then the company in question has a very large problem, indeed.

The Improvement Hierarchy

Presuming that there is one well-motivated individual in the organization who is willing to take on the challenge and to shoulder the necessary sustained effort to bring about change, will that individual have the skill and the good fortune to be able to persuade and mentor others to support the effort?

There is a lot to be said for placing everyone in the same lifeboat. It certainly worked for Muzafer Sherif. It certainly tends to work in the military where loyalty to one's unit – loyalty to the individuals who are literally guarding your back – assures teamwork and self-sacrifice. But do superordinate goals need to be draconian to succeed? Are there kinder and gentler implementation methods floating around?

A few initial modest suggestions come to mind:

Perhaps the most obvious idea – one that is by no means new, yet seldom used – is asking front line employees to participate actively in making their own piece of the universe better. What could be done to make your job more efficient? What can be done to make our service better for the customers you deal with? The Christian Science Monitor reported recently how American Airlines turned to its employees rather than high-priced outside consultants in its cost-saving efforts.[23]

Another idea that has been floating around for some time, and inherent in the suppliers-inputs-process-outputs-customer (SIPOC) process used in 6σ, is to actively broaden the definition of "customer" to include internal customers, particularly as it relates to business units

providing internal support services: e.g., information technology, human resources, maintenance.[24] Within this context, the use of internal levels of service agreements to establish customer-centric service metrics, as well as initiating levels of internal reimbursement, should also be considered.

Team-based performance is a promising approach to organizational maturity. One technique that shows great potential is the growing use of team-based performance standards in lieu of individual reward systems. Jack Zigon has suggested the use of a systematic method starting with the team's accomplishments and defining weights, measures and performance standards for both the team and its individual members.[25]

However, the concept of team-based performance must be expanded to include managers and executives. Executive and managerial performance needs to be linked to the performance of the teams they manage, as well. This puts everyone in the same lifeboat; outcomes affect not only the immediate team members, but the extended chain of responsibility as well. Everyone's report card is impacted equally.

Instituting the use of continuing professional development as a standard in the workplace should also be considered. In other words, having the explicit expectation that membership in the organization – in addition to minimal performance standards – also includes standards for continuing professional development as a formal criterion for both job retention, and advancement and promotion.

Initiating each of these changes will, of course, not be without a great deal of effort. The point is that these and other cultural change mechanisms must be on the Six Sigma practitioner's checklist when considering whether an organization is a good prospect for process improvement.

Borrowing methodologies from the discipline of Extreme Programming (XP) would also appear to be useful. Originally conceived by Kent Beck,[26] XP is designed to be used with small teams of developers who need to develop software quickly in an environment of rapidly changing requirements. XP teams design software for specific functions; no software functionality is added that is not specifically requested. Nothing that does not directly add to the specific outcome requirements of the customer is considered.

Extreme Programming is based on 12 principles:

• The Planning Process – The desired features of the software, which are communicated by the customer, are combined with cost estimates provided by the programmers to determine what the most important factors of the software are. This stage is sometimes called the Planning Game.

• Small Releases –– The software is developed in small stages that are updated frequently, typically every two weeks.

• Metaphor –– All members on an XP team use common names and descriptions to guide development and communicate common ideas and terms.

• Simple Design – The software should include only the code that is necessary to achieve the desired results communicated by the customer at each stage in the process. The emphasis is not on building for future versions of the product.

• Testing – Testing is done consistently throughout the process. Programmers design the tests first and then write the software to fulfill the requirements of the test. The customer also provides acceptance tests at each stage to ensure the desired results are achieved.

• Refactoring – XP programmers improve the design of the software through every stage of development instead of waiting until the end of the development and going back to correct flaws.

• Pair Programming – All code is written by a pair of programmers working at the same machine.

• Collective Ownership – Every line of code belongs to every programmer working on the project, so there are no issues of proprietary authorship to slow the project down. Code is changed when it needs to be changed without delay.

• Continuous Integration – The XP team integrates and builds the software system multiple times per day to keep all the programmers at the same stage of the development process at once.

• 40-Hour Week – The XP team does not work excessive overtime to ensure that the team remains well rested, alert and effective.

• On-Site Customer – The XP project is directed by the customer who is available all the time to answer questions, set priorities and determine requirements of the project.

• Coding Standard – The programmers all write code in the same way. This allows them to work in pairs and to share ownership of the code.

XP is essentially an approach to problem solving, where the customer sets the priorities but the implementers estimate the level of effort required. Bare-bones functionality is the central emphasis, rather than elaborate requirements that may never be implemented.

Doug DeCarlo has suggested that one of the keys to a more agile

approach to project management is to manage by deliverables, rather than activities.[27] He suggests seven keys to success when managing by deliverables:

• The project team breaks the project down into a network of deliverables. Use large post-it notes.

• Each deliverable is assigned both a producer and a customer. The customer is the person internal or external to the project team who must be satisfied with the deliverable.

• The producer and customer negotiate the conditions of satisfaction: Timing, deliverable content (scope), cost and quality.

• Both parties share a common understanding of the potential risks to meeting the conditions of satisfaction.

• The producer maintains his own task list outside of the master project plan. This cuts down enormously on otherwise useless administrative overhead.

• Producer and consumer agree on checkpoints and an early warning system if a commitment can't be met.

• There is no penalty for not meeting the original agreement. However, it is unacceptable not to give an early warning of an expected slippage or problem.

Keeping in the tradition of a more agile response, in a separate article, DeCarlo further suggested the use of the abbreviated, less complex mission (vision) statement and requirement gathering tools, using the Katrina disaster as his example. [28]

Agile Six Sigma?

Six Sigma's roots stem from the application of mathematical principles and tools to quality issues of assembly-line manufacturing, where millions of similar items were being produced. Decreasing defects in this kind of environment is essential. It reduces waste and re-work, and thus increases profitability. But in this instance, process and quality improvement are only feasible because these manufacturing and fabrication processes exist within a relatively stable environment. In a manufacturing environment, for example, where the master pattern for a particular item was changed every month, projects of all kinds, including Six Sigma, would have a much more difficult time achieving product quality.[29]

It has been noted by others that applying quality criteria to non-manufacturing processes changes the definition of quality.[30] More important, there is a change from a stable environment to one that may be much more dynamic, where the only constant may be change itself. Citing DeCarlo, again:

The main difference between a traditional project and an extreme project has to do with the level of predictability surrounding the undertaking. Extreme projects live in turbulent environments: high speed, high change and high uncertainty. In other words, requirements are constantly changing throughout the project in response to environmental factors that include competition, technology, shifts in customer needs, regulatory requirements and/or economic conditions.

For an extreme project, since change is constant (and stability is the exception), yesterday's plan is about as current as last month's newspaper. This suggests that we apply a different approach to planning and managing the project, one that is lithe, adaptable, or as some pundits like to say, "agile."[31]

But is the choice really between the two competing alternatives: an enterprise-wide approach that is primarily activity oriented, or a more incremental approach that is more deliverable oriented? Is there another path – a hybrid – that balances the risks of each with the strengths of both?

Jeff Chilton has suggested that the real issue is between stability and innovation[32] through timing. He suggests a stair-stepped approach to process improvement that alternates between stability and innovation. By alternating between periods of stability and periods of innovation, your organization creates a timed rest period to recover and stabilize.

Chaos may exist on the outside, but the environment within the organization is allowed enough stability to prevent disarray.

In many respects, Six Sigma is custom made for an agile approach.

Enterprise-wide approaches, as already discussed, tend to run out of gas for any number of management and cultural reasons. They tend to be well documented, or many times over-documented, because so much is riding on the outcome of a single mega-project. A great deal of time and energy is spent meeting subject matter experts, functional managers, stakeholders, not to mention the customer. Reports must be written, project artifacts must be drafted, validated, reworked and validated again, and contracted items must be tracked and delivered.

Alistair Cockburn has made the distinction between high-disciplined, medium-disciplined, and low-disciplined methodologies.[33] The distinction strikes me as being fallacious, in the same way as the distinction made between dangerous and safe weapons. The Waterfall and Spiral Methodologies developed by Barry Boehm, Grady

Booch's Methodology and Object Modeling Technique, Rational Objectory Methodology, WinWin Spiral Methodology, Project Management Institute, Capability Maturity Model Integration , International Organization for Standardization, Total Quality Management, Extreme Programming and all the other efforts to make programming and projects more efficient all require discipline. There are no disciplined and undisciplined methodologies, only disciplined and undisciplined people.

Despite years of experience that indicate that a "waterfall" approach to projects has serious flaws, and that a more interactive approach substantially decreases risk, most projects still use a waterfall approach. Why? Because change is hard, and it takes discipline and commitment, sweat and many tears, to have any possibility of success. Like the Aristotelian view of the universe that held sway for almost two millennia, it is difficult for people to change from one view of the universe to another – regardless of the substantial body of evidence that undercuts its assertions. It is even more difficult in a world in which change takes place at an ever-increasing rate.

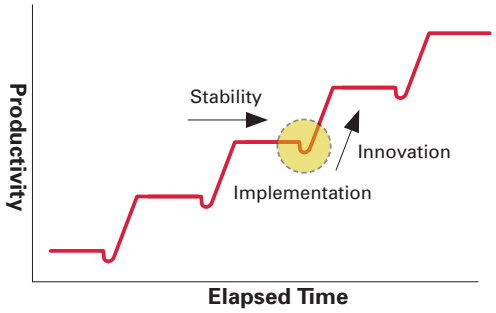
Difficult or not, we live in a world where those who adapt best survive. It is just that simple.

Conclusion

Lean and Six Sigma are among the latest management tools designed to increase efficiency and quality, and to decrease waste. The evidence suggests that Six Sigma's overall success rate is no better than any other project, and it has been asserted that the problem lies not with any specific methodology, but rather in the people who implement it.

In order to implement change, people and the institutions they populate must be ready for change. Consultants must make certain that the prerequisites for successful change are present before attempting to implement Six Sigma or any other process improvement effort.

We have failed to assist our customers to prepare for the changes they want and need. Realistic preparation for change – and the necessary time to initiate that preparation – is the key.



Alternating Periods of Stability and Innovation

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Implementing Lean Six Sigma: Lessons Learned from the Field

By Daniel Myung and Bill Kapaku

One of the earliest adopters of Lean Six Sigma (LSS) was the U.S. Army Garrison Camp Red Cloud in Uijeongbu, South Korea. The leadership at Camp Red Cloud embraced the concepts of eliminating waste, energizing the workforce and improving process performance in November 2003 as part of its Productivity Improvement Review (PIR) program.

The garrison's aggressive implementation of the PIR and Lean Six Sigma programs yielded savings and cost avoidances, as well as improved customer satisfaction. It also laid the groundwork for a culture of continuous improvement – a critical success factor for the Army's Business Transformation Initiative. Perhaps more importantly, Camp Red Cloud's experience generated several lessons learned for other regions or garrisons deploying Lean Six Sigma.

Lesson 1: Get the Front-Line Workers Involved

At the time, the garrison provided base operations services to nine installations within Uijeongbu City and another installation located more than 70 kilometers away in Chuncheon City. In all, there were 7,500 troops belonging to the 2nd Infantry Division; 19th Theater Support Command, which is now the 19th Sustainment Command (Expeditionary); the Eigth U.S. Army; and other U.S. Forces Korea elements.

The Lean Six Sigma experience of the garrison's Directorate of Public Works (DPW) Supply Office illustrates the importance of engaging the right people. After learning about Lean Six Sigma, the DPW supply officer organized a team comprised of six Korean employees with grades from KGS-4 to KGS-7 (equivalent to GS-4 to GS-7) to focus on several opportunities for improvement highlighted during a recent assessment of operations.

The team found:

- Soldiers relied heavily on the DPW service order process instead of using the Self-Help Store for minor repairs and that drove up overall costs.
- Soldiers did not use the DPW Self-Help Store and process because the store was inaccessible. In addition, the repair parts, tools and equipment were outdated and deemed unreliable, and the process itself was too complicated.

Using a combination of Lean and Six Sigma tools, the team pinpointed the likely causes of the problem and then outlined an

improvement plan. Senior leaders were briefed, and with their concurrence, the following improvements were implemented:

• Improved access to self-help supplies by bringing the store closer to the customers. Before this project, there was only one DPW Self-Help Store in the center of the city. The garrison commander approved establishing Self-Help stores at the three installations with the highest troop densities. During the opening ceremonies for these additional Self-Help stores, tours of the facilities were provided to commanders, command sergeants major and first sergeants so that leaders were made aware of the available resources and could direct Soldiers accordingly.

• Purchased modern tools, equipment, and supply items using Home Depot as a benchmark. The DPW Supply team reviewed demand history, eliminated unused stock items and stocked new equipment and supplies.

• Harnessed the power of the Internet. A Web-based DPW Self-Help catalog with color pictures was created so that Soldiers could see and order the right parts. This helped reduce repair cycle times and mistakes.

• Simplified the process for obtaining supplies. In South Korea, the Military Postal System – a free service – was leveraged to send small repair items directly to the person requesting them, usually arriving the next day and eliminating more costly additional trips by the supported units.

After the improvements were implemented, use of the DPW Self-Help program increased by 60 percent. Thanks to sufficient stock of more modern repair parts, customer satisfaction improved by 87 percent, going from 40 to 75 percent within 90 days.

DPW also was able to reduce service orders and costs by 30 percent. The LSS program empowered the workers to achieve positive results in their workplace.

Lesson 2: Demonstrate Top Leadership Commitment

Leadership commitment is critical and must be demonstrated from the top down. Under the leadership of the former director of Korea Region, Brigadier General John Macdonald (now deputy commanding general of the Installation Management Command) Lean Six Sigma was enthusiastically embraced at Camp Red Cloud. Senior leaders promoted a culture of continuous improvement by:

• Integrating Lean Six Sigma into the garrison's strategic planning process. The subsequent Strategic Action Plan linked the organization's balanced scorecard with command goals and targets, and critical commander information requirements (CCIR) in a top-down "strategy to task" process.

• Adding Lean Six Sigma to the garrison's problem-solving toolbox, rather than making it a separate initiative. This integrated approach allowed the organization to reduce the cost of the routine so savings could be quickly reinvested into future programs that kept the organization relevant and ready to meet customers' and stakeholders' requirements.

• Holding monthly Performance Management Reviews (PMR) with the directorates and attended by the garrison commander and staff directors. These meetings provided a great opportunity to share best practices and keep continuous improvement activities visible to senior leadership.

• Instituting a recognition program in the form of immediate on-the-spot or special act cash awards depending on the achievement. Camp Red Cloud leadership learned early through surveys of employees and garrison leaders that the amount of the award was not as important as the timing – sooner was much better than later. With the program, command also communicated a strong message to the workforce that recognition was linked to business transformation and continuous improvement.

Lesson 3: Integrate LSS Program with Existing Performance Criteria

The garrison embraced the Army Performance Improvement Criteria (APIC) before implementing Lean Six Sigma. This allowed garrison leadership to assess performance in seven key categories: leadership, strategic planning, customer, information and metrics, human resources, process management, and business results.

Using this approach, leadership

used Lean Six Sigma tools in areas requiring change. "Directed changes" from outside the garrison, whether the direction came from Headquarters Installation Management Agency (IMA) or the IMA regions, were identified in the Strategic Action Plan. (These directed changes included the Department of Defense No Smoking Policy and the Uniform Management System.) If there was a gap between the current state and directed change – defined as "desired change" – the appropriate methodology, including Lean Six Sigma, was used to close the delta between current and desired states.

Finally, Performance Management Reviews were used to assess performance. The reviews result in one of three possible outcomes: 1) Continue the project because progress is on track and meeting or exceeding the planned target; 2) Modify or change guidance and resource priorities based on current status; or 3) Cancel or delete the project because of low return on investment in terms of time or effort to get the project back on track.

Lean Six Sigma helped the garrison better assess whether its processes and services were satisfying customers. It has been an invaluable tool for assessing supplier performance.

In all, more than $3 million in benefits have been realized since Camp Red Cloud began implementing Lean Six Sigma as part of an overall program of continuous improvement. Plus, these successes can be leveraged throughout the enterprise for even bigger gains.

Best of all, the experience at Camp Red Cloud demonstrates that a robust Lean Six Sigma program is possible at the garrison level.

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Bill Kapaku is a contracted employee providing Lean Six Sigma support for the Assistant Chief of Staff for Installation Management. He served as the deputy to the garrison commander, U.S. Army Garrison at Camp Red Cloud, South Korea, from 2001-2006 and was deputy installation coordinator for Camp Stanley, South Korea, from 1997-2001. Mr. Kapaku is a 2004 IMA Stalwart Award Winner for the Korea Region, and graduate of the Garrison Pre-Command Course. He also was a guest lecturer teaching "Lean Thinking in a BASOPS (Base Operations) Environment" at the Army Management Staff College Garrison Pre-Command course from August 2005 to August 2006.

Driving Standardization within the Lean Six Sigma Program

By Bill Eggers and Christine Etue

Lean Six Sigma (LSS) is a process improvement methodology that focuses on reducing waste and eliminating variation. Lean theory evaluates the way processes are run to make them more efficient. Six Sigma works toward eliminating defects, using statistics to minimize the difference between what customers need and the products or services currently delivered. However, LSS is much more than statistics; it combines process improvement, design, management, voice of the customer analysis, and the internal consulting and teamwork skills needed to support this approach. LSS complements all programs by mathematically calculating ways to save time and money through the reduction of unnecessary steps and processes.

Jack Welch, former chief executive officer of General Electric and one of the premier advocates of Six Sigma, summarized the philosophy with his mantra, which states "Variation is Evil." For an organization to attack variation within the processes, it must use Lean Six Sigma. Similarly, without a common process for deployment, the program itself would be susceptible to variation. In order to achieve the desired benefits of LSS, the deployment strategy must standardize the program and have oversight over the needs of the organization. A LSS deployment team supports the organization through:

- Standardization of governance: establishing roles and responsibilities for deployment activity
- Setting organizational policy: defining standards across the regions and garrisons for the program
- Communication of common messages: delivering information and best practices
- Development of training programs: providing foundational knowledge
- Mentoring of practitioners: ensuring projects are successful and results are delivered
- Management of resources: deploying resources to critical projects

Before the Army officially launched its enterprise-wide Business Transformation Initiative using Lean Six Sigma, there were already Six Sigma programs in existence in several commands and garrisons. The formal deployment of LSS in 2005, within the focus of business transformation, set the stage for a single, coordinated effort across the installation management community. Under the direction of a formal governance structure, the Installation Management Command (IMCOM) is providing the training and support to enable significant strategic business improvement and cost savings.

Training Program Structure

In fiscal year (FY) 2006, IMCOM laid the groundwork for the rest of the Army by establishing a formal, organized and consistent training program. Moving into FY 2007, the deputy under secretary of the Army for Business Transformation (DUSA-BT) has established a standard Program of Instruction (POI) that serves as the foundation of training methodology for the Army as a whole. IMCOM leverages this program for its LSS training.

This standardized training program outlined in the following sections helps IMCOM to ensure that every participant in the LSS program – executives, resource managers, project sponsors, green belts, black belts and team members – understands the same foundational concepts and terminology. The consistency among material and messages will increase the speed of deployment and effectiveness of the overall program.

Starting with the foundation, IMCOM recognized the need to provide every garrison employee with basic knowledge and understanding of Lean Six Sigma. The Army did not have an awareness curriculum that could be leveraged easily across the enterprise. In response, the IMCOM deployment team developed a custom e-learning program.

Lean Six Sigma certification is granted to the practitioners of the methodology, the green belts, black belts and master black belts. The other training programs do not result in formal certification, however all training is specifically designed to provide the knowledge for successful program execution.

Noncertification Track

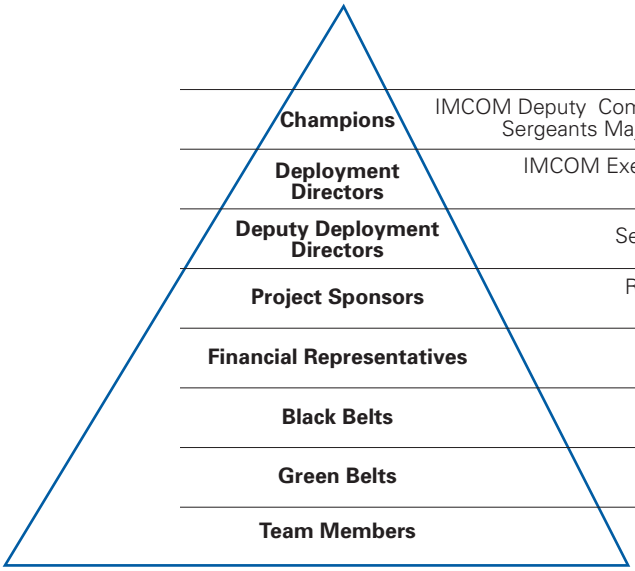
The non-certification DUSA-BT training – executive awareness and project sponsor courses – build leadership expertise to support the LSS projects and overall program.

Executive Awareness Training discusses how Lean Six Sigma fits with Army objectives and strategy. Personnel are provided a hands-on understanding of the Lean Six Sigma methodology through an interactive project simulation. This course also provides an overview of all the roles and responsibilities within Lean Six Sigma and specifically highlights the executive leader's role in championing Lean Six Sigma as Department of the Army executives.

Project Sponsor Training focuses on the project identification and selection processes and the project sponsor role in project charter development and tollgate reviews. This course also discusses the strategic alignment of LSS and the roles and responsibilities within Lean Six Sigma.

When assessing the deployment program against the Army's POI, it was evident that supplemental training was required to ensure

The IMCOM training program is anchored on the deployment role for individuals as follows:



Deployment Roles	Target Audience
Champions	IMCOM Deputy Commanding General, Garrison Commanders, Command Sergeants Major, Region Directors, Deputy Region Directors
Deployment Directors	IMCOM Executive Director, Deputy Garrison Commanders, Region Chiefs of Staff
Deputy Deployment Directors	Selected HQ, Region and Garrrison Personnel
Project Sponsors	Region Division Chiefs, Garrison Directorate Chiefs
Financial Representatives	Resource Managers
Black Belts	HQ/Regions/Garrison Employees
Green Belts	HQ/Regions/Garrison Employees
Team Members	HQ/Regions/Garrison Employees

Using Lean Six Sigma to Foster a Culture of Continuous Improvement

Lean Six Sigma is the primary tool in the Installation Management Command's (IMCOM) business transformation initiative, launched to address Army-wide budget cuts. One linchpin for success in deploying Lean Six Sigma (LSS) and creating a culture of continuous improvement is program awareness.

To ensure that all IMCOM employees understand both the reason for implementing Lean Six Sigma and the basic concepts of the program, IMCOM has developed Awareness Training for all employees, available online via Army Knowledge Online (AKO). This course, approximately 2.5 hours, is delivered online for self-study and offers an interactive, comprehensive learning experience complete with narrative, video presentation and dynamic exercises and quizzes.

The course has a modular approach with six areas of focus: history, LSS basics, project types, implementation, execution and success factors. All IMCOM employees at headquarters, region offices and at the garrisons are required to take the training to better prepare themselves for their respective roles in the LSS program, which range from project contributor to leader. Once this training is complete, IMCOM expects that all employees have a common level of understanding of LSS to support further studies and projects.

The course explains the varied facets of Lean Six Sigma initiatives beyond working on improvement projects and gives an understanding of how to lead and sustain the program at IMCOM. At the training's end, individuals will know how to work with LSS improvement teams to assure that the organization can capitalize on the gains that the teams provide.

The training can be accessed through the Business Improvement-Lean Six Sigma (BI-LSS) AKO Web site at https://www.us.army.mil/suite/page/281441. AKO username and password are required for login.

that IMCOM personnel were equipped with all the necessary tools. In response, IMCOM developed a series of classroom-based courses to enhance the POI. These courses are now viewed as a best practice and are being investigated as comprehensive Army solutions.

One significant component of the customized IMCOM training is the PowerSteering curriculum. PowerSteering is the standard project management tool used across the Army to track all business process improvements and associated financial savings. Since PowerSteering serves as the system of record for LSS projects, each user plays a critical role in data assurance and validation.

The PowerSteering training curriculum also aligns to the activities and needs of the participants.

The remaining customized IMCOM courses were created to address knowledge gaps for each of the deployment roles. By standardizing the training across the organization, each individual is armed with the same skills and techniques for successful implementation of the program.

These supplemental courses include:

• A multi-day workshop designed to provide the participants with a formalized structure to identify the key strategic needs and prioritize ideas accordingly. This training is conducted on site to the champions and works in conjunction with the work of the Executive Quality Council (EQC).

• Deployment director and deputy deployment director training courses that are focused on the LSS governance structure, program management, and metrics reporting processes. Through this training, participants learn tools and techniques for deployment responsibilities at their region or garrison.

• The resource manager training educates the participants on techniques of LSS financial analysis. The resource manager will assist the project leader to evaluate and validate the financial benefits of a LSS project. The LSS financial analysis module is based on the Office of the Assistant Secretary of the Army (Financial Management & Comptroller) guidance for evaluating the benefits of LSS projects.

Certification Track

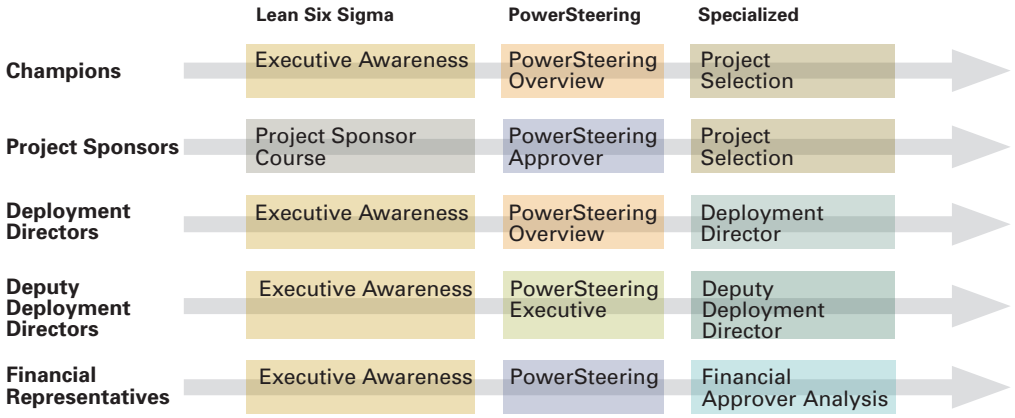
The certification training courses are designed to develop active practitioners of the LSS methodology. The proficiency of each individual in LSS tools and techniques is measured through the training course, exam, and project work and rewarded with Army LSS certification.

The green belt training curriculum includes all the key tools and skills needed to get fast, sustainable project results. Green belts are taught tools to lead projects and solve problems utilizing the define-measure-analyze-improve-control (DMAIC) methodology. In FY 2006, IMCOM led the Army in green belt training, deploying a one-week course curriculum. When the Army standardize a two-week program in FY 2007, IMCOM migrated to this standard POI.

To further enhance the skills of the green belts, IMCOM developed the LSS continuing education curriculum, which consists of four modules and focuses on both analytical and leadership skills:

• Advanced Data Analysis
• Change Management
• Facilitation
• Team Dynamics

Classroom-Based Course Series



Black belts are full-time practitioners of Lean Six Sigma methodology. The black belt training curriculum focuses on skills needed to execute large-scale, complex projects within the Army. Black belts are taught process and statistical tools to solve problems utilizing the DMAIC methodology. This intensive, four-week course prepares each practitioner with the skills and techniques needed to execute successfully.

The master black belt training program is currently in development. This program will train black belts in advanced statistical methods and deployment strategy.

LSS at the region offices and the garrisons. The Solutions Center master black belts and black belts are dedicated coaching resources deployed to the regions. In preparation, the team created a mentoring guidebook to ensure each project coached would be executing to the same standard. Each region mentor supports the green belts through the deliverables of each project and ensures the proper tools are used to achieve results. The project sponsors utilize the assistance of the mentor as a technical guide for reviewing projects before tollgate reviews, the points where primary decisions, analyses, and deliverables should be completed.

With this groundwork in place, opportunities for further growth are possible. Through sustained training and engagement, LSS will help IMCOM provide a better quality of life for the Soldiers, families and Army civilians, who live, work, train and play on our Army Installations.

Bill Eggers is the deputy deployment director for Installation Management Command's Business Improvement-Lean Six Sigma program. He has served as an Army officer, contractor and government employee for more than 33 years in the fields of logistics, information technology, operations research, program management and business transformation.

Four Types of PowerSteering Courses

Course	Audience	Topics	Duration
PowerSteering Overview	Executives and deployment directors	Navigation, reports, portfolio, project summary demo	1 hour demo only
PowerSteering Executive	Deputy deployment directors	Reports, portfolios, dashboards, project summary	2 hours lab-based
PowerSteering Approver	Project sponsors, gate approvers, resource managers	Executive + gate approvals, document management basics	2 hours lab-based
PowerSteering Practitioner	Green and black belts	Overview, project creation and maintenance, status reporting	3 hours lab-based

Mentoring

The training program for certification is designed to enable the practitioners to build skills and knowledge over time. Coupling the classroom training with mentoring and project execution serves to ensure program benefits are achieved. Furthermore, a formal mentoring program enables standard execution across the command.

Headquarters IMCOM has developed a Solutions Center, comprised of centrally funded master black belt and black belt assets in support of the deployment of

Conclusion

Senior leaders at IMCOM, in partnership with leaders at every level of the Army, are shaping and managing the way forward for LSS implementation across the command. The standardization of deployment methodology, including training and mentoring is a significant step towards the Army's goal of institutionalizing an LSS mindset of continuous improvement.

Christine Etue is a contracted employee for the Installation Management Command. She is a Lean Six Sigma master black belt and manages the Business Improvement-Lean Six Sigma Training Program.

Achieving Installation Excellence:

Using the Army Performance Improvement Criteria, Lean Six Sigma and Corporate Management Process in the Installation Management Command

By Rosye Faulk and April Corniea

In the 2006 Army Posture Statement, Secretary of the Army Francis J. Harvey stated the U.S. Army is facing "An era of Uncertainty and Unpredictability." Strategic planning and achieving success in an environment that evokes constant change is a challenge for the Installation Management Command (IMCOM). How will IMCOM achieve installation excellence in an environment where customers, competitors and budget drive change; where how it did business yesterday cannot be how it does business today; and where resource constraints require processes to be more effective and efficient?

To mitigate these influences and achieve installation excellence, IMCOM identified a management system consisting of three components – the Army Performance Improvement Criteria (APIC), Lean Six Sigma (LSS) and the Corporate Management Process (CMP). The APIC is a powerful assessment tool that helps effective leaders assess how they do business, identify key opportunities for improvement, and make better use of available resources. Leaders at all levels can use the principles of Lean Six Sigma to identify high priority initiatives to create greater value for Soldiers and their families. The CMP is the framework through which the APIC and LSS contribute to overall organizational strategy. Together, these component systems will ensure the sustainability of the "Home to America's Armed Forces."

Before looking at how the APIC, Organizational Self-Assessment (OSA) and Lean Six Sigma fit into the CMP, the following is a brief synopsis of each component system.

An Overview of APIC

APIC is used within the competitive Army Communities of Excellence (ACOE) program and the Organizational Self-Assessment program to assess organizational performance against a comprehensive set of processes that have been proven to optimize performance in every type of organization throughout the United States.

APIC is not based on theories of how organizations ought to be run to be good; but rather, on a compilation of the management practices in seven key areas that are shared by the world's top performing organizations. The Integrated Performance Excellence Model highlights the framework of the APIC.

Organizational Profile. The Organizational Profile sets the context for the way the organization operates. It identifies an organization's environment, key working relationships, and strategic challenges that serve as an overarching guide for how the organization manages business.

Integrated Management System. The management system is composed of the six APIC categories in the center of the figure that refers to an organization's operational processes and the results it achieves. The management system is organized into three basic elements – Leadership Triad, Work Core, and the System Foundation.

The management system starts with the leadership triad that emphasizes the importance of senior leaders in developing an organizational strategy that focuses on meeting the needs and requirements of the organization's customers.

Integrated Performance Excellence Model

Leadership (category 1) looks at how senior leaders guide and sustain the organization through the setting of organizational vision, values and performance expectations. The leadership category also addresses how senior leaders communicate with employees, how they create an environment that promotes legal and ethical behavior and high performance, how they address responsibilities to the public and how the organization supports its communities.

Strategic Planning (category 2) addresses strategic planning and action plan development, the deployment of plans to accomplish organizational strategy and how accomplishments are measured and sustained. Through strategic planning, leaders identify the people, the resources and the processes that must be put in place to achieve the desired end state and to create value for customers.

Customer Focus and Market Focus (category 3) addresses how organizations seek to understand the Voice of the Customer in determining customer expectations and requirements for the purpose of delighting customers and building loyalty. This category also focuses on how organizations build relationships and use customer satisfaction/dissatisfaction results to ensure the continued relevancy of their programs, products, and services, and identify new business opportunities that will posture the organization for ongoing success.

The management system also includes the work core through which an organization's employees and key processes accomplish the work of the organization that leads to overall performance results.

Human Resource Focus (category 5) addresses key human resource practices – those directed toward creating and maintaining a high-performance workplace and toward developing employees to enable them and the organization to adapt to change. The category focuses on providing a work climate that develops, motivates, and engages employees to produce maximum productivity. Additionally, to reinforce basic alignment of human resource management with overall strategy, the criterion also covers human resource planning as part of overall strategic planning (category 2) as a means to identify skills needed by employees to meet future organizational needs.

Process Management (category 6) focuses on strengthening the organization's key processes to provide programs, products, and services to achieve mission and vision. This category requires efficient and effective process management, effective design, linkage to customer requirements, a focus on creating value for key stakeholders, and continuous improvement to achieve optimum productivity. Important aspects of process management and design include increasing agility, while reducing cost and cycle time.

Results
An organization's employees and key processes accomplish the work of the organization that yields overall performance results (category 7). Performance outcomes (results) are used to evaluate and compare the organization's performance relative to its goals, standards, past results, and other organizations in six major areas that represent leading and lagging indicators on a balanced scorecard. The leading indicators of human resources, process management, and social responsibility predict performance in the lagging indicators of product/service performance, customer satisfaction, and financial operations.

Finally, the foundation of the model lies within category 4: measurement, analysis and knowledge management. The systems in category 4 represent the "brain center" for the alignment of the organization's operations and strategic objectives. It addresses how organizations measure, analyze and review organizational performance towards measurable goals developed during the strategic planning process (category 2). It requires leaders to use information and supporting analyses to set priorities, allocate resources, and enhance decision-making at all levels of the organization. Additionally, category 4 looks at the "institutional memory" of an organization through the management of information and knowledge assets.

An Overview of Lean Six Sigma

Performance improvement occurs through the use of tools such as Lean Six Sigma to design or redesign key work processes.

The Army Chief of Staff's (ACS) Operations Order of April 7, 2006, states, "As a Nation at war the Army is challenged to remain relevant and ready in an era of uncertainty, unpredictability, and diminishing/changing resources (money, time, people and material). Currently, non-value added processes, products or services are absorbing critical war-time resources and hindering performance. Today the Army is without a consistent, Army-wide framework to provide continuous, measurable process improvement." The Operations Order goes on to further indicate "Lean Six Sigma (LSS) is a business philosophy that combines the strategies of Lean production (elimination of process waste) and Six Sigma (reduction of process variation). These concepts may also be applied to all facets and functions of military and business operations in order to deliver better products and services at lower cost faster, while obtaining maximum return on investment.

The Operations Order is based on three assumptions:

• The Army's total obligation authority will remain constant (in real terms) or it may decrease during the next decade.

• The Army level of operational commitment will not decrease significantly during the next decade.

• The Army program costs that have been traditionally funded through the supplemental are appropriate and will migrate to budget during the next decade.

The Army must deploy "LSS to accelerate Business Transformation by creating an innovative culture of continuous, measurable improvement that eliminates non-value added activities and improves quality and responsiveness to Soldiers, civilians, Army families and the Nation."

LSS is a process that combines the strategies of lean production (elimination of process waste) and Six Sigma (reduction of process variation). Organizations use LSS to implement rapid process changes on high pay-off targets that increase efficiency and decrease overall financial obligations and risk. To accomplish this, LSS uses a standard improvement model: define, measure, analyze, improve and control (DMAIC).

In the define phase, a project team and its sponsors establish a project charter. The charter includes a description, background, goals, assumptions, benefits, and team composition. The team then prepares a high-level process map to identify the role of suppliers, input required, current process steps, the output generated by the process, and customer requirements. The team determines customer requirements through "voice of the customer" to ensure the redesigned process meets key customer needs. The team also considers the "voice of the business" to balance business capabilities and priorities against customer requirements.

In the measurement phase, team members prepare a value-stream process map to gain a greater understanding of the process under review. Additionally, the team identifies key input, process, and output measures, collects baseline data, and determines process capability.

During the analysis phase, the team identifies key factors that are most likely to have the biggest impact on process performance. To determine root causes of performance problems, the team analyzes data through Pareto Charts that identify problems in priority order, histograms that show range and distribution of variation, and trend charts that display change over time. The teams use this information to review the process map and assess each step in the process to determine whether:

• The step adds value to the product/service thereby adding value to the customer

• The step does not add value but is required by regulations or allows for greater overall process effectivenes

• The step does not add value to the customer or the business and is considered a non-value added step that wastes time and resources

During the improve phase, the team generates potential solutions to help eliminate defects, waste, and costs. The team evaluates these solutions for potential implementation, adjusts the process map to reduce non-value added steps, implements a pilot program, confirms the success of the pilot and implements a full-scale improvement initiative.

Control is the final phase of the DMAIC improvement model. It is the point from which organizations monitor and control the new process through plans designed to sustain high performance levels. The control phase also includes the development of standard operating procedures, training plans, and process controls. The control plan describes the new or revised process, personal responsibilities for maintaining the process, the type of data used to monitor the process, and how the data are collected and displayed through control charts for costs, productivity levels and customer satisfaction.

Integration of APIC and LSS

To improve performance and achieve higher levels of organizational success, IMCOM is using both the Army Performance Improvement Criteria and Lean Six Sigma. So, what is the linkage or alignment between these two initiatives? Is it simply a matter of choosing one over the other? Are they equal? Can one be substituted for the other? The short answer is no, for both are essential. The APIC defines a comprehensive set of processes that, taken together, optimize organizational and unit performance. The criteria are not prescriptive; they reflect what an organization should be doing, not how it should be done. Lean Six Sigma prescribes a course of action that enables organizations and units to implement rapid improvements on high pay-off projects.

Although one is descriptive, while the other is prescriptive, similarities exist. Both require the commitment of senior leaders in providing direction in implementing organization-wide practices and procedures to ensure organizational success (APIC categories 1 and 2). Like the APIC, Lean Six Sigma considers the voice of the customer in determining customer requirements and balancing those requirements against the capability of the organization (category

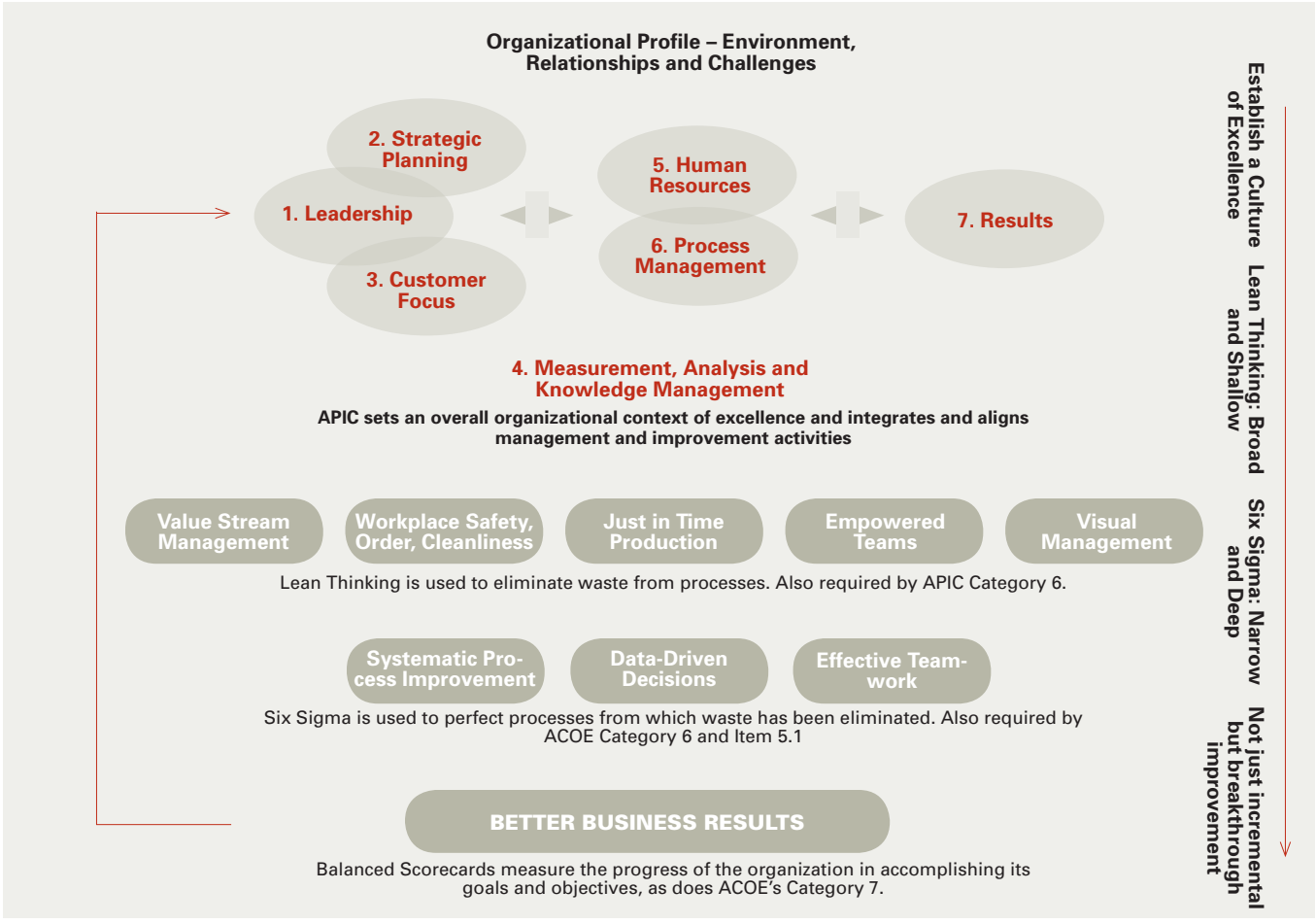
3). Both identify the need to make information and data available to leaders and employees (APIC category 4). Further, both acknowledge the need to empower and motivate employees through self-directed work teams, to provide for a safe and healthful workplace, and to train employees on skills required to support the organization's overall strategy (APIC category 5). Both address areas in category 6 of the APIC in relating to improving value creation processes (item 6.1), and key support processes (item 6.2) to achieve better performance, to reduce variability, to enhance products and service performance, to reduce costs and to keep processes current with business needs and direction. Finally, both stress the importance of monitoring ongoing performance and continuous process improvement. The diagram below shows the alignment between the APIC and LSS and how they contribute to better business results and breakthrough improvements.

As IMCOM moves forward with Business Transformation, the implementation and integration of these two programs across the spectrum of its operations is essential for future success. IMCOM will continue to pursue the CMP and goals that encompass four key themes: leader development, innovation in resource management, agility in being customer focused and results-driven, and sustaining infrastructure to meet mission requirements.

There are four underlying principles of the Corporate Management Process as shown in the diagram on Page 40.

Strategy Driven. IMCOM will focus on accomplishing specific, measurable goals and objectives to pursue installation excellence in becoming the "Communities of Choice." As a core APIC value, senior leaders set direction and create a customer focus, clear and visible values and high expectations. In LSS, the identification of priority projects is based on input from senior leaders and aligns with the organization's strategy.

APIC and Lean Six Sigma Alignment



Customer Oriented. IMCOM exists to provide quality services that meet and exceed the expectations of the Army's Soldiers and their families, which is critical to recruitment and retention. As a core APIC value, customer driven excellence requires organizations to listen to their customers, to learn their requirements and preferences, and to build relationships, which help instill trust, confidence and loyalty. In LSS, the voice of the customer is required to produce products and services that meet expectations and delight customers.

Decisions based on facts. Leaders at all levels in IMCOM should make informed decisions using solid information to guide actions ensuring effective, efficient and responsive mission execution. As a core APIC value, management by fact encompasses the analysis of data to extract the larger meaning from data and information to support decision-making based on facts versus intuition or gut feel. In LSS, data analysis is used to determine root causes that are blocking the efficient operation of key processes.

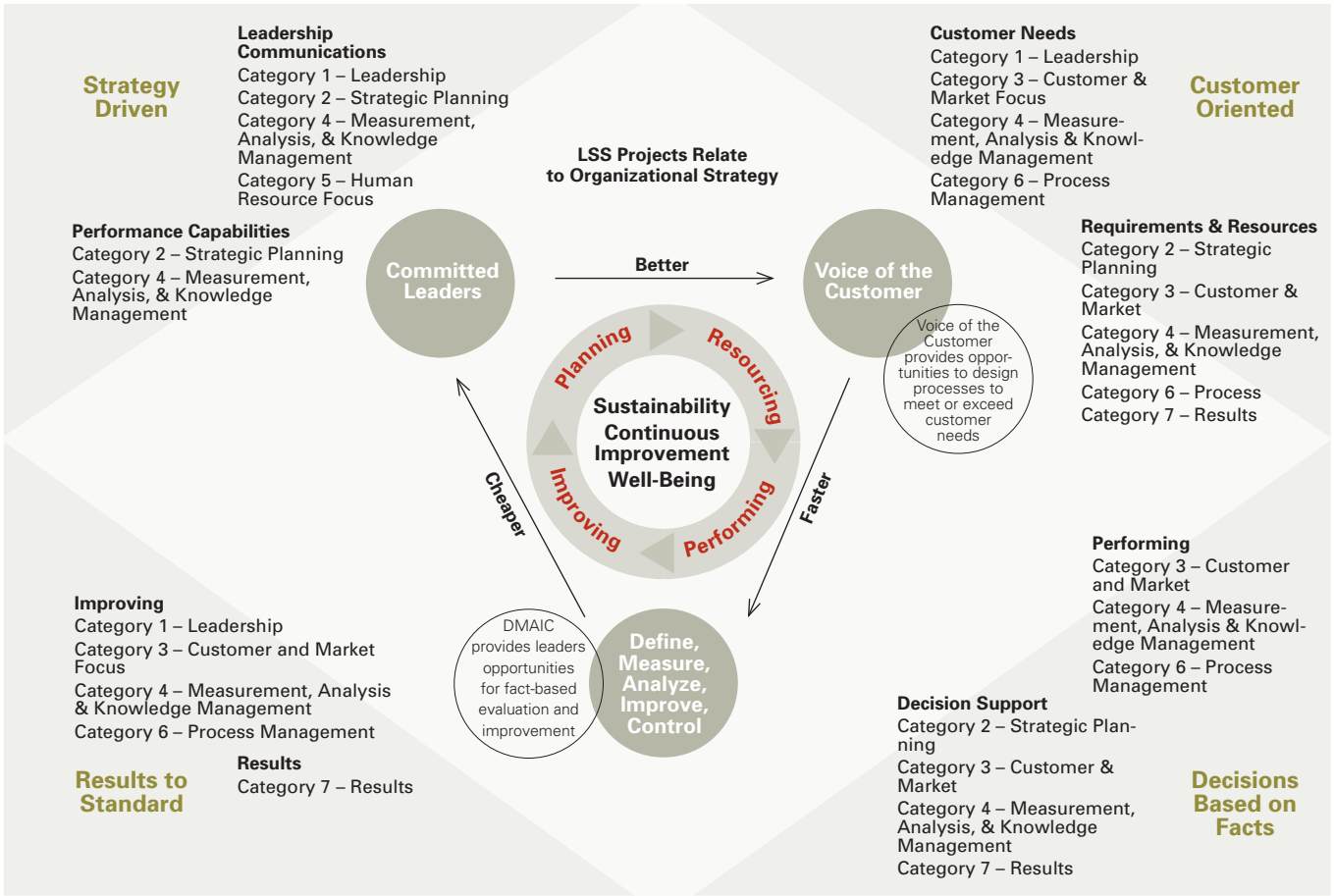
Results to standard. Employees within IMCOM know what is expected and customers are assured of high quality. As a core APIC value, a focus on results ensures consistency in processes and use outcome-based, numerical results that provide a clear basis for improving results based on a review of the past, a look at today, and performance projections for the future. In LSS, results to standard reflect the ability of the organization to "control" processes to sustain improved levels of performance.

The diagram below shows the integration of APIC, Lean Six Sigma and CMP. In the center of the diagram are the four key components of the Corporate Management Process – planning, resourcing, performing and improving.

Planning – Translate corporate strategy to organization performance and cascading that strategy down through the organization and into individual performance plans.

Resourcing – Generate resource requirements needed to execute strategy; and fund programs and requirements according to organizational priorities.

Integration of APIC, Lean Six Sigma and CMP



Performing – Measure and report performance and communicate this performance to stakeholders.

Improving – Improve organizational effectiveness and efficiency by improving service quality internal processes.

Within these key components is embedded IMCOM's values of ensuring future sustainability, enhancing the well-being of the Army's Soldiers and their families, and pursuing continuous improvement to improve the effectiveness and efficiency of installation services that will enhance customer satisfaction and improve the capabilities of the command.

Located around the four components are three key LSS concepts – committed leaders, voice of the customer, and define, measure, analyze, improve and control – essential for implementing process changes that are better, faster and cheaper. Each concept links to the Army Performance Improvement Criteria and the Corporate Management Process.

Committed Leaders

To be successful, Lean Six Sigma requires the commitment of the senior leadership. Senior leaders are responsible for providing guidance, directing the establishment of project charters that align with the organization's strategy, and ensuring the allocation of resources to support the project. These same concepts are embedded within the CMP "Planning" component and in APIC categories relating to leadership (category 1), strategic planning (category 2), human resources (category 5), and operational planning as part of category 6.

Voice of the Customer In LSS, the voice of the customer relates to the listening and learning strategies organizations use to determine customer requirements for a given product or service. Project teams use this information, balanced with the capabilities of the organization, in designing processes to meet key customer requirements. These functions occur within the "planning" component of the CMP through the identification of priority projects by the senior leadership and in the "resources" component with the allocation of funds, personnel and equipment needed to support the project. Key alignment within the APIC comes in category 2 during the organization's assessment of its strengths, weaknesses, opportunities and threats relating to customer needs in category 3 when determining customer requirements and in category 6 when ensuring resources are available to support current and future financial obligations.

Define, Measure, Analyze, Improve and Control

In LSS, DMAIC is the basis for fact-based decision-making used to evaluate and improve organizational processes. Within the CMP, it supports the key components of "performing" and "improving" as it provides a standard process that chartered project teams use to define the scope of the project, validate the measurement system, analyze and identify root causes, implement a pilot program, and finally, implement the solution and ongoing controls. Alignment to the APIC is in categories 4 and 6 with the identification, selection and analysis of data, designing and monitoring the process; and instituting evaluation and improvement into its systems. There is also linkage with category 7, for each project links to organizational strategy and improvements in key processes contribute to breakthrough improvements, innovative thinking and high performance.

Closing Comments

Finally, the APIC categories, as part of an integrated management system, touch on all facets of organizational performance and improvement. It is through APIC-based organizational self-assessment programs that garrison leaders can gain greater insight into the garrison's strengths and opportunities for improvement. The key opportunities for improvement that link to organizational strategy provide excellent prospects for future LSS projects that can lead to breakthrough performance, greater process efficiencies and organizational agility through rapid change.

In summary, there should be no issue concerning what system to use – all are part of a comprehensive process to optimize installation performance. The IMCOM challenge is to integrate these systems to drive overall improvement. The Corporate Management Process provides the overall corporate strategy for how IMCOM will do business; the APIC is the foundation through which IMCOM can assess how well it is carrying out that strategy; and, LSS enhances IMCOM's ability to improve process performance. Taken together, these systems are essential in attaining installation excellence and achieving IMCOM's vision – to be the "Communities of Choice."

Rosye Faulk is chief of the Business Improvement-Lean Six Sigma Solutions Center within the Installation Management Command. She also is the Quality, Improvement and Innovation team leader and the Army Communities of Excellence program manager.

April Corniea is a retired U.S. Army National Guard colonel.

Information presented is used with permission of Dr. Mark Blazey and April Corniea of Quantum Performance Group and includes information from "Insights to Performance Excellence 2006 – An Inside Look at the 2006 Baldrige Award Criteria" and the Installation Management Agency's OSA Report Analysis Program of Instruction (2006). Additional sources are "Insights, Appendix E: Alignment of Baldrige with Six Sigma, Lean Thinking, and Balanced Scorecard" by Paul Grizzell and Blazey.

The Future of the Army Communities of Excellence Program within the Installation Management Command

By Rosye Faulk

Both at home and abroad, the role of installations and their communities is increasingly important in sustaining and launching forces worldwide. With the process of continuous improvement to provide a role model in customer service and satisfaction, the Army Communities of Excellence (ACOE) program assesses and rewards Army installations' journeys toward excellence.

Since the early 1990s, ACOE has mirrored the National Malcolm Baldrige Award program. In 2004, the Installation Management Agency (IMA) began making significant changes to the overall program. The Installation Management Command (IMCOM) will continue to shape the future of the ACOE program during a time when operational efficiency and effectiveness are requirements for organizational success.

To shape the future of the ACOE program, we must first look at its components and how it has evolved to what it is today and what it will be in the future. This article will address three major areas — the use of the Army Performance Improvement Criteria (APIC) as a strategic framework for managing change, the Organizational Self-Assessment (OSA) as a tool to enhance continuous improvement across the spectrum of the organization and ACOE as a competitive program recognizing excellence.

APIC as a Strategic Framework

Based on the Malcolm Baldrige Criteria for Performance Excellence, APIC is a strategic framework for leading change and assessing performance as recommended in Army Regulation 5-1: Total Army Quality Management. The criteria are a comprehensive set of processes proven to have optimized performance in every type of organization throughout the United States. APIC is not based on theories of how organizations ought to be run; but rather, on a compilation of management practices in seven key areas that are shared by the world's top performing organizations.

The seven categories of leadership, strategic planning, customer and market focus, measurement, analysis and knowledge management, human resource focus, process management, and results do not stand alone. They are part of an integrated management system that work together to achieve high performance. When applied as an integrated system, APIC can enable Army leaders from across the globe to examine all aspects of their operations, ensure stewardship and public trust, promote the sharing of best practices, create an environment for organizational learning and lay the groundwork for continuous improvement and high performance in a time of uncertainty.

This spring, IMCOM will be working with the Administrative Assistant to the Secretary of the Army (AASA) to develop the 2007 Army Performance Improvement Criteria. APIC is based on the Baldrige Criteria that will be published by the National Institutes of Science and Technology (NIST) early in 2007. This year's edition will likely bring several significant changes to the criteria with the most significant in category 5, human resources, and category 6, process management.

Organizational Self-Assessment: A Tool for Identifying Opportunities for Improvement

The Government Performance and Results Act of 1993 mandates annual assessments of governmental agencies. In 2004, the assistant chief of staff for Installation Management (ACSIM) established a policy mandating the participation of all IMA garrisons in an organizational self-assessment program. During the initial year, ACSIM required the garrisons to conduct assessments in 2006. The IMA contracted with the National Council for Performance Excellence (NCPE) to administer a Web-based tool based on APIC that was customized by IMA Headquarters and region staffs for easier understanding by Army readers.

The Organizational Self-Assessment provides corporate surveillance of operations, thereby identifying both strengths and opportunities for improvement; and, highlighting potential preferred practices. The OSA is an industry standard tool that embeds the expectation for continuous improvement – a key theme of IMCOM's Corporate Management Process. Figure 1 shows the deployment of the OSA within a garrison.

The 49-question OSA Tool (figure 2) takes about two hours to complete and gathers data from a cross-section of employees at each installation and produces accurate timely, comprehensive, and objective feedback to leadership in order to:

- Measure performance management systems and processes within the APIC framework.
- Help identify organizational strengths, deployment gaps, and prioritize vital opportunities for improvement relative to APIC.

Finally, the OSA uses a maturity scale with behavioral anchors to determine the performance level in each APIC area, thereby increasing accuracy and clarity over a traditional survey approach.

Figure 1 – OSA Garrison Deployment

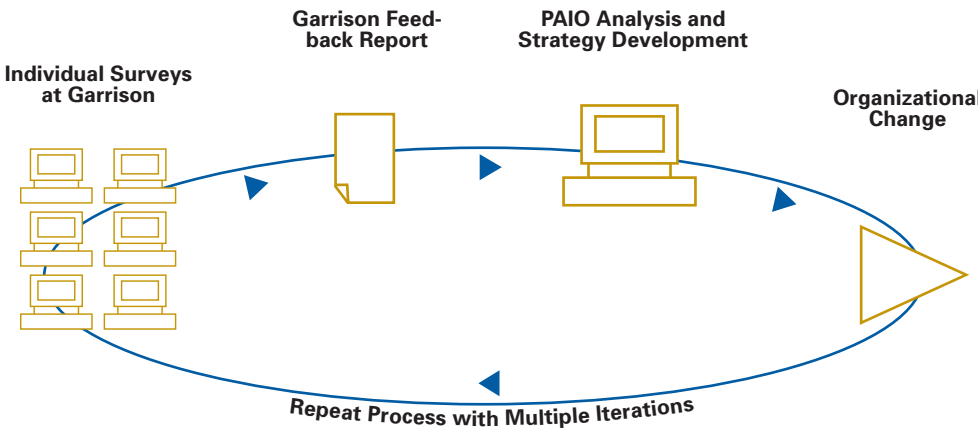


Figure 2 – OSA Questions and Maturity Levels

1A Vision and Values: Set and Deploy Vision and Values [APIC ref: 1.1a(1)]
How well do senior leaders set and deploy vision and values throughout the garrison and to appropriate key suppliers, partners, and customers? Do their personal actions show they are committed to these values?

Sample Question from the OSA

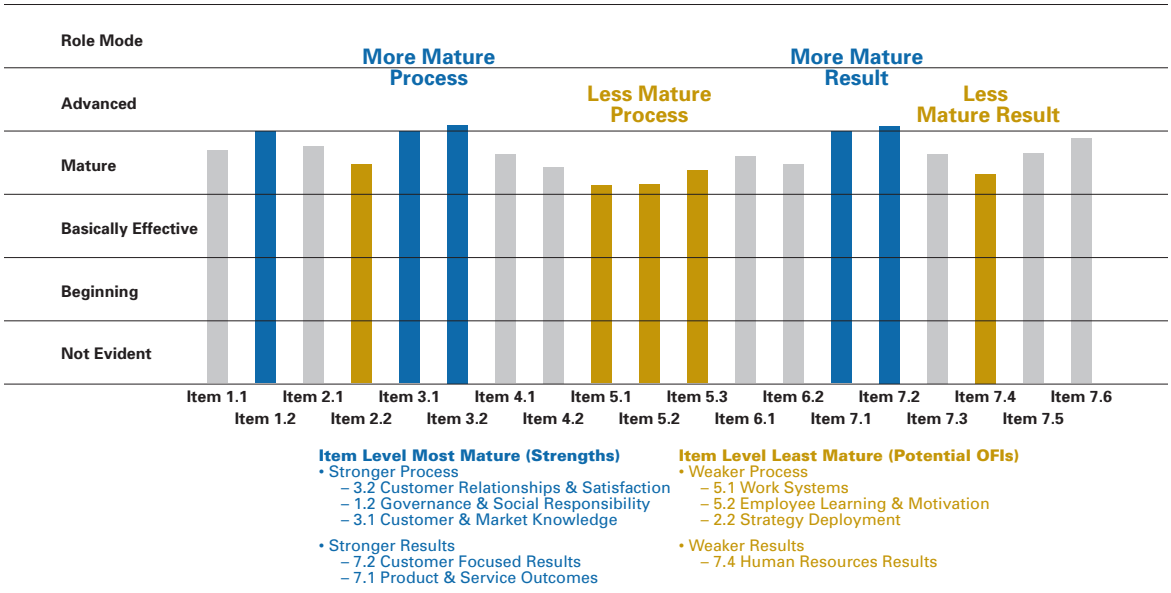
Maturity Level with Descriptions

1	2	3	4	5	6
Not Evident Senior leaders do not effectively guide the garrison or establish and convey the garrison's values and directions. Leaders usually wait and react to problems after they become serious.	**Beginning** A few senior leaders have started to guide the garrison by establishing and conveying directions to some employees. The process is not very effective since it is not consistently or widely used.	**Basically Effective** Some senior leaders effectively guide the garrison by establishing and conveying directions to many employees. Leaders are starting to gather data to evaluate the effectiveness of some of these processes.	**Mature** Many senior leaders effectively establish and convey the garrison's vision and values to many employees. Leaders sometimes make changes to these processes and check to see if the vision and values are understood. They sometimes make process improvements as a result.	**Advanced** Most senior leaders effectively establish and convery the garrison's vision and values to most employees and key suppliers. Their personal actions usually follow these values. Leaders regularly evaluate the effectiveness of these processes and check to see if the vision and values are understood. They sometimes make process improvements as a result.	**Role Model** Nearly all senior leaders effectively establish and convey the garrison's vision and values to nearly all employees, and appropriate suppliers, partners, and customers. Their personal actions nearly always follow these values. Leaders regularly evaluate the effectiveness of these processes and check to see if the vision and values are understood. They consistently make process improvements as a result. They have developed innovative approaches in these areas and share best practices with leaders across the garrison.

Comments:
Describe how senior leaders set and deploy vision and values across the garrison. To what extent do their personal actions and words reflect the vision and values of the garrison/IMCOM? How widely are they understood? Describe improvements and/or innovations to these processes, if any.

Area for Comments

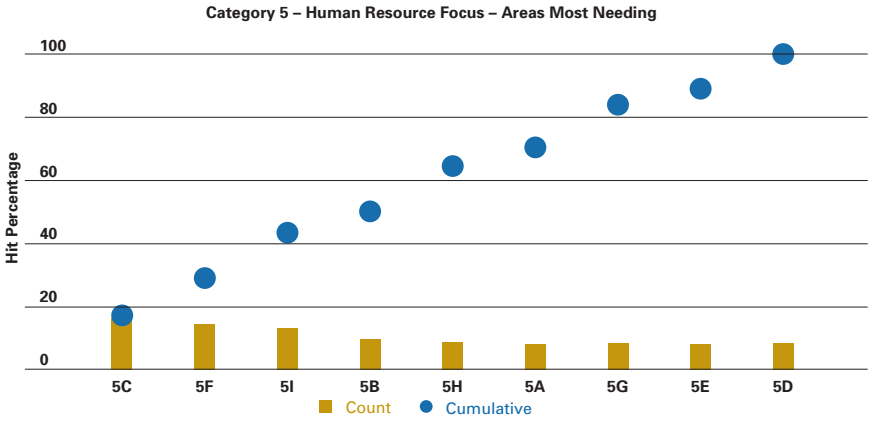
Figure 3 – Sample Overall Item Level Maturity Levels



Item Level Most Mature (Strengths)
- Stronger Process
  - 3.2 Customer Relationships & Satisfaction
  - 1.2 Governance & Social Responsibility
  - 3.1 Customer & Market Knowledge
- Stronger Results
  - 7.2 Customer Focused Results
  - 7.1 Product & Service Outcomes

Item Level Least Mature (Potential OFIs)
- Weaker Process
  - 5.1 Work Systems
  - 5.2 Employee Learning & Motivation
  - 2.2 Strategy Deployment
- Weaker Results
  - 7.4 Human Resources Results

Figure 4 – Sample Pareto Chart



Item 5.1 Questions

5A Organization and Management of Work: Promoting empowerment, cooperation, initiative, innovation, diverse ideas, thinking, communication, and high performance culture among employees throughout the Garrison [APC ref: 5.1a (1, 2 & 3)]

5B Employee Performance Management System: Providing feedback, compensation, and recognition to support high performance goals and a customer and business focus [APIC ref: 5.1b]

5C Hiring and Career Progression: Building a shilled workforce, ensuring effective succession planning throughout the Garrison, and managing career progression [APIC ref: 5.2b (1, 2 & 3)]

5D Employee Education, Training, and Development: Education, training, and developing the workforce to meet action plans and other business and employee needs [APIC ref: 5.2a (1, 3, 5 & 6)]

5E Employee Education, Training and Development: Designing and delivering training and education [APIC ref: 52a (2, 4 & 6)]

5F Motivation and Career Development: Motivating employees to develop their full potential [APIC ref: 5.2b]

5G Work Environment: Creating a safe, secure, and healthful work environment and preparing for emergencies and disasters [APIC ref: 5.3a (1 & 2]

5H Employee Support and Satisfaction: Providing appropriate services and benefits to enhance the well-being, satisfaction, and motivation of all types of employees [APIC ref: 5.3b (1 & 2]

5I Employee Support and Satisfaction: Assessing and improving employee satisfaction well-being, and motivation [APIC ref: 5.3b (3 & 4)]

After completing the OSA, garrisons receive a comprehensive feedback report (figure 3) reflecting maturity levels in each of the 19 APIC items that identify organizational strengths and potential opportunities for improvement. They also receive Pareto analyses (figure 4) of key areas recommended for immediate improvement, and the capability to view data segmented by category, position, and function to determine overall organizational gaps. Additionally, the report contains unedited comments at the end of each APIC item that provides insight about how processes work and what problems are perceived to exist from the perspective of leaders, managers and employees.

The Plans, Analysis and Integration Office (PAIO) then analyzes the quantitative information contained in the feedback reports and helps leaders make data-driven decisions relating to strategy development and the future of the organization. Additionally, the PAIO can use results from the Pareto analyses to recommend priorities for immediate improvement and potential Lean Six Sigma projects.

Shaping the Future of the ACOE Program

The ACOE program recognized performance excellence in Army organizations as early as the 1990s. Since its beginning, the ACOE Award Program has recognized top installations that have demonstrated organizational maturity in how they approach and deploy processes targeting key performance gaps. Award winners have historically displayed outstanding capabilities in setting improvement priorities, and introducing better ways to work with their customers, partners and suppliers.

In a program where evaluation and improvement are key themes, change is inevitable. Through the years, numerous changes have occurred within the ACOE program to include the full adoption of the National Baldrige Criteria.

Before 2004, the hub of the ACOE program was at the region level. Regions trained examiners, conducted independent evaluation and selection processes and determined finalists for the Department of the Army (DA)-level competition. The top organizations of the Army National Guard and Army Reserve also participated in the DA-level competition. These top organizations continue to be recognized each spring during a ceremony at the Pentagon.

In 2004, significant changes began to take place with the program. Internationally recognized experts and industry leaders on quality were asked to serve as program advisors to improve the overall award program. These quality experts improved the quality of feedback reports and they continue to be a driving force behind many current program improvements. These improvements include the establishment of a two-phased board process that reduces overall program costs, examiner workload and the amount of time examiners are required to spend away from work and their families. Moreover, redesigned training courses have increased the overall quality of examiners, providing them with not only a greater understanding of the criteria, but also a better understanding on how to develop feedback reports that are of greater value to the submitting organization. In 2005, the "shadow" program with its week-long training course provided a new pool of examiners, with demonstrated proficiency into the assessment process.

Based on the ACSIM's 2004 requirement for installations to undergo an annual self assessment, IMA contracted for the Web-based OSA. After an initial pilot program, more than 80 installations used the Organizational Self-Assessment in 2006. Based on fiscal 2007 ACOE applications, garrisons are using OSA results to incorporate changes in several key areas: strategic planning, customer relationships and human resources.

As stated earlier, all competing installations, regardless of size and mission, are directly evaluated against the APIC. The feedback resulting from the assessment process delivers valuable insights for the installations that assess their condition. The ACOE builds on the organizational knowledge driven by the assessment focusing on a change in thinking from "minimal essential" to "maximum possible" in supporting Soldiers and their families.

The Future of ACOE

In a time when the Army is operating in an environment of uncertainty and unpredictability, when resources are constrained, operational tempo is high and efficiency is mandated, the use of APIC in driving change and performance improvement cannot be understated. However, improvement within the ACOE program is an ongoing process.

The magnitude and complexity of completing a 50-page application is daunting for most installations especially during the current operational tempo. Additionally, most organizations do not have the personnel who possess the knowledge or skills required to write an application to make it to the top tier. Organizations that have sub-

mitted applications in the past and that do not have the time to fully commit to the program are finding that they can't merely "dust off" the application from one year to the next in order for it to be a true representation of the garrison.

Results from the 2006 OSA indicate the organizations recognized for "excellence" in the ACOE program were some of the top performers on the OSA; however, there were other garrisons who had previously not competed in the ACOE program that were also "mature" according to OSA feedback. By using the OSA to encourage participation in the ACOE competition, the level of competitiveness will be constantly raised because there will be a new pool of applicants and higher standards from year to year.

In shaping its future, ACSIM is looking at options to reshape the ACOE program as we know it today. While participation in the ACOE program is strongly encouraged, the command does not have, nor will it in the future, have resources to support a program that would include the participation by all. Nor, due to maturity levels, would all garrisons be encouraged to expend the resources and commit to the time obligation required to develop a written application. In some case, more is not always better.

During the program transformation, IMCOM will accept a reduction in the number of garrisons submitting written applications, while focusing its efforts on increasing quality and participation in the OSA. The OSA is a cost-effective assessment tool that can be deployed to garrisons across the globe that minimizes resource requirements and portrays a level playing field for all participants.

A new program may require innovative approaches for training new examiners, conducting site visits, the board process, all the while ensuring the careful stewardship of the command's resources. In the spirit of continuous improvement, IMCOM is constantly looking for ways to streamline operations, share information and raise standards.

As IMCOM moves forward in shaping the ACOE program of the future, great care must be taken to maintain the integrity of the criteria, develop a program that will minimize overall impact on the garrison and ensure that performance excellence is truly recognized.

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Information presented within this article is used with permission of Dr. Mark Blazey and retired Colonel April Corniea from Quantum Performance Group and includes information from the 2006 Army Performance Improvement Criteria, "Insights to Performance Excellence 2006 – An Inside Look at the 2006 Baldrige Award Criteria" and the Installation Management Agency's OSA Report Analysis Program of Instruction (2006)

Overcoming Organizational Challenges for the Army to Fully Implement ISO 14001– Conformant EMS

By Rachel Dagovitz

An Environmental Management System (EMS) is part of an organization's overall management system. The EMS provides the organization with a system framework to identify, control and monitor its activities and processes that can directly or indirectly have environmental impacts. A fully-implemented EMS encompasses organizational structure, responsibilities, procedures, plans, resources, and policy.

Executive Order (EO) 13148 directs federal agencies to develop an EMS at their "appropriate facilities" by December 31, 2005. Federal agencies determine appropriate facilities based on size, complexity, and the environmental aspects of the facility operations. In addition to the requirements of EO 13148, the Army determined that it would implement the internationally recognized International Organization for Standardization (ISO) 14001 standard at its appropriate facilities. The Army's decision to implement the ISO 14001 standard will ultimately improve installation operation when fully carried out. This paper will examine the decision-making process that the Army used for choosing the ISO 14001 standard, the implementation process, and the challenges to the Army in obtaining the full benefit from the ISO 14001-conformant EMS. The author will draw on field experience from the the Installation Management Agency (IMA) – now called the Installation Management Command – in addition to literature review for the entire Army.

Background

In the early to mid-1990s, the federal government began transitioning from regulatory-driven environmental management to a more forward-thinking management systems approach. Compliance-based programs focus on meeting regulatory standards. They have not been successful in encouraging regulated entities to improve performance beyond complying with existing requirements.

The ISO 14001 standard focuses on management activities rather than environmental activities. One of the best-known aspects of the ISO 14001 is the continual improvement cycle – Plan, Do, Check, Act

Several events in the mid-1990s moved the Department of Defense (DoD) to adopt a systems approach to environmental management. In 1995, the U.S. Congress adopted the National Technology Transfer and Advancement Act that requires federal agencies to use voluntary consensus standards rather than creating their own standards or requirements. In 1996, the Environmental Protection Agency (EPA) developed the "Draft Code of Environmental Management Principles." The Code emphasized pollution prevention and sustainable development, and contained similar concepts to the EMS and other existing management initiatives. The same year, the ISO 14001 standard was issued.

The ISO 14001 standard is a cyclical process that provides a framework for the EMS. The ISO 14001 standard focuses on management activities rather than environmental activities. One of the most well-known aspects of the ISO 14001 is the continual improvement cycle – "Plan, Do Check, Act." There are five general components: environmental policy; environmental planning; implementation and operation; monitoring and corrective action; and management review. The elements of an ISO 14001 EMS are auditable requirements.

The Army Decision-Making Process

Army Alignment with EMS and ISO 14001

When the Army decided to evaluate the ISO 14001 standard for implementation at its installations, senior leaders were looking to achieve several important benefits, including moving the Army to the industry best practice, instituting an internationally-recognized standard, providing inter-operability

across installations, managing for mission priorities, and incorporating compliance through pollution prevention.

From an agency perspective, the Army had most of the key elements that form the foundation of an ISO 14001 EMS, including environmental policy, planning, program oversight, regulations, corrective actions, and management reviews. Key pieces of the EMS that were not in place at the installation-level include the environmental policy for ISO 14001 EMS, the full range of ISO 14001 required procedures, and the root cause analysis and systems approach to addressing environmental management. Army Headquarters (HQDA) believed that it would not be difficult to align existing Army environmental program elements to the ISO 14001 conformant EMS.

DoD Pilot Projects

Beginning in 1998, the Army participated in a two-year DoD pilot project to study potential costs and benefits of undertaking an ISO 14001-conformant EMS. Six Army installations participated in the study: Forts Bliss and Lewis, Letterkenny and Tobyhanna Army Depots, Radford Army Ammunition Plant, and Yuma Proving Ground. The Army Materiel Command Tank and Automotive Development and Engineering Center, Fort Riley and West Point participated informally in the study.

The results of the pilot study showed that the Army could anticipate positive benefits from EMS, such as improved risk management, increased awareness and understanding of operational impacts on the environment, better integration of environmental considerations into the department's decision-making processes, and positive public perception of the Army. The pilot study was not able to demonstrate two factors that were important to the Army. The results did not confirm that the ISO 14001 standard was value-added to the EMS at the installation level, nor could the study calculate economic benefits of an ISO14001 EMS.

There were some difficulties in attributing economic benefits to the ISO 14001 EMS:

The short time frame of the study was weighted on the development phase of EMS, which has higher costs than EMS implementation.

Additionally, the study did not develop performance indicators that could be attributable only to ISO 14001 elements.

Benchmarking EMS Implementation Costs

In addition to the DoD pilot projects, the Army was interested in benchmarking costs and performance expectations for ISO 14001 EMS based on the experience of other federal agencies. The Army evaluated the experience of the Department of Energy, U.S. Postal Service, and the National Aeronautics and Space Administration (NASA). The author looked at the results of the NASA study to determine the factors affecting costs of ISO 14001 development and potential similarities with Army installations.

In 1998, NASA conducted a cost-benefit study to verify EMS resource requirements, costs, and benefits. Results of the business case analysis found that ISO 14001 was the best framework for their EMS. The study determined that most costs were related to complying with the EMS requirements of EO 13148. About 20 percent of the development costs were ISO 14001-specific activities. Factors that most affected cost included facility size, environmental issues, and the gap between the existing EMS and the ISO 14001 requirements. The study found the primary benefits to the facility to be increased operational efficiency in environmental management and attainment of NASA strategic environmental goals. NASA leadership considered the EMS contribution to attaining the strategic environmental goals an important benefit.

ISO 14001 EMS Decision Point

In 2001, the Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) issued a memorandum that directed Army installations to comply with EO 13148 and adopt the ISO 14001 standard as a goal with full conformance with the ISO 14001 standard by fiscal year 2009. Based on research and the EMS pilot project results, the Army undertook the commitment to ISO 14001 with the expectation that the Agency would be able to implement ISO 14001 and recover initial investment by FY 2004. The ISO 14001 proposal was based on several significant assumptions. The proposal advocated a mission focus, central investment in EMS tools, preparation of EMS templates, leveraging of existing programs, and command emphasis.

Ultimately, the Army's decision to proceed with the ISO 14001 standard was based on expectations that installations with ISO 14001 EMSs would demonstrate more reliable performance, improved compliance, better documentation support and operating procedures. Another important benefit would be consistent management reviews and exchange of information among installation departments to identify opportunities to improve performance and identify cost-saving measures. The Army wanted to obtain consistent job performance in spite of staff turnover.

Where the Army is Today with EMS and ISO 14001 Implementation

Army Status of ISO 14001 EMS Implementation

To date, all Army installations have met the federal requirements of EO 13148 to have an EMS framework in place by December 1, 2005. Army policy requires an ISO 14001-conformant EMS by September 2009.

The advancement of EMS at IMCOM installations varies by installation. Several IMCOM and Army Materiel Command installations have already met their ISO 14001-conformance requirement and are either self-certified or had third-party certification. These installations are in the minority and their advancement has been due to leadership demonstrated at the installation level. The majority of installations are midway through developing their ISO 14001 elements, although the exact level of progress is unknown.

In September 2006, the Federal EMS workgroup completed a second set of metrics to measure the advancement of EMS implementation at federal facilities. The Army EMS workgroup recommended that additional Army-specific metrics should be integrated into the federal workgroup metrics. HQDA will likely assign additional EMS metrics to Army installations by December 2006 with first reporting of new requirements by March 31, 2007.

Has the Army Implemented ISO 14001 as It Planned?

As the Army proceeded with EMS development and the adoption of ISO 14001, it also went through a significant reorganization with the standing up of the Installation Management Agency (IMA) on October 1, 2002. The reorganization shifted installation management oversight responsibility from Major Commands to a newly created IMA Headquarters and the seven IMA regional offices. The agency reorganization and creation of semi-autonomous regional offices delayed IMA Headquarters' ability to centrally manage the EMS program and standardize across the IMA regions in alignment with the concept of Common Levels of Support for installations.

The Army did proceed with its intention to fund the initial EMS development. Installations were authorized to allocate $240,000 for development of their EMS between FY04 and FY06. The National Guard Bureau (NGB) and Army Reserve Office (ARO) Headquarters retained a portion of the EMS funding to centrally purchase a corporate license for an EMS IT program and training. The centralized approach allowed for significant cost savings and standardization. IMA was not in a position to purchase the EMS IT program because of the potential conflict with the Business Enterprise Architecture study being conducted at Headquarters Department of the Army. Both the NGB and the ARO were able to complete the business case analysis and gain exceptions to the restrictions of centralized IT programs. As there continues to be installation interest in purchasing the EMS software and apparent additional cost savings potential, IMCOM may wish to consider centrally funding the same EMS software in order to standardize on a common EMS IT platform for the Army.

The Army has provided centralized technical support for the development of EMS materials through the work of the Army Environmental Command (AEC). Support materials have included implementation guides and templates for some ISO 14001 elements. The scope of HQDA support has been significantly less than what was contemplated when the ISO 14001 initiative was originally planned. The NGB and ARO have developed some important outreach and training materials specific to their organization.

In 2005, the IMA Environmental Division conducted a comprehensive review of the EMS products prepared by its installations (including the Army Reserve) to assess the advancement of EMS as part of EO 13148 requirements. An important finding was that most EMS products were developed by contractors. The level of installation involvement varied significantly. The overall quality of EMS products was also variable. IMA Headquarters required approximately 30 percent of IMA and ARO installations to rework one or more EMS products to meet the intent of the EMS metric.

EMS implementation costs have been higher than originally expected due to greater reliance on consultant support at the installation level. This is consistent with the findings from the National Database in Environmental Management Systems (NDEMS) pilot project study on EMS performance that found several drivers for EMS development cost.

The study found that government facilities generally had higher costs than industry due to more reliance on consultants to develop EMS and ISO 14001 elements. Private sector facilities had greater support from their headquarters through centrally-developed products. Consistent with findings from the NASA cost/benefit study, EMS design cost was affected by the size and complexity of

the facility. The amount of work experience that installation staff had working on EMS or management system elements comparable to EMS and ISO 14001 also affected implementation cost. Army installations generally had elements of the EMS framework; however, the compilation of the EMS manual, and identification and prioritization of environmental aspects and impacts, have been a challenge.

A very positive initiative at IMCOM installations has been the incorporation of EMS into the sustainability planning process. Sustainability has been gaining notable management support from DoD and Army leadership. Army leadership has reaffirmed the use of ISO 14001 as the tool for achieving sustainability. In the Army Strategy for the Environment, the planning document states that "Sustainability will be integrated into all activities by using ISO 14001 EMS as the framework to improve compliance and performance."

Analysis of EMS Implementation

Implementation Challenges

As the Army moves into ISO 14001 development, it is necessary to evaluate if the Army is proceeding with the same level of support as originally planned. The author's perception is that there is a need to further reenforce understanding and support for EMS and ISO 14001 with mid-level program managers and, to some extent, with garrison commanders.

The Army challenge lies in institutionalizing the cross-functional organizational acceptance of EMS. The EMS program needs to avoid the trap of the appearance of compliance, or as it is sometimes referred to as "check the box." In order for EMS and ISO 14001 to be successful, there needs to be accountability and benchmarking of results. HQDA needs to continue to provide leadership to ensure the quality of EMS and ISO 14001 products. The author and other EMS managers are concerned that without such leadership, EMS and ISO 14001 will be constrained to an administrative exercise that will not contribute significantly to overall process improvement.

Installation feedback has clearly indicated that headquarters support is necessary to maintain momentum of EMS implementation. HQDA needs to support installations by assisting with training, providing leadership visibility for the program, and developing ISO 14001 tools that will be required for conformance with the standard.

IMCOM Headquarters is undertaking a survey of its installations to identify support needs for the ISO 14001 requirements. Support products will be prepared centrally and posted on the IMCOM Army Knowledge Online (AKO) Website. EMS auditor training is also being planned by Headquarters for implementation at several IMCOM installations.

Reinventing EMS as a Business Process

The Army has been studying the EMS experiences of the private sector. The Army's adoption of ISO 14001 came from the interest in achieving work efficiency that could be documented and benchmarked. The Army should develop benchmarking performance indicators to document environmental and economic benefits derived from ISO 14001 EMS implementation. Examples of broad categories of indicators include improved regulatory performance; operational efficiencies; management efficiency; reduced liability; energy use; conservation of natural resources; and reduced accidents. There are also qualitative benefits from EMS and ISO 14001 such as improved relationships with regulators and positive public perception of Army stewardship.

It is sometimes difficult to determine when EMS development ends and implementation begins. EO 13148 required Army installations and facilities to establish an EMS framework by December 2005. However, it is important to note the disparity of EMS proficiency among installations. Some installations are still developing their EMS. A few installations are ISO 14001 certified, and others have been able to take their mature EMS to the next level by incorporating sustainability measures. For this reason, it is still difficult to quantify EMS benefits across the Army or even within IMCOM.

Conclusion

In spite of the challenges facing the Army, the development and implementation of the ISO 14001-conformant EMS should remain the preferred standard. Fully implementing the Army's policy of a mission-focused ISO 14001- conformant EMS at its installations will achieve improved operational efficiency and potentially quantifiable cost-savings.

The Army has been encountering some organizational resistance to implementing EMS and ISO 14001 due to inconsistent leadership messages that are flowing primarily from mid-level managers. Some managers believe that the Army has transitioned from EMS to the "Lean Six Sigma" process. Army policy and ISO 14001 requirements have not changed. Incorporating EMS into job performance standards for headquarters, region managers, and garrison commanders will help institutionalize the program.

Organizationally, EMS staff would benefit from transferring the EMS function from the Environmental Division to the Plans, Analysis, and Integration Office. This move would facilitate EMS communication outside of the environmental program and promote communication with the garrison commander at the installation-level.

Army Headquarters should benchmark the EMS program and develop performance indictors to monitor and capture benefits to the Army – both quantitative and qualitative. Responsibility for achieving EMS success should be incorporated into manager evaluations at all levels of execution including the garrison commander.

The factor that appears most important for EMS success is Army leadership and corporate understanding of EMS and ISO 14001 benefits. Leadership and program managers must be engaged and accountable at all levels from HQDA to the installation staff.

Rachel Dagovitz served as IMA EMS program manager and is the EMS manager at the Installation Support Office for the U.S. Army Environmental Command.

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Linking Leadership Styles to Power Sources

By Charles E. Boyer

Leaders of the sustaining base in the Army's Future Force must have effective and efficient ways to quickly accomplish goals and increase productivity. If Army leaders are to be prepared for the challenges ahead, new ways of applying the principles of leadership should be developed and tested. The study of leadership development includes theories of leadership style in which leaders draw upon their knowledge and experiences to identify their individual preferences in interacting with others.

The concept of power sources in organizations, on the other hand, is a separate discussion of leadership development, not considered within the context of leadership style. An understanding of how the two are interdependent provides a force multiplier for Army leaders as they tap into their capacity to influence the behaviors of others.

Army leaders of the Future Force will be highly successful in influencing others by applying the style of leadership most appropriate for their available sources of power. The author's Theory of Source and Style demonstrates how the six sources of power and six styles of leadership are interlocked into six constructs: coercive power/autocratic style, reward power/directive style, legitimate power/bureaucratic style, expert power/collaborative style, referent power/developmental style, and authentic power/contingency style.

Source

Theories of power provide leaders with tools that are useful in accomplishing organizational goals. Schermerhorn, Hunt & Osborn

(2000) defined power as "the ability to get someone else to do something you want done or the ability to make things happen or get things done the way you want" (p. 311). For German sociologist Max Weber, power is "the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance" (Ratzburg, 2005). In the Greek worldview, "Power clearly refers to the ability to make things happen" (Mitchell & Spady, 1983, p. 5). Power can be conceived of as the leader's ability to change the thinking or behaviors of followers to focus efforts on organizational objectives.

French and Ravens identified five sources of power: coercive, reward, expert, legitimate and referent (Ratzburg, 2005). Coercive power is the use of threat, force or punishment to influence others. Reward power is a positive reinforcement of behaviors using recognition, honors or awards. Legitimate power stems from the use of laws, regulations, rules and policies to accomplish goals. This source of power is also referred to as position power. Expert power derives from utilizing information, research and specialized knowledge or skills as a means to accomplish goals. Referent power relies on the personal affinity of one person with another through personality, dedication or charisma. The Army Field Manual 22-100 (1999) does not consider power within the context of leadership style.

Styles of Leadership

Leadership style is the preferred approach or mode of operation that combines distinctive features based on personality, philosophy, custom or experience. It is the ways, tactics, methods or techniques chosen to fit the leader's preferences. "Leaders' styles encompass how they relate to others within and outside the organization, how they view themselves and their position, and – to a very large extent – whether or not they are successful as leaders" (Rabinowitz, 2005). Theories of leadership style provide Army leaders with an array of options that can help accomplish organizational goals. The Army recognizes that "effective leaders are flexible enough to adjust their leadership style and techniques to the people they lead" (Department of Army Headquarters, 1999, p. 3-15).

Seven leadership styles provide Army leaders with a foundation for interacting with Soldiers and

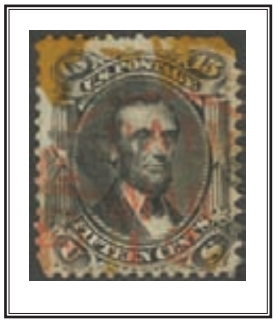
others: autocratic, democratic, directing, participating, delegating, transformational and transactional. "Competent leaders mix elements of all these styles to match the place, task and people involved" (Department of Army Headquarters, 1999, p. 3-15). Contingency theories assert that a leadership style should be consciously selected depending on the situation (e.g., nature of tasks, characteristics of followers). The theories of Hersey and Blanchard, Fiedler, and House provide leaders with tools that guide how the leader's style can be adapted to meet the specific needs of organizational situations (Schermerhorn, Hunt & Osborn, 2000). Indeed, leaders must be flexible in the way they influence followers' thoughts and actions.

The literature review did not reveal any theory about how the sources of power and styles of leadership might be interrelated or codependent. Rather, the definitions of leadership style and sources of power are overlapping and amorphous. Moreover, primary research on the efficacy of utilizing leadership style or power sources was lacking.

Six Constructs of Sources of Power and Styles of Leadership

The Theory of Source of Style explains how six sources of power are linked to six styles of leadership. Leadership styles are the ways and power sources are the means. The theory is useful to Army leaders because a mismatch between a source of power and a leadership style produces leadership weakness. Leadership style does not exist in isolation, but rather in the context of the power bases upon which leaders draw. When the source of power and leadership style are correctly linked and practiced, the leader is more likely to succeed. The reason is that each source of power is logically and inextricably linked to one style of leadership; choosing one without the other diminishes the leader's repertoire of tools.

That is not to say that leaders should draw from only one source of power and utilize only one style of leadership. On the contrary, leaders should be flexible in their approach and select a style of leadership based on the source of power that is most likely to accomplish a specific task. Indeed, the Theory of Source of Style is a contingency theory based on how Army leaders can efficiently accomplish goals by understanding how sources of power relate



to leadership styles, tasks, people and other contextual factors. This article addresses the logical link between six sources of power and six styles of leadership.

Coercive power is one of six sources of power. It is the use of punishments, sanctions or force to ensure that subordinates follow the orders of the leader. Coercion is the "stick" aspect of the "carrot and stick" paradigm. Leaders who rely primarily on this source of power are characteristically dictatorial, forceful or autocratic. Unilateral decision-making distinguishes the autocratic from other types of leaders (Ratzburg, 2005). Hence,

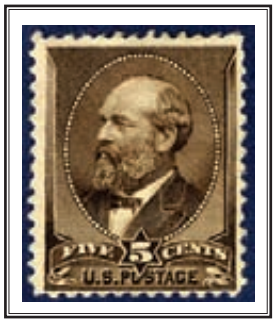
Seven leadership styles provide Army leaders with a foundation for interacting with Soldiers and others: autocratic, democratic, directing, participating, delegating, transformational and transactional.

the autocratic style of leadership is linked with coercion. A controlling attitude of the autocrat is frequently "my way or the highway." The leader intentionally attempts to increase fear in followers. And, followers comply because they are afraid of the negative consequences. The autocratic/coercive construct is the most concrete and inflexible of the six constructs.

The "carrot" part of the "carrot and stick" paradigm is reward power. Leaders who use reward power give praise, recognition, awards, honors and promotions to influence the behaviors of subordinates. In order to successfully motivate followers in this way, leaders must delineate the criteria required for rewards. In essence, the leader who uses reward power communicates to followers that "if you do a, b and c, you will receive x, y and/or z." The leader gives explicit instructions or directs the behaviors of followers, implicitly or explicitly indicating that various types of rewards will follow. Thus, reward power is clearly linked to a directive style of leadership. This construct is less inflexible than the autocratic/coercive construct.

Legitimate power is virtually synonymous with position power. A leader who utilizes legitimate power influences subordinates through a foundation of laws, rules, regulations and policies. This leader "goes by the book" (eSSORTMENT, 2005). Delegation is the primary tool of leaders who gravitate to legitimate power. The bureaucratic style of leadership is linked to legitimate power because the actions of the leader are codified into a variety of directives, memos and guidelines. Organizational control is documented and delegated through formal lines of authority. Leaders centered on the legitimate/bureaucratic construct can also utilize reward and coercive powers as secondary sources of influence. Additionally, they can utilize expert power when teams are required to accomplish goals.

Expert power encompasses information, research and specialized knowledge and skills as means to accomplish goals (Schermerhorn, Hunt & Osborn, 2000). "Information power" is subsumed under expert power and is essentially indistinguishable from it. It is equally part of the other sources of power (i.e., all other sources use information). The other five sources of power are relationship based, but an information power would not be. Analysis, discussion, constructed meaning and synthesis are within the parameters of expert



power that require informational data. A leader who embraces scientific fact or proven success relies on expert power.

A collaborative style is linked to expertise because the tasks associated with this construct typically require a variety of specialized knowledge and experiences to successfully accomplish goals. An example is a group of scientists developing a new rocket propulsion system. Organizations use collaborative techniques when one or two persons cannot accomplish an objective. Consensus, participation or democratic methods can be employed to allow all members of the group to contribute fully to the mission. The expertise/collaborative construct is flexible enough to use the legitimate/bureaucratic and referent/developmental constructs as secondary sources of power and leadership styles.

Leaders utilize referent power when they capitalize on an affinity of one person to another person's style, dedication or personality. Charismatic styles of leadership are frequently considered synonymous with referent power (Ratzburg, 2005). But, charisma is within the domain of referent power; it is not a style of leadership even though it is defined as such by some authors. Extroverted and introverted leaders can equally practice the referent/developmental construct.

The style associated with referent power is the developmental style of leadership. Schermerhorn, Hunt & Osborn (2000) define referent power as "the ability to control another's behavior because of the individual's desire to identify with the power source" (p. G-10). Referent power reflects an attitude of leaders and followers that is based on personal or professional similarities or aspirations. Followers look up to these leaders because they possess admirable and respected traits. Moreover, followers expect opportunities whereby they can learn to emulate the leader. Typically, leaders are mentors for followers, or they provide experiences that will allow them to obtain the skills possessed by the leader (e.g., via shadowing). This personal dedication inspires and motivates followers. Trust is a key point in the referent/developmental construct. The referent/developmental leader can shift to the expertise/collaborative, reward/directive or the legitimate/bureaucratic construct, but attempting to shift to authentic/contingency construct is more difficult.

The authentic power/contingency construct's definition has the most

Power Source	Leadership Style
Authentic Power Influence derived from the inner character of a leader who sets an example for followers and believes a win/win outcome is possible in virtually every circumstance.	**Contingency Leadership Style** Using a wide variety of leadership styles depending on the situation. Example: A leader sees the need to collaborate rather than force an issue.
Referent Power Influence drawing on an affinity of one person to another person's style, dedication or personality.	**Developmental Leadership Style** Providing opportunities for followers to learn and grow. Example: The leader recommends educational experiences to inspire and motivate followers.
Expert Power Influence using research and specialized knowledge, experience or skills to analyze data, generate a product, etc.	**Collaborative Leadership Style** Drawing on collaboration, participation and the strengths of a group. Example: A group of scientists develops a new rocket propulsion system.
Legitimate Power Influence when acting in a hierarchical position with recognized and legal authority.	**Bureaucratic Leadership Style** A style that uses delegation and other formal methods to accomplish goals. Example: An official delegates development of a position description according to company guidelines.
Reward Power Influence using resources to grant recognition, honors or awards to subordinates. The carrot part of the "carrot and stick" paradigm.	**Directive Leadership Style** Giving explicit instructions to subordinates. Example: The leader lays out precisely what should be done to fulfill requirements for promotion (Not synonymous with Direct Leadership).
Coercive Power Influence utilizing punishments, threats or force. The stick part of the "carrot and stick" paradigm.	**Autocratic Leadership Style** The tendency to dictate the behaviors of subordinates to accomplish goals. Example: "It's my way or the highway."

abstract and illusive definition. Authentic power is the power of fearlessness. It is diametrically opposite to coercive power, which seeks to increase fear. Authentically powerful leaders, on the other hand, seek to reduce fear within their organizations. Leaders with authentic power find and use their creativity and capitalize on their ability to think critically. Authentic power is the domain of selfless service, personal courage and setting the example.

Selfless service is the giving of oneself through volunteerism, generosity and personal courage (Greenleaf, 2004). As the leader gives more of himself, he discovers more of himself. This in turn results in reducing fear because giving of yourself increases confidence. It acts as a force multiplier because, by setting this example, confidence is increased exponentially through others.

Though the phrase "authentic power" was not found in the literature review, other contemporary conceptions reflect the description above. Mitchell and Spady (1983) defined authentic authority as "an expression of the inner character of the person who holds it and reflects the basis of his or her actions rather than their force or strength" (p. 7). The primary tool for this leader is setting an example of character. The leader believes that higher levels of thinking and communications are requisite for genuine influence and change. Indeed, this leader believes that a win/win solution can be found in virtually every situation. Moreover, all people have a potential to make great progress even in the face of seemingly insurmountable odds. The Department of Defense asserted, "This nation was founded on the principle that all individuals have infinite dignity and worth" (DoD Human Goals, 1994). Authentic leaders believe that giving power does not decrease one's own power and influence, but rather increases it. As Marshall expressed it, "Power, like love, expands by giving" (p. 4).

The contingency style of leadership is linked with authentic power because of the leader's fundamental belief that a goal can be accomplished in numerous ways. Leaders who believe that a win/win outcome is possible in virtually every circumstance will persistently search for methods to make it happen. It is the goal that is important, not the method. Being the most flexible construct, this leader can shift easily between all the other constructs, depending on the situation, without being perceived as inconsistent. Only leaders who

understand authentic power are truly capable of using a contingency-based leadership style.

The Weakness of Mismatching Power Sources and Leadership Styles

When leadership styles are considered in isolation from sources of power, leaders do not have a complete picture of how to approach influencing others. The selection of a leadership style without concomitantly drawing upon its closely related power base produces leadership weakness. This is because the style is incomplete unless the power needed to propel influence is also utilized. Leadership style considered in isolation from power bases only demonstrates that leaders have a choice in how they approach organizational problems. Leadership styles overlap with sources of power in the leadership literature (Rabinowitz, 2005; Ratzburg, 2005). Moreover, the literature has not posited any need to analyze how an approach to a task is inextricably linked to both the available source of power and the selection of a leadership style. But, leadership weakness results from using a method, technique or style that is not compatible with a source of power that is available to the leader.

If, for example, a leader is comfortable with a charismatic style of leadership but has a task that requires collaboration, the leader will exhibit weakness if she relies solely on referent power but does not draw upon expertise. The group members may be happy with the result, but the product will lack veracity because it does not reflect current research or expertise in the topic area. If a leader feels most competent in directing the behaviors of others but does not apply the use of reward power, not only will the leader be frustrated, but followers will be confused and unmotivated. The selection of a leadership style based on the place, task and people is not enough. Leaders must also understand and apply the implications of the source of power when selecting an appropriate leadership style.

The Hierarchical Nature of the Theory

The theory explicates six constructs that link one source of power to one style of leadership and represents a gestalt of the major sources of power and leadership styles within organizations. The six constructs are hierarchical. That is, they exist on a continuum from concrete to abstract, inflexible to flexible, and fearfulness to fearlessness. The continuum is in this order from concrete to abstract: coercive/autocratic, reward/direc-

tive, legitimate/bureaucratic, expert/collaborative, referent/developmental and authentic/contingency. The hierarchy is helpful in understanding how one construct is closely related to other constructs. It is useful because leaders do not use one construct exclusively.

Leaders who rely on the concrete side of the spectrum have fewer options than those who rely on more abstract constructs. For example, a person focused on legitimate power can easily resort to reward power or expert power. But it is more difficult for a leader relying primarily on the legitimate/bureaucratic construct to use a construct that is not as closely related, such as referent power/developmental style.

Summary

Leaders of the Army's Future Force must be equipped with new ways of applying leadership principles if they are to improve the sustaining base. The challenges ahead require new conceptions and theories of leadership to be published and validated. Sources of power and styles of leadership are tools that leaders can use to improve their leadership, but they are considered separately in leadership literature. Moreover, theories about how sources of power and styles of leadership might be linked or interrelated have not been proposed in educational, military or management literature. Attempting to utilize a leadership style without linking it to its power source invariably produces leadership weakness. Mismatching a leadership style with an inappropriate source of power also results in leadership weakness.

The author's Theory of Source and Style posits that six styles of sources of power are logically linked with six styles of leadership. It is a model that links ways and means. The six constructs are: coercive power/autocratic style, reward power/directive style, legitimate power/bureaucratic style, expert power/collaborative style, referent power/developmental style, and authentic power/contingency style. Leaders of the Army's Future Force who utilize the constructs of the Theory of Source and Style will be highly successful in accomplishing mission-related tasks.

Recommendations for Leaders

- Examine the hierarchical nature of the theory
- Consider how closely related constructs can be used
- Conduct a qualitative study of a leader's shifting between constructs
- Study the effect of linking sources of power and leadership styles on goal accomplishment
- Research using the theory as a decision-making model
- Explore using the theory as a conflict resolution model

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Family Resource Centers Serve as Foundations for Strong Army Families

By Colonel Frederick W. Swope

It is no secret that taking care of families is critical in maintaining individual readiness, and in retaining Soldiers in today's Army. Studies in the mid-1980s – when the Army was not undertaking multiple consecutive deployments – set the stage for the Army to recognize the impact of families on individual readiness. In today's current operational tempo, the impact of a happy family on a happy Soldier is even more relevant.

While divisions and corps continue to focus on Soldier readiness, at installations like Fort Campbell, Ky., the garrison must remain focused on families.

In mid-2005, with a 20,000-person deployment looming, Fort Campbell consolidated its Family Resource Center (FRC) operations into a clean, bright, spacious building. The opening of the FRC came at a critical time in the deployment cycle, allowing training to increase in the new facility.

The spacious facility replaced a dilapidated wooden World War II "temporary" facility that shared space with the Kentucky Women's and Infant's program. The narrow offices and cramped workspaces left little to no room for meetings or training for groups larger than about a dozen people.

Instead, the FRC set up business in a renovated former officer's club, near a main entrance to the installation. The facility is a first-class meeting and training facility that is readily available and dedicated to taking care of families.

The fact that it is readily available increases the training opportunities and participation of each of these organizations and ultimately the readiness and preparedness of the Installation and their Soldiers.

The facility epitomizes the concept of one-stop shopping by bringing the FRC, the Family Advocacy Program, the Installation Volunteer Corps coordinator, Mobilization and Deployment, Information and Referral, and the American Red Cross together under one roof.

Every installation in the Army has these services. That is not what makes this facility so unique. What makes it virtually hassle-free for Fort Campbell families is having all of these organizations under one roof in an easily-accessible, clean, modern facility. The colocation of these classes and services increases the attendance exponentially, and that increases the readiness of our family members.

The current facility serves an average of 4,000 family members a week. During the recent yearlong deployment of the 101st Airborne Division (Air Assault), classes, training, and one-on-one counseling have been almost constant.

The center serves as a valuable resource for more than 350 family readiness group leaders, providing a centralized distribution center with in-boxes for each group leader. It also has a resource room with desktop computers, printers and a fax.

Family readiness group (FRG) leaders can also use the various meeting rooms in the facility to hold on-site meetings. The building is structured to house gatherings as small as 10 or fewer, up to huge conferences with more than 800 attendees. The large and small classrooms are all equipped with modern audiovisual equipment, including built-in screens and video projectors.

The meeting rooms are put to good use in many formats. The classrooms house Army Family Team Building Levels 1 through 3 training as well as Army Family Team Building concept block training, which includes Move N Groove, Ready for Reunion, Should I Stay or Should I Go, Welcome Back Jack, Stress Management, Stepping into the Spotlight, Financial Readiness, and New Spouse 101.

The center also offers F.I.S.H. (Fresh Ideas Start Here) Training — a "team-building" class based on the Seattle Fish Market.

For those selected as family readiness group leaders, the FRC provides Operation Ready Family Readiness Leader Training, FRG Point of Contact Training, FRG Treasurer Training, and FRG Newsletter Training. The smaller




classrooms also facilitate Care Team Training, designed to help the FRG members assist the families of fallen Soldiers. Additionally, with the facilities shared by the Family Advocacy Program (FAP), those classes are also taught in the FRC. Those classes include Active Parenting Now Classes, Active Parenting of Teens, Communication, Couples Communication, Strengthening Step Families and the New Parent Work Shop.

The larger capacity area in the FRC, formerly a ballroom, is the perfect place to host Fort Campbell's annual Family Action Plan conference. The small break-out rooms throughout the building help facilitate the hundreds of participants in that critical process.

An in-house dining room with a working fireplace is the heart of the center. Comfortable chairs and sofas make it perfect for an informal gathering. An adjacent fully-equipped kitchen makes it easy for groups to host potluck functions.

In developing the one-stop site, it was determined that one element was critical to increase participation in classes, training and conferences. That element is on-site childcare.

The FRC has the only permanent, short-term alternative childcare (STACC) facility on the installation; perhaps even the only permanent STACC site in the Army. During fiscal year 2006, the FRC STACC site provided care for 10,709 children while their parents attended meetings or participated in training. The presence of an on-site certified daycare center significantly increases participation in events, eradicating the worry of child care for attendees. Most of this child-care is provided free in support of the FRGs.

The addition of the Red Cross and the FAP offices helped consolidate critical family needs. The FAP offices are conveniently located upstairs in the center, which affords those programs the space and privacy they need, but keeps them close enough to make referrals simple.

Another on-site benefit is the presence of Soldiers and family life consultants. The center is home to a group of licensed clinical social workers, psychologists and other mental health professionals whose primary responsibility is to provide post deployment training and informal consulting assistance to Soldiers and families. The consultants provide free, confidential services and can make referrals when needed. This service is an added benefit for those who come to the FRC seeking resources and assistance.

While the center was predominantly designed with the spouses of service members in mind, we hope to add a full-fledged child-friendly playground on the grounds of the FRC to add further to the list of growing attractions before the next deployment.

FRC

Family Advocacy Program

Installation Volunteer Corps Coordinator

Mobilization and Deployment

Information and Referral

The American Red Cross




In the 18 months since it opened, the FRC has proven its worth multiple times. As word of the center got into the community, more events were staged there, including unit FRG holiday parties.

When the 101st Airborne Division began to redeploy to Fort Campbell, the FRC hosted Fort Campbell's Army Community Service Reintegration Fairs. Dubbed "Project Home Sweet Home," the reintegration fairs pulled together a variety of extra resources, including rear detachment commanders, Blanchfield Army Community Hospital, financial readiness counselors, and representatives from behavioral health. In addition to providing much-needed information to families, the fairs also provided some rest and relaxation opportunities, thanks to a generous out-pouring of support from the local surrounding communities. Students from the Clarksville, Tenn., Miller Mott Technical College provided mini-manicures, facials, massages and other giveaways to attendees. More than 3,000 spouses and 2,000 children attended the reintegration fair sessions.

The donations of time and services from the local community have not been limited to the reintegration fairs. Multiple areas in the FRC hold comfortable, modern living and dining room furniture donated by a local furniture store. The use of "homey" furnishings makes it more relaxing for those who come to the center and eliminates the institutional feel you often find in larger government buildings. We do not predict that it will be difficult to keep the facility in use. Redeployments of conventional Fort Campbell Soldiers continued through Thanksgiving, and Soldiers in special operations units on the installation face continuing deployments and redeployments as well.

The combination of training, seminars, video teleconferencing and on-site childcare make the FRC a good place to conduct business from start to finish.

Fort Campbell's Family Resource Center is truly the benchmark for others to follow.

Our FRG leaders know right where to go. They know where to go to get information, to get training and to have meetings. They know the FRC has the space they need, and the on-site child care. They know they don't have to beg, borrow or steal space from a dining facility, or a school or the chaplain.

Locating multiple services and programs in one location makes it easier to ensure we maintain family support so our troops can focus on readiness for the Army. A strong Army is built on a foundation of strong families.

Colonel Swope is the Fort Campbell garrison commander. He recently was commander of the 2nd Infantry Division's 1st Battalion (Air Assault), 503rd Infantry Regiment, South Korea, and chief of staff and deputy brigade commander for the 3rd Recruiting Brigade, Fort Knox, Ky.

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