DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
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CECS

12 JAN 2007

MEMORANDUM FOR COMMANDERS, MAJOR SUBORDINATE COMMANDS, DISTRICTS, CENTERS AND LABS

SUBJECT: Revision of ER 5-1-11, U.S. Army Corps of Engineers (USACE) Business Process

1. ER 5-7-1, Project Management, issued on 30 September 1992, introduced USACE to the concept and rules of project management. ER 5-1-11, Program and Project Management, originally issued on 27 February 1998, applied those project management principles to programs as well, and mandated that all work performed by USACE would follow the Project Management Business Process (PMBP), without exception. The regulation also dictated that all work be "managed using the PM automation information systems (AIS) and PMBP."

2. This led to the unwritten but nonetheless powerful corporate oral tradition that "all work is a project" and that all work must be loaded into our PM AIS. The USACE Business Process imperatives were introduced in the 17 August 2001 revision. We have operated under ER 5-1-11 for almost nine years now, and have learned that the efficiencies of the PMBP are not realized in all types of work. We also discovered the limitations of attempting to manage all work within the PM AIS.

3. In order to align ourselves with industry standards, and in response to the recognition that all work is NOT a project, this revision of ER 5-1-11 clearly defines the concept of "project," as well as the work that we undertake that is NOT a project. It also dictates the process for managing non-project work as well as our corporate data. The new ER requires consistent, timely and accurate use of corporate AIS. All USACE programs, to include project and non-project work, will be captured in P2, however the level of detail will be dependent upon the specific program and category of work.

4. Appendix C of this revision is a graphical representation of the organization of ER 5-1-11, as well as its relationship to other doctrine and processes. Many of the PMBP imperatives are smart business and effective for any type of work; these imperatives have been moved under the USACE business doctrine, which are the overarching philosophy and operation principles that apply to the whole U.S. Army Corps of Engineers. Three additional imperatives relate only to the management of projects (as defined by this regulation) and are then retained under the Project Delivery Process – the PMBP. While the process of managing projects is well-defined, we now have the doctrine in place to develop more detailed processes to manage our non-project work as well as our corporate data.

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SUBJECT: Revision of ER 5-1-11, U.S. Army Corps of Engineers (USACE) Business Process

5. Point of contact for this revision is Mary Gauker, Deputy, Program and Project Management Community of Practice (CECW-CB), 202-761-1811 or Mary.C.Gauker@hq02.usace.army.mil.

FOR THE COMMANDER:

YVONNE J. PRETTYMAN-BECK
Colonel, Corps of Engineers
Chief of Staff

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

ER 5-1-11

CECW-CB

Regulation
No. ER 5-1-11

1 November 2006

Management
USACE BUSINESS PROCESS

1. Purpose. This regulation establishes policy and doctrine to accomplish all work performed by the U.S. Army Corps of Engineers (USACE).

2. Applicability. This regulation applies to all USACE activities, all USACE employees, and all functions.

3. Distribution. Approved for public release, distribution is unlimited.

4. References.

a. AR 5-1, Total Army Quality Management

b. AR 11-2, Management Control

c. FM 22-100, Army Leadership

d. ER 25-1-8, The Community of Practice (CoP) in the U.S. Army Corps of Engineers (USACE,) dtd 23 January 2006

e. *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Third Edition,* Project Management Institute, Inc., 2004

5. Definitions. Appendix A provides definitions to ensure a common understanding of key and essential terms.

6. USACE Business Doctrine.

a. Mission-Focused Execution. USACE shall make resource decisions based on what is best for the mission, the Nation, and the public while considering the impacts to all customers. Leaders facilitate smart use of resources, technical competency, and innovation across the organization with a focus on mission execution. As public servants, all USACE employees have taken an oath to support and defend the interests of the United States and its citizens. Accordingly, all USACE employees must make decisions based on the best interests of the Nation, the Army, and the public. Recognition of this preeminent responsibility is critical to properly balancing the many interests that USACE faces in executing its missions.

This regulation supersedes ER 5-1-11, Program and Project Management, 17 August 2001

b. Teamwork. USACE operates as a team serving the Army and the Nation. USACE seeks to meet the Nation's needs as efficiently and effectively as possible. To achieve this, people with the right skills and tools must work on the right job. All organizations must act in unison across boundaries to draw on combined strengths and leverage the resources of the public and private sectors to meet national needs. By sharing knowledge, Communities of Practice (CoPs) in USACE build, maintain, and provide expertise and capability to accomplish the USACE mission.

c. Customer Focus. The execution of all USACE work, project delivery, and program execution across organizational boundaries must appear seamless to customers. This "one door to the Corps" concept means that any USACE activity that receives a customer request for support must ensure that customer receives the best USACE can provide, putting aside self interests. When a customer develops a trusting relationship with a particular individual or district, the customer may wish to go through that entity for all their Corps support, even if outside that entity's area of responsibility; that entity must ensure they leverage the best and most cost effective assets from across USACE.

d. Operating Principles. Five universal operating principles govern all work performed by USACE. It is the responsibility of senior leaders to ensure these imperatives are followed across USACE for all work.

USACE Business Process Imperatives
1. *Plan for success and keep commitments*
2. *Measure quality with the goals and expectations of the customer in mind*
3. *Build effective communications into all activities and processes*
4. *Use best practices and seek continual improvement*
5. *Use corporate automated information systems consistently and accurately*

(1) Plan for success and keep commitments. All work shall be managed with a written plan. Planning enables us to fully understand our customers' requirements, as well as build trust with customers and coworkers by clarifying expectations, keeping commitments, and ensuring all products and services are delivered as promised. Each person contributes to success by meeting the requirements of his or her role, regardless of functional area or echelon within the organization. People may contribute to mission success individually, as part of a team, or indirectly as a provider of support services.

(2) Measure quality with the goals and expectations of the customer in mind. Quality is the degree to which a set of inherent characteristics fulfills requirements. USACE strives to meet or exceed the goals, objectives, and expectations of the customer, while complying with legal obligations and administration policy. All employees contribute to our ability to succeed. Each person is responsible and accountable for the timeliness and quality of his or her work. Quality is managed through the Plan-Do-Check-Act cycle, which is described at Appendix B.

(3) Build effective communications into all activities and processes. USACE utilizes effective communication to interact internally as a team and externally with partners, stakeholders, and customers. Communication is essential to foster: cooperation; focused understanding of requirements and expected outcomes; and the continual improvement to the business processes that are so vital to continued success. Effective communication is critical to the meaningful exchange of ideas, desires, requirements and plans. USACE will make relevant information fully and readily available consistent with law and national security interests.

(4) Use best practices and seek continual improvement. USACE strives to do the right things, the right way, for the right reasons, and to constantly improve. Evaluating performance during and after completion of work can produce opportunities to further improve business processes, in terms of execution, productivity, cost effectiveness, streamlined processes, timeliness, quality, and customer service. As a learning organization, USACE uses CoPs to standardize common procedures and facilitate sharing of knowledge and best practices. CoPs simplify working across boundaries and incorporating lessons learned. Before beginning any new project, activity, or service, each individual shall check for applicable lessons learned and best practices in USACE lessons learned databases.

(5) Use corporate automated information systems consistently and accurately. Consistent, timely, and accurate use of corporate automated information systems (AIS) is necessary to ensure data validity, integrity, and accessibility. Access to meaningful and accurate information is paramount to managing our programs, projects, and meeting customer commitments; data stored within our corporate AIS help execute enterprise level business processes and provide decision support. All data must be managed in such a fashion to achieve interoperability as well as regional and corporate visibility of essential information that can be seamlessly shared across USACE, its customers, stakeholders, and partners. Each and every individual is responsible for data quality in the corporate AIS. For example, different team members may be responsible for the integrity and validity of data in Corps of Engineers Financial Management System (CEFMS,) Resident Management System (RMS,) Real Estate Management Information System (REMIS,) Facilities and Equipment Maintenance System (FEMS,) Procurement Desktop 2 (PD2,) Design Review and Checking System (DrChecks^{SM},) Project Management Information System 2 (P2), and other AIS.

e. All work accomplished by USACE is considered part of a program. A program is a collection of related projects, services, routine administrative and recurring operational processes, or some mixture of these. Programs are executed to provide projects, products, and services for both internal and external customers. Programs can be organized by customer (internal or external), appropriation, similarity of scope, or by other unifying characteristics. Programs shall be managed in accordance with the overarching principles of the USACE business process.

7. Project Delivery Process. A project is *a temporary endeavor undertaken to create a unique product, service, or result.*[1] The Project Management Business Process (PMBP) is the fundamental method used to deliver quality projects at all echelons of USACE.

a. Central Tenet of PMBP. The heart of the PMBP is results-focused teamwork. We draw on the diverse resources of USACE worldwide to assemble strong multi-disciplinary teams, unconstrained by geography or organizational boundaries, to best meet the customers' needs, and the national/public interests. This regulation empowers Project Delivery Teams (PDTs) with the authority and responsibility for delivering quality products and services.

b. PMBP Imperatives. In addition to the five USACE business process principles, there are three imperatives that govern the successful completion of projects.

PMBP Imperatives
1. *One project, one team, one Project Manager (PM)*
2. *Manage all projects with a Project Management Plan (PMP)*
3. *The Project Delivery Team (PDT) is responsible for project success*

(1) One project, one team, one Project Manager (PM.) Each project is assigned to one PDT, with a single PM for management and leadership during the life cycle of the project. Senior leaders select the PM based on the individual's abilities to best lead the specific project without regard to assigned organizational element. Generally, the PM will reside in the geographic area of responsibility, but can be elsewhere as needed to meet project requirements. The PDT shall consist of everyone necessary for successful development and execution of all phases of the project. The customer is an integral part of the PDT. The PM is responsible for ensuring that the necessary disciplines and perspectives are represented within the PDT. The PDT may be drawn from more than one USACE district or activity and may include specialists, consultants/contractors, stakeholders, or representatives from other federal and state agencies. Team members shall be chosen for their skills and abilities to successfully execute a quality project, regardless of their assigned functional or geographic locations within USACE. Virtual and matrix teams shall be used to align USACE efforts and focus on quality project delivery. The team will expand to include all necessary expertise on a specific issue and may include a vertical aspect encompassing the MSC and headquarters.

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[1] Project Management Institute, *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) - Third Edition*, Project Management Institute, Inc., 2004. Copyright and all rights reserved. Material from this publication has been reproduced with the permission of PMI.

(2) Manage all projects with a Project Management Plan (PMP). To meet mission objectives, each project is managed under a project management plan (PMP). A PMP is a roadmap for quality project delivery. The PM and the PDT work with the customer early in the project scoping process to determine what the customer needs and to refine those requirements in light of safety, fiscal, schedule, legal, and other constraints. The PDT shall measure its success against the expectations documented in the PMP, which is an agreement between USACE and the customer that defines project objectives and project-specific quality control procedures appropriate to the size, complexity, acquisition strategy, project delivery, and nature of each product. It should be signed by all PDT members, including the customer, to document their commitment to project success. To be an effective management and communication tool, the plan must be a living document that is updated as conditions change. The PM will inform customers when their requests will cause significant scope, schedule, or cost impacts, and will coordinate any changes to the project with the customer and PDT, updating the PMP as appropriate.

All work is managed using the PMP and all PDT members share this responsibility. The PM and PDT will develop and maintain the PMP at a level of detail commensurate with the scope of the project. PMPs should be concise and succinct, but address all processes and areas necessary to ensure effective project execution. Minimum requirements for project management plans are found in the PMBP Manual. Management of similar projects of limited scope using a Program Management Plan (PgMP) rather than an individual PMP for each is acceptable. However, when a project under a program is of such scope that it is no longer manageable under the PgMP, it shall be managed with a separate PMP.

(3) The Project Delivery Team (PDT) is responsible for project success. The PDT is empowered and supported by senior organizational leaders to make project decisions within the bounds of the approved PMP. Led by the Project Manager, they are empowered to act in unison across organizational boundaries focusing on consistent service to customers. Senior leaders are responsible to ensure the team has the resources, tools, skills, and experience needed to deliver a quality project. Though projects may include many distinct, separate phases, they must be approached from an integrated, life-cycle perspective focused on meeting the project's goals, objectives, and expectations.

The PDT shall work with customers to determine and provide what is expected and must strive to deliver products and services that are in the public interest. The needs and expectations of customers and stakeholders shall be balanced, while considering available resources and life-cycle requirements. Expectations of the beneficiaries and/or stakeholders of projects are considered when determining quality objectives. USACE will not compromise professional standards. Requirements that exceed mandatory standards are negotiated with the customer based on the project's complexity, available resources, and the degree of risk the customer and USACE are willing to assume.

8. Process for Other Work.

a. Recognizing that all work is not a project, several key USACE functions are organized around ongoing, recurring, and cyclical work rather than discrete projects. Other non-project work can include some operations and maintenance (O&M) activities at completed works, regulatory permitting, flood plain management, general and administrative support, and real

estate actions. However, some of this work (eg. major maintenance, some regulatory work, and real estate) is a project and should be managed in accordance with the Project Delivery Process.

(1) For example, in the Real Estate function, a major land acquisition, land disposal, and BRAC-related acquisitions are projects, whereas outgrants, renewal of recruiting leases, and management of leases are not.

(2) Fielding a new system is a project in the Corporate Information world, but records management, maintaining the library, and operating and sustaining a system are other work.

(3) Research and Development (R&D) Projects include basic research (e.g., development of new and advanced inorganic cements that bond to reinforcing materials), applied research (e.g., development of protective measures, decision aids and concepts for base camp protection against terrorist and conventional contingency environments) and demonstration R&D military studies and applied civil works R&D studies (e.g., development of concrete armor unit technology for coastal structures, Core Loc). Additional project examples include civil (e.g., development of the Regional Internet Bank Information Tracking System for EPA to assist in day-to-day mitigation banking business) and military (e.g., developed and produced for the Army Environmental Center as an alternative to lead bullets for use on small arms training ranges) reimbursable studies for other federal agencies and state and local governments. Examples of non-project work include items such as Corps of Engineers Enterprise Infrastructure Services, (which provides for the 24 hours a day, 365 days per year primary information technology infrastructure for USACE,) the day-to-day maintenance and administrative oversight of the R&D grounds and facilities, and routine/redundant laboratory testing/analysis.

(4) Most business lines within USACE Operations undertake both project and non-project work:

(a) Creation of Level 1 inventories and development of an original master plan are projects for the Environmental Stewardship and Environmental Restoration business lines, while periodic updating and maintaining those plans are "other work."

(b) In the Recreation arena, a major park upgrade is a project; operating a visitor center and operation/administration of a recreation area are non-project work.

(c) Examples of projects in the Navigation and Flood Coastal Reduction Business Lines are rehabilitation of a lock, restoration of a beach, and large, multi-year or event-driven dredging. Examples of non-project work in this area include dam safety inspections, lock dewatering, lock and dam operation and maintenance, and annual or routine recurring dredging occurring under a single contract.

(d) Reconnaissance studies and feasibility studies and creation of a watershed plan are projects in Planning, whereas on-going watershed planning and flood plain management are both non-project work.

(e) Regulatory projects include individual/standard permit actions and Environmental Impact Studies (EIS), and wetland delineation. Permit enforcement and handling administrative appeals are examples of non-project work.

(f) Within the Emergency Management/Readiness function, Disaster Recovery and Response would be considered a program; however, within that program are individual recovery (long-term restoration of the environment for people) projects such as Debris Removal,

Temporary Housing, and Temporary Roofing. Examples of "other work" are the response (i.e. immediate 30 days or less life-saving) missions of Procuring and Providing Ice and Water, Providing Emergency Power, and Urban Search and Rescue.

b. *Like projects*, however, *this ongoing work is still planned, executed, and controlled.*[2] In order to support achievement of quality objectives, all activities considered to be other work will be performed in full accordance with the USACE business doctrine described in paragraph 6. Elements of the PMBP as described in paragraph 7 may be used at the discretion of the executing entity. For example instance, multi-disciplinary teams are used throughout USACE to execute non-project work such as normal operations of a recreation area or dam safety inspections.

c. All work will be managed in accordance with a control document (e.g. Program Management Plan (PgMP) or other programmatically specified document) for the purpose of allocating funds and resources, and establishing program goals, objectives, acquisition strategy, and priorities on an annual basis. A PgMP is a necessity when mission success requires synergy and integration between individual projects or activities in a program. When an individual project under a program is of such scope that it is no longer manageable under the PgMP, it shall be managed with a separate PMP.

9. Roles and Responsibilities. HQUSACE, Major Subordinate Commands (MSCs), centers, laboratories, and districts all have direct responsibility for quality and process improvement. All echelons of USACE work together to ensure and enhance the quality of our projects and services. The goal is to create an environment that promotes communication, respect, trust, and cooperation. USACE is a corporate entity operating through Regional Business Centers (RBCs).

a. HQUSACE communicates philosophy and strategic vision through policy allowing subordinates to tailor services on a case-by-case basis. HQUSACE and MSCs employ vertical teaming such as Regional Integration Teams and District Support Teams to address work coordination and policy issues. HQUSACE interacts with national customers, other agencies, and private industry regarding programmatic issues.

b. MSCs manage the RBCs facilitating results-focused operations and utilizing appropriate technical resources and innovative practices. MSCs remove encumbrances to regional excellence. MSCs ensure that customers whose work crosses RBC boundaries receive seamless service and are responsible for vertical and horizontal coordination and integration. MSCs perform quality assurance of the RBC quality processes through periodic evaluations using an integrated approach consistent with the USACE business process.

c. Commanders are ultimately responsible for all that happens or fails to happen in their organizations. Commanders empower their workforces to operate within the framework of the USACE business process in executing the mission. The Commander is the leader of the corporate team, which sets the strategic direction for the organization. Within ERDC, these responsibilities are vested in the Directors.

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[2] Ibid

d. The Deputy for Program and Project Management (DPM) has programmatic oversight over all work in a District. The DPM is responsible for the vertical and horizontal integration of products to produce the projects and manage programs in accordance with the USACE business process. The DPM provides continuity of corporate leadership in developing and assessing mission and work requirements and in developing corporate programs, plans, goals, and objectives.

e. Senior leaders, working as a corporate team, create the conditions necessary for success through actions and behavior consistent with the USACE business process. The corporate team promotes the long-term success of the organization through strategic planning. District senior leaders within the RBC evaluate workload projections, staffing, technical expertise, and market conditions to ensure that we will be able to support our customers in the future.

f. Middle managers work together at the operational level of the organization, with a focus on executing the current year's mission and planning for the next year. They provide adequate resources and delegate authority commensurate with responsibilities to subordinates to facilitate success and maintain a quality workforce. By working as a team, middle managers can help ensure selection of optimal execution strategies and maintain technical expertise across the RBC.

g. Supervisors at all levels of the organization lead their staffs to implement the USACE business process to successfully execute the mission. They maintain a high level of professional expertise within their organizations and are responsible for the quality of the processes employed to execute all work. They work as a management team to assign work, balance workload and resolve resource conflicts on an ongoing basis.

h. Program managers (PgMs) are responsible for management of unique customer requirements for a set of related projects, services, or activities. They integrate program information and are responsible for making accurate program projections necessary to support workload analysis at the local, regional, and national level. Program managers will often be the Point of Contact (POC) for interaction with the customer on their assigned program. Program managers include Operations Project Managers responsible for the overall O&M of one or more multi-purpose water resource development sites, leading teams that execute the projects or recurring work activities at these sites.

j. The Project Manager (PM) manages scope, schedule, quality, and budget while leading a project delivery team to successful project execution. This individual is the primary interface with the customer and is also the U.S. Army Corps of Engineers' primary internal advocate for the specific project. PMs manage all project resources, information, and commitments, and integrate and focus the efforts of the PDT. The PM's active role as consultant is essential to ensure that the customer's quality objectives are clearly articulated and that the customer understands the essential professional standards, laws, and codes, as well as public trust issues that must be incorporated into the project. In performing these functions, the PMs must operate consistent with their responsibilities as a public servant (federal official). PMs provide PDT leadership and facilitation with responsibility for assuring that the project stays focused on the public interest and on the customer's needs and expectations.

k. The PDT is responsible and accountable for delivering a quality project to the customer and for ensuring effective, coordinated actions to deliver the completed project according to the PMP. Team members are responsible and accountable to the PDT for the timeliness and quality of their own work, and for keeping commitments for completion of their portion of the project as documented in the PMP, as well as coordination with and keeping all other team members informed. Each PDT member represents their functional organization and must be empowered to make commitments and decisions on that organization's behalf; likewise, each PDT member is expected to communicate back to their functional element all relevant decisions, commitments and expectations.

10. Management Control

a. Leaders at all levels make resource decisions based upon what is best for the mission, while considering impacts to all customers. Management controls, such as quality controls, are the responsibility of the leadership at all levels of USACE, from the District Commander and the MSC Commander, through to the Chief of Engineers. The commanders are responsible for assessing the absence or ineffectiveness of management controls. Whether the weakness is serious enough to be considered material and reported to the next level of command is a management judgment that must be made based on the criteria and other factors outlined in AR 11-2. Reports of material weakness must specify corrective actions taken or planned. The highest echelon receiving the report will evaluate the corrective actions, provide assistance, if needed, and track progress.

b. All echelons are to lead and support efforts to collaborate, measure, manage, and improve the business process in accordance with AR 5-1, AR 11-2, and FM 22-100. Command Management Reviews, performance improvement processes, and standards at regional and national levels will be used to review, validate, and sustain the best business practices.

c. Headquarters, in concert with field offices, will develop and promulgate guidance media with context and examples of the precepts, and representations for a better understanding, implementation, and learning culture of the USACE Business Process.

FOR THE COMMANDER:

YVONNE J. PRETTYMAN-BECK
Colonel, Corps of Engineers
Chief of Staff

3 Appendices

APP A - Definitions
APP B - Plan-Do-Check-Act Cycle
APP C - USACE Doctrinal/Process Hierarchy

APPENDIX A

DEFINITIONS

Automated Information Systems: A combination of computer hardware and software, telecommunications information technology, personnel, and other resources that collect, record, process, store, communicate, retrieve, and display information.

Community of Practice: A group of people who regularly interact to collectively learn, solve problems, build skills and competencies, and develop best practices around a shared concern, goal, mission, set of problems, or work practice. More information on the various communities of practice in USACE is available from their respective websites.

Customer: Customer as used in this regulation may be a number of people/organizations. In general, the customer is any individual or organization for which USACE delivers projects, or services to meet specific needs. Customers may be either external or internal to USACE.

Deputy for Programs and Project Management (DPM): The civilian deputy to the District Commander. DPM as used in this regulation includes Center positions such as Deputy for Programs and Technical Management and Deputy for Programs and Project Management/Project Delivery Team.

District Support Teams: Cross-functional teams at MSCs that facilitate resolution of issues and champion district causes.

Empowerment: Authority to exercise judgment and take action, with concomitant responsibility for resultant positive or negative consequences.

Functional Organization: Organization structure in which staff are grouped by technical specialty.

Matrix Team: Group of people working across organization boundaries for a common purpose.

Operations:
a.) The ongoing execution of activities that produces the same product or provides a continuous or repetitive service. The objective of ongoing operations is to sustain something (business, facility).
b.) Within USACE, the organization that operates and maintains facilities and services that provide river and harbor navigation, flood damage reduction, water supply, hydroelectric power, recreation, environmental and fish and wildlife sustainment, restoration and protection. Its Regulatory mission protects the Nation's waterways and wetlands; and it undertakes disaster relief and recovery work through its Emergency Management/Readiness function.

Process: A series of actions, tasks, or procedures with a common objective to achieve an end or result.

Program: *A collection of related projects,* services, routine administrative and recurring operational processes, or some mixture of these, which are *managed in a coordinated way to obtain benefits and control not available from managing them individually.*[3] Programs may be categorized by funding source, customer, similarity of scope, or other common criteria for which resources are allocated and collectively managed.

Program Management: *The centralized, coordinated management of programs* within available resources, in accordance with applicable laws, policies, and regulations, *to achieve strategic benefits and objectives.*[4] Under program management, programs, projects and non-project activities are aggregated for oversight and direction by the organization's senior leadership.

Program Management Plan (PgMP): A formal, approved, living document used to define program requirements and expectations, including accountability and performance measurements, and guide program execution and control.

Project: *A temporary endeavor undertaken to create a unique product, service, or result.*[5] Internal services are discrete projects when they are unique and non-recurring.

Project Delivery Team (PDT): The team, led by a project manager, composed of everyone necessary for successful development and execution of all phases of the project. The PDT may be drawn from more than one USACE district or activity and may include specialists, consultants/contractors, stakeholders, or representatives from other federal and state agencies. Team members are chosen for their skills and abilities to successfully execute a quality project, regardless of their assigned functional or geographic locations within USACE. The team will expand to include all necessary expertise on a specific issue and may include a vertical aspect encompassing the MSC and headquarters.

Project Management: *The application of knowledge, skills, tools, and techniques to project activities in order to meet project requirements.*[6]

Project Manager (PM): Assigned to achieve the project objectives, the person who manages scope, schedule, quality and budget while leading a project delivery team (PDT.) Project managers may be assigned to any organizational or geographic element.

Project Management Business Process (PMBP): A fundamental subset of the USACE business process used to deliver quality projects. It reflects the USACE corporate commitment to provide "customer service" that is inclusive, seamless, flexible, effective, and efficient. It embodies communication, leadership, systematic and coordinated management, teamwork, partnering, effective balancing of competing demands, and primary accountability for the life cycle of a project. For more information please visit the USACE PMBP portal at https://pmbp.usace.army.mil/

[3] Ibid
[4] Ibid
[5] Ibid
[6] Ibid

Project Management Plan (PMP): A formal, approved, living document used to define requirements and expected outcomes and guide project execution and control. Primary uses of the PMP are to facilitate communication among participants, assign responsibilities, define assumptions, and document decisions to establish baseline plans for scope, cost, schedule and quality objectives against which performance can be measured, and to adjust these plans as actuals dictate. PMP is developed by the project delivery team (PDT).

Quality: The degree to which a set of inherent characteristics fulfills requirements.

Quality Assurance (QA): That part of quality management focused on providing confidence that quality requirements of a project, product, service, or process will be fulfilled. QA includes those processes employed to ensure that QC activities are being accomplished in accordance with planned activities and that those QC activities are effective in producing a product that meets the desired end quality.

Quality Control (QC): That part of quality management focused on fulfilling quality requirements of a project, product, service, or process. It includes those processes used to ensure performance meets agreed upon customer requirements that are consistent with law, regulations, policies, sound technical criteria, schedules, and budget.

Regional Business Center: An MSC and its districts acting together as a regional business entity. This vertical and lateral integration of organizational capabilities, resource sharing, technical expertise, project management, and project delivery broadens and enhances the range of services and quality within the region.

Regional Integration Team: Cross-functional teams at HQUSACE that facilitate resolution of issues and champion RBC causes.

Stakeholders: Individuals and organizations who are involved in or may be affected by the project.

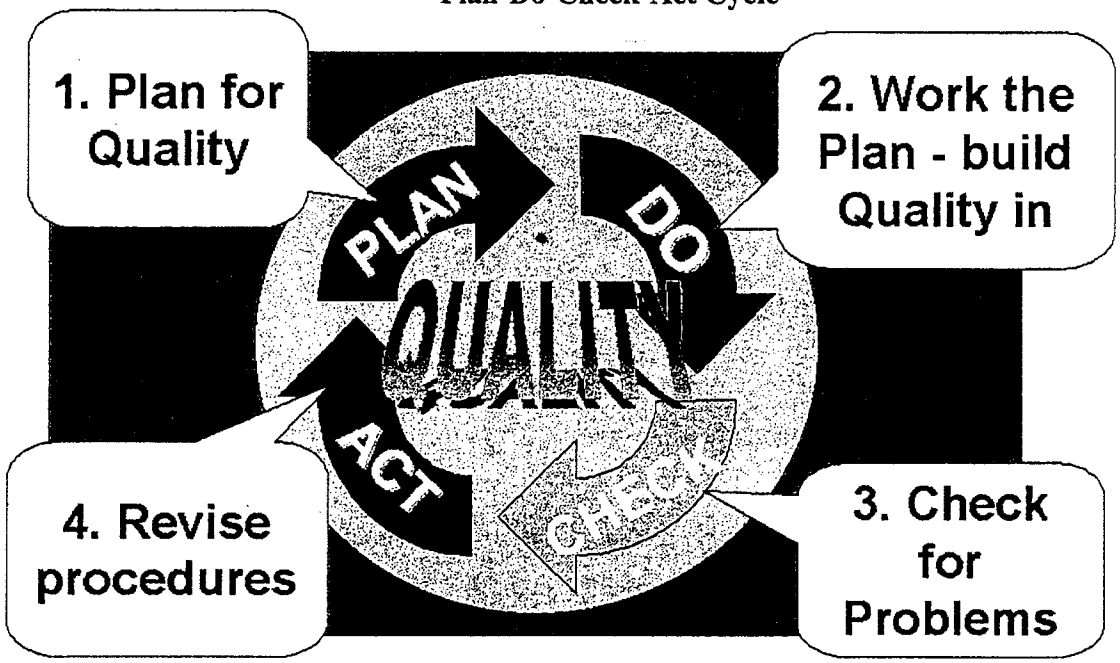
Vertical Team: Team that is composed of personnel from different command levels in the organization.

Virtual Team: Team working across geographic or organizational boundaries without physical co-location.

Work: Sustained physical or mental effort or activity directed toward the production or accomplishment of something. Work of a business can generally be categorized as either projects or operations, although there may be some overlap.

APPENDIX B

Plan-Do-Check-Act Cycle



1. **Plan:** We assign the right people with the right skills and tools to work on the right project. We plan for and build quality into our work at each step in the process. We use a systematic planning process to identify the customer's quality goals; develop an effective plan and processes to achieve those goals, and measure our attainment of the quality objectives. We help our customers to express their desired outcomes in objective, quantitative terms. We communicate with our customers to ensure mutual understanding of standards and processes. It is essential that the project team, which includes the customer, understand the costs and benefits of selected quality standards and the processes to be used to achieve mutual objectives. We identify appropriate standards and determine how to achieve them, consulting lessons learned on previous projects as appropriate. We consider the risk factors and complexity of each project, and adapt processes to provide the requisite level of quality. We consult, advise, and reach consensus with the customer before we do work. We use value engineering when it serves to increase the quality of our projects. The product of the planning phase is the project management plan (PMP).

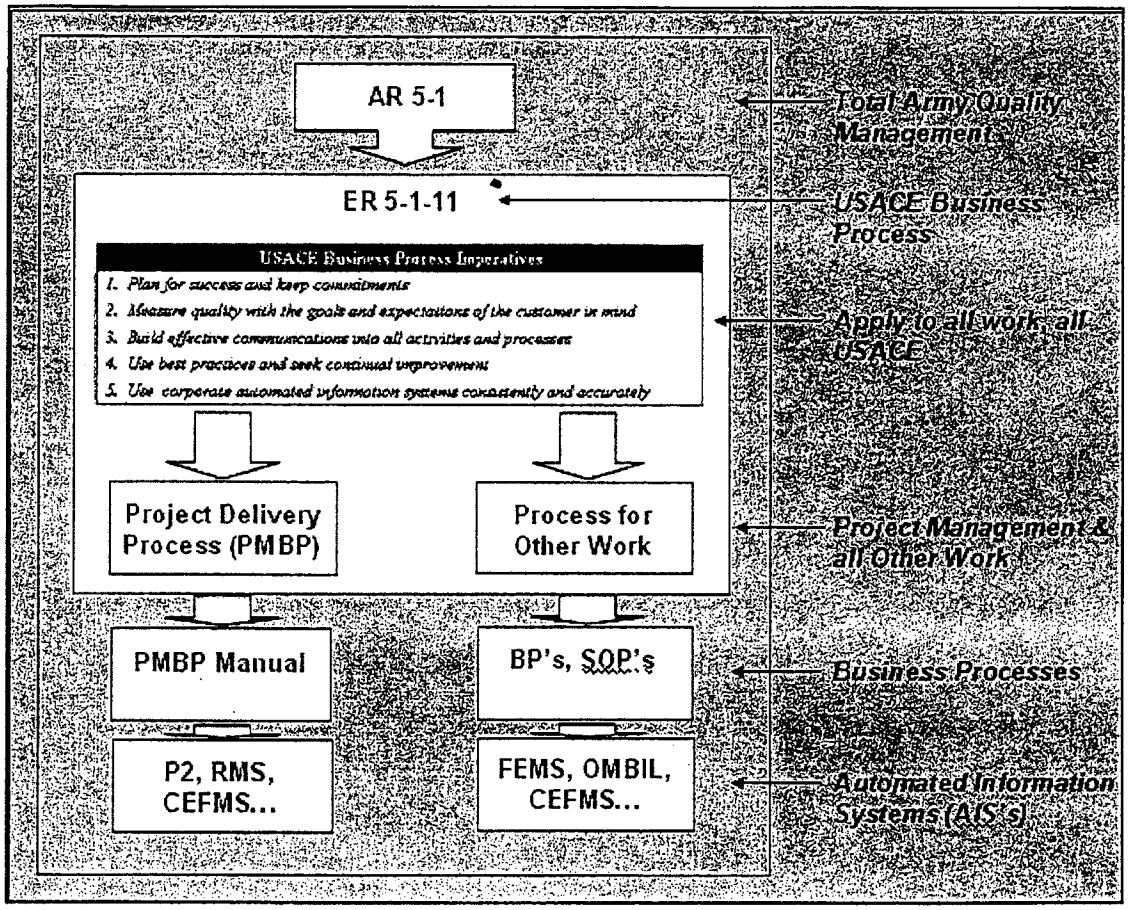
2. **Do:** We then do the work according to approved PMPs and documented procedures. Our procedures are developed and documented with sufficient detail to ensure that actions are performed correctly and completely each time. Project and program execution is a dynamic process. The team must communicate and adapt to changing conditions and modify project plans to ensure project objectives are met. Quality management consists of executing a well-conceived and continually updated PMP.

3. **Check:** We perform sufficient independent technical review, management oversight, and verification to ensure that we meet the quality objectives documented in the PMP. Team members periodically check performance against the plan and verify sufficiency of the plan and actual performance to meet or exceed agreed-on objectives. After action reviews are conducted to facilitate sharing of lessons learned. Findings are shared with the project teams and other personnel to facilitate continuous improvement.

4. **Act:** We take specific corrective actions to remove the systemic cause of any non-conformance, deficiency, or other unwanted effect. We improve quality through systematic analysis and refinement of work processes. The process of continuous quality improvement leads to the refinement of the overall quality system. Quality improvements include appropriate revisions to quality management plans, alteration of procedures, and adjustments to resource allocations.

APPENDIX C

USACE Doctrinal/Process Hierarchy



The above is a graphical representation of the organization of ER 5-1-11 as well as its relationship to other doctrine, business processes and AIS's.

The USACE Business Process Imperatives are applicable across the organization, just as we apply the Army values within USACE. These universally applicable principles include, for example: planning for success, measuring goals based on customer expectations, emphasizing effective communications, seeking best practices and maintaining accurate corporate data.

The Project Management Business Process, PMBP, focuses on the management of projects, while other processes focus on the management of other work. Although both types of work share important characteristics applying the most appropriate processes and tools to different types of work will bring greater efficiencies and effectiveness to each.