

US Army Corps of Engineers Challenges and Opportunities

The United States Army Corps of Engineers (USACE) is a very large government organization that serves the public by managing the nation's water resources. We publicize that we are "relevant, ready, responsible and reliable". In order to be such an organization, we must improve our efficiency. This paper describes four significant challenges, identified by our Planning Associates sub-team, that face our organization and offers possible actions that can be taken to address these challenges:

1. Unprepared Supervisors. USACE, being primarily a technical organization, promotes many of its supervisors from within (certainly a prudent and affirming management approach). However, technical experts are not always well suited for managerial positions particularly when little or no training towards those ends is provided. In an informal poll, more than 90% of initial level USACE supervisors reported that they did not feel they received appropriate training to be able to effectively enter a supervisory/managerial role. We should not only provide, but also require that supervisors have a basic level of training *before* they enter supervisory positions. The supervisory training should focus on instilling the idea that our supervisors must have the personal courage to provide appropriate feedback to their employees. It should include a developmental assignment or probationary period that culminates in a skills assessment to ensure new candidates have the inherent capability to be effective in their new roles.
2. Project Manager and Planner - Erosion of the Planners Role. The advent of project management within the Corps has contributed to an exodus of high quality planners to management attracted by both higher pay grades and authority. This has contributed to:

(1) a drop in quality of planning documents and (2) a general across the board belief that management, and not hands on, technical work, will more likely result in faster, higher promotions.

3. **Balancing Resources.** As Hurricane Katrina and the conflict in Iraq have demonstrated, during times of war and natural disasters the Corps' priorities and funding streams necessarily shift. These shifts have recently created the challenge of responding to these disasters while still effectively executing other needed civil works projects throughout the nation. Our organization must be flexible enough to respond quickly and still be able to serve all missions. To better prepare our organization to balance these needs, we must increase our efficiency and enhance the capability throughout the Corps, both horizontally and vertically.
4. **Infrastructure Education.** The nation spends billions of dollars on scheduled upgrades and repairs to highly visible infrastructure such as roads, bridges, while other infrastructures such as locks, dams and levees remain consistently under funded. Our organization must do a better job of educating the workforce on infrastructure needs and how *each person* within the organization contributes to the process. If we respond to this challenge, then the Corps vision can be more readily projected to the public. This disconnect was evident in New Orleans post-Katrina where commitment to stronger infrastructure was not realized until it was too late.

First Challenge: Unprepared Supervisors

The Corps current practice for promoting people to supervisory positions can, and should, be improved. A typical supervisor in today's Corps began their career as a GS 5-11 after

graduating from college with a technical degree. Then, after multiple years of performing at a high level in their specific area of expertise, they were promoted to a GS 12 or, of late, technical GS 13 and starting contemplating their options for further advancement. While some higher grade technical positions exist, the majority of advancement opportunities contain responsibilities for managing lower grade employees. Their likelihood of being selected for one of these supervisory positions is based on the experience received and skill demonstrated in their respective technical work.

After being selected for their new supervisory position, they are encouraged to take basic leadership (supervisor) training, which is provided by the Corps. However, a simple polling of co-workers in these positions suggests that only about 50% of supervisory 13s and 14s received such training within a year of starting their new jobs. Obviously, timing and budgeting are the main culprits for the delay, but the end result is still the same – we have too many unprepared supervisors.

Our current practice for raising supervisors brings up various issues. First, the skill set required to be an effective supervisor is much different than what is required to excel technically. While a good technical understanding is necessary for supervisors, the ability to communicate effectively, provide appropriate feedback, and handle personnel issues is even more important. Second, our practice not only promotes people that are sometimes ill-suited for supervisory roles, it also removes some of our best and brightest technical workers from the job that allows them to provide the greatest contribution to the Corps effort.

Private firms often follow a similar promotion practice with great success. However, private organizations have certain advantages that allow this practice to be effective. Most importantly, if a recently promoted employee in a private firm proves to be an ineffective

supervisor, they can quickly be moved out of that position. In contrast, once a person is promoted within the federal government system, regulations make it very difficult to remove them or demote them. Also, private firms have the ability to pay high performing technical employees appropriately, so those employees don't feel the pull to supervisory positions that have a higher salary.

The results of promoting and retaining ineffective, unqualified supervisors are obvious. Due to their limited leadership abilities, they eventually lose the respect of those that they supervise. New hires and existing employees, often eager to succeed, end up working for ineffective supervisors and, in time, potentially superior employees are likely to leave because of this ineffective supervision. This contributes to two of the biggest "diseases" within the Corps: cynicism and low moral. The practice is unfair to both the supervisor and the employee and should be changed.

The new National Security Personnel System (NSPS) is being implemented with the hopes of addressing some of the issues discussed in this section. Some of the discussion below is presented within the framework of the current General Schedule (GS) system. However, most of the opportunities that we present are independent of the framework that they are applied within, and focus on training and an individual's personal ownership and pride in their work.

An opportunity: Improve supervisor training and selection criteria

How can we improve? First, and foremost, leadership training should be a mandatory requirement for anyone that wants to apply for a supervisory position. Implementing this requirement will accomplish two things: (1) it will give all candidates an idea of the difficulties to be encountered and the skills that are needed *before* they even apply for a supervisory role and

(2) it will ensure that incoming supervisors have at least a basic understanding of what it takes to be effective and successful in their new role.

Next, as part of the required leadership training, the Corps should require prospective supervisors to complete a one year probationary period or a one year temporary assignment in a supervisory role. The probationary period or temporary assignment should culminate in a skills assessment to ensure that new candidates have the inherent capability to be effective in their new roles. This process would provide a more deliberate attempt to draw out, promote and nurture good supervisors.

An important aspect of leadership that is missing in the Corps, and that must be focused on in supervisory training, is the idea that effective supervisors must have the personal and professional courage to provide proper feedback to their staff. One of the most telling and disturbing statistics that illustrates the lack of proper feedback from leaders in the Corps is that a reported 90% or more of Corps' employees are given an overall performance rating of 1 on their end-of-year evaluation. While this statistic could not be independently verified, the fact remains that many employees are not receiving appropriate feedback through the Corps' feedback system.

In order to receive a 1 rating, employees must **exceed** the expectations of their supervisors in over 75% of their major performance standards. In reading the definitions of our rating system, it's difficult to understand how being rated as a "2" has almost become a disappointment in our organization. Supposedly, a "2" means that you exceeded the expectations of your supervisor in 25-74% of your major performance objectives and met their expectations in the remaining objectives. And a "3", which is often only used when a supervisor wants to start some sort of personnel action, is supposed to signify that you were successful in all performance

objectives, and even exceeded expectations in up to 25% of your objectives. The fact that our view of these ratings has become so skewed is a clear sign of rating bloat and a broken system. Our supervisors have either set their expectations too low, the system in place does not allow them to provide proper feedback, or they have not made the personal commitment to provide proper feedback. Unfortunately, the performance rating is the only tool in place that requires a supervisor to provide feedback to their staff, and it is clearly not being implemented successfully.

An opportunity: Fix the feedback loop

A possible approach to increasing proper feedback within the Corps is to apply the concept of “empowerment” in our workforce. Empowerment is the process of enabling people to develop their unique abilities so they take more ownership of their work and themselves. If our supervisors take more ownership of their work, especially in how they rate their staff, the feedback loop will improve. One of the keys to empowerment is sharing information with everyone. If the organization as a whole set a goal of not having more than 50% of our workforce being rated as a “1”, then listed the ratings by district, lab, FOA, on a public web site, our supervisors would have the information and encouragement to improve their feedback, at least through the rating process. A supervisor without all the information and boundaries cannot act responsibly, but one with the necessary information cannot help but act responsibly.

An opportunity: Create more high level technical positions

In order to allow high performing technical people a chance to move up in pay and preclude their feeling forced to seek supervisory roles for which there is no real interest and for which they likely lack the necessary skill sets, more technical 13, 14, and 15 positions should be created. Under the new NSPS system, excellent technical performance should be rewarded with

salary levels equivalent to supervisory positions. This will also increase the efficiency of our workforce by allowing us to keep our best technical performers in their preferred role, and it will reduce the number of quality technical people that are lost to private industry because of limited opportunities for advancement.

Second Challenge: Project Manager and Planner – Erosion of Planners Role

The Corps is experiencing a significant loss of planning expertise within the organization. It appears that the shortfall is not being made up as effectively as with other Corps disciplines, such as engineering, environmental or project management. While the reasons are likely complex, the advent of project management within the Corps likely had a significant impact.

The Corps created project management many years ago in order to consolidate the entire life of all Corps projects from their inception thru construction and operation. This would improve overall efficiency and also establish a consistent, familiar presence for the project sponsor throughout the life of the project. Among the many functions and responsibilities of the project manager are to prepare schedules and budgets and oversee project delivery teams in overall project execution including completion of the decision document. Several district offices established a project manager/planner position wherein the project manager is also the plan formulator of the project (“dual-hats”). Others have distinct employees in each role, i.e., a project manager and a planner. The project manager is the primary contact with the sponsor; because of this increased visibility and responsibility for the entire project, two patterns resulted:

1. Pay and grade structure for the new project manager positions were higher.

2. The majority of hires of the project manager positions were taken from those employees who already had experience managing budgets and schedules as well as handling sponsor relationships – namely the experienced planners.

Because of the disproportionately higher number of hires from planning division (mostly senior level), planning suffered a quick initial decline in its numbers. As an added consequence, because the project manager is viewed as, and in effect is, the leader of the effort vs. the planner even during the preparation of the decision document, the planner now has a diminished leadership role during the conduct of the study. Some loss of morale for the planner is inevitable. Since employee morale is linked to job satisfaction and job satisfaction is a strong incentive to increase productivity and retain employees, this loss of morale needs to be repaired. Yet another consequence of the diminished lead role for the planner is the notice taken by all incoming employees who had been contemplating planning as a career. The best, brightest and more ambitious hires would not see planning as a good long-term career choice. An informal consultation held with a few of these newer planning hires has borne this out. This further aggravates the loss of planning expertise. Most younger employees now view planning as something that would be a stepping stone towards a career in project management where the pay and clout now reside; coupled with the continuing number of retirees of senior planners the planning community will have difficulty replenishing itself.

The challenges for leadership can be synopsized as follows:

1. Inordinate number of retirees from planning community.
2. New recruits do not view planning as the preferred career choice within the Corps.
3. Roles and responsibilities of project manager and the planner both within and throughout the Corps are not clear and consistent across Districts and Divisions.

An opportunity: Craft and retain trusted planners

Recognizing the above connections with project management and planning, here are a few opportunities that could be implemented in order to resolve the dilemma.

1. Retirees are a significant resource that should not be overlooked. In order to retain some of the retirees that are eligible for retirement, more incentives need to be crafted. An increase in pay or a part time consultant job could be created. Their role could be limited to either quality control at the District level or as mentors to younger planners. A survey of retirees should be conducted in order to determine what could best be done to retain them.
2. The lure of project management could be countered by recruiting employees that are interested in planning as an art form and valued career choice. A marketing program that portrays planning as more than a job should be crafted and implemented. Improved pay structure and a more deliberate training regimen could be developed and institutionalized to entice qualified planning recruits to remain in planning. The creation of regional planning experts and Communities of Practice is a definite move in the right direction.
3. Project manager and planner are combined into one job or they are distinct, depending on the district. There are pitfalls in both setups that need to be addressed in order to improve productivity and quality in decision documents.
 - a. In those districts that have a project manager/planner role, improvements need to be made to address some adverse patterns that have developed. Where the employee is not an experienced planner, training needs to be provided to the project manager/planner such that planning quality is assured. Also, an

experienced senior planner, likely at Division level should closely monitor study progress.

- b. Where the planner and project manager are distinct, overlapping roles and responsibilities creates friction. It is important that clear, succinct tasks be delineated and agreed to by the planner and project manager well in advance of team forming. It would be preferable if this could be done across District and Division boundaries to ensure consistency.
4. Recognizing that planners need to be strong leaders with strong people skills, it is important to be more deliberate in training planners to develop their leadership skills. The Corps has strong leadership programs already in place. The Leadership Development Program at both Division and District level should be mandatory for all planners that are at grades GS-12 and above. The Planning Associates program is an excellent program that should be a requirement for all senior planners, i.e., in order to get a GS-13 grade or higher, employee should be a graduate of the PA program.

Third Challenge: Balancing Resources

During times of war and natural disasters, the Corps' resources shift between: 1) our civil works and military missions and 2) specific geographical regions where high priority needs exist (natural or man-made disasters). Recent examples of these shifts include the creation of elements in Iraq (the Gulf Region Division or GRD) and Afghanistan (the Afghanistan Engineer District or AED) and our response to the hurricane disaster relief from Rita and Katrina. Over 3,300 employees have responded to the hurricane disaster relief from Rita and Katrina. Note for 28 Aug 06 however, only 313 Civilians deployed to the wartime locations, which is 80% of what is required. Further request will be made to fill this need. The Corps ability to effectively and

efficiently complete our existing civil work projects is impacted by resulting fewer resources both financial and manpower. The Corps challenge is to balance resources and maintain a consistent work effort while responding to these other needs.

In FY 2000, there were 24,776 full time equivalents (FTE) for civil works and 8,024 for military. In FY 2006, civil works decreased to 22,500 FTE and military increased to 9,276 FTE. The increase reflected additional Base Closure and Realignment Commission (BRAC) work. In addition to this shift, the planning civil works program contained in the President's budget has remained relatively flat or a declined if you consider inflation. This has created a significant degree of uncertainty in appropriations of our programs. In some cases, there has been significant reduction in personnel in response to regional funding shifts and other national budgetary needs. However, there is a backlog of water resource projects. In the FY 06 Appropriations, Congress restricted re-programming and signing Project Cooperation Agreements (PCA). This seemed to be in part a reaction to funding needs in the military and natural disasters, but also due to the existing backlog of civil works projects. For instance, the U.S. Congress through the Emergency Wartime Supplemental Appropriations Act, 2003, has allocated over \$18 billion. The shifts and other national budgetary requirements described above have created the challenge of balancing resources and executing our existing programs while responding to these events. Our performance indicators reveal that most Divisions have often been in the "Red" this year in execution of our existing programs.

Several initiatives have already begun to reshape the Corps of Engineers; one of which is 2012 or Regionalization. USACE 2012 builds on four key operational concepts -- One Corps, the Regional Business Centers, the Regional Integration Teams, and Communities of Practice. In effect, this has resulted in a change in the *basic* framework of the Corps' structure and how we

do business. We can use this framework to “provide efficient and effective implementation of needed public engineering services”.

An opportunity: Improve efficiency and capability

There are several possible actions that could advance our performance in our civil works mission and maintain our technical competence. To become more efficient, we should build on the Regionalization Concept and create more of a National perspective. The “One Corps” vision is the foundation of what we refer to as 2012 or Regionalization. In reality, the organizational structure of the Corps is divided into three separate units; Districts, Division and Headquarters. The accepted process to level workload is to look for capability within the District, next within the Division and then outside the Division. We have made progress in that within each Division the Districts are more cohesive and strive to balance workload. However, there are still strong Division boundaries.

First, top leaders must stress the vision of the “**whole Corps**” and help build trust between the Divisions through open communication and interaction between them. Once this cultural change is instilled, workload sharing between Divisions will follow more readily. It is an essential component in workload leveling.

Second, each District should evaluate if they could support complete “**small packages**” of the overall work required. Divisions with excessive workloads would identify complete projects that could be accomplished by other Divisions. Districts within these Divisions would respond based on manpower capability to complete the “small package project” from beginning to end. In addition, designating pre-established project delivery teams called Civil Works Action Teams (CWAT) could perform “**larger packages**”. The project delivery team would be

composed of **experts** from each District within the Division from primary areas, such as Planning, Engineering, Construction and Real Estate. Personnel assigned to a CWAT must be willing to respond after emergency events or wherever resources are deficient in a particular region. The team would be made available to the Division in need. As part of this initiative, National Centers of Expertise should be recognized and funded. They would not only be responsible for coordination of Internal Technical Review workload, but also the CWAT project delivery between the Divisions. Other employees within the donating District could be cross-trained through developmental assignments and/or mentored to back fill CWAT positions; so that when personnel are deployed, individuals can rotate easily into alternate positions when natural or manmade disasters occur. This would reduce the impact to the donating District's execution.

There are also tools that would help, such as, maintaining an electronic depository for worked performed during emergency situations to facilitate continuity and also for other approved reports. The depository could be accessible on line perhaps through Engineering Research and Development Center or Web based. Implementation of such measures will improve execution and readiness.

The third step to efficiency would be to review the supervisor to staff ratios in some Districts. This could result in fewer supervisors and an increase the number of technical 13/14's. Technical guidance would be provided by the technical 13/14's, while human resource/evaluations managed by the supervisor. This structure would help us retain our capability and personnel, as well.

The establishment of Communities of Practice has already expanded our capability. This is an excellent concept and needs time and dollars devoted to it. Our fourth recommendation is

to fund a full time leadership position per Community of Practice – this is critical from the perspective of having someone actually dedicated, with the time and dollars to devote 100% of their time. National Centers of Expertise have been established, but are under utilized. It will require a more concerted effort to get this message across to the subordinate commands. Suggest greater marketing campaign be funded, so that representatives can visit Districts and personally engage all staff.

It is essential that our leaders at each level of the organization make a commitment to become more efficient through balancing our resources in order to maintain our credibility and to effectively serve.

Fourth Challenge: Infrastructure Education

The Nation spends billions of dollars on scheduled upgrades for repairs to highly visible infrastructure, such as bridges, where the deficiency between 2000 and 2003 has decreased slightly from 28.5% to 27.1%, (ASCE 2005). Compare this to the needs of 257 locks on 12,000 miles of inland navigable waterways maintained by the U.S. Army Corps of Engineers that are 50% functionally obsolete and will increase to 80% obsolete by 2020. Additionally, the number of unsafe dams has increased to 3,500 according to ASCE's report card published in 2005 posing a "direct risk to human life should they fail" (ASCE 2005)

Currently, one of the major challenges facing the Corps is negative public opinion of our effectiveness in light of the devastation caused by Katrina. We need to do a better job of getting the word out to the public on the importance of infrastructure needs, specifically those that the Corps is responsible for (i.e. flood control, navigation). However, before we can influence the public perception, we must educate the workforce on infrastructure needs and how each person

within the organization contributes to the process. If we can convey this to our own employees, then the vision can be more readily projected to the public, the ultimate benefactor of our civil works. If we can make the connection between maintained infrastructure, and the safety of the public, the Nations' infrastructure investment can be greatly optimized. And hopefully we can avoid catastrophic events such as New Orleans post-Katrina. This way the USACE will gain public support and keep our projects objective while maintaining our credibility.

An Opportunity: Improve connection between workforce and mission

As an organization that has the potential to train and utilize great leaders, a few things can be done to promote internal education and external coordination. A great place to begin is by making Civil Works Orientation mandatory for everyone from the secretaries to the senior engineers. If everyone truly understands our mission, then interaction and production will become much more coordinated. This can be done by certifying qualified persons within each district to teach civil works orientation. Sessions can be taught once or twice a year. This effort should be a mandatory part of the Project Management Plans (PMP) and therefore budgeted. Invite and insist that the non-federal sponsor participates in the orientation. Also, encourage the sponsor to provide feedback on our process. We can in turn learn about their process as well. Perhaps with education in place, the team members will understand each others background and point of view.

Planners are an extremely valuable asset to USACE. This asset could be utilized more effectively by infusing the planners, as well as project managers, into the District's community through public speaking engagements at schools and civic organizations. All disciplines should be included in the engagement including team members from engineering, operations, office of counsel, environmental, economics, and real estate. Also, invite non-federal sponsors to the

engagements to promote team building. Take these engagements throughout the District geographic boundaries. Just because a project may appear to not be directly involved in a community does not mean that the persons within that community do not benefit from it, and those persons may be very interested. These engagements should get Division involved so that other Districts within the Division can understand how all of our works fit together and complements each other.

One of the most rewarding parts the planning associate program is the Home Office Back Briefs (HOBB). The HOBB provides an effective way for coworkers to learn what is going on within the Corps. And the more that pressing issues can be discussed in a learning environment, not just within our district but the entire USACE community, the more opportunities arise to learn. The idea of a HOBB should not be unique to the planning associates program. Everyone who is given the privilege to train within the USACE should share this knowledge. With budget constraints, training dollars are shrinking. Therefore, everyone who is given opportunities to learn and grow should feel compelled to share this knowledge. This will help grow a great organization from within, which in turn will help improve public perception.

References:

<http://www.grd.usace.army.mil/index.html>

<http://www.asce.org/reportcard/2005/index.cfm>, 2005 Report Card for America's Infrastructure